



**PEOPLE'S DEMOCRATIC REPUBLIC OF ALGERIA**  
**MINISTRY OF HIGHER EDUCATION AND SCIENTIFIC**  
**RESEARCH**

**Djillali Liabès University- Sidi Bel-Abbès**

**Faculty of Letters, Languages and Arts**

**Department of English**

**The Influence of Information Communication Technologies  
and Social Media Networks on Enhancing EFL Learning  
outside School: The Case of Master one Students of Abdel-hamid Ibn  
Badis University, Mostaganem**

*Thesis Submitted to the Department of English Language in  
Fulfillment of the Degree of Doctorate in Sciences: Didactics of English as a Foreign  
Language*

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**Academic Year: 2022-2023**

## **Announcement of Originality**

I, Mr. Abdelkader TOUAMI, affirm that my Doctorate thesis entitled, “The Influence of Information Communication Technologies and Social Media Networks on Enhancing EFL Learning outside School: The Case of Master one Students of Abdel-hamid Ibn Badis University, Mostaganem”, covers no material that has been submitted previously from a university or any other educational institution, in whole or in part, for the grant of any other academic degree or diploma, except where otherwise indicated.

July 15th, 2022

Signature

Mr. Abdelkader Touami

## **Dedications**

**I dedicate this work to the memory of my beloved  
parents ,  
To the memory of my brother,  
To my family.**

## Acknowledgements

First of all, I express my sincere gratitude, deepest appreciation and heartfelt thanks to my supervisor Professor. Hind Amel Mostari for her assistance, patience and guidance in the writing of this doctorate thesis.

I am deeply grateful to Professor Mohamed Melouk, Head of the former Magister research project in Didactics at the department of English, Faculty of Letters, Languages and Arts in Djillali Liabès University, Sidi Bel-abbes, mostly for his teaching, advice and encouragements.

A deepest appreciation and Special thank go to Professor Merbouh Zouaoui, from the university of Djillali Liabès of Sidi Bel Abbas; Dr. Nahed Rajaa Ghlamallah, from the University of Oran 2; Dr. Fatima Zohra Imane Omari, from the University of Tlemcen, and Dr. Mokhtaria Rahmani, from the University of Saida who have kindly accepted to examine the present doctorate thesis. Without forgetting to thank my colleagues especially Dr. El-hadj Bourouina and Dr. Arab, for her generosity and never-ending kindness. I also would like to thank Mr.Yacine Moulay Hacene, Mohamed Abdelhadi, and I gratefully acknowledge the support and advice of all my colleagues.

Sincere thanks are extended to my colleagues, at the University of Abdel-hamid Ibn Badis, for their collaboration in the questionnaire completion and the interview making. Additionally, a bundle of thanks to Master 1 students of English for accepting to be part of this study, namely in the online experiment.

Finally, I hope this work of research would be of benefit to everyone interested in EFL learning and teaching through digital tools and social media networks.

## Abstract

Nowadays, there is a widespread of social media networks in daily life and more particularly in the English as a Foreign Language (EFL) education that has accompanied a noticeable integration of Information Communication Technologies (ICTs) to support the teaching and learning process. Henceforth, this study attempts to gauge students' perceptions and frequency using digital technology instruments and social media for English language learning. Furthermore, it intends to explore the adoption of social media networks like Facebook by EFL learners outside the classroom, in order to check their impact on classroom learning, notably in argumentative essay writing. The research is based on a mixed method design; it includes quantitative and the qualitative data collection methods and involved 69 Master one students and 34 teachers from the department of English at Abdel-hamid Ibn Badis University of Mostaganem. The researcher has adopted four research instruments: teachers and students' questionnaires, teachers' interview and students' field experiment. The data have been collected randomly from samples of participants by means of the above mentioned tools, and have been analyzed according to their purposes. The findings reveal positive perceptions of the participants who had in their majority at least a minimum competence to handle digital equipment, a frequent access to social networks which their use genuinely affect EFL online learning achievements especially in argument writing. This is related to criteria relevant to teachers' digital devices manipulation expertise, training and software competence and the students' degree of motivation, commitment and engagement. To conclude, this study provides considerable insights into the future of social networks usefulness in learning outside the classroom, which would probably reshape distant teaching and learning area.

**Key words:** ICTs, equipment, social media networks, access, distant learning, enhancing EFL teaching and learning.

## TABLE OF CONTENTS

Dedications .....	I
Acknowledgements .....	II
Abstract .....	III
Table of Contents .....	IV
List of Tables .....	XVI
List of Figures .....	XVIII
List of Abbreviations .....	XX
General Introduction .....	1

### CHAPTER 1. LITERATURE REVIEW

#### Innovating Education with Information Communication Technologies (ICTs)

1.1 Introduction.....	8
1.2 An Overview of EFL Teaching and Learning Approaches.....	8
1.2.1 Traditional learning procedure.....	9
1.2.2 The modern view of EFL learning.....	10
1.2.3 A shift from teaching to learning.....	10
1.3 ICTs' Influence on Teaching and Learning .....	12
1.3.1 Definition of ICTs.....	12
1.3.2 Technology tools accessed for language learning.....	14
1.3.3 Educational change requirements.....	16
1.3.3.1 <i>Educational change</i> .....	17
1.3.3.2 <i>Method and resources</i> .....	17
1.3.3.3 <i>The Mentalist method</i> .....	18
1.3.3.4 <i>The Socio-cognitive approach</i> .....	19
1.3.4 Models of educational change.....	19
1.3.4.1 <i>Rogers' model</i> .....	20
1.3.4.2 <i>Ely's model</i> .....	21
1.3.4.3 <i>Hall's model of change</i> .....	21
1.3.5 Designing ICT-based learning content.....	22
1.3.5.1 <i>ICT-based learning resources</i> .....	23
1.3.5.2 <i>ICT-based lesson frame</i> .....	23

<b>1.4 Conventional Versus Online Learning</b> .....	24
<b>1.4.1 The EFL student’s learning styles.</b> .....	25
<b>1.4.2 Learning motivation.</b> .....	25
<b>1.5 Self-directed EFL Learning</b> .....	27
<b>1.5.1 ICT access beyond the classroom.</b> .....	27
<i>1.5.1.1 Frequency of ICTs use outside school.</i> .....	28
<i>1.5.1.2 Informal learning through ICTs</i> .....	29
<i>1.5.1.3 Formal learning through ICTs.</i> .....	30
<b>1.6 Online Education Pre-requisites</b> .....	30
<b>1.6.1 The teacher’s new roles</b> .....	31
<i>1.6.1.1 Designing and implementing online instruction.</i> .....	32
<i>1.6.1.2 Designing and planning lessons online</i> .....	32
<i>1.6.1.3 Improving e-teachers’ online effectiveness</i> .....	33
<b>1.6.2 Learners’ preparedness</b> .....	33
<i>1.6.2.1 Being active</i> .....	34
<i>1.6.2.2 Using the video</i> .....	34
<b>1.6.3 Learners’ achievement</b> .....	35
<i>1.6.3.1 Written productions</i> .....	35
<i>1.6.3.2 Oral productions</i> .....	36
<b>1.7 Education Reforms</b> .....	37
<b>1.7.1 The Bologna process</b> .....	37
<b>1.7.2 The LMD system</b> .....	37
<b>1.7.3 ELT reforms</b> .....	39
<b>1.8 Case Studies of Learning inside versus outside the Classroom</b> .....	39
<b>1.8.1 Studying inside the classrooms</b> .....	39
<b>1.8.2 The concept of learning outside the classroom</b> .....	40
<i>1.8.2.1 Learning in real-life situations</i> .....	41
<i>1.8.2.2 Communicative classes through social media</i> .....	41
<i>1.8.2.3 Effects of physical outdoor learning</i> .....	42
<i>1.8.2.4 Writing outside the classroom through online forums</i> .....	43
<b>1.9 Academic Writing in EFL Context</b> .....	44
<b>1.9.1 Synopsis of the writing process</b> .....	45
<b>1.9.2 Requirements and strategies of the academic writing process</b> .....	46

	VI
1.9.3 Teaching writing to EFL students.....	47
1.9.3.1 <i>The process method</i> .....	47
1.9.3.2 <i>The product method</i> .....	49
1.9.3.3 <i>The genre method</i> .....	49
1.10 The Research Context.....	50
1.10.1 ICT in Algerian education.....	52
1.10.2 Learning under Covid-19 conditions.....	53
1.11 Conclusion.....	54

## CHAPTER 2- REVIEW OF LITERATURE

### The Effects of Social Media Networks on EFL Education

2.1 Introduction .....	55
2.2 Social Media Networks.....	55
2.3 Social Media Networks and Learning.....	56
2.3.1 Use of web 2.0 technology. ....	57
2.3.2 Internet: the World Wide Web.....	58
2.3.2.1 <i>Websites</i> .....	58
2.3.2.2 <i>Blogging</i> . ....	59
2.3.2.2.1 <i>Using blogs for online teaching</i> . ....	60
2.3.2.3 <i>Emailing</i> . ....	61
2.4 Adapting the Mobile Device for Language Learning (MALL).....	62
2.4.1 Using mobile built-in applications for language learning.....	62
2.4.2 Mobile Assisted Language Learning (MALL).....	64
2.4.2.1 <i>Text input and voice input</i> .....	64
2.4.2.2 <i>Treating texts through the MALL</i> .....	65
2.4.2.3 <i>Mobile-enabled communication and collaboration</i> .....	65
2.5 Online Teaching Platforms.....	67
2.5.1 Web-teaching software.....	67
2.5.2 Video conferencing.....	68



<b>2.6 Socializing and Interacting outside School</b> .....	68
<b>2.6.1 Facebook</b> .....	69
<b>2.6.2 YouTube</b> .....	70
<b>2.6.3 Twitter</b> .....	71
<b>2.6.4 Skype</b> .....	73
<b>2.7 Social Media Networks and EFL Learning outside the Classroom</b> .....	73
<b>2.7.1 Cooperative and collaborative learning</b> .....	74
<i>2.7.1.1 Some aspects of online collaboration</i> .....	75
<i>2.7.1.2 Appropriate technological function</i> .....	76
<i>2.7.1.3 Direct communication</i> .....	76
<i>2.7.1.4 User privacy</i> .....	77
<i>2.7.1.5 The virtual collaborative team</i> .....	77
<i>2.7.1.6 Online collaboration paradigm in higher education</i> .....	79
<b>2.7.2 Supporting students autonomous learning</b> .....	80
<i>2.7.2.1 Perceiving and speaking</i> .....	81
<i>2.7.2.2 Collaborative writing</i> .....	82
<i>2.7.2.3 Online interaction</i> .....	82
<b>2.8 Technology-based Instruction under some Learning Theories</b> .....	83
<b>2.8.1 Under behaviourism</b> .....	83
<b>2.8.2 Under constructivism</b> .....	84
<b>2.9 Applicability of Social Networks in Teaching and Learning outside Classrooms</b> .....	86
<b>2.9.1 Attendance in social network learning</b> .....	87
<b>2.9.2 Social networks anonymous access</b> .....	88
<b>2.9.3 Learners motivation</b> .....	88
<b>2.9.4 Some Motives behind Using Social Networks in education</b> .....	89
<i>2.9.4.1 Technology-based relationships</i> .....	89
<i>2.9.4.2 Online relationships</i> .....	90
<i>2.9.4.3 Asynchronous versus synchronous communication</i> .....	90
<i>2.9.4.4 Large-scale communication</i> .....	91
<b>2.10 Social Media Networks Influence on Teaching and Learning outside Classrooms</b> ..	92
<b>2.10.1 Blended learning</b> .....	93
<i>2.10.1.1 The challenges of online blended learning</i> .....	94
<b>2.11 Conclusion</b> .....	95

## CHAPTER 3 Research Design & Data Collection Procedure

<b>3.1 Introduction</b> .....	96
<b>3.2 Objectives of the Research</b> .....	96
<b>3.2.1 Significance of the Study</b> .....	97
<b>3.2.2 Contribution of the Study</b> .....	97
<b>3.3 Explorative Research Design</b> .....	97
<b>3.3.1 The type of research</b> .....	98
<b>3.3.1.1 The research method</b> .....	98
<b>3.3.1.2 The mixed method</b> .....	99
<b>3.3.1.3 The case study</b> .....	100
<b>3.3.2 The sample population</b> .....	101
<b>3.3.3 Data collection</b> .....	103
<b>3.3.3.1 Data collection tools</b> .....	104
<b>3.3.3.1.1 Students questionnaire</b> .....	105
<b>3.3.3.1.1.1 Description of the questionnaire</b> .....	106
<b>3.3.3.1.1.2 Administering students questionnaire</b> .....	109
<b>3.3.3.1.2 Teachers questionnaire</b> .....	110
<b>3.3.3.1.3 The Interview Protocol</b> .....	112
<b>3.3.3.1.3.1 Description of teachers interview</b> .....	113
<b>3.3.3.1.3.2 Interview procedure</b> .....	114
<b>3.3.3.4 Data analysis</b> .....	115
<b>3.3.3.4.1 Data analysis Procedures</b> .....	116
<b>3.3.3.4.1.1 Teachers questionnaire</b> .....	116
<b>3.3.3.4.1.2 Students questionnaire</b> .....	117
<b>3.3.3.4.2 Interview protocol</b> .....	119
<b>3.3.3.4.3 Triangulation</b> .....	120
<b>3.3.3.4.4 Validity of Research Questionnaires</b> .....	120
<b>3.3.3.4.4.1 Internal validity</b> .....	121
<b>3.3.3.4.4.2 External consistency</b> .....	121
<b>3.3.3.4.4.3 Piloting instruments</b> .....	122
<b>3.3.3.4.4.4 Validating teachers' interview</b> .....	122
<b>3.4 Experimental Research Design</b> .....	124
<b>3.4.1 Planning the experiment</b> .....	125
<b>3.4.2 Data collection tests</b> .....	126

3.4.2.1 <i>The Experiment statistics</i> .....	126
3.4.2.1.1 <i>The Students statistical test</i> .....	127
3.4.2.1.2 <i>The Independent sample t-test</i> .....	128
<b>3.4.4 Conducting the Experiment</b> .....	129
3.4.4.1 <i>The Pre-test</i> .....	129
3.4.4.2 <i>Test assessment</i> .....	130
<b>3.4.5 Treatment</b> .....	131
3.4.5.1 <i>Implementing treatment</i> .....	131
3.4.5.2 <i>The procedure of Experimental group treatment</i> .....	133
3.4.5.2.1 <i>Academic versus Non-academic Writing</i> .....	134
3.4.5.2.2 <i>Writing an Argument</i> .....	134
3.4.5.2.3 <i>Facts and Arguments</i> .....	136
3.4.5.2.4 <i>The Introductory Paragraph</i> .....	137
3.4.5.2.5 <i>Attention Grabber (The hook)</i> .....	138
3.4.5.2.6 <i>General Statement</i> .....	138
3.4.5.2.7 <i>The Topic Issue</i> .....	140
3.4.5.2.8 <i>Claim and Counter Claim</i> .....	140
3.4.5.2.9 <i>The Thesis Statement</i> .....	141
3.4.5.3 <i>Control group treatment</i> .....	142
3.4.5.4 <i>The Post-test</i> .....	142
<b>3.5 Ethical Considerations</b> .....	144
<b>3.6 Limitations of the Research</b> .....	145
<b>3.7 Conclusion</b> .....	145

## CHAPTER 4 – DATA ANALYSIS I

### Part I: Teachers' Questionnaire

<b>4.1 Introduction</b> .....	147
<b>4.2 Data Analysis</b> .....	147
4.2.1 <i>Teachers' Questionnaire analysis</i> .....	148
4.2.1.1 <i>Teaching experience</i> .....	148
4.2.1.2 <i>ICT and social media profile</i> .....	149
4.2.1.3 <i>Classroom situation</i> .....	151
4.2.1.4 <i>ICT resources and internet access at university</i> .....	152
4.2.2 <i>ICT and social networks access outside university</i> .....	155
4.2.2.1 <i>Reaching students online</i> .....	155
4.2.2.2 <i>Access to university e-learning platform</i> .....	156

<b>4.2.3 Social media networks effects on students EFL learning.</b>	157
<i>4.2.3.1 Frequency of using social networks outside the classroom.</i>	158
<i>4.2.3.2 Online educational resources.</i>	159
<i>4.2.3.3 Online assessment of students' work.</i>	160
<i>4.2.3.4 Flipping the classroom.</i>	160
<i>4.2.3.5 Tutoring students to use social media networks and e-learning platform.</i>	162
<i>4.2.3.6 Supporting teaching practice outside classrooms.</i>	163
<b>4.2.4 Teachers technology competence.</b>	164
<i>4.2.4.1 ICT required skills for EFL online teaching.</i>	164
<i>4.2.4.2 Training about e-learning platform and school conferencing.</i>	167
<b>4.2.5 Beliefs and attitudes about ICTs' use for online teaching.</b>	167

## **Part II: Teachers' Interview Protocol**

<b>4.3 Teachers' Interview Data Analysis.</b>	168
<b>4.3.1 Attitudes and use of SMNS among EFL teachers.</b>	168
<b>4.3.2 Use of social networks for academic purposes.</b>	169
<i>4.3.2.1 Ways of enhancing teaching through SMNs.</i>	171
<i>4.3.2.2 Keeping contact with students.</i>	171
<i>4.3.2.3 Motivation, engagement and interaction.</i>	171
<i>4.3.2.4 Authentic online resources.</i>	172
<b>4.3.3 Lesson practice outside the classroom</b>	172
<i>4.3.3.1 Illustration of difficult concepts.</i>	173
<i>4.3.3.2 Time Saving and feedback provision.</i>	173
<b>4.3.4 SMNs as pedagogical tools for students.</b>	173
<i>4.3.4.1 Formal networks.</i>	173
<i>4.3.4.2 Informal networks.</i>	174
<b>4.3.5 SMNs bridging face-to-face with online learning.</b>	174
<i>4.3.5.1 Inversed teaching through flipped classrooms.</i>	175
<i>4.3.5.2 For Inversed teaching.</i>	175
<i>4.3.5.3 Against inversed teaching.</i>	176
<i>4.3.5.4 The Flipped classroom strategy and learning outside classrooms.</i>	176
<b>4.3.6 Training programs in education.</b>	177
<i>4.3.6.1 Pre-service training.</i>	177
<i>4.3.6.2 In-service training.</i>	177

**4.3.7 Some EFL teaching difficulties beyond the classroom context.....179**

*4.3.7.1 Difficulties related to students.....179*

*4.3.7.2 Demotivation & engagement.....179*

*4.3.7.3 Credibility of the homework.....179*

*4.3.7.4 Equipment and facilities issues.....179*

**4.3.8 SMNs influence on EFL learners.....180**

*4.3.8.1 SMNs influence on students’ learning outcome.....180*

*4.3.8.2 SMNs influence on students’ attitudes.....181*

**4.3.9 Online teaching versus face-to-face teaching.....182**

*4.3.9.1. Teachers’ experience with SMNs.....182*

*4.3.9.2 Facebook page.....183*

*4.3.9.3 Facebook groups.....184*

*4.3.9.4 Blogs and Moodle platforms.....184*

*4.3.9.5 Engaging students online.....185*

**4.3.10. Outside- the-classroom teaching experiences.....185**

*4.3.10.1 Some situations outside the classroom teaching context.....185*

*4.3.10.2 Unsuccessful experiences.....186*

*4.3.10.3 Adoption of e-learning platforms and SMNs.....187*

*4.3.10.4 Moodle platform.....188*

*4.3.10.5 SMNs.....189*

**4.3.11 Evaluation of social media impact on teaching approaches.....189**

*4.3.11.1 SMNs positive impact.....189*

*4.3.11.2 SMNs negative impact.....191*

*4.3.11.3 Lack of interaction effects.....192*

**4.3.12 Assessing online complementary teaching.....192**

**4.3.13 Pre-requisites for SMNs adoption.....194**

*4.3.13.1 Complementing face-to-face teaching with online teaching.....195*

**4.4 Conclusion.....198**

**CHAPTER 5- DATA ANALYSIS II**

**Part I: The Students’ Questionnaire**

**5.1 Introduction .....199**

**5.2 Students’ Questionnaire Data Analysis .....199**

**5.2.1 ICT & social networks access and use.....201**

*5.2.1.1 Frequency of Facebook use.....203*

*5.2.1.2 Educational blogs.....204*

	XII
5.2.2 Social media perception and utility.....	207
5.2.2.1 Collaboration and information sharing .....	208
5.2.2.2 Other social networking accounts .....	211
5.2.2.3 Posting and exchanging learning documents .....	211
5.2.2.4 Facebook engagement and teachers' support .....	212
5.2.3 Mobile applications.....	214
5.2.3.1 Sharing Phone Learning Applications .....	217
5.2.3.2 Collaboration.....	218

## Part II. Field Work: The Teaching Experiment

5.3 Field Work Research Methodology.....	219
5.3.1. The Experimental design.....	219
5.3.2 Procedures .....	220
5.3.3 The Experimental group and control group .....	221
5.3.4 The Pre-test.....	223
5.3.4.1 The Pre-test evaluation.....	224
5.3.4.2 The Pre-test and post-test analysis.....	225
5.3.5 Pre-test performance analysis.....	226
5.3.5.1 Overall pre-test performance .....	226
5.3.5.2 Pre-test means of the attention grabber levels of the experimental and control groups.....	227
5.3.5.3 Pre-test means of general statement levels of the experimental and control groups.....	228
5.3.5.4 Pre-test means of topic issue levels of the experimental and control groups.....	229
5.3.5.5 Pre-test means of the claim/ counterclaim levels of the experimental and control groups .....	229
5.3.5.6 Pre-test means of the thesis statement levels of the experimental and control groups.....	231
5.3.6 The treatment.....	232
5.3.7 The post-test results' analysis.....	233
5.3.7.1 Overall post-test performance.....	233
5.3.7.2 The post-test results of individual aspects.....	234
5.3.7.3 The overall results of comparative evaluation.....	235
5.3.7.4 The results of overall performance.....	235
5.3.7.5 Comparative evaluation of the results of the individual aspects .....	236

5.3.8 Testing the hypothesis.....	237
5.3.8.1 <i>The T-test for the post-tests of the experimental group and control group</i> .....	238
5.3.8.2 <i>The T-test for pre- and post-tests of the experimental group</i> .....	240
5.3.8.3 <i>The T-test for pre- and post-tests of the control group</i> .....	242
5.4 Conclusion.....	244

## CHAPTER 6 Discussions, Implications and Recommendations

6.1. Introduction.....	245
6.2 Summary of the Findings .....	245
6.2.1 Teachers' questionnaire. ....	245
6.2.2 Teachers' Interview .....	247
6.2.3 Students' questionnaire. ....	248
6.2.4 Summary of the experiment. ....	250
6.3 Discussion and Interpretation of the Findings .....	251
6.3.1 Interpreting teachers' questionnaire findings. ....	251
6.3.1.1 <i>Frequency access of online resources</i> .....	253
6.3.1.2 <i>Evaluation of students' online work</i> .....	253
6.3.1.3 <i>Online tutoring of students</i> .....	253
6.3.1.4 <i>Technology competence and training</i> .....	254
6.3.1.5 <i>ICTs perceptions and e-learning</i> .....	254
6.3.2 Interpreting teachers' interview findings. ....	255
6.3.3 Interpreting students' questionnaire findings. ....	256
6.3.3.1 <i>SMNs Access for learning.</i> .....	256
6.3.3.2 <i>SMNs perceptions.</i> .....	257
6.3.3.3 <i>Facebook engagement and interaction.</i> .....	257
6.3.4 Interpreting experiment's findings. ....	258
6.4 Some Pedagogical Implications and Recommendations .....	260
6.4.1 Recommendations for teachers. ....	260
6.4.1.1 <i>Implication for technology resources inside the faculty.</i> .....	260
6.4.1.2 <i>Implications for SMNs access outside the classroom.</i> .....	261
6.4.2 Implications for SMNs effects on students. ....	262
6.4.2.1 <i>Implications for SMNs the e-learning platform.</i> .....	262
6.4.2.2 <i>Flipping the Classroom.</i> .....	263
6.4.3 Tutoring and supporting students outside classrooms. ....	263

<b>6.4.4 Implications for competence of designing online EFL teaching</b> .....	264
<i>6.4.4.1 Implications for teachers' training and e-competence.</i> .....	265
<i>6.4.4.2 Implications for online assessment.</i> .....	266
<i>6.4.4.3 Implications for reconsidering attitudes.</i> .....	267
<b>6.4.5 Some insightful recommendations for master students.</b> .....	267
<i>6.4.5.1 Implications for students' perception of SMNs.</i> .....	267
<i>6.4.5.2 Implications for collaboration and information sharing</i> .....	268
<i>6.4.5.3 Implications for engagement.</i> .....	269
<i>6.4.5.4 Implications for smartphone's applications sharing.</i> .....	269
<b>6.5 Suggesting an ICT Training Guide for Teachers</b> .....	270
<b>6.5.1 About the nature of training.</b> .....	271
<i>6.5.1.1 Digital technology training.</i> .....	271
<i>6.5.1.2 Training organization.</i> .....	272
<b>6.5.2 ICTs' training needs analysis.</b> .....	272
<i>6.5.2.1 Checking ICTs abilities.</i> .....	272
<i>6.5.2.2 Elaborating a work plan.</i> .....	272
<b>6.5.3 Needs analysis data collection.</b> .....	274
<b>6.5.4 The designing of an e-content.</b> .....	276
<i>6.5.4.1 Lectures delivery procedure.</i> .....	277
<b>6.5.5 Teaching techniques and procedures.</b> .....	277
<i>6.5.5.1 The adoption of a didactic method.</i> .....	278
<b>6.5.6 ICT training workshop.</b> .....	279
<i>6.5.6.1 Whole class grouping.</i> .....	280
<i>6.5.6.2 Multimedia language lab.</i> .....	280
<b>6.5.7 Some reflections and evaluations.</b> .....	282
<i>6.5.7.1 E-diaries.</i> .....	283
<i>6.5.7.2 Online peer correction.</i> .....	283
<i>6.5.7.3 Self-assessment.</i> .....	283
<b>6.5.8 Checking out the training progress.</b> .....	284
<b>6.6 Reflections for further Research.</b> .....	286
<b>6.7 Conclusion</b> .....	286
<b>General Conclusion</b> .....	288



<b>Bibliography</b> .....	295
<b>Glossary</b> .....	309
<b>Appendices</b> .....	312
<b>Appendix A-</b> Teachers Questionnaire .....	312
<b>Appendix B-</b> Students Questionnaire.....	317
<b>Appendix C-</b> Teachers Interview Protocol.....	321
<b>Appendix D-</b> The experiment pre-test and post-test .....	323
<b>Appendix E-</b> The experiment Statistic Calculations .....	324
1-The students Pre-test Scores.....	324
2- The students Post-test Scores.....	325
<b>Appendix F-</b> Keys to Abbreviations used in the computation of the observed $t$ .....	327
<b>Appendix G :</b> <i>Master 1 Writing Techniques</i> canvas of Ibn Badis University of 2016-2017 .....	327
<b>Summary</b> .....	328
<b>Résumé</b>	
ملخص	

## List of Tables

<b>Table 1.1</b> Teacher-Centered and Learner-Centered Learning Environments.....	11
<b>Table 1.2</b> Changes in Student and Teacher’s Roles in Learner-Centered Environments.....	12
<b>Table 1.3</b> Stages of Concern in the Concerns-based Adoption Model (CBAM).....	21
<b>Table 1.4</b> Old Versus New Assumptions About Learning.....	26
<b>Table 1.5</b> Computer use in School and at Home.....	28
<b>Table 3.1</b> EFL Master Specialties in Ibn Badis University .....	101
<b>Table 3.2</b> The Distribution of Students Questionnaire Population according to their Master Specialties.....	106
<b>Table 3.3</b> Classical Structure of the Argumentative Essay.....	136
<b>Table 3.4</b> The Structure of Argumentative Essay Introductory Paragraph.....	141
<b>Table 4.1</b> Participants Age Range.....	148
<b>Table 4.2</b> Correlation between Teaching Experience and Participants Age Categories.....	149
<b>Table 4.3</b> Naming Participants Social Media Networks.....	150
<b>Table 4.4</b> Master one Students Pedagogical Groups.....	151
<b>Table 4.5</b> Flipped Classrooms.....	161
<b>Table 4.6</b> Online Teaching through Social Media Networks.....	164
<b>Table 4.7</b> Training Teachers to use ICTs .....	166
<b>Table 4.8</b> Teachers Beliefs about Online Teaching Utility .....	168
<b>Table 4.9</b> Teachers Attitudes towards ICT and Social Media Networks.....	169
<b>Table 4.10</b> Social Media Networks Use for Academic Purposes.....	170
<b>Table 4.11</b> Teachers In-service Training.....	178
<b>Table 4.12</b> The Negative Influence of SMNs on Students Learning Environment.....	181
<b>Table 4.13</b> Managing a Social Media Network for EFL Pedagogical Purposes.....	183
<b>Table 4.14</b> The Web-blog and Moodle Platform for EFL Pedagogical Purposes.....	184
<b>Table 4.15</b> Teaching through E-Learning Platforms and Social Networks.....	187
<b>Table 4.16</b> Social Media Networks Positive Influence on Teaching.....	190
<b>Table 4.17</b> SMNs Negative Influence on Teaching.....	191
<b>Table 4.18</b> Evaluating Online Teaching.....	193
<b>Table 4.19</b> SMNs Expected Improvement for Online Teaching and learning.....	195

<b>Table 4.20</b> Recommending Online Teaching.....	197
<b>Table 5.1.</b> The Population Distribution according to their Master Specialty.....	201
<b>Table 5.2</b> English Language Learning Blogs.....	205
<b>Table 5.3</b> Educational YouTube Channels.....	206
<b>Table 5.4</b> Students Learning Perceptions of ICTs and Social Media Networks.....	207
<b>Table 5.5</b> Facebook Online Interactions.....	209
<b>Table 5.6</b> Facebook EFL Learning Groups.....	209
<b>Table 5.7</b> Master one EFL Facebook Groups.....	210
<b>Table 5.8</b> Students Facebook Learning Interactions and Support.....	213
<b>Table 5.9</b> The Smart-phone Learning Applications and their Use.....	215
<b>Table 5.10</b> The Experimental and Control Groups' Participants.....	222
<b>Table 5.11</b> Argumentative Introductory Paragraph Evaluation Scale.....	224
<b>Table 5.12</b> The Participants Overall Performance during the Pre-test.....	226
<b>Table 5.13</b> The Means of the Attention Grabber.....	227
<b>Table 5.14</b> The Means of the General Statement.....	228
<b>Table 5.15</b> The Means of the Issue.....	229
<b>Table 5.16</b> The Means of the Claim/Counter-claim.....	229
<b>Table 5.17</b> The Means of the Thesis Statement.....	231
<b>Table 5.18</b> The Participants Overall Performance during the Post-test.....	233
<b>Table 5.19</b> The Post-test Means of the Individual Aspects.....	234
<b>Table 5.20</b> Mean Scores of Overall Performance's Change from Pre-test to Post-test of the Experimental and the Control Group.....	235
<b>Table 5.21</b> Comparative Evaluation of Pre-test and Post-test Performance in Individual Aspects of Experimental and Control Groups.....	236
<b>Table 6.1</b> Collecting Teachers' Needs .....	273
<b>Table 6.2</b> Identifying Technology Norms .....	274
<b>Table 6.3</b> Input Data Collection .....	275
<b>Table 6.4</b> Training Techniques and Procedures.....	279
<b>Table 6.5</b> Checking Teachers Training Progress.....	284
<b>Table 6.6</b> An Evaluation Checklist of an ICT In-service Training.....	285

## List of Figures

<b>Figure 1.1</b> Information Transfer of Learning.....	9
<b>Figure 1.2</b> Action Learning Representation.....	15
<b>Figure 2.2</b> Conferencing Software for the Web.....	59
<b>Figure 2.3</b> General Phases in Virtual Teaming.....	77
<b>Figure 2.4</b> Features of Online Interaction and Collaboration.....	79
<b>Figure 3.1</b> Data Collection Tools.....	103
<b>Figure 3.2</b> The Claim in the Toulmin Model.....	135
<b>Figure 3.4</b> Sample of the Posttest Participant's Answer.....	143
<b>Figure 4.1</b> Teaching Experience.....	149
<b>Figure 4.2</b> Social Media Accounts According to Age Categories.....	150
<b>Figure 4.3</b> Master one Students Attendance Rate.....	152
<b>Figure 4.4</b> Frequency of Computers and Data-Show Access.....	153
<b>Figure 4.5</b> ICT Resources available in Classrooms.....	153
<b>Figure 4.6</b> Types of Internet Connection.....	155
<b>Figure 4.7</b> Reaching Students Online.....	156
<b>Figure 4.8</b> Learning through the University Moodle Platform.....	156
<b>Figure 4.9</b> Social Media Networks Use.....	157
<b>Figure 4.10</b> The Evaluation of Students Online Work.....	160
<b>Figure 4.11</b> Types of Activities in Flipped Classroom.....	161
<b>Figure 4.12</b> Tutoring Students Online.....	163
<b>Figure 4.13</b> Teachers Attitudes towards Coaching Students Online.....	163
<b>Figure 4.14</b> Using ICTs to perform Online Tasks.....	165
<b>Figure 4.15</b> Causes of Insufficient Training.....	166
<b>Figure 4.16</b> Teachers Beliefs about Online Teaching Utility.....	167
<b>Figure 5.1</b> Participants Age Categories.....	200
<b>Figure 5.2</b> Students SMNs Access and Use.....	202
<b>Figure 5.3</b> Built-in and Installed ICT Applications for Pedagogical Use.....	203
<b>Figure 5.4</b> Frequency of Students Facebook Use.....	204
<b>Figure 5.5</b> Educational Blogs.....	205

<b>Figure 5.6</b> Students Other Social Networking Accounts.....	211
<b>Figure 5.7</b> The Rate of Online Learning Document Exchange.....	212
<b>Figure 5.8</b> The Functions of Smartphone Learning Applications.....	216
<b>Figure 5.9</b> Frequency of Using Smart-Phone Applications.....	217
<b>Figure 5.10</b> Frequencies of Sharing Smart Phone Learning Applications.....	218
<b>Figure 5.11</b> Students Collaboration in Social Media.....	219

## List of Abbreviations

**ALM:** Audio-Lingual Method

**ARPA:** The Advanced Research Projects Agency

**BBC:** British Broadcasting Corporation

**CA:** Communicative Approach

**CAI:** Computer Assisted Instruction

**CALL:** Computer Assisted Language Learning

**CALL:** Computer Assisted Language Learning

**CBA:** Competency Based Approach

**CBAM:** Concerns-based Adoption Model

**CBAM:** Concerns-based Adoption Model

**CBI:** Computer Based Instruction

**CBT:** Computer Based Training

**CDPs:** Communities of design practice

**CD-ROM:** Compact Disc Read Only Memory

**CERI:** Centre for Educational Research and Innovation

**CERN :** “The Conseil Europeen pour la Recherche Nucleaire “

*Translated to:* The European Council for Nuclear Research

**CLT:** Communicative Language Teaching

**IM:** Instant Messaging

**CMC:** Computer Mediated Communication

**CMCL:** Computer Mediated Communication for Learning

**D.M.:** Direct Method

**DVD:** Digital Video Disk

**EEC:** Experimental English Classes

**EFL:** English as a Foreign Language.

**ELL:** English-Language Learning.

**ELT:** English Language Teaching

**ESL:** English as Second Language

**ESP:** English for Special Purposes

**FLE:** Faculté des Langues Etrangères

**FTP:** File Transfer Protocol

**GRSLSS:** The Grasha-Riechmann Student Learning Style Scale

**GSM:** Global System for Mobiles

**GTM:** Grammar Translation Method

**HTML:** The Hypertext Markup Language

**HTTP:** Hypertext Transfer Protocol

**ICQ:** I Seek You / Instant Internet Chat Query

**ICT:** The Information and Communication Technologies

**IELTS:** International English Language Testing System

**ISTE:** International Society for Technology in Education Conference

**IT:** Information and Technology

**ITE:** Institute of Technology and Education

**LMD:** Licence Master Doctorat

**LMS:** Learning Management System

**MACOS:** Man: A Course of Study (Bruner's)

**MALL:** Mobile Assisted Language Learning

**MALL:** Mobile-Assisted Language Learning

**MBL:** Mobile Based learning

**MCQ:** Multiple Choice Questions

**M.H.E.S.R:** Ministry of Higher Education & Scientific Research

**MOOC:** Massive Open Online Course

**MP3:** MPEG-1 Audio Layer III

**MP3:** The Moving Picture Experts Group, layer III audio

**MPEG:** The Moving Picture Experts Group

**MPIT:** Ministry of Post and Information Technology

**MPP:** Microsoft PowerPoint

**N:** The Number of the Students per Group

**N1:** The Number of the Participants of the First Group

**N2:** The Number of the Participants of the Second Group

**NASA:** National Aeronautics and Space Administration

**OCW:** Open Course Ware

**OECD:** Organization for Economic Co-operation and Development

**OPALE:** Online Performance and Learning

**PC:** Personal Computer

**PDAs:** Personal Digital Assistants

**PDF: Portable Document Format**

**PPP:** Presentation, Practice, Production

**RSS:** Real Simple Syndication

**S1<sup>2</sup>:** The Variance of the First Group

**S2<sup>2</sup>:** The Variance of the Second Group

**SMS:** Short Message Service

**SMNs :** Social Media Networks

**SNDL :** Système National de Documentation en Ligne

**SPSS:** Statistical Package for Social Science

**TELNET:** Teletype Network

**UK:** United Kingdom

**URL:** Uniform Resource Locator

**USA:** United States of America

**USD\$:** United States Dollars

**VLE :**Virtual Learning Environment

**VUE:** Virtual User Environment

**WBT:** Web Based Training

**WWW:** World Wide Web

**X:** The Mean

**X1:** The Mean of the First Group

**X2:** The Mean of the Second Group

**ZPD:** Zone of Proximal Development



# **General Introduction**

## **General Introduction**

The demands of modern society require constant technological change that affects many fields whether social, industrial, economic or educational. English language teaching is at the heart of such an important change. For this reason, it became a compulsory to teach English language through the integration of technology instruments in a quest for more proficiency.

Ten years ago, both EFL educators and students were still hesitating and reluctant, may be even technophobic regarding the incorporation of technology tools into educational practices. A decade later, they have become surrounded by digital devices, like tablets, laptops, smart-phones that embrace limitless multimedia options and endless number of applications. Teachers at different education levels, especially in higher education, stumbled on e-generation students who manipulate technology namely digital tools very well. Being as such, EFL teachers needed to find ways in order to motivate students to adopt these devices for the benefit of English language learning. They were compelled to put emphasis on the adoption of social media networks owing to the fact that it is the latest trend in the digital world.

English is considered as the first medium of communication in this world of globalization. Consequently, it attracts the Algerian university students, among others, to acquire and master this tool to enhance their communication. EFL students need to be proficient in English language as poor language mastery leads to ineffective oral conversation and clumsy written productions. Outside learning, sometimes, called informal learning can be a good support for students to boost their competencies by using ICT tools such as personal laptops, smartphones or tablets. These digital instruments have the prospects to improve their language skills and their amelioration would definitely increase students' understanding, and further their achievement inside the classroom.

Accordingly, this study explores EFL students' ICT utility outside classes for educational aims, and suggests ways how teachers could engage them in secure and fruitful learning environment through the use of social media networks.

Indeed, the latter gained popularity over the last decades. Facebook, Twitter, Instagram and the likes request students to create personal profiles to log in and connect with other users. They can upload photographs; post their works at any time, and send personal messages instantly. ICTs can vehicle wide range of communication technology information to contribute to students' lifelong learning as they could easily access world libraries and various educational

resources. There is also an endless authentic language material to exploit besides communicating with native speakers.

Nevertheless, students seem to over-use modern technology tools for entertainment purposes. Natural observation shows they tend to use them mainly for playing games, downloading music, watching videos and exchanging pictures and various software files. Likewise, master one EFL students regularly visit the social media such as Facebook, Instagram, Twitter, YouTube and have created many users accounts to share files and interact with other users through these media. However, it is not known the extent to which these learners use social media networks for learning purposes.

This study provides some insights for university students who have been abreast of the advances in ICTs, their competence in manipulating the various technology tools, whether supported by ICT education as a separate subject or by self-training in handling the latest technologies. Therefore, students remained lacking communicative competence, and teachers faced the challenge of finding mechanisms to make technology in the service of learning. However, the wide spread of the smart mobile within a larger young population raises the urgency of manipulating digital applications and mastering what modern devices are offering to young people in order to turn them from instruments of leisure to those serving education expectations. Nevertheless, infusing digital technology in education has remained perpetual between relying on imitation, repetition and cognitive basic use. For this reason, the use still has not improved students level to be creative and autonomous.

Up-until now young population of university students seems to lean more towards digital tools that have Android-built system since other analogue tools because they offer more entertainments and endless facilities to interact online, using internet-based applications next to the offline multiple options. Therefore, at first view, academics and researchers might think that these tools would revolutionize EFL learning; nonetheless, students do not seem to show significant progress.

Based on such preliminary observations, the researcher digs to investigate the issue, and simultaneously enquires about the effects that ICT along with social media networks (henceforth SMNs) have on formal education beyond university classrooms. The aim of the present work is to explore the extent to which master one university EFL students use social media websites for EFL learning purposes outside the classroom environment. The study focuses on their beliefs, frequency of SMNs use, interaction, information sharing and engagement.

This research scope is connected to e-learning mode which emphasizes learner's autonomous use of digital technology and SMNs. Thus, the aim is to assess whether students' use of ICT outside university classrooms, including SMNs and smartphone Android applications, has any influence on their English language proficiency in writing argumentative productions. Additionally, this investigation aims to assess students and teachers' ICT skills and expertise, based on need, qualification and experience of use. Then, their ICT beliefs, perceptions and attitudes are evaluated from the perspective of serving educational purposes beyond classroom hours. A major concern is also to reveal the difficulties (challenges) faced by students while using social media networks platforms.

The main purpose of this study is to explore teachers' current ICT beliefs and perceptions, and to shed some light on their previous attempts of using social media networks like Facebook as YouTube, Twitter, and Instagram in English language teaching (ELT) according to their social and academic settings in Ibn Badis University in Mostaganem. This research outcome is meant to meet the needs of EFL students and teachers as well, who are eager to find ways to adopt SMNs for online teaching and learning. The interactive learning environment that ICTs provide outside the language classroom will alleviate teachers' burden explaining difficult aspects and pave the way to a more learner-centered type of teaching.

To guide the present research, four research questions are formulated as follows:

- 1-How do Algerian EFL Master one students and teachers at Ibn Badis University perceive the use of social media networks for language learning?
- 2 -To what extent can ICTs and social media networks use outside classroom be beneficial to Master one students' formal learning?
- 3-What pedagogical difficulties do EFL teachers encounter when blending online teaching with face-to-face one?
- 4-To what degree has online teaching enhanced Master one students' academic writing productions outside the classroom environment?

Accordingly, the following hypotheses are derived, and put forward as follows:

- 1- When perceived positively and approached appropriately, ICTs and social media networks can be efficient teaching-learning tools that reinforce formal education and increase achievement.

2. The adoption of SMN outside the classroom may be fruitful for formal academic education on the assumption that both EFL teachers and students possess positive attitudes, technology access, training, are engaged and they collaborate.
3. It is the more technology-trained, devoted and experienced teachers in manipulating digital software who could possibly overcome difficulties and ensure continuous online teaching to the master students beyond the classroom time provided they are committed.
4. When EFL University teachers use SMNs and online teaching tools to provide collaboration and interaction, their students would show improvement in writing productions.

The above research questions allow making assumptions about the nature of efficient learning and teaching through the manipulation of technology and social networks. The researcher seeks to determine perceptions, frequency and effectiveness of social media networks in EFL university learning at the level of master one studies. Special emphasis is placed on how good control of the social media networks in the smart digital tools could positively affect formal learning production beyond classrooms.

To undertake the stated research hypotheses, a survey explorative method is adopted to investigate the case study of Master one students, at Abdel-hamid Ibn Badis University (Mostaganem). It is based on administering semi-structured questionnaires at random to students and teachers, in the department of English. Furthermore, teachers of Master one students are invited to take part in an interview. Hereafter, the qualitative data collected from the interview were compared and mixed with the quantitative data from both questionnaires.

To equip the research with a practice part, an experiment is conducted. It is of the quasi-experimental type as the choice of both experimental and control groups were done randomly, but were also based on the availability of groups which the researcher has been teaching during the academic year 2020-2021.

As the study is based on mixed method, the experiment adds quantitative data by randomizing choice of the sample population; 20 subjects in each group selected to participate in the experiment to prove the efficiency of using SMNs in teaching argumentative essay components online. A control group is designed to check whether any progress has occurred. Accordingly, a treatment which consists of teaching the two groups separately: an experimental group online and a control group in the conventional face-to-face mode, is performed after the evaluation of the previously administered pre-test. The evaluation, in question, is meant to

uncover participants' level of performance, their prior knowledge in argumentative productions, and to determine aspects of resemblance between subjects of the two groups. Henceforth, the researcher could reach a concluding judgment about the feasibility of the experiment.

The post-test is applied to check progress in both groups in terms of the treatment received. After that, the calculations of the *means* of general tests performances and sub-components is done by the t-test, and it is also applied to compute variances and degree of freedom which goes with the standard level of significance for one-tailed hypothesis. The principal hypothesis is to test if there is any recorded positive influence of online SMNs on argumentative writing productions during treatment period on the experimental group; on account of this, SMNs treatment would act as an independent variable that exercise effect on the dependent variable which is argument writing abilities.

The present dissertation lay out is composed of the following components: Chapter one and two provide an exhaustive description of the previous research literature concerning ICT and social media networks in English language teaching beyond higher education classrooms, and how it illustrates some of the well-known adopted procedures.

Chapter one reports the literature that is connected to ICTs part of the topic under investigation, their types and access. It presents an overview of the common learning theories such as the behaviorist, and the constructivist one, in addition to literature defining ICTs implementation in educational change notably the Mentalist and the Socio-cognitive approaches. Furthermore, there is literature describing psychological aspects of learning, namely learning styles, self-directed learning, formal learning inside educational institutions and informal type of learning outside classrooms. This chapter ends up by revealing basic pre-requisites for effective ICT-based writing productions.

Chapter two is devoted to the literature dealing with the second part related to the effects of SMNs. It firstly defines major concepts attributed to SMNs, and draws a picture of the early development of the Web 2.0 Technology and internet uses, in parallel with content sharing embedded features like websites designing and web-blogging. The second section describes smartphones digital applications affordances for learning. Besides, there is a section denoting Moodle platforms and teaching software. Next, the reader finds elucidating reviews about readings on the use of SMNs like Facebook, YouTube and Twitter or Skype both in socializing, and in supporting students' productive skills performances, particularly outside the

classroom. The succeeding literature is on applicability of SMNs affordances in EFL teaching/learning process. The chapter finishes with studies uncovering common complications of blending face-to-face with online learning.

Chapter three highlights the methodology procedures, adopted in this study through which the researcher lays out the objectives endeavored, in addition to their signification. It presents the data collection tools and the methods and procedure of data analysis based on the theoretical knowledge stated in the first two chapters. The explorative design relies on mixing quantitative with explorative methods. Therefore, it employs multiple research instruments like the students and teachers' questionnaires, along with the teaching experiment that is conducted with two groups from Master one students, in English department at Ibn Badis University (Mostaganem). The qualitative data are gathered by the teacher interview protocol.

The fourth chapter aims to examine, analyze and discuss the collected data, and it brings answers to the research questions. It includes two parts: one states the teachers' questionnaire analysis of the findings, and the other covers the analysis of the interview protocol. The teachers' questionnaire part highlights the analysis of results related to their ICT experience, classroom resources and those accessed outside the university. Special focus is deployed to analyse the findings about SMNs effects on students learning frequency beyond classrooms, online educational resources, and the tutoring or support they receive from teachers.

Part two of chapter four illustrates how the interview protocol results are examined and discussed. The outcomes concerning delivering online complementary practice in forms of flipped classrooms, conveying resources and engaging master one students, in parallel with other examined results about pre-service and in-service training, features of online and face-to-face teaching modes. Furthermore, there is an evaluation of findings about SMNs teaching experiences and their impact on EFL teaching/ learning process. The chapter ends up with exposing results of assessing online instruction and the evaluation of the requirements of SMNs adoption in higher education.

The fifth chapter embodies two parts. One part sheds lights the students' questionnaire data analysis, and the other explains the teaching experiment. The questionnaire analysis comprises ICT access, frequency of use of the SMNs. Another section illustrates students' perceptions towards digital technology implementation requirements, and last section reveals results of smartphones applications and their formal learning implications. The second part of

chapter five deals with experiments statistics and a quantitative report on researcher's procedure in selecting two groups from Master one population in Ibn Badis University. The administration of the pre-test and post-test, also the infliction of treatment and eventually the enumeration of the subjects overall and specific performances by calculating the *means* and comparing findings.

The sixth chapter encompasses the summary of the research findings from four data collection instruments in a row, the teachers' questionnaire and interview; the students' questionnaire and the experiment. The questionnaire reports teachers' ICT-teaching experience profile, access and degree of technology competence while teaching their students beyond classrooms. Besides, other findings of flipped classroom, tutoring and assessment. The interview findings reveal attitudes towards online teaching, teaching frequency beyond classrooms, difficulties and resources.

Moreover, the chapter reports a brief summary of experiment results assessing progress through testing after inflicting six weeks treatment. Another part of the chapter presents ample suggestions and recommendations to both master one students and teachers, namely an ICT training guide suggested to teachers. The latter is based on teachers' technology needs that concern pedagogy. The guide comprises a workshop plan through which ICTs practical parts in pedagogical workshops are ensured.



# **Chapter 1**

***Innovating Education  
with Information  
Communication  
Technologies (ICTs)***

## CHAPTER 1. LITERATURE REVIEW

### Innovating Education with Information Communication Technologies (ICTs)

<b>1.1 Introduction</b> .....	8
<b>1.2 An Overview of EFL Teaching and Learning Approaches</b> .....	8
<b>1.2.1 Traditional learning procedure.</b> ....	9
<b>1.2.2 The modern view of EFL learning.</b> ....	10
<b>1.2.3 A shift from teaching to learning.</b> ....	10
<b>1.3 ICTs' Influence on Teaching and Learning</b> .....	12
<b>1.3.1 Definition of ICTs.</b> .....	12
<b>1.3.2 Technology tools accessed for language learning.</b> .....	14
<b>1.3.3 Educational change requirements.</b> .....	16
1.3.3.1 <i>Educational change.</i> .....	17
1.3.3.2 <i>Method and resources.</i> .....	17
1.3.3.3 <i>The Mentalist method.</i> .....	18
1.3.3.4 <i>The Socio-cognitive approach.</i> .....	19
<b>1.3.4 Models of educational change.</b> .....	19
1.3.4.1 <i>Rogers' model.</i> .....	20
1.3.4.2 <i>Ely's model</i> .....	21
1.3.4.3 <i>Hall's model of change</i> .....	21
<b>1.3.5 Designing ICT-based learning content.</b> .....	22
1.3.5.1 <i>ICT-based learning resources</i> .....	23
1.3.5.2 <i>ICT-based lesson frame</i> .....	23
<b>1.4 Conventional Versus Online Learning</b> .....	24
<b>1.4.1 The EFL student's learning styles.</b> .....	25
<b>1.4.2 Learning motivation.</b> .....	25
<b>1.5 Self-directed EFL Learning.</b> .....	27
<b>1.5.1 ICT access beyond the classroom.</b> .....	27
1.5.1.1 <i>Frequency of ICTs use outside school.</i> .....	28
1.5.1.2 <i>Informal learning through ICTs</i> .....	29
1.5.1.3 <i>Formal learning through ICTs.</i> .....	30
<b>1.6 Online Education Pre-requisites</b> .....	30
<b>1.6.1 The teacher's new roles</b> .....	31
1.6.1.1 <i>Designing and implementing online instruction.</i> .....	32
1.6.1.2 <i>Designing and planning lessons online</i> .....	32

1.6.1.3 <i>Improving e-teachers' online effectiveness</i> .....	33
1.6.2 Learners' preparedness .....	33
1.6.2.1 <i>Being active</i> .....	34
1.6.2.2 <i>Using the video</i> .....	34
1.6.3 Learners' achievement .....	35
1.6.3.1 <i>Written productions</i> .....	35
1.6.3.2 <i>Oral productions</i> .....	36
1.7 Education Reforms .....	37
1.7.1 The Bologna process .....	37
1.7.2 The LMD system .....	37
1.7.3 ELT reforms .....	39
1.8 Case Studies of Learning inside versus outside the Classroom .....	39
1.8.1 Studying inside the classrooms .....	39
1.8.2 The concept of learning outside the classroom .....	40
1.8.2.1 <i>Learning in real-life situations</i> .....	41
1.8.2.2 <i>Communicative classes through social media</i> .....	41
1.8.2.3 <i>Effects of physical outdoor learning</i> .....	42
1.8.2.4 <i>Writing outside the classroom through online forums</i> .....	43
1.9 Academic Writing in EFL Context .....	44
1.9.1 Synopsis of the writing process .....	45
1.9.2 Requirements and strategies of the academic writing process .....	46
1.9.3 Teaching writing to EFL students .....	47
1.9.3.1 <i>The process method</i> .....	47
1.9.3.2 <i>The product method</i> .....	49
1.9.3.3 <i>The genre method</i> .....	49
1.10 The Research Context .....	50
1.10.1 ICT in Algerian education .....	52
1.10.2 Learning under Covid-19 conditions .....	53
1.11 Conclusion .....	54

## **1.1 Introduction**

The aim of the first chapter is to present an overview of the main literature found on the incorporation of ICTs in English language learning (ELL) in institutions of higher education to further education outside the classroom. The selected researches briefly explore the theoretical learning, teaching approaches and methods involved in the incorporation of ICTs and their effects on EFL teaching/learning process, notably those furthering the student-centered method and autonomous learning.

Besides, technology integration, this work is based on the concepts of the mentalist and the socio-cognitive approaches. This chapter accentuates the pedagogical benefits linked to ICT-based learning resources with special focus on how an e-content is elaborated and transmitted from a distance to complement face-to-face teaching. There were also researches embarking on EFL self-directed learning beyond the classroom, such as those reported by Somekh (2005) on cultural influence and social habits on internet access and those by Pachler (2009) evoking the extent to which students self-regulate their own learning on the basis of cognitive, affective, and behavioural elements.

The chapter is reinforced by another part that presents studies about teaching/learning requirements and conditions, namely digital tools access and technology preparedness. Basically, they point out to the teachers and learners' need for digital software training to upgrade their skills for pedagogic motives. Still, other studies spot light on strategies that use SMNs and e-learning platforms to teaching academic writing productions in an online environment.

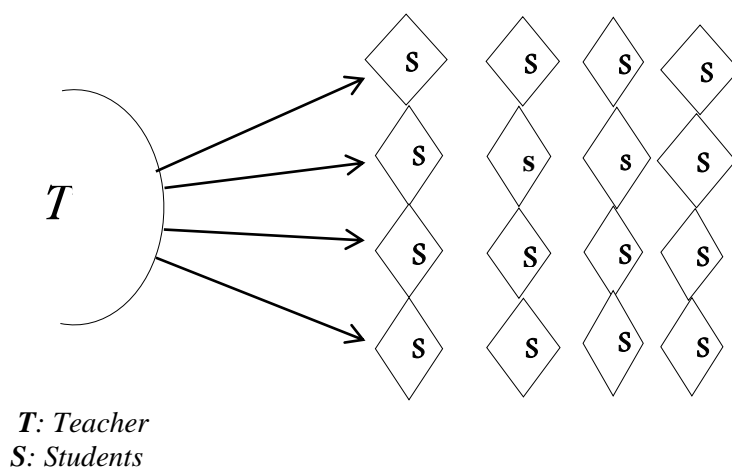
## **1.2 An Overview of EFL Teaching and Learning Approaches**

For many decades, educators have been struggling to find efficient methods to take in charge the teaching and learning process. In early beginnings, there appeared the Grammar Translation Method (GTM) which was based on rigid grammatical rules to learn by heart and the translation of vocabulary lists from the target language to the mother tongue and vice versa. Since learners knew about the language and did not know how to use it to communicate, researchers attempted other methods like the Direct Method (D.M.) which prohibits the use of the mother tongue and relied on the use of pictures and realia to convey meaning, and it was based on demonstrating mean rather than translating (Richards and Rodgers, 2001).

Another method was advocated by the American school in the 1900s and was based on the use of audio-lingual laboratory material called the Audio-lingual Method (ALM). In the sixties, the ALM was altered by another teaching approach that relied on cognition, namely the mentalist researchers who believed that learning was not built on forming new habits and imitation but it was based on mental processing that enables the learner to create new utterances. The following emerging approach was the Communicative Language Teaching (CLT) and after it the Competency Based Instruction (CBI) or approach which have their derivatives that supported the use of modern technology instruments to enhance the teaching/learning practice. The latest approaches emphasized the student-centered type of instructions that required more involved and active learners (Freeman, 2011).

### 1.2.1 The traditional learning procedure

The new classroom of 20-30 students was created in the 20<sup>th</sup> century when education standards became available for nearly all common population. The traditional education, however, considered learning as a hard task. It was a difficult process based on a deficit model of the learner. The latter's weaknesses and deficiencies are identified so as to build upon them a compensatory instruction programmes; hence the curriculum generalized deficiencies of all learners. The traditional teaching approaches focused more on the role of the teacher as the only source of knowledge. He is the transmitter and the expert as shown in figure 1.1 below:



**Figure 1.1** *Information Transfer of Learning*<sup>1</sup>

<sup>1</sup> Note: Bruer (1993) in: Khvilon & Patru (2002, p.17). *Information And Communication Technologies in Teacher Education, A Planning Guide*, UNESCO

Some of the best descriptions of the type of learning brought by Bruer (1993), as cited in Khvilon & Patru, (2002), in his book, “School for Thought”, he argued that research was concentrated on the weaknesses of students rather than on their strengths. Students were also asked to follow school norms to fit in. Instead, schools should have changed to accommodate students of different abilities. The language of the curriculum was very boring and did not sound real. Memorization was the only method of knowledge acquisition.

### **1.2.2 The modern view of EFL learning**

However, in modern time learning can be made easier by breaking the teaching content into small parts. According to Bruer (1993) as cited in, Khvilon and Patru (2002), when teaching, we tend to categorize and analyze pieces and parts of knowledge rather than the whole thing. Technology-based education divides knowledge and skills into de-contextualized pieces to be taught and tested separately. Khvilon and Patru (2002) draw attention that as opposite to the traditional concept of teaching and learning, the new paradigm is the result of three decades of research. Learning is naturally not the same for all types of learners. There are different learning styles that a teacher must take into account when planning lessons. Providing rich learning environments with supportive and stimulating material is beneficial to students. Vygotsky (1978) as cited in (Khvilon & Patru, 2002) noted that students learn best in collaboration with peers, teachers, parents and others. Besides social motivation, they need to be actively engaged in meaningful and interesting tasks. Active learning includes being given problem-solving activities, original writing productions, completion of scientific projects and dialoguing on issues rather than just reporting information. Learners should not be asked, as in the old curriculum, just to receive, recall and describe what is created by others.

### **1.2.3 A shift from teaching to learning**

Because technology has triggered change in all society features, the new world of economy is altering our prospects and demanding students to learn to perform accordingly. Thus, EFL students are urged to scrutinize a great deal of available information to be able to decide upon the new knowledge in an ever-changing technological society. They must learn continuously, collaborate with other learners to perform difficult tasks more efficiently. The move from teacher-

centered teaching to the learner-centered type is a must to empower students to develop the new 21<sup>st</sup> century capabilities.

In Table (1.1) Sandholtz, Ringstaff, and Dwyer (1997), as cited in Khvilon and Patru (2002) showed the shift of emphasis from teaching to learning. They have illustrated how teacher-centered learning can be altered by learner-centered learning environment by virtue of the incorporation of ICTs. The teacher is no more the unique knowledge transmitter but a learning facilitator, knowledge guide, knowledge navigator and co-learner with the student. The table's purpose is to highlight main elements to distinguish in the two types of teaching.

**Table 1.1**

*Teacher-Centered and Learner-Centered Learning Environments<sup>2</sup>*

	<b>Teacher-centered Learning Environments</b>	<b>Learner-centered Learning Environments</b>
<i>Classroom activity</i>	Teacher-centered, Didactic	Learner-centered, Interactive
<i>Teacher role</i>	Fact teller, Always expert	Collaborator, Sometimes learner
<i>Instructional emphasis</i>	Facts' memorization	Relationships, Inquiry and invention
<i>Concepts of knowledge</i>	accumulation of facts, Quantity	Transformation of facts
<i>Demonstration of success</i>	Norm referenced	Quality of understanding
<i>Assessment</i>	Multiple choice items	Criterion referenced, Portfolios and performances
<i>Technology use</i>	Drill and practice	Communication, access, collaboration, expression

The teacher's new roles imply new knowledge and capacities from both the teacher and the learner. This latter should take in charge his/ her own learning as s/he needs to look for, find, synthesize and share knowledge with others. The table below describes the changes in the teacher and learner's roles.

<sup>2</sup> Note : adapted from Newby et al.(2000), as cited in Khvilon & Patru, (2002, p. 23).

**Table 1.2***Changes in Student and Teacher's Roles in Learner-Centered Environments<sup>3</sup>*

<i>Teaching/ Learning</i>	<b>A shift from:</b>	<b>A shift to:</b>
<b>Changes in Teacher's Role</b>	-Knowledge transmitter, primary source of information, content expert, and source of all answers	-Learning facilitator, collaborator, coach, mentor, knowledge navigator, and co-learner
	-Teacher controls and directs all aspects of learning	-Teacher gives students more options and responsibilities for their own learning
<b>Changes in Student's Role</b>	-Passive recipient of information	-Active participant in the learning process
	-Reproducing knowledge	-Producing and sharing knowledge, participating at times as expert
	-Learning as a solitary activity	-Learning collaboratively with others

The integration of technology enhances greatly this change towards a more student-centered type of teaching and learning. This shift in the student and the teacher's roles has gone simultaneously with the incorporation of the communication technologies into the classroom practice. How far can these tools enhance the teaching and learning process?

### **1.3 ICTs' Influence on Teaching and Learning**

Nowadays, there is hardly no domain in modern life that is independent from the use of ICTs. Some technology instruments contributions to learning and teaching are very crucial. They help us facilitate hard work and simplify tasks that require too much time and energy. There are two types of technology devices: the classical type of communication instruments like radio, television, telephone, fax, printing machines and the modern type of instruments like computers, laptops, tablets, cell-phones and so on. Modern instruments have more powerful effects on education as they are equipped with internet and software.

#### **1.3.1 Definition of ICTs**

In order to have a clear definition of the concept of ICT and its use in the educational context, some diverse views about this concept and interpretations are presented below:

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<sup>3</sup> Note: Table adapted from Newby et al. (2000) as cited in Patru, Resta & Semenov (2002,p.24) *Information and Communication Technologies in Teacher Education*, a Planning Guide. (2002), UNESCO.



Information and communications technologies (ICTs) are a diverse set of technological tools and resources used to communicate, and to create, disseminate, store, and manage information. Communication and information are at the very heart of the educational process. ICTs have played an educational role in formal and non-formal settings.

(Blurton, C., 1999, p.1)

Apart from what the acronym ICTs stands for: Information and Communication Technologies, there is not a worldwide agreed upon definition of ICTs. The concepts are evolving in relation with each newly invented tool. The methods and the applications related to ICTs are constantly on progress. One way to deal with ICTs is to consider the uses of modern and digital technologies that are already operational in businesses and organizations. They would cover electronic or digital products that store, retrieve, manipulate, transmit or receive information electronically or in a digital form. Examples of those would be personal computers, cell phones, cameras, videos, digital televisions, emails, robots (Balkaran, 2014).

ICTs, also known as computer technologies are not singular but, rather, connected to a growing number of electronic digital devices, combinations and networks for information acquisition and delivery. All these units are included under the common name of ICT (UNESCO, 2005). ICTs are described by Vygotsky (1985), as cited in Somekh and Davis (2005), as intellectual tools which function as an aide-mémoire to support the human basic mental functions which includes memory attention and the capacity to make associations and interpretations. Somekh (2005) added that the IT (Information and Technology) tools enhance the skills of the tool user, facilitate storing and release attention for thinking and reflection. Thus, creation gradually follows.

According to the research of Ginsburg (2010), technology is a tool, among others, which must be used to help enhance teaching practices not to replace teachers.

Of the many topics I learned more about at the recent International Society for Technology in Education Conference (ISTE), and what stood out to me at ISTE even more than all the great ideas for integrating technology were all the reminders that while technology can enhance teaching, it can't replace teachers. (Ginsburg, 2010, p.1)

For Ginsburg (2011), this does not mean that all those esteemed educators or any other who spoke at the International Society for Technology in Education (ISTE) think we should cut back on technology in schools. On the contrary, all speakers strongly favored the incorporation of technology to enrich classrooms teaching. The students and the teachers can benefit from various types of interaction under an ICT enabled environment which empowers them to engage in an open dialogue, and rewards interaction and collaboration (UNESCO, 2005).

### **1.3.2 Technology tools accessed for language learning**

EFL Teachers do not integrate the new technologies into their classrooms without questioning their use, benefit and efficiency. In fact, EFL teachers are pressed into integrating technologies into the teaching and learning process by policy-makers. But to do so, teachers should be cautious when introducing technologies in education since effective teaching presents a priority in itself and technology is a tool for supporting and enhancing teaching not for replacing pedagogy (Loveless and Ellis, 2003).

Incorporating technological tools in English language teaching (ELT) requires a number of conditions to be met. As a matter of fact, the role of the decision-makers is vital to keep the teacher getting technology support. In school, a senior manager, the principal and the technical support responsible must give a priority to implement ICTs in the teaching process while following the school policy of technology integration.

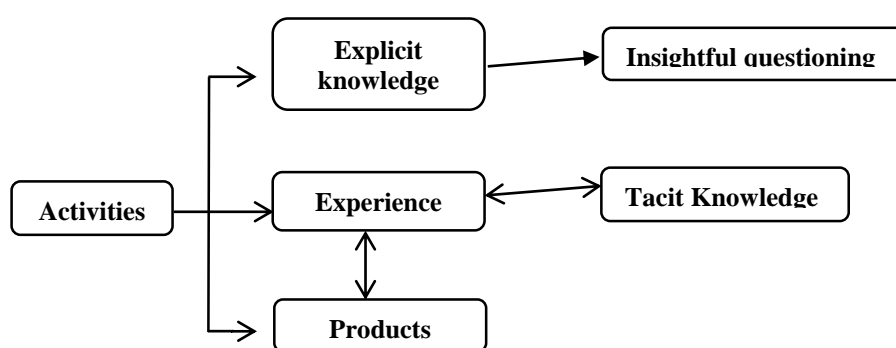
There are two types: schools that are using ICTs as tools to enhance teaching and learning practices and those using them to introduce new practices and try to transform their types of instruction. However, this latter requires change and this does not happen alone. It needs the completion of what is happening and something all new (Robertson, Webb & Fluck, 2007).

In order to use ICT in the learning process, we need to specify what type of learning can promote efficient use of technology. The EFL teachers and students acquire experience through action. There is a joining relation between ICT and action learning. EFL students have an easier access to an already existing knowledge. They can learn from the rich experiences of others. The learner goes through scaffolding activity and mediating experiences to make meaningful questioning.

Reflective EFL teaching is mainly based on reflective learning. Teachers should be aware of the power of observation in doing when giving action research projects; conferences, workshops

and discussions. In reflecting upon their own teaching practices, teachers recognized the big importance of collaboration in integrating ICTs in teaching. Robertson (2007) reported from (Leach & Moon, 1999; Sacks, 2003) that working collaboratively aided people to ameliorate their tacit and explicit knowledge in order to identify (and be melted into) the shared repertoire of practices. They play both roles of learners and teachers in the community by negotiating meaning and continuously constructing knowledge.

The figure below is a representation of what has been explained about the formation of active learning on the basis of tacit and explicit knowledge, insightful questioning and experience.



**Figure 1.2** *Action learning representation*<sup>4</sup>

This model is similar to the one brought by Vygotsky (1978), as cited in Robertson, Fluck and Webb (2007) in which there is a joint connection between action, learning, knowledge and social engagement to build both tacit and explicit or abstract knowledge to reach maturation.

Robertson, Fluck and Webb (2007) have made some reflections on school observations, action research projects, conferences and workshops; and they came out with some notions about action learning. One of them is illustrated in figure 1.2 which brings about the following plans:

- Practices involve activities.
- Activities result in experiences, products and the acquisition of explicit knowledge.
- Experiences can be expressed as tacit knowledge.

<sup>4</sup> *Note:* Action Learning (Robertson et al, 2007, p.99)

- Through insightful questioning, explicit and tacit knowledge can be compared, related, reconciled and enriched.

It has been found that collaboration is crucial to guarantee that technology is implemented properly in teaching and learning, and teacher development is beneficial, possibly thanks to the communities of practice which Leach, Moon (1999) and Sachs (2003), as cited in Robertson, Fluck and Webb (2007) define as groups of individuals cooperating to ameliorate their tacit and explicit knowledge in common practices which are based on the negotiation of meaning.

### **1.3.3 Educational changes requirements**

Literally to innovate is to change something established by introducing new methods, ideas, or products. In Oxford Dictionary (2005), an innovation is defined as the introduction of new things, ideas or methods. For Rogers (2003), an innovation is an idea, practice, or object that is perceived as new by an individual or other unit of adoption.

Rogers (2003) further explains that it is not very important whether the idea is all new since the perceived newness is identified according to how the individual responds to it. If s/he finds it new then it is considered as an innovation. On the other hand, the newness of an innovation is not only related to knowledge. An individual can know an innovation long before developing either a positive attitude towards adopting it or a negative one to reject it.

According to Rogers (2003), the rate of an innovation adoption is measured by the consumer's attitude or perception. If the innovation is perceived by the user as socially advantageous, useful and pleasant, he is most likely to adopt it very quickly even if it does not seem so objective. An innovation must be consistent with the individual basic values, past experiences and his needs. If it were incompatible with one of these, it would take time being accepted. Complexity is another aspect that slows down the adoption of an innovation especially if it is estimated as difficult to understand and complex to use. So, trialability is a major element in adopting an innovation. An innovation ought to have observable results. More visible results encourage adopters to discuss their innovation with peers and friends who by turn will request it for themselves. Observability helps the acquisition of innovations by a larger number of individuals (Ryan and Gross, 1943; as cited in Rogers, 2003).

**1.3.3.1 Educational change.** For an EFL teacher to switch to another mode of teaching by incorporating technology, he has to alter planning by designing learning environment. As innovation and change are constantly present in any good educational setting, leaders always seek to ameliorate the teaching methods to enhance the learning output (Patru, Resta and Semenov, 2002). Accordingly to the same source, ICTs have lately changed social-economic and cultural life which has affected school work. “Re-engineering Schools” as it has been called is associated with the kind of technology changes brought to schools. The proof that ICT has engendered durable educational changes can be found in a number of case studies. In Europe, technology research studies carried out by the Centre for Educational Research and Innovation (CERI) within the Organization for Economic Cooperation and Development (OECD) in a number of African countries. It was found out that at the end of these case studies that ICTs introduction in schools was a kind of lift for change. Teachers are changing their approaches; consequently, new ways of assessing students’ work are introduced. EFL students became more motivated to learn and therefore achieved more.

At this level, EFL teachers are able to reflect upon their type of teaching, and they would rather adapt their teaching to answer their students’ needs. This knowledge is learner-centered and based on constructivism: students construct their own knowledge, project based instruction and group work. Every EFL learner is a teaching situation. Thus, as EFL students, they are active learners through technology use and collaborative work. Accordingly, teachers need to support their students by creating continuous technology support, type of learning outside school, or via internet or by sharing each other’s work and mentoring one another.

**1.3.3.2 Methods and resources.** To take educational change to the next level, teachers would need an appropriate method to serve as a backbone to support their ICT-based practice. Thus, it is preferable to have a historical overview of the previous technological tools that were incorporated into language classroom teaching. The early teaching tools, apart from verbal communication, started with the use of the blackboard in the Grammar Translation method (GTM).

In the sixties, the overhead projector suited the teacher-dominated classroom as a tool for content illustration. After that, there emerged the “drill and practice” grammatical activities in the form of early computer software (Warschauer & Meskill, 2000). The audiotape helped oral

repetition in oral learning drills in the application of the ALM<sup>5</sup> between the 1970s and the 1980s. This method failed because, at the cognitive level, whether in labs or classrooms, repetitive drills emphasized form rather than communicating meaning. The next decade (i.e., the 1990s) witnessed a move to the CLT<sup>6</sup> method. In this method, the emphasis is on students' interaction, engaged in authentic communicative situations. Language is considered more of a communicative and social act. How was technology integrated into this method? Two main approaches were adopted: the cognitive and the socio-cognitive approaches, according to Warschauer and Meskill (2000).

**1.3.3.3 The mentalist method.** The cognitive approaches regard language learning as a psychological individual act. The learner forms his own model of the language system. This system, according to Chomsky (1986) as cited in Warschauer & Meskill, (2000), is an innate knowledge that intermingles with comprehensive, meaningful language. Technologies incorporated in cognitive approach are those enhancing language exposure and meaningful context. Some of these can be done through text-reconstruction software, concordancing software and multimedia simulation software.

**a-Text-reconstruction Software.** Such as *NewsReader* from hyperbole or *Text Tanglers* offer learners many texts where letters or words are missing or in disorder. Working either individually or in groups, the students re-arrange the texts, doing a mental reconstruction. The computer enables the teacher to construct and rearrange texts, or cloze exercises from any word processed text. The students may use the hints delivered by the computer. Hence, learning is facilitated.

**b-Concordance Software.** An example is *Monoconc* from Athelstein which permits teachers to search through text whether short or long for specific words. Concordancers act as dictionaries for they assist learners by demonstration words usage. They are also good in inquiring for collocational meanings. (“think about” versus “think over”), (“was going” versus “used to go”).

**c-Multimedia Simulation.** Enables more exposure to the authentic material in an audio-visual learning environment. This allows good linguistics input manipulation and interactivity (Warschauer & Meskill, 2000).

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<sup>5</sup> ALM: Audio-lingual Method

<sup>6</sup> CLT: Communicative Language Teaching

**1.3.3.4 The socio-cognitive approach.** This approach deals with language learning from the social trait. Language is learnt through socialization within a community (Schieffelin & Ochs, 1986; Gee, 1996) as cited in Warschauer & Meskill, (2000) authentic social interaction is engaged in this approach to incite students to interact as if they were engaged in communicating outside the classroom. Therefore, they are encouraged to collaborate when doing authentic tasks and projects according to Warschauer.

Internet use is an ideal tool in the socio-cognitive approach of language teaching. It is a medium that inspires interaction and incites learners' motivation. It occurs either inside or outside the classroom. Classroom discussion helps students develop writing skills instantly by the means of class computer network or a laboratory. Students have to communicate only in writing i.e. by typing messages and sending them to the rest of the class. The messages appear chronologically on the screen top and are read and re-read by scrolling up or down. The whole writing session is stored and given to the students as a hard copy or in an electronic form.

Warschauer, (1996) reports that students exchange e-mails or chat with each other outside the classroom, through internet chatrooms. They claim that this type of interaction replaces the face-to-face communication, and is advantageous for EFL students' language learning as the number of participants is more than in the face-to-face discussion and the teacher does not monopolize it. Not to mention that Warschauer asserted that students have the chance to pick up new linguistic chunk such as collocations, common phrases and integrate them on their own messages. Thus, communicating through typing messages, enables students to use the type of language that is lexically and syntactically more complex than the one used in face-to-face discussion.

### **1.3.4 Models of educational change**

The leaders are the pioneers who adopt innovation before others do. However, for educational change to take place, those leaders need to follow well-defined methods and procedures in dealing with teachers ICT education in their work place or institutions. In fact, there are a number of models developed by some researchers which can serve as a guide for leaders. Three of these models are as follow:

1. Diffusion of Innovations (associated with Rogers, 1995)
2. Conditions of Change (associated with Ely, 1990)

### 3. Concerns-based adoption model (associated primary with Hall and his associates; 1987).

After being trained, teachers would be able to incorporate technology in the classrooms with their students. However, according to Tomei (2008), basic manipulation of computers or other technology tools is not enough to deliver effective teaching content. Teachers need a pedagogical vision or a model upon which they can conceive their own type of ICTs integration. Still, Tomei considers a model as a pattern, a plan, a representation or a description with a purpose to picture the components and functioning of an object, system or a concept. Therefore, the choice fell upon those three models if the teachers combine them, they achieve innovation in his teaching process, according to their technology stage of involvement. Firstly, Rogers model offers a theoretical background of teaching change attributes, then Ely's model provides psychological and physical requirements for change to take place, and provide a measurement model through which teachers could evaluate where they are at in the incorporation phases of ICTs into their teaching practice and follow on the rest of the phases to attain the targeted education change.

**1.3.4.1 Rogers' model.** Educational leaders who want to introduce ICT in EFL teacher education need to know the innovation attributes and strategies associated with technologies. They can encourage teacher educators to adopt ICT. Rogers (1995) has come out with a teacher education's model entitled "Diffusion of Innovations" where he stated five key attributes of innovations: relative advantage, compatibility, complexity, triability and observability. Years later, Rogers (2003) explained those attributes to help in the incorporation of technology in teacher education. He accompanies these attributes with the type of intervention procedure of leaders who can adopt in teacher education:

To have a *relative advantage* that ICT-enhanced learning is more effective than traditional approaches.

**a-Compatibility.** ICT should be compatible with current views, values and approaches.

**b-Complexity.** ICT should not be made complex to implement in teaching.

**c-Triability.** ICT ought to be tried in a non- threatening way, needs time and assistance.

**d-Observability.** It is useful to observe leaders use of ICT in teaching first.

Ellsworth (2000) found out in his survey about educational change that between 49% -87% of participants rate of innovation is attributed to the five attributes stated by Rogers (1995).



**1.3.4.2 Ely's model.** There are other conditions that enable an innovation success. Ely's (1990) educational change model provided conditions that help the adoption of ICTs for innovation in a cross-cultural study. Five major conditions that influence change in teacher education:

- Dissatisfaction with the previous teaching methods used.
- Assist teachers to acquire knowledge and ICT skills for professional development.
- Availability of infrastructure, mainly equipment that comprises both hardware and software.
- Leadership: Leaders have to encourage teachers and students improve their pedagogical work.
- Commitment: it is required from all the stakeholders: the institution, teachers and learners.

**1.3.4.3 Hall's model of change.** Hall and his associates (1987) proposed this model of innovation also called Concerns-based Adoption Model (CBAM). It has the role to assist those already involved in adopting ICT and keeping track of their own progress, mainly deciding upon the targeted stages as illustrated in the table below.

**Table 1.3**

*Stages of Concern in the Concerns-based Adoption Model (CBAM)<sup>7</sup>*

<b>Stages of Concern</b>	<b>Diagnostic Assessment</b>
1) <i>Awareness</i>	To know about ICT but is not concerned about them.
2) <i>Informational</i>	To be willing to know more about ICTs.
3) <i>personal</i>	To wonder how ICT will impact personally in terms of time demands and own abilities.
4) <i>Management</i>	To have concerns about the administrative and logistics challenges imposed by ICT.
5) <i>Consequence</i>	To begin to consider how ICT might impact students.
6) <i>Collaboration</i>	To consider how to collaborate with colleagues involved in ICT.
7) <i>Refocusing</i>	To have ideas about how ICT might be improved or better implemented.

The Concerns-based Adoption Model (CBAM) Model has seven stages throughout which is initiated by raising awareness of the potential of ICT and ends with creating means of team collaboration between colleagues within schools and outside them. This Model was designed by

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<sup>7</sup> Note: Hall and his associates (1987)

Hall and his associates in 1987 to supervise and check the integration progress in educational change. The seven stages that an adopter may feel towards an innovation, but stages five, six, and seven are the ones needed to incite teachers and students to reflect on the use of ICTs outside schools because they help them develop autonomy in learning.

### 1.3.5 Designing ICT-based learning content

Tomei is a researcher in the integration of technology in teaching. In 2003, he addressed a book to teachers to design learning based on technology to improve the teaching and learning practice. To elaborate a lesson plan, the teacher need to determine the lesson objectives before searching for appropriate technological material to integrate. A typical technology-based lesson should include four crucial components: a theme related to the curriculum and which interests students, length and the focus. The lesson ought to be level-appropriate and adjusted to the learners' cognitive and academic levels.

On the basis of educational objectives of Bloom's taxonomy (Krathwohl & Bloom, 1984; Tomei & Edd (2003), have adapted the six complex steps of cognitive development related to higher -order thinking instruction: knowledge, comprehension, application, analysis, synthesis and evaluation within an ICT based lesson plan. The language teacher needs to prepare technology-based lessons according to Bloom's Taxonomy since it targets the learner's cognitive functions through well-chosen activities. According to Tomei (2003), teachers ought to consider the following taxonomy for technology domain of integration, summarized below that constitutes an impetus for teachers who are motivated to incorporate ICT into their practice. Tomei called it the *Taxonomy for the Technology Domain* and it includes:

- a-Literacy.** To understand computer communication language; expertise of basic software applications.
- b-Collaboration.** To collaborate with other colleagues by exchanging ideas through emails.
- c-Decision-making.** To use of technology in solving real situation problems.
- d-Discrimination.** To have the ability to select technology resources and adjust them according to students' age, gender, culture and schooling levels, and to encourage internal access to make further research.
- e-Integration.** To be able as the language teacher, at this stage, to create new teaching

material by using several technology based resources. For instance, s/he should design, construct classroom presentations and implement his/her own text to support the learning content needs.

**f-Technology value.** To defend and respect the copyright law in fair technology resources use. To create learning objectives based on technology integration, the teacher needs to specify objectives for students to achieve. They must be specific, observable, measurable and unambiguous (Tomei, 2003).

**1.3.5.1 ICT-based learning resources.** In order to elaborate a good ICT-based lesson plan, it is more convenient to choose the right technological material and the resources to realize each targeted objective. Tomei (2003) has set seven types of technology resources to introduce in teaching.

**a-Text-based resources.** Like newspapers, notices, pamphlets, travel guides, junk mail, letters, diaries, journals, maps, adverts, dictionaries, encyclopedia, magazines and others.

**b-Visual-based resources.** They consist of educational software, educational games, simulations, graphic presentation packages and CD Rom.

**c-Web-based resources.** Internal link (intranet) through school webserver and external links like websites in internet.

**d-Audio-visual resources.** Like videos, films, movies, slide programmes, Records, audio tapes, books and tapes and compact discs (CD's).

**e-Community Resources.** Guest speakers, adjunct faculty, virtual online and actual field trips.

**f-Instructional Television.** Educational television.

**g-Literature Resources.** Like fiction, nonfiction and poetry (Tomei, 2003).

**1.3.5.2 ICT-based lesson frame.** After the language teacher selects the appropriate teaching material and decides upon the ICT tool to introduce in his/her classroom, the teacher has to think of the type of activities and the gradual steps through which s/he would vehicle his knowledge to the students. The language teacher may choose to follow the graded activities which Tomei (2003) has suggested as typical ICT based lesson steps to follow as listed below:

**a-Initiating Activities.** There is at least one activity that presents the unit of instruction and paves the way for the rest of the learning material. It is not an obligation to use technology at this step. However, this activity should be connected to the lesson objectives.

**b-Development Activities.** There are a lot developmental activities needed to cover all subject areas. There should be at least one activity for each language point.

**c-Concluding Activity.** It is meant to sum up all the founding and leads to news information, comprehension and associations.

**d-Technology Infusion.** This is dealt with after suitable technology is incorporated in the lesson. Here is below some practical technology to apply in the classroom.

**e-Students Learning Evaluation.** The pupils learning should be assessed and to do that, teachers ought to choose criteria that assess their progress on the basis of technology use, for example, online logs, e-mail exchange, listings, paint and draw (Tomei, 2003).

## 1.4 Conventional versus Online Learning

In the majority of university institutions, teaching is teacher-centered, that is why in order to integrate technology either inside the classroom or outside it, there must be a change in from teaching to learning.

According to some researchers like Anson, McCormick , Shirer (1999) and Rogers (2003), EFL learners have different learning styles; therefore, teachers need to adopt a more learner-centered teaching methodology. The change evolving renovation in the teaching process would switch from lecture delivery to designing course content, and this should be in agreement with technology software norms, to realize such a shift.

It is elementary for teachers to know the approaches and methods associated with technology use. For a more effective adaptation of ICTs in an online learning environment, the teacher is urged to differentiate the methods of instruction involved in face-to-face from those of an online setting. Hence, his/her role changes from lecturing and transmitting information to coaching learners so that they find out knowledge by themselves. The teacher should interact with students to assist them in constructing their own meaning on the basis of the experience they acquired from the world outside the classroom, in accordance with the constructivist learning theory (Angelo, 1996, Turkoff & Alexander, 1999; as cited in Rogers, 2003).

The faculty should begin by allotting development programs to innovate traditional teaching procedures. Moreover, ICTs training and technical support are compulsory to enable a shift from "software basic use" training to its implementation in a technology-based learning environment. This is not feasible through regular technology training sessions because they do not consider pedagogy nor focus on students' learning styles reported by (Rao & Rao, 1999, Moersch, 1995 and Rogers, 2003).

#### **1.4.1 The EFL students' learning styles**

According to Fray (1999); Becker and Dwyer (1998), as cited in Rogers (2003), EFL students learn effectively when taught differently, and they achieve more when their learning styles and preferences are taken into consideration. A category of students learn better through text readings or cooperating with peers to realize a project whereas others prefer the lecturing method. Among the types of learners: visual, auditory, and kinesthetic or tactical, the visual ones are attracted by color, graphics, and sound. Therefore, they are more attracted by the sensory-approach method of instruction and they benefit from audio-visual presentations.

The Auditory learners, however, understand more by listening while tactical ones love to use their hands, such as role-playing or making experiments in a lab. What is striking to know is that technology incorporation serves the largest portion of learners which is 60% that is considered as visual learners (McCormick, 1999 & Rogers, 2003).

#### **1.4.2 Learning motivation**

The role of motivation is also vital as it was found by (Fyans and Maehr, (1987) as cited in Rogers, (2003), that 38% of learners' attainment is attributed to motivation. This proves that students are driven or encouraged to learn a foreign language to achieve their pertinent objectives and satisfy their essential needs, so they put the required efforts in the learning performance (Means, Jonassen, Dwyer, 1997 & Rogers 2003). Besides accrediting importance to learning objectives in raising adults students' motivation, Viechnicki et al. (1990), Mockford, Denton (1998) as cited in Rogers, (2003) communicated the designing of three types: Deep learning, Surface learning and Strategic learning.

Ideally, the students with extra intrinsic motivation embrace *Deep learning* because it relies on several approaches to grasp the meaning. *Surface learning*, however, is performed with minimum effort from students and is merely superficial. In the *Strategic type* of learning, students

are incented by getting good grade. The process of learning is not engaging in itself when encouraging incentives are missing for students, regardless of their learning styles. Thus, self-reliant learners aim for a lifelong learning, but this entails well-guided self-directed learning which is unbearable for most higher education students.

Concerning assessment, there exist assessment strategies that empower the instructor to elaborate learning according to each individual learner in an effective way; thus allowing appropriate evaluation of learning to take place is crucial (Mockford et al., 1998; as cited in Rogers). Rogers further specifies that within a Virtual Learning Environment (VLE), classroom instructor may adopt learning scales such as the Grasha-Riechmann Student Learning Style Scale (GRSLSS) that detects six learning styles: independent, dependent, competitive, collaborative, avoidant, and participant. Henceforth, s/he could exploit the results from the records, to plan better learning activities in connection with students' needs. In this context, the table below illustrates the main differences between old and new assumptions in learning.

**Table 1.4**

*Old Versus New Assumptions About Learning*

Old Assumptions	New Assumptions
1. People transfer learning with ease by learning abstract and decontextualized concepts.	1. People transfer learning with difficulty, needing both content and context learning.
2. Learners are receivers of knowledge.	2. Learners are active constructors of knowledge.
3. Learning is behavioristic and involves the strengthening of stimulus and response.	3. Learning is cognitive and in a constant state of growth.
4. Learners are blank slates ready to be filled with knowledge.	4. Learners bring their own needs and experiences to learning situations.
5. Skills and knowledge are best acquired independent of context.	5. Skills and knowledge are best acquired within realistic contexts.
	6. Assessment must take more realistic and holistic forms. Source; (Grabinger, 996, p. 667

As a result of the new learning assumptions, the students break the association of 'learning' with 'classroom', thus preparing students with skills for the self-directed continuing and recurrent education that is essential for their continuing professional development in a world of rapidly changing information and ideas (Johnston, 1997, as cited in Rogers, 2003).

## **1.5 Self-directed EFL Learning**

Traditionally, ICTs encountered resistance to access homes due to cultural barriers; thus, according to Bourdieu (1977), as cited in Somekh (2005), we should differentiate between users on the basis of their distinct cultures and social habits. Another study, however, conducted by Angus et al. (2004), as cited in Somekh (2005), on four families, three of which were supplied with ICT tools “a home PC connected to internet for “a period of time”. The findings indicated variances in life style, social structure, and inequity of potentials occasioned dissimilar computer use: internet use is arranged according to the type of benefit in each family and its financial affordance. It is not convenient for teachers to deal with students who ignored ICTs benefits for knowledge acquisition and that entailed every home to purchase technology equipment. These families adopted a self-reliance technology adoption model. In this regard, Pachler et al.(2009) notifies that self-regulation represents a key factor in formative assessment and reflect the degree of students’ motivation as it originates in their emotions. Steffens (2006), as cited in Pachler (2009) supports the latter view by adding that self-regulation evolves the extent to which students are able to manage and direct their own learning, and as such it improves their output performances and productions. His research has revealed that self-regulation engenders cognitive, affective, motivational and behavioural factors, and requires an active learning contribution on the part of the learner.

### **1.5.1 ICT access beyond the classroom**

The socio-cultural context of the theory of learning (or the learning theory). Transformative possibilities in learning. Advantages of ICTs have brought alterations in people’s conduct and tasks. Performances, however, its influence varies from one context to another. One of the striking experiences is comparing ICTs influence at school and at home. For example, at home ICTs allow young people to learn for long hours i.e. longer than at schools where there are more restrictions such as computer access, time limits, teacher’s control, internet filters, or slow internet connection.

Lewin (2004), as cited in Somekh (2005) reported from a study on ICTs impact on 2100 students between 2000 and 2001 aged between 10 and 16 years and who admit to possess a home computer. The results showed that more students sat on Personal Computer (PC) desks more than when in schools. An average of 2.5 hours per week was spent on schools computers, as reported

by the 115 secondary schools students who kept logs as compared to 10 hours spent at home out of which 3.5 hours were spent on school related activities. Students mostly used Microsoft word and internet, Compact Disc Read-Only Memory (CD ROMs), emails and online discussions were the frequent uses of ICTs. 81 out of 227 students who responded to a questionnaire delivered by Lewin (2004), spent more time at home than at school. Those students dealt with various ICTs uses at home, maps, finding information, music and images downloads, beside printing, creating and reproducing their own material.

**1.5.1.1 Frequency of ICTs use outside school.** ICTs have extremely affected people's culture and way of life, notably children and students' behavior outside the classroom. In a study on 200 participants aged 10-16 in England, internet access from home computers increased from 59% to 73% in June 2001 (Somekh et al. 2002a). Meanwhile the number of students possessing computer also increased from 83% to 90%.

In effect, Somekh gathered images and maps to get to know the participants awareness of computers in this digital world, screening their wide familiarity of how computers are employed for communication (email and "chat") for retrieving information, for playing games, for opening music and images, and for directing everything from supermarket store to National Aeronautics and Space Administration (NASA)'s rock launches and for work in offices and schools. His research showed that participants used PCs to perform many tasks which they simply called "games". The findings of his interview indicated that learners were still focused on games. For example, a building game was used to evolve awareness about how computers are linked. The results of case study of 16 years old students log study are shown in the table below.

**Table: 1.5**

*Computer use in school and at home*

Places of PC Use	Microsoft word processing	Art Packages	CD writer	Cd Rom	Email	Internet Surfing	Creating web pages	Messenger Service
<i>School PCs</i>	5 minutes	00	00	00	00	00	00	00
<i>Home PC Use</i>	4 hours	2 hours	2 hours	2 hours	6 hours	3 hours	2 hours	4 hours



The total number of hours spent on PCs at home is 25 hours in comparison with only five minutes at school. Fiona, another girl followed on the log, characterized a social ambience of many young people who used computers for diverse activities that are associated with the well-known peers' and home culture that reflects their social identity. Here connection time spent at home scored more. Other researchers came out with identical results of more ICT use frequency and creativity in the exchange of youth experiences in comparison with the previous generation as reported by Downes (1999) and Facer et al., (2003) as cited in Somekh,(2005).

**1.5.1.2 Informal learning through ICTs.** Another difference that characterizes ICTs uses at school at home is about formal and informal learning according to Lave's (1996) as cited in Somekh, (2007) who advocated that unlike school learning, learning in an outside setting is abundant and continuous, but it is unlikely to have the trait of learning. In Australia, Downes (2002), as cited Somekh (2007), showed in a study conducted at home on children between 1995-1998 where a PC was considered merely as a toy. Another toy used to improve "learning by doing" since children would comment: "I played comment stories" or "I played the Encyclopedia" (pp.30-01). Similarly, students usually denoted computers as "playing games", the term learning was referring to school tasks only. The PC was perceived for leisure, entertainment and autonomous use. For Facer et al. (2003) as cited in Somekh (2005) distinguished adult PC use for education, work and entertainment usually as an allocated family supply from child, sibling use. They suggested PC flow of information, interactivity audio-visual effects as engaging characteristics. Unfortunately, features which are not considered by young people for the benefits of learning. Even at schools, computers were regarded as a basic resource rather than a context for learning.

In school practice, ICT supports quick curriculum language acquisition while at home it allow more choices of use to both young and adults. Internet assures access to other countries cultural links through images and videos and through chatting, messaging other people from all over the globe. In England, almost all young people possess The Moving Picture Experts Group (MPEG), here it is MPEG-1, and the Moving Picture Experts Group, layer III audio (MP3) players, mobile phones, and have internet access from their homes. Phones allow them to use them as digital cameras. MP3 players are enabling music storage and have many options such as playback video films and music and clips (p.40). Unfortunately, the lack of coordination between

home and school ICT uses. Lack of concordance is raising an educational concern i.e. ICT has not improved learning or realizing the needed change.

**1.5.1.3 Formal learning through ICTs.** Somekh (2005) reported from a study of Lewin et al. (2003) an illustration of different perspective of ICT use: the obstacle for them was not only an issue of technology access outside the classrooms that did not make the difference, but it was rather the endeavour of usage. Advantageous homes equipped students with computers to support their learning more than others, willingly or under parents' pressure to be more objective. Teachers did not force the home use of ICTs to do the homework and let it a free choice. The difference was *what do they use it for?*, and this difference is known as the "second digital divide".

Implications were that schools had to assume the role of integrating technology to transform learning which is previously being experienced at home by some students. Now, they need to encourage ICTs incorporation to promote learning engagement at home, to evoke more creativity and productivity and responsabilize learners of their own learning. At that time, computer users even within financially capable families did not master the use of spreadsheet and calculations (Facer et al., 2003, as cited in Somekh, 2005). So, schools took in charge the training for learners. The least was to equip them with web searching skills, websites provenance, websites choosing applicably to crop new understanding.

According to November (2001), as cited in Somekh (2005), it was crucial to provide training for students that include internet use to avoid deception and misinformation. Kerawalla & Crook (2002), as cited in Somekh (2005) revealed that were students with ICTs fortunate home, playing game tendency of students was prolific, despite the fact that parents provided software for education prospects. Therefore, they proposed to identify learners who use PC for learning achievement at home and imitate the dialogue between school and families. ICT potential, in the consideration of Somekh (2005) will not be exploited until all students are equipped with prolonged access to internet-connected laptops.

## **1.6 Online Education Pre-requisites**

There are many fundamentals for online learning such as access to ICT devices, computer applications and a permanent internet connection. Also, students must be provided with necessary mentoring and task elaboration assistance by teachers within the new learning environment, outside the classroom.

### **1.6.1 The teacher's new roles**

Among the teacher's role that represents online learning is "The facilitator" teachers facilitate learning tasks by preparing online courses and mediation. A European survey on the influence of ICTs on the education of foreign languages. The European Community Directorate General of Education and Culture advocate that a change in teachers and learners' roles is vital. An online learning environment requires supportive and collective procedures to assign better learning outcomes. The teachers do not need old teaching methods for they have to act as guides and mentors who explore constantly changing technologies just like learners so as to be able to serve as models for their students (FitzPatrick & Davies, 2003, as cited in Lamy & Hampel, (2007).

Culturally speaking, the role of the teacher has become a new one. S/he is not only an information transmitter, but also a participant himself in the learning procedure. S/he facilitates interaction between learners and guides them towards better learning situations or experiences. In effect, S/he converts into an enabler of knowledge acquisition whom Richards and Rodgers (2001) regard as the fact working between classrooms raw to assist his/her students individually and in groups (2001). S/he not only teaches, interacts, questions, refocuses, clarifies, supports, expands, celebrates and emphasizes as well.

Mason and Kaye (1989,p.25) as cited in Lamy & Hampel (2007) were the pioneers scholars of online learning who drew our attention to the learner centered methods as a hereditary medium that maintains it. Tutors are supposed to facilitate learning, and be a resource whenever necessary to the students. Furthermore, they are called upon to make teaching and learning go simultaneously; hence rendering the teacher more as an originator, inseminator of ideas, and motivation regulator.

On the other hand, the learner, nowadays has to be conscientious, thoughtful and inventive agent. On the basis of this definition, the term facilitator comprises various tasks or roles (Dias, 1998; as cited in Patchler and Daly, 2011). As such, the teacher has been denoted as a process facilitator, advisor-counsellor, assessor, researcher, content facilitator, technology designer, and manager-administrator. Shield, Hauck & Hower (2001), as cited in Patchler and Daly (2011) also support this and use the term "Administrative Tutor" or "Manager of Learning events".

**1.6.1.1 Designing and implementing online instruction.** What do we mean by e-learning? Literally, “e” Letter stands for electronic learning which is understood as online learning i.e. the type of learning that takes place outside the classroom through the use of technology devices that are web-based. Still, there have been numerous questions regarding the most appropriate pedagogy to adopt to incorporate web based technologies into teaching and learning.

The largely acknowledged definition of the term e-learning is still not agreed upon; however, in Commerce the term directly indicate Computer Based Training (CBT) and Web Based Training WBT which indicate the delivery of material and courses online in higher education. The context of e-learning refers to receiving courses and lessons online without face-to-face presence. This term e-learning and online learning are often used interchangeably, and also, sometimes coincide with earlier terms used with older technologies as distant learning. “Blended learning” is another closely related term to digital and computer based technologies. When associated with face-to-face activities. Researchers like Garrison and Kanuka (2004), as cited in Patchler and Daly (2011) denoted a union between text-based a synchronous web based learning and face-to-face approaches. In this mixture form of learning web-based sources are employed to complete and improve classroom work.

**1.6.1.2 Designing and planning lectures online.** Blended learning can have different connotations; it can mean a combination of different web based technologies, or different pedagogical principles, any form of instructional technology with face to face instruction, and instructional technology with actual job tasks. A survey in 2003, revealed that almost all ingredients of blended learning consisted of instruction in the classroom, interactive web based training, email based communication, self-paced content, threaded discussion and collaborative software. A survey conducted today would no doubt produce rather different results (Pachler & Daly, 2011). However, Oliver and Trigwell (2005) think that “Blended learning” is not appealing for it is not well-defined but Whilelock and Jelfs (2003) gave three definitions:

- It is to integrate Mixture of traditional learning with web based online approaches.
- They are the media and instruments employed in e-learning environment.
- It is the mixture of some Pedagogical approaches; irrespective of learning technology use.

Oliver and Trigwell reported that anything can be considered as blended learning, and in their opinion, e-learning in 2003 was simply connected to anything that deals with computers.

**1.6.1.3 Improving e-teachers' online effectiveness.** Teacher's online proficiency can improved first by constructing knowledge through interaction. In order to design and elaborate an approach and efficient learning instruction /intervention the tutor has to ensure a good attribute of communication with the learner. Blake (2000), as cited in Pachler & Daly (2011) states, general terms, that online learning (e-learning) is featured by the substitution of a face-to-face teacher by a "teaching text" which implies that this text is to be studied as there is a distant instructor behind it. According to the social-constructivist view of learning, the teacher does not impose the "teaching text", but learners can select one and agree on it, or a group of them cooperatively builds it. This has direct effect on epistemology matters such as knowledge base (to be delivered) coherence, representiveness, comprehensiveness and bias. Blake (2000),p.185); as cited in Pachler and Daly (2011), also regards any typical academic text as primary suitable for online communication.

### **1.6.2 Learners' preparedness**

Learners taught through the new type of teaching must be alert to the changes required by the incorporation of technology into language learning; they must be active agents in the process of learning to learn. Hawkes (2009) came out with strategies to promote active learning as an attempt in the domain of modern languages. According to him, learners should be given a chance to reflect upon their own work and review their target purposes by allowing them to choose among a variety of tasks given as a homework. In this essence, students can be encouraged to evaluate their own work and the work of their peers in order to give their feedback, according to definite objectives. Hawkes also emphasized on supporting students by informing them of their level of achievement, showing examples of good assessment, providing them with different tasks according to their needs and encouraging them to ask questions.

Another important part of being an active learner is seen while doing research and homework outside the classroom. For the purpose of better achievement and for the sake of learners' motivation, it is assumed that higher learner's involvement in doing tasks and his independence from the teacher is also a positive sign. Hawkes noticed a more significant improvement in those learners than in others in earlier periods. He also advocated that those learners are more supported with ICTs to attain even better results, become creative and work autonomously. The technology

effects on learning are gradually becoming evident. If we have a teacher who know how to exploit technology well, their learners are more likely to ameliorate their writing skills. Another helping procedures in teachers' assessment like systematic testing, grading, and organizing comments to provide students with studying guidelines.

**1.6.2.1 Being active.** A good example to show the effectiveness of being an active student can be the researcher who worked on formative assessment on some written practice work. He used technology to facilitate the process of drafting students' before sending it to the teacher via email. He actively adopted Microsoft word tool to code mistakes in indicating lettering to incorporate descriptive comments or footnotes, follow corrections and to indicate good writing samples. After that, on the next step, he made students submit their written work via email (Hawkes, 2009).

In another advantage of Microsoft word editor is that an active learner does need to copy all the written work again as the redraft can be carried out by editing on the first draft. Microsoft word allows inside coded errors, signals good patterns of foreign language norm, then mentions an average-sentence-length explanation comments for learners about their sentence writing accuracy and the percentage of the correct written words in the text.

Additionally, on the part of the teacher, and in order to gain time, s/he corrects submitted students papers at different periods rather than all drafts altogether at once. Hence, s/he ensures better evaluation to learners while also providing more details in corrections and suggestions within the same extent of time as in the traditional correction, that was a hand-assessing procedure. Learners' feedback was positive. The two groups of researchers expressed satisfaction, and easiness in reading, understanding, and locating their own errors. Such techniques of assessing writing through Microsoft word has functioned well with groups who tried it. Although it was shared in the department, not all of the teacher have adopted it. Those who still prefer to correct on written papers, possess the technology know-how for future use if they wanted to.

**1.6.2.2 Using the video.** Beside manipulating emailing, word processing software, an active technology skilled student is able to exploit video benefits for learning. Actually, the use of a video made by learners themselves in the classroom work has been found to motivate both players and spectators, especially when the video is meant for larger audience. Designing videos for other audiences had made students put more efforts in planning and reflecting about the purpose of the

film in addition to the effort made to ameliorate their pronunciation and intonation while presenting.

The researcher has tried this out on a two years long project requesting volunteers to make short films on aspects of German grammar. The produced videos were used to teach grammar concepts to lower levels of learners. The results indicated that the motivation was very high and the students making those video-lessons were considered as actors by their peers who were greeting them and asking their “Heroes” for autographs! The Video highly raised students’ motivation.

Blogging can also add to the learners’ degree of motivation. Four schools as reported by Hawkes (2009) embarked on creating an educational blog. One school students will post their work for other students from other schools to elicit responses. To make it successful, some foreign language assistants were arranged to put authentic educational material for learners to incite them to reach the highest learning limits possible. When the blog is finished, learners were invited to publish their own written work and visit it regularly to check responses and comments from students in other schools. That online learning strategy has encouraged students to work in both creatively and autonomously. They created short and long pieces of writing about authentic and imaginary topics by adopting the style for ideas that is corresponding to the patterns and structures using background to serve the present purposes.

### **1.6.3 Learners’ achievement**

Attainment in language learning starts originally with the curriculum. The updated National Curriculum of 2008 mainly focuses on inter-curricular subjects and openly invite teachers to make appropriate technology to use in pedagogical work. The four skills aimed to be enhanced through ICT infusion: reading, writing, listening and speaking and other elements of creativity such as inspiration, cultural and analytical reasoning are urgently recommend. Thus, this impacts lesson planning in which learners are requested to respond to the open-ended activities’ content and draw conclusions (Davidson & Dowson, 2009).

**1.6.3.1 Written productions.** Word processing is probably the most basic tool for English teachers and has much to offer to your learners in the classroom. It assists them in the following tasks:

- It ameliorate learners’ productions in content and in form.
- It upkeepes them in drafting

- It offers good presentations for those with bad handwriting.
- It is good for publishing

According to Abbot (1995), as cited in Davidson and Dowson (2009), using computer software for writing affect learners way of writing. Word processors offers more than the old typewriter or the printing press. They do not only enable learners to copy texts but to review and do composing activities, as well. In fact, word processors have several common features which can be summarized as follow:

- Copy/cut and paste parts of text
- Insert new parts of text anywhere in the document.
- Research and replace words or phrases
- Check spelling (and increasingly grammar and style)

Word processor saves learners precious time of drafting and copying what is already written hand by hand many times. The teacher can advise learners to cut and paste block of texts, rephrase, re-sequence stories, or else replace to adjust the mood, tone or genre. They can be shown how to substitute words and adjectives. Even changing gender in a story or the tense. For Abbot, the user involved in word processing writing can remove blocks of words and pastes them instead of typing again each single words (p.32). There is also assistance in spelling and grammar check to low-leveled students and a proofreading option. Tasks can be assigned to learners and even if they all begin at the same degree of knowledge, their writing outputs may be very dissimilar.

Actually some students enjoy exchanging several copies of the same “paragraph work” while doing it as a competition with their classmates/ peers. Ideally, the teacher could bring a short story or a news report and ask them to change in the mood, location, genre, and position using search and replace option in any word processor or in Microsoft word. This task would be motivating and the teacher would get so many good versions.

**1.6.3.2 Oral productions.** As far as oral productions are concerned, the digital technologies are good catalyst for talking, especially talks occurring on computer screen because students like small group talk. It is computer- stimulated and characterized by being as a small group talk but responding to the source (Keneny, 1990, as cited in Davidson & Dowson, 2009). In his reports, he reveals plainly the advantage of ICTs use in the classroom with a purpose to enhance and promote learned quality talk in multiple contexts. ICTs incite, as consistently observed, to



develop listening and speaking naturally at each learning step in the classroom work. This was the fruit of knowing how to arrange computers within the classroom space and providing other technology tools like the white smart board which encouraged students to prepare their work using Microsoft PowerPoint (MPP). Or else, learners are stimulated to edit their own short videos and bring them to the class on a CD ROM or a DVD by relying on a free-filmed clips or other applications designed mainly for English use and media education, such as the picture power three from English and the media center. One of the famous programs was *Developing Tray* for English teachers developed by the teacher Bob Moy.

## **1.7 Education Reforms**

The reforms of education in Algeria consisted mainly in introducing the LMD system in higher education under the influence of the European reforms of the Bologna Process. Here after, the changes brought by these reforms were in response to pedagogical and economic needs.

### **1.7.1 The Bologna process**

The Bologna Process encompasses all party countries who approved the Convention on the Recognition of Qualifications concerning Higher Education in the European Region that was framed by the Council of Europe in Lisbon and is henceforth denoted as the ‘Lisbon Convention’.

The convention indicates that there must not be discrimination between the detainers of certificates or degrees transversely the European countries. The graduate students who intend to promote their education for a higher academic level ought to be treated on similar grounds as those citizens from other countries in which the Bologna Process is recognized as a norm. Furthermore, the Bologna Convention in accordance with the Berlin ministerial summit in 2003, all graduating students would receive a free diploma supplement starting from 2005 (Guide to the Bologna Process, 2010).

### **1.7.2 The LMD System<sup>8</sup>**

The understanding of LMD system turns around the system introduced to improve teaching and learning at the Algerian universities. This was done as a reaction to the failure of the classical education system in place after the period the independence. The decadence was embedded in the poor quality of teaching given to the students which did not respond the demands

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<sup>8</sup> LMD: Licence, Master, Doctorate

of the market and society needs. The classical system consisted of four years Bachelor, two years Magister and four years Doctorate this was changed to three years Licence, two years Master and three years Doctorate in order to correspond the European system of Education called LMD that goes with the economic markets demands and the political system in place (Sarnou, Koç, Houcine and Bouhadiba, 2012)

New understanding of teaching and learning imposed itself. The policymakers searched to ameliorate EFL students levels and knowledge so as to secure good jobs. Caleman (2010) as cited in Sarnou et al. (2012) stated concepts to improve language teaching and learning: employability, international mobility, development opportunities, accessing information as an impartial language. Similarly to other European countries, Algeria has adopted a number of measures to promote ELT in 1990 so as to enable students to take part in the globalization. For instance, LMD system has implicated the adoption of a new teaching approach called the CLT approach which was implemented in all subjects approximately.

According to Sarnou et al. (2012), English has gained a prominent status in the European countries because they have adopted many approaches and methods to develop English Language Teaching (ELT). Similarly, Algeria has imposed English in its higher education system at all levels as a way to develop EFL learning within its LMD system to meet the requirements of diploma equivalence in European countries. Since the 1990's, the Algerian policy makers efforts have focused on teaching approaches evolvement, and have widely adopted the CLT in the educational system starting from August 2003. Universality was sought in the domain of degrees and effective learning and teaching. It was thanks to the LMD reforms, there was more innovation in teaching practices in order to ameliorate the higher institution educational performances with main emphasis on graduate students' employability, besides, the LMD texts that dictate changing assessment methods and the roles of students and teachers, as well.

The Decree N° 137 dated 20/06/2009 amending assessment knowledge acquisition to the continuous regular control and a final exam with an emphasis on regular control. The new pedagogical reflections, turn the students' role into an active one, and thus the role of the teachers would act as mediator and facilitator rather than simply the holder of knowledge. Supporters of LMD implementation have complained from the EFL teachers resisting change in their teaching

practices and assessments methods. In this context, the current study has an objective to incite teachers use SMNs to innovate their instruction from outside the classroom (Sarnou, et al. 2012).

### **1.7.3 ELT reforms**

Abdellatif (2013) reported, counting from its foundation, the Algerian system of education have implemented two teaching approaches. First, after GTM<sup>9</sup>, came the CLT<sup>10</sup> approach which gave priority to speech than the written form, in search of a native-like communication. Thus, despite many advantages, it did not last long before realizing the importance of cultural aspect necessity in language learning. In the second place, came the CBA<sup>11</sup>, which beside communication included an emphasis on meaning and how well it is transmitted by the learner. Through this method introduction, the role of the teacher changes from holder of knowledge to the facilitator and the student's role required him/her to be more active.

## **1.8 Case Studies of Learning inside versus outside the Classroom**

There have been several studies describing studying or learning out of the classroom environment through the use of social media networks, and they have covered many specialties and fields of research as well.

### **1.8.1 Studying inside the classrooms**

Traditionally, learning happens inside classrooms, which means that both teachers and their students are physically present. In addition to that, there must be an available printed work, previously prepared according to a definite syllabus and textbooks, and an appropriate motivation. Furthermore, one should recognize an abundant interest, new and useful equipment to manipulate, to measure or arrange. A typical American classroom is known for its fixed time and space coordinates with set of rules of conduct and established norms (Sommer and Becker, 2016). Classroom environment were featured as having specific teaching plan, location and designed number of minutes, straight rows tell students to look ahead and ignore everything, apart from the teacher.

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<sup>9</sup> GTM: Grammar Translation Method

<sup>10</sup> CLT : Communicative Language Teaching

<sup>11</sup> CBA: Competency Based Approach

Although the classical classroom teaching environment is characterized by the aspect of "sit and learn" conformity to the rules, respecting the authority of the teacher, the domination of the environmental teaching-learning process, there are calls nowadays to limit the role of the teacher to being just a "resource" whom the students can refer to for assistance. In the view of Montessori, as cited in Sommer & Becker (1974), regards the role of the teacher as the one who selects material, equipment in the classroom environment and guides, supervises and manages students' research and learning.

These experiments were concerned with field learning programs. Most of the students when asked about efficiency of their learning, they simply described it as good "experience" as opposed to academic learning, which probably meant putting into practice what they have learned previously inside the classroom but in another situation. In a state hospital, a marine laboratory experiments on the students who described the experience of working in a real situation with real-life difficulties to cope with. For Sommer and Becker (1974), learning situation will not function unless students were already prepared for what they will find and know how to grasp information because Montessori education is based on life experiences and focuses on the development of sensorial movements through motor skills, in a way to foster autonomous learning.

### **1.8.2 The concept of learning outside the classroom**

Beames, Higgins and Nicol (2011) believed that the book of *learning outside the classroom* by Whattchow (2012), estimates learning outside the classroom is a natural extension of the classroom work they prized the inclusion of theories of Jean Piaget, John Dewey, Robert Putnam and Lev Vygotsky. The authors emphasized the writer's indication of four types of Outdoor Learning: school grounds, local neighborhoods, day excursions and overnight stays/ residential camps and expeditions. They further indicated the importance of relating outdoor planning on decision taking Weather Nation to the school curriculum. According to the same source, the authors repeat that the best approach to adopt to enable student get maximum of learning is the student-centered approach. Through this message, students must be self-reliant, multi-sensory, motivated, having opportunity to take their own decisions, reflects on their experiences and the consequence of their decisions on the coming actions.

They need to confront new situations in order to develop a good experience in the field of their study. Furthermore, education outside the classroom does not need to be restricted to the

program of academic year, or to a campus stay, or to an occasional expeditions. Learning outside the classroom establishes strong engagement to achieve the purposes of education (Beames, Higgins and Nicol (2011).

**1.8.2.1 Learning in real-life situations.** This is a study performed at the tertiary level with communication techniques in the context of teaching and learning outside the classroom. The objective is to identify the level of concentration and to measure learner satisfaction levels analyze the quality of learning among Malaysian students in 2005.

Learning outside the classroom is organized and conducted, by the school within a special context inciting students learning. It is based on the application of the syllabus components of a particular subject in a continuous manner. It involved comprehending concepts in classroom work, offering real-situations of experience and adding enjoyment to meaningful learning, besides gaining knowledge and extending teamwork and social skills ( Sulaiman, Mahbob & Azlan, 2011)

The researcher proceeded in making the respondents of “Communication and Public Policy students” join a parliament conference to see how policies are decreed, and the type of communication methods used in conferencing. The process, theory and concept of public policies are already discussed in the classroom and this constitute the prior knowledge connecting to public policies for enactment. As the students are put in this real-life situation of policy enactment, they would connect their “previous knowledge” to their “experience” at the Parliament. This approach infers that the mind will obviously look for background meaning that theorizes the dealt with environment. The correlation is typically logical and significant for students.

**1.8.2.2 Communicative classes through social media.** This case study concerns learning outside the classroom of Armenian EFL students. Different aged, gender and proficiency students are included in the study that makes use of surveys and in- depth interviews. To enhance English language learning, Armenian students often listen or watched song and videos using social media or watch movies and clips, travel and make searches on the internet.

The experiment of learning outside the classroom is conducted thanks to the American University of Armenia that organizes experimental English classes with 10 weeks course duration. Students have English two to three hours weekly. Accordingly, the experiment targeted to have them increase their proficiency by introducing communicative classes outside of class, as well for an additional week. Hence, the study investigates their interest, involvement and the ways they use

English outside the classrooms. The findings show that they have used English in most of the allotted time of the experiment. Another analysis shows that 92% of the learners have attended experimental English classes out of their free will (Sargsyan & Kurghinyan, 2016).

**1.8.2.3 Effects of physical outdoor learning.** Another survey in the South West of England and comprises 334 settings, in addition to five case studies, has the purpose to investigate practices and ambitions of learning outside the classroom for children of two to eleven. The intentions and aspirations of practitioners go beyond providing fresh air and their learning programme contained alternative pedagogies and enhancement for the curriculum.

That experience is based the inculcation of personal beliefs within rich sensory environment full of freedom that makes use of authentic material to develop learners' autonomy. Waite (2011) has evoked elements crucial to learning such as enjoyment looks that could be easily found outside the classroom. For this reason, he has advocated outdoor context for teaching and learning. Therefore, he has adopted postal surveys to all children's parents and caretakers, to preschools and primary schools while the case studies have been conducted by child minders in play groups, day nursery foundation stage and primary schools (Waite, Davis and brown, 2006b, as cited in Waite, 2011). Values are derived from childhood experiences of participants. This is possible through the content analysis of the qualitative data collected by Waite.

The element analyzed were values, freedom and fun, ownership and autonomy, authenticity, and physicality. A child initiated learning has been launched, along with experiential opportunities, and the presence of effective elements. The results show that 96% of the schools have plans to develop outdoor learning activities while 83% do not have. Older age groups do not have any plans for developing outdoor activities either. 62 % of school-based respondents have been rated as having excellent potential in outdoor activities. However, 131 respondents have reported encountering barriers to develop outdoor activities while adult were 101, and they have revealed obstacles such as the nature of space available, safety factors, climate although the younger children have indicated pleasance with learning processes. When government guidance framework have been applied, there were others who called for prioritizing *Primary School* achievements (Waite, 2011)

According to Waite (2011), the experiment has demonstrated that Outdoor Learning to fight very distinct and rich curriculum practice which the children enjoy doing. According to Moore

and Wong, (1997), as cited in Waite, (2011), academic achievement acquired through behavioral physical performances outside school have strong effects on children and seems to last more in memory due to students' engagement. Outdoor Learning lacks flexibility in adjusting school structured teaching into less similar and different environment outside school besides challenging and exploring an unknown terrain for practitioners. Finally, the dominant feature was enjoyment associated with learning engagement.

***1.8.2.4 Writing outside the classroom through online forums.*** This research is about analytical writing taking place in a forum discussion section online, which is an informal online community to improve English learning in China. The objective is also to develop students writing proficiency on the basis of the *Community of Inquiry model* which has been adopted as the theoretical framework.

Participants were surveyed to find out whether it is possible to teach online, check mental and social connections. It is a groundwork to assess leaning within computer-mediated environment exploring the informal online learning communities as a growing trend. The purpose of this research was to understand learners' perceptions, such as their motivations and intentions to participate in informal learning communities. The study focused on how far the teaching presence, cognitive presence and social presence can be embedded into the Analytical Writing Discussion Forum, to improve informal language learning community, in China.

The reason for adopting informal online learning communities by the researcher as revealed by (Dieleman & Duncan, 2013; Groth & Bergner, 2007, as cited in Sun, Franklin and Gao, 2015) was a lack of an academic online learning communities that support education by connecting students sharing similar interests though isolated geographically. People tend to gather, thanks to internet, as informal online learning communities for various ends such as music, advice, or to have peers assistance to learn particular work or to socialize.

The model is a conceptual one proposed by Garrison, Anderson and Archer (1999), as cited in Sun, Franklin and Gao (2015). This is an elaborated model to ensure a framework using a computer connected to internet; it would sustain conferencing and media communication for educational performances. According to the model, these elements would enhance learning in the previously mentioned: cognitive presence, social presence and teaching presence. The cognitive presence has to do with learners' ability to build meaning in collaboration with other learners

according to what is named “*The Community of Inquiry Model*” that emphasizes higher-order thinking, which is both a process and a result. Teaching presence includes three constituents: instructional design and organization, simplifying discourse and direct teaching. Teaching presence is essential to establish and support social and cognitive presence (Garrison 2008; Cleveland-Innes, and Fung, 2010). The social presence deals with “affective expression, open communication and group cohesion and is linked to the cognitive presence through teaching presence.

The method adopted is an online learning community tool called “*The Jituo*” that was initiated by Guangzhou Jiuwei Educational Technology Limited in 2002 with the aim to create an online learning community environment for Chinese people in higher education from worldwide. The online software consists of a series of interweaved discussion forums on several topics’ information, discussion and exchange. Currently, Jituo online learning community has 1 230 240 members and a total number of 10 196 584 postings according to the report of Guangzhou Jiuwei Educational Technology Ltd., (2014), as cited in Sun, Franklin and Gao, 2015).

The findings show sound proofs of teaching presence, cognitive presence and social presence, and high levels of perceived teaching within the platform of an analytical writing section in the *Discussion Forum*. The most important found condition of success of that study is the well-elaborated technology environment, for instance platform is easy to handle, user-friendly for learners with many functions providing interaction. Another condition was the spread teaching presence shared by moderators and members, and widespread indications of social presence in the conversation forum operated together to upkeep learning in the *Analytical Writing Section Discussion Forum*. Another helping factor is to make anonymous identities or new ones to manage interaction messages in the online operating system (Sun, Franklin and Gao, 2015)

## **1.9 Academic Writing in EFL Context**

Academic writing is a different kind of writing, for Hamp-Lyons& Heasley (2006) this diversity returns back to the various disciplines, the ways of producing and sharing knowledge, the audience and to the use to which the text is set. Chin et al (2012) document that the difference between academic writing and other types of writing occurs in the purpose of writing (as explaining a subject), the audience (usually the course instructor) to whom the text is addressed, the evidence(statistics), and style(using formal language). According to Bahar (2014), all essentials contemplated when investigating an academic research and operation of textualizing added to the



common rules of a text genre is 'academic writing'. Whatever the type of academic writing is, it is pivotal for any piece of writing to be clear, comprehensible, notable, concise and cohesive (Akin,2009). In another way, academic writing is what scholars write for other scholars (students or academics) to read (Geyte, 2013). On the whole, university students are assessed based on their writing, thus writing skills are crucial for academic success (Chin et al,2012). Besides, essays writing are the most in demand for academic writing among university students (Geyte, 2013).

As academic writing is widely used in higher education and the workplace, it has a great value. Also writing is more needed than speech in standard language as Ur (1996) declares: "Much higher standard of language are normally demanded in writing than in speech more carefully constructions, more varied and precise vocabulary, more correctness of expression in general." (p.163). Harmer (2001) highlighted four reasons for academic writing to be taught to students of English as a foreign language; these aims comprise reinforcement, language development, learning style and writing as a skill. In addition to that, Chappell (2011) listed a number of advantages that students can benefit from academic writing such as developing thinking skills, creating logical and persuasive arguments, an opportunity to reflect and re-evaluate our own ideas besides providing and receiving feedback. "The purpose for which the writer writes should be clear enough, and presented to report on a piece of research, answer a question the writer has been given or chosen, discuss a subject of common interest and give the writer's view, synthesize research done by others on a topic" (Bailey 2015, p.03).

EFL learners ought to consider some important elements while developing their writing abilities such as grammatical competence, the mastery of vocabulary, and a well-organized paragraph which students find hard to elaborate (Brown, 2000 & Harmer, 2011). Therefore, Harmer (2004) has indicated that writing in a foreign language need to be certainly learnt the same as speaking through reinforcement, language improvement, by considering each learner's style, and the distinct features of the writing skill.

### **1.9.1 Synopsis of the writing process**

Barker (2011), among other researchers, considers the writing task as a complicated communication means. This was similar to what Jabali (2018) states that writing is a task that requires effort, and it necessitates connection between innumerable cognitive, memory, linguistic, motor and effective coordination, and each part has an impact on the writing process while the text

is being written. As writing is a productive skill, it implicates infinite considerations and ideas besides meticulous and ample mastery of the language formatting procedures. This harmonize with (Paul, 2007) seeing writing not as an inherent gift or an exceptional power as what Langan (2000) thinks, a natural talent, but it is rather a capacity that ought to be improved via designed instruction and exercise similar to other acquired productive skills.

In addition, there are psychological barriers endured by university students such as being highly anxious and disordered. Consequently, this might discourage the student from writing and can habitually lead to the rejection of producing formal written productions (Gere, 1987 and Sharples, 1993). Hence, according to (Graham et al, 2005), students with low self-esteem regarding their level of writing performance would think it is hard, rigid, complicated and beyond their reach.

### **1.9.2 Requirements and strategies of the academic writing process**

For writing to be academic, it should be marked by a number of qualities that make it distinct from other types of writing; Heady (2007) has enumerated the following characteristics for a good academic writing: writing should be demonstrating good mechanical abilities as grammar, spelling and punctuation. It has also to be well planned, in which main ideas are introduced at the beginning and are defended throughout the paper, as it is getting complex and polished. Coherence and harmony are also pivotal to writing in addition to worthy content. Redundancy and fillers must be avoided.

Finally, a good piece of writing must take into account the purpose, audience, discipline, discourse community, or the scholarly field. Besides requirements related to formality, objectivity, preciseness, referencing, and hedging. There are many techniques to format academic writing. As there is no particular standard approach to cover all writing types and requirements, what fits for one type may not be adjusted to another one. Therefore, one ought to attempt several strategies in order to spot the more convenient one. With regard to this point, many researchers classified writing strategies from different perspectives among them (Leki, 1995; Sasaki, 2000; Mu, 2005, as cited in Abas & Abd Aziz, 2016).

Mu (2005) has divided the writing strategies into five types besides other sub-categories: firstly, rhetorical strategies which includes organizing, formatting, comparing and modeling. It is in this part the writer that starts writing, he may refer to his mother tongue, decides upon the genre and style conventions. Secondly, there comes the planning, monitoring and evaluating. At this step,

Mu emphasizes on identify difficulties and reexamines the text's objective(s). The third strategy is cognitive in which the cognition deals with operations of generating ideas, revising, elaborating, storing, retrieval, rehearsal and summarizing. Hence, the writer eliminates repetitions, makes inferences, changes in the plan or the content, retrieving information, constructing ideas and synthesizing. The fourth strategy is communicating where he avoids problems that prevents comprehension and expects the reader's reactions.

An additional view of Maley (2009) reflects that writing is a creative process that starts its formation when there is an inclusion of active reading, imitation, research, play and reflection, provided that all actions are performed intentionally. Finally, the social/affective strategies comprises that gathering resources, collecting feedback, conveying objectives, referring to libraries, dictionaries, seeking support, and alleviating the task's burden.

### **1.9.3 Teaching writing to EFL students**

There are well-known methods dealing with how best teaching writing can be approached by teachers. The process, the product and the genre approaches. The following section provides a sketch of these approaches, and their evolvement in the field of academic writing.

**1.9.3.1 The process method.** This approach has emerged in the 1970's and sprung from the development of cognitive psychology and from mother tongue (L1) researches Heather (2018). Jordan (1997) exposes that it has appeared in reaction to the shortcomings of the product approach, and stresses on the process through which students develop their writing capacities instead of the final writing product. One of the drawbacks of the process approach according to Badger & White (2000) is not supplying students with the necessary linguistic knowledge that assists them in conveying their thoughts in a written form. Thus, it is the teacher's role to simplify understanding of the linguistic items of the targeted content. In accordance with this, Williams (2003) has indicated a list of requirements to be adopted by students to structure their writing; this process type encompasses steps like prewriting, planning, drafting, pausing, reading, revising, editing and publishing.

*a-Prewriting.* Generating ideas, strategies, and information for a given writing task. Prewriting activities take place before starting on the first draft of a paper. They include discussion, outlining, free writing, journals, talk-write, and metaphor.

*b-Planning.* Reflecting on the material produced during prewriting to develop a plan to achieve the aim of the paper. Planning involves considering your rhetorical stance, rhetorical purpose, the principal aim of the text, how these factors are interrelated, and how they are connected to the information generated during prewriting. Planning also involves selecting support for your claim and blocking out at least a rough organizational structure.

*c-Drafting.* Producing words on a computer or on paper that match (more or less) the initial plan for the work. Drafting occurs over time. Successful writers seldom try to produce an entire text in one sitting or even in one day.

*d-Pausing.* Moments when the students are not writing but instead are reflecting on what they have produced and how well it matches your plan. Usually includes reading. Pausing occurs among successful and unsuccessful writers, but they use it in different ways. Successful writers consider how well the text matches the plan, how well it is meeting the audience needs, and the overall organization.

*e-Reading.* Moments during pausing when the students read what they have written and compare it to their plan. Reading and writing are interrelated activities. Good readers are good writers and vice versa. The reading that takes place during writing is crucial to the reflection process during pausing.

*f-Revising.* Literally “re-seeing” the text with the goal of making large-scale changes so that text and plan match. Revising occurs after the students have finished their first draft. It involves making changes that enhance the match between plan and text. Factors to consider during planning: rhetorical stance, rhetorical purpose, and so on. Revising almost always includes getting suggestions from friends or colleagues on how to improve writing.

*g-Editing.* Focusing on sentence-level concerns, such as punctuation, sentence length, spelling, agreement of subjects and predicates, and style. Editing occurs after revising. The goal is to give your paper a professional appearance.

*h-Publishing.* Sharing the finished text with its intended audience. Publishing is not limited to getting a text printed in a journal. It includes turning a paper in to a teacher, a boss, or an agency (Williams, 2003).

Since writing is, firstly a mental process to announce ideas and thought, this dynamic practice rewards both teachers and learners. In the same context, Badger & White (2000) stress that

process approach emphasizes the students' processing abilities and pays little attention to the final product. This is not the opinion of Areej and Hira (2017) who claim that extroverted students tend to favor the process approach since they prefer to work in collaboration with others, rather than individually. Conversely, the process method is not appropriate while writing exams due to time limitation.

**1.9.3.2 The product method.** This is a classical approach to teaching writing under use until the 1980's, and it gives priority to the final product or version of writing which constitutes the basis of evaluation and scoring done by the teacher (Heather, 2018). This method is effective in depicting grammatical conciseness, and is typically needing a "text" model to imitate (Areej & Hira, 2017). Another author called Pincas (1982a) has put forward four phases to follow by students to format a product of a given topic; familiarization, controlled writing, guided writing, and free writing. In the familiarization phase, students are taught about text specific properties; meanwhile, they develop their abilities in organized and guided writing task towards an elaboration of the free writing of an authentic final product like a letter, story or essay (p.22).

Pincas (1982) further stated that this model, makes students feel more confident writing under an explicit model, with minimum of grammatical mistakes, as they have an opportunity to practice the language points studied previously. However, the limitations of this approach appears in its emphasis on spelling and grammatical correctness but avoids language features that real writers employ to describe authentic situations. Besides there is a lack of inventiveness, replication, unreality, monotony, discouragement and forcefulness.

**1.9.3.3 The genre method.** Similarly to the product method, the genre method triumphed in the 1980's and focuses on teaching linguistic items while writing; however, it pays more merits to the variety of social contexts involved writing (Badger & White, 2000). This is in concordance with the categories stated by Flowerdew (1993) such as sales letters, research articles and reports provided to innumerable situations with distinct purposes. Undoubtedly, the subject matter and the writer's connection to the audience determine the designs or structures and the characteristics of the situation that impact writing genres (Hedge, 1993).

On the other hand, Dudley-Evans (1997) defines three phases in genre approach to writing that govern the preparation of the final product. Students are, primary, being given a specific copy of genre writing to be examined. Then, they are requested to accomplish exercises containing

relevant language patterns. This being done, they ought to create a short text as a final product; hence language learning points under this approach are implicit. Yet, model texts and the examination procedure implies that learning is somehow based on imitating, understanding and knowingly applying rules. Inappropriately, this approach reduces the role of the students to passive learners, and belittles the competences mandatory to create texts (Badger& White, 2000).

On account of this brief description of the method of teaching writing, there are other authors like Gee (1997) who believe that the process approach is commonly regarded as a response against the product-based while the genre one demeans to the non-conventionalist syllabus. Other researchers like (Tribble, 1996) who thinks that despite controversial opinions, the process method is more recommendable for teachers of writing to English as Second Language (ESL) and EFL students.

### **1.10 The Research Context**

As the corpus of the study deals with the incorporation of SMNs and Moodle e-learning platform into teaching/learning process at the level of master one studies in Algerian higher education, in Mostaganem , it felt primordial to shed light on the context of that choice. The study has focused on the effects that could SMNs embedded in digital tools have on academic writing since it is crucial to master students to master that writing craft, especially the formal aspects of English language. In fact, there have been many studies conducted in Mostaganem University on writing, but these research emphasized on other aspect of academic writing. We provide a brief content of some of the closest one to the current study. There is one research on the use of weblog writing as an educational tool to develop Algerian EFL students' creative writing conducted by Mansouri (2019) from the University of the West of Scotland in . Her study involved examining the prospective benefits and also barriers that may constraint the utilization of weblog; she investigated the efficiency of weblog writing and the Algerian EFL students attitudes towards online learning and provided innovative methods to improve teaching writing. The participants perceived blogging positively, and almost all of them agreed that writing on a blog was more appealing than writing on a paper and is user- friendly. They believed that weblog- writing has several benefits including developing writing skills in English.

The second example is a study conducted by Dendenne (2021) it was in a form of a cross cultural project called "*Ibunka 2019*" that consisted of monitoring vehicle writing classes through

Tele- collaborative online method which included six countries (Algeria, Brazil, Indonesia, Japan, Taiwan, and the Netherlands). The study was based on messages, and self-reports collected through an online survey. It aimed to explore the influence of the project on the writing module, and on enhancing autonomy. The project has proved the effectiveness of tele-collaboration between different cultural writing based, knowing that in the Algerian context, there were only a handful studies on tele-collaboration, to a few of them such as the studies of Meziane and Terki (2011) who were pioneers to report the experience of University of Abou Baker Belkaid, in Tlemcen but did not take part in the global understanding of the cross-cultural program.

Therefore, the findings have shown that the difficulties of integrating Tele-collaboration in the Algerian EFL classrooms. These challenges were mainly related to slow internet connection in Algeria (Meziane & Terki, 2011) as cited in Dendenne (2021). Nonetheless, the project has triggered self-regulated mode of learning, direct back, motivating and entertaining learning environments, opportunity to communicate in an authentic setting although there were Technical and media issues , lack of time , demotivating topics of repetitive nature. Thus, engaging in tele-collaborative writing encouraged students to foster their autonomy in constructing texts and posting, besides the *Ibunkers* used the language to communicate with people from all over the world.

The third study dealt with the effects of digital literacy on EFL learning and teaching. It focused on scanning the impact of digital literacy on students' academic writing performance. The research included 80 subjects from the third year LMD at the M'sila University. The researcher employed a digital literacy questionnaire and a writing performance test, the Spearman's correlation coefficient. The findings showed high positive correlation between students' digital literacy and their academic writing performance. Consequently, this was an indicator that digital literacy was an effective factor in the improvement of English academic writing performance. According to Sharpe (2011) and Martin (2006) as cited in Hamouma and Menezla (2019 ), digital literacy is basically contributing to the individuals' knowledge by assisting them to boost their individual, collaborative, self-directed creation of learning all through the deployment of digital tools.

As there is constant need to innovate education at universities, the next study evolved the use of technology during Corona virus period. As a consequence, teachers are requested to post

their lectures on the site of their universities because universities and institutes were partly closed as in Bechar University. The focus has been on how to address students' needs. Flipped Classrooms emerged as a solution for greater flexibility in the course delivery. Hence, this study aims to reveal the use of flipped classrooms teaching techniques in higher education in Algeria during the lockdown period by investigating its status, assessing its pedagogical feasibility in higher education. The study has also investigated the implementation options, advantages and drawbacks.

The finding of the research revealed that most of the teachers did not use ICTs in their lectures because of a lack of materials as the data show, electrical sockets in the classrooms, and the students were against virtual lecturing and they preferred the presence mode instruction. Similarly, teachers were against recorded lectures as this may encourage students to neglect their studies and become less productive.

### **1.10.1 ICT in Algerian education**

There is a web country report country report surveying ICT education in Africa, it is stated that Algeria encourages the incorporation of ICTs in different fields to enhance progress in education and in particular to encourage teachers and students in its implementation as part of a framework policy. In fact, Algeria appointed a national committee in charge of creating synergies among different sectors in the infrastructure, training, research and information systems and ICTs in a form of short, medium and long term action plans for ICT (Hamdy, 2007).

In 2000, Ministry of Post and Information Technology (M P I T) has split the National Public Institution of Telecom into two commercial organizations: Algerian Post and Algerian Telecom, and approved of enabling two Global System for Mobiles (GSM) to three operators: Djezzy, Mobilis and Nedjema (Ooredoo). Algeria has entered the information society through these initiatives.

- To equip all schools with computers in 2005 by the Ministry of Education.
- To launch the distance education project.
- The virtual university project.
- To create a research network by and to the benefit of the Ministry of Higher Education and Scientific Research (M.H.E. S.R).

Algeria has initiated a programme to provide a computer to every home which was launched in 2003, and some years later, There is another Algerian initiative for the university graduates and hi-



tech entrepreneurs with the objective to build a Silicon-Valley innovation zone and make an “Algerian version” of google (Sawahel W., 2009). That programme was supposed to enable Algeria to join the Information Society and knowledge-based economy as part of e-Algeria 2013 strategy with the cooperation with the United States of America (USA) as partner in order to set a fund enterprises specializing in creating viable Algerian ICT projects conducted by university graduates and entrepreneurs (Sawahel W., 2009).

According to the report of Hamdi (2007) about 130 United States Dollars (USD\$) was sponsored by Algeria to build the technology park of Sidi Abdellah, called the Technopole. Additionally, UNESCO made some initiatives in the Algerian educational system to enhance ICT use while the Japanese government has funded teacher-training programmes with an estimated amount of 750 000 USD\$. The majority of these initiatives to improve the quality of teaching and learning were related to:

- The promotion of e-learning resources.
- Facilitation of public-private partnership to support e-learning.
- Development of integrated e-learning curriculum to support ICT in education.
- Promotion of distance education, virtual education in Higher Education.

In the same context, Kennewell (2004) reported that one essential condition for a successful ICT use is to know how to use Technology tools effectively in every aspect of teaching, which means that beside the resources afforded by Algeria, there must be more interest in promoting the experience of the technological knowledge of users.

In addition to the international multiple initiatives regarding ICT, Bokova (2014) informed that Algeria has made considerable efforts and is determined to integrate it in its educational system. The money allocated to realize the formal ICT policy since 2002 is about three billion dinars. The universities were also equipped with computer labs and internet, and digital libraries were made available to empower students’ learning in both virtual universities and distant learning.

### **1.10.2 Learning under Covid-19 conditions**

According to the UNESCO guide (2021), the list of educational applications, platforms and resources below aim to help parents, teachers, schools and school administrators facilitate student learning and provide social care and interaction during periods of school closure. Most of the solutions curated are free and many cater to multiple languages. While these solutions do not

carry UNESCO's explicit endorsement, they tend to have a wide reach, a strong user-base and evidence of impact. They are categorized based on distance learning needs, but most of them offer functionalities across multiple categories.

## **1.11 Conclusion**

This chapter has exposed relevant ICTs literature concerning old and modern view of learning, and highlighted the shift from teacher-centered to learner-centered way of teaching. The appropriate incorporation of technology into education as an enhancing tool for learning proficiency has functioned more in approaches based on active learning with students who manipulate technology well, intend to collaborate and share information with peers. This was advocated by studies reporting their written and oral achievements.

After defining concepts of ICT, the chapter has illustrated the primacy of teachers' professional development to enable them infuse the appropriate ICT model to innovate their teaching practice. Enhancing EFL learning outside the classroom to promote curriculum oriented formal ELL has been the aim of most current searches. Thus, the literature findings have indicated many forms of online learning like blended learning that featured the move from lecture content preparation to the designing of technology-based learning environments. Accordingly, this requires a change of educators and learner's roles, special ICT skills and commitment to achieve formal online education proficiency.

The next chapter will provide literature that exposes the effects of SMNs on EFL teaching and learning. It will focus on featuring the feasibility of SMNs proper adoption to promote EFL learning beyond university classroom.

# **Chapter 2**

## ***Social Media Networks Effects on Learning and Teaching***

## CHAPTER 2- REVIEW OF LITERATURE

### The Effects of Social Media Networks on EFL Education

<b>2.2 Introduction</b> .....	55
<b>2.2 Social Media Networks</b> .....	55
<b>2.3 Social Media Networks and Learning</b> .....	56
<b>2.3.1 Use of web 2.0 technology.</b> .....	57
<b>2.3.2 Internet: the World Wide Web.</b> .....	58
<b>2.3.2.1 Websites.</b> .....	58
<b>2.3.2.2 Blogging.</b> .....	59
<b>2.3.2.2.1 Using blogs for online teaching.</b> .....	60
<b>2.3.2.3 Emailing.</b> .....	61
<b>2.4 Adapting the Mobile Device for Language Learning (MALL)</b> .....	62
<b>2.4.1 Using mobile built-in applications for language learning.</b> .....	62
<b>2.4.2 Mobile Assisted Language Learning (MALL).</b> .....	64
<b>2.4.2.1 Text input and voice input.</b> .....	64
<b>2.4.2.2 Treating texts through the MALL.</b> .....	65
<b>2.4.2.3 Mobile-enabled communication and collaboration.</b> .....	65
<b>2.5 Online Teaching Platforms.</b> .....	67
<b>2.5.1 Web-teaching software.</b> .....	67
<b>2.5.2 Video conferencing.</b> .....	68
<b>2.6 Socializing and Interacting outside School</b> .....	68
<b>2.6.1 Facebook.</b> .....	69
<b>2.6.2 YouTube.</b> .....	70
<b>2.6.3 Twitter.</b> .....	71
<b>2.6.4 Skype.</b> .....	73
<b>2.7 Social Media Networks and EFL Learning outside the Classroom</b> .....	73
<b>2.7.1 Cooperative and collaborative learning.</b> .....	74
<b>2.7.1.1 Some aspects of online collaboration.</b> .....	75
<b>2.7.1.2 Appropriate technological function.</b> .....	76
<b>2.7.1.3 Direct communication.</b> .....	76
<b>2.7.1.4 User privacy.</b> .....	77
<b>2.7.1.5 The virtual collaborative team.</b> .....	77

2.7.1.6 <i>Online collaboration paradigm in higher education.</i> .....	79
2.7.2 <b>Supporting students autonomous learning.</b> .....	80
2.7.2.1 <i>Perceiving and speaking.</i> .....	81
2.7.2.2 <i>Collaborative writing.</i> .....	82
2.7.2.3 <i>Online interaction.</i> .....	82
2.8 <b>Technology-based Instruction under some Learning Theories</b> .....	83
2.8.1 <b>Under behaviourism.</b> .....	83
2.8.2 <b>Under constructivism.</b> .....	84
2.9 <b>Applicability of Social Networks in Teaching and Learning outside Classrooms</b> .....	86
2.9.1 <b>Attendance in social network learning</b> .....	87
2.9.2 <b>Social networks anonymous access.</b> .....	88
2.9.3 <b>Learners motivation.</b> .....	88
2.9.4 <b>Some Motives behind Using Social Networks in education.</b> .....	89
2.9.4.1 <i>Technology-based relationships.</i> .....	89
2.9.4.2 <i>Online relationships.</i> .....	90
2.9.4.3 <i>Asynchronous versus synchronous communication.</i> .....	90
2.9.4.4 <i>Large-scale communication.</i> .....	91
2.10 <b>Social Media Networks Influence on Teaching and Learning outside Classrooms</b> .....	92
2.10.1 <b>Blended learning.</b> .....	93
2.10.1.1 <i>The challenges of online blended learning.</i> .....	94
2.11 <b>Conclusion</b> .....	95

## **2.1 Introduction**

This second chapter aims to present the second part of the literature review for this study. It concerns SMNs and it further investigates the paradigms of implementing them in higher education to extend formal teaching/learning process outside the classroom. The literature has introduced theoretical parts of SMNs concepts, access of diverse technology devices. SMNs have evolved to serve multiple domains.

Still, this chapter explores whether their potential benefit educational context by supporting learning outside universities beside their social and relational use. The use of web 2.0 technology has revolutionized internet websites by providing more audio-visual effects which helped develop teaching tools like blogs, e-learning platforms, video conferencing. SMNs offered the possibility of web teaching through several networks among the most commonly used like Facebook, YouTube and Twitter and Skype, enable both oral and written communication, synchronous and asynchronous.

Due to digital technology progress, interactive learning methods regained merit, such as cooperative learning, community language learning, and mobile language learning. These were based on teaching inspiration from approaches like behaviourism and constructivism. In the context of online learning, interaction, collaboration and engagement are promoted through anonymous access and online relationships. The chapter ends by giving insights into blended learning, its challenges and its applicability with SMNs.

## **2.2 Social Media Networks**

Web 2.0 or social media technologies appeared as the most valuable during American elections in 2008. Among eminent example is the presidential campaign of the Democrat candidate Howard Dean's. His team successfully used Meetup, a social networking platform which has facilitated the organization of meetings without previous face-to-face contact (Wolf, 2009, as cited in Mergel, 2013). The same thing has happened in 2004 in the MeetUp experiment that gathered people offline. In 2008, Senator Barack Obama used social media and content in YouTube videos, Facebook Fan Pages and Twitter accounts to gain constituents and potential voters successfully (Carpenter, 2009, as cited in Mergel, 2013).

There was a revolution in technology which was the designation of 2.0 which indicate a new generation of internet network. The Web 2.0 applications are the type of technology used to

intrinsically motivate learners to adopt platforms. By building individual users' merit, they create a network of effects that attract users to participate more (Mergel, 2013). In the early beginning, social media's objective was entertainment use, and all activities destined for young people, like Myspace music. These innovations have been so influential and had also offline options that could be exploited (O'Reilly, 2005, as cited in Mergel, 2013).

Social Media Networks (SMN) provide the possibility networks provide the possibility to search very fast, in two directions, and in real time of information sharing. The majority of platforms offer multiple forms of sending messages: as public status updates, through direct messages between users, or in private chats (Lakhani & Wolf, 2005; cited in Mergel, 2013).

### **2.3 Social Media Networks and Learning**

Effective teachers adopt ICTs to innovate their teaching practice since they have become more like facilitators. Through social media networks, teachers update their knowledge by connecting with their colleagues in the same domain to exchange practice experiences, and provide solutions to teaching difficulties (Dhanya, 2016). Based on Dhanya's observations, we cannot disassociate direct learning from social aspects of life as students' have ability to improve their language learning on grounds of the power of social media networks.

In 2007, the British Council conducted a study on the learning styles of young people who want to improve their English as an international language. Findings showed that teachers' efficiency in practice ought to be preserved by using modern learning technologies to help students learn outside the classroom. Nearly 70% of the learners worldwide claimed they learned better while socializing informally with their peers and other people on the net. For them, the combination of socializing and learning was also a success. People usually learn outside in a coffee or in public places more than they do in schools. Consequently, feeling implicated with technology, young people have the advantage to:

- Use the modern technologies including mobiles to go through meaningful learning experiences.
- Search and find excess information everywhere instantly.
- Make effort to improve their social network abilities and know how to take much advantage of social networks different applications and their affordance.
- Teacher changes his role from "teacher" to "trainer" (Dhanya, 2016).

### **2.3.1 Use of web 2.0 technology**

Knowles (1977), as cited in Wang, (2011) indicated instruments that comprises devices that record knowledge and ideas it is just like a pen or paper printing presses computers, and finally the Web 2.0. This progress in technology in the printing press has facilitated access to material such as newspapers, pamphlets, and books. Therefore, the spreading of communication and knowledge what is phenomenal (Knowles, 1977; Isaacson, 2004 & Wang, 2011). On the other side, there is the informal learning that happens without sponsorship or any institutional intervention. It is in everyday context and helps solve daily problems (Merriam, Caffarella & Baumgartner, 2006, as cited in Wang, 2011). For the self-directed learners mainly adults, there is a common need and an intrinsic motivation to be autodidactic (Knowles 1984, as cited in Wang, 2011) made it well known that this is the case of andragogy in learning, the method and practice of teaching adult learners. Wide range of spreading enterprises encourage users to log into Google, free of any charges. The effects of Googling and its business model on the information environment was so globally known and widespread that a new verb was created: “to Google”, since 2001(Google, 2009; as cited in Weinstein, Rocco & Plakhotnik, (2011).

There is a service in Google that is called “Google book search” It started in October 2004, as “Google print” at the Frankfurt book fair, the primary purpose of the project was the digitization of all public domains related to books. The attempt was realized with the collaboration with Harvard University, the Michigan University, the New York library, The University of Oxford, and the Stanford University. Google became partner with these non-profit institutions and had the capacity to scan seven million books in the early fourth years of work. About one million among these titles have agreement with publishers (Drummond, 2008, as cited in Wang, 2011).

Another fabulous move from the non-profit organizations goes to the Massachusetts Institute of technologies’ participation with over 1,800 courses in 33 disciplines, all free of charge to online users. Wikipedia is the pioneer in the domain of large collaboration, for in 2001, after an unsuccessful try to launch Nupedia encyclopedia, Jimmy Wales and Larry Sanger created Wikipedia. Soon, it became clear that “wiki” (the Hawaiian term for “quick”) gave satisfactory result in collaboration and welcomed users input or rectifications (“Wiki”, 2009; as cited in Weinstein, Rocco, & Plakhotnik, (2011)).



### **2.3.2 Internet: the World Wide Web**

Nowadays, anyone can surf on the World Wide Web now and have an access to a huge amount of information at ultimate speed and with an easiness to generate content and diffuse it. This is an extra-ordinary ability of internet users to produce interactive documents and share knowledge online (Wang, 2011).

Back in the fifties, the United States (US) President, Eisenhower, founded the Advanced Research Projects Agency (ARPA), a military research agency to increase the US aptitude to evolve quick and relied-on research results. Robert Taylor, the manager of ARPA was annoyed being obliged to each time to alter computers and passwords to connect to various sites and intended to link computer with a system (Brooks, Nolan, and Gallagher, 2002).

The 1970s have seen an improvement as internet came out with electronic “bulletin boards” that shared campus information broadly. Two year later, emerged the USENET, a new application which allows a group-to-group information exchange; that was the first application for news which interconnect “bulletin boards” on a store-and-forward system (Brooks, Nolan, and Gallagher, 2002).

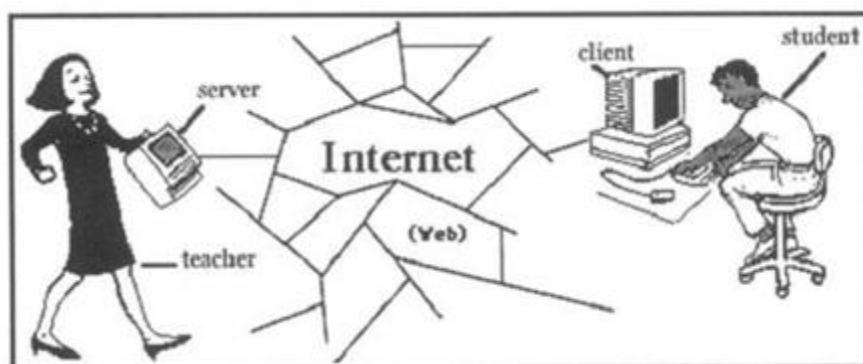
In the late eighties (80s), the “Conseil Europeen pour la Recherche Nucleaire (CERN)” (European Council for Nuclear Research) and the High Energy Physics Lab have suggested an evolving method allowing access to various information that is interconnected together. The World Wide Web relies mainly on hyperlinks, clickable connections that lead into information sources. In this context, Tim Berners-Lee, working at CERN, created Uniform Resource Locator (URL) as a way of forwarding messages (Brooks, Nolan, and Gallagher, 2002).

**2.3.2.1 Websites.** In this section, there is focus on why teachers use the web. The Web constituents assist students’ preparation for their future work, for it has started an amazing communication exchange. Besides being a medium of all time use, it offers multi-media distribution systems that enable active learning, conversation and all types of transferring of file, nothing is lacking from the traditional face-to-face teaching. Internet is also efficient in building close relationships between students when covering with distance learning.

Web-Teaching has two major aims: to explore the extent to be achieved, and detect effective teaching strategies. Hence, a teacher could rely on the web as a source of information and content delivery to learners. Another major web benefit is research. It is well

recommended in education more than in other fields like chemistry or biology. Education is a field of unusual quite hidden novelty, usually not constant and subject to permanent change (Ellis & Fouts, 1993; cited in Brooks, Nolan and Gallagher, 2002). According to the same source, significant research helps teachers to turn passive listeners and readers into actives ones for there exist some teaching designs that are more efficient than others are.

The web is acclaimed for two options, clients and servers. Clients are the ones who use browsers software and servers are homes of information, the depositories. The server is the responsible for transporting information to clients. All internet node or “end” is both functioning as a server and client. Within web teaching, one can consider teachers are servers manipulators; it is up to them to manage the sever vehicle information through it. On the other hand, students sit at the “served” computers, the so-called client terminals and start the browser software. On due time, the teachers may ask some students to take turns and take the lead as the client/server model. The figure below clearly illustrates the corresponding roles of the teacher and the student (Brooks, Nolan, and Gallagher, 2002).



**Figure: 2.1** *Concept of Web Teaching*<sup>12</sup>

**2.3.2.2 Blogging.** Blogs are also called weblogs – are among the contemporary accompaniments of the language teachers and learners. It is possible to post text, images and sound files in blogs. Blood defined a blog as ‘a website that is updated frequently, with new material posted at the top of the page’ (2002: 12). While nowadays blogs have diverse designs, their

<sup>12</sup> Note: From The Teacher/Student Server/Client Metaphor of *Web-Teaching* (Brooks, Nolan, and Gallagher, 2002)

persisting features make it easier to keep them updated with the newest options and make them noticeable for visitors, namely learners (Lamy and Hampel, 2007).

Blogs are used also for developing learners ability to write properly, unlike the traditional way which was limited to private self-reflection, they are now regarded as efficient communication instruments. They have become popular owing to the progress in software that enabled easy blog construction (Lamy and Hampel, 2007).

Blogging as asocial behavior needs or requires regular updates, comment exchange and short posts. It is really a motivating platform for learners where they can express their opinion and viewpoints on language learning. The frequency of adding new posts that are short, concise and precise to the blogs makes them attractive and exciting adaptation for classroom learning. The teacher can involve his learners in writing short posts according to their level, and post them in the blog or in a website. A classroom blog with a context and purpose serves as an important decision to make with relation to the curriculum and teaching objectives. Another issue to consider is the privacy use in the blog. In the case of a class blog, the teacher, who is the tutor, at the same time, an administrator who sets rules and grants authorizations, gives access to students to post content according to the privacy settings. This makes the blog use limited to learning purposes. The researcher invites classrooms interested in blogging to go to WordPress: [www.wordpress.com](http://www.wordpress.com) or [www.blogger.com](http://www.blogger.com), and edublogs ([www.edublogs.org](http://www.edublogs.org)). (Dhanya, 2016; & Mergel, 2013).

**2.3.2.2.1 Using blogs for online teaching.** One way to use blog in online instruction is to ask some learners to take part in the experience by continuously writing online journals and sharing them on web-blogs in a reverse ordering. Hence, visitors would only be able to comment on them. Usually, the more experienced educators adopt web-blogs to complement face-to-face teaching, by switching to blended learning. It would be a kind of sustenance as “a common online presence for unit related information” (Duffy & Bruns, 2006, p. 33), or it can be simply a project. Besides calendars and assignments, useful tactics, course additions or lists of resources are provided in there. The educators notice the students’ feedback to decided upon the right technique to simplify instruction and tackle their weaknesses (Kervin, Mantei, Herrington, 2009 & Wang, 2011).The longer saved and well-ordered blogs are functioning as electronic portfolios for

analytical, storytelling and enabling writing or serve for gathering formative assessment of learning tasks (Weller, Pegler, & Mason, 2005; as cited in Weinstein, Rocco, & Plakhotnik, 2011).

As far as education is concerned, weblogs are usually still quite untested although teachers gradually consider them good opportunity to generate collaborative work online. They offer students medium to interchange, reflect on their work with peers and, and to foster learner autonomy and learning strategies Batardière and Jeanneau, (2006), as cited in Lamy and Hampel, (2007).

Theoretically, researchers are contemplating the use of blogs' practicability and features from the sociocultural aspect. An eminent research of Pinkman (2005), as cited in Lamy and Regine Hampel, (2007) studied the learner's empowerment, autonomy and independence perceptions, and she gave more importance to learners' responsibility role to obtain efficiency. Both teachers and learners should know how far they could go with the tool – for example, that blogs are open for anybody to comment (2005, p.19)

**2.3.2.3 Emailing.** The email is defined by Merriam Webster online dictionary merriam-webster(2021) in -(<https://www.merriam-webster.com>)- as “a system for sending messages electronically from one computer to another computer or a way to communicate with each other”. In this context, it would certainly interest educators and researcher to adopt it for their correspondence but what about using it as a learning tool ?

Teachers are advised to adopt email in their courses even if they do not always use internet since email is a crucial instrument to keep interactions with learners in many fields (Brooks, Diane, Nolan, and Gallagher, 2002). An email is beneficial in getting connected with students and other teachers or educators at a minimum frequency of twice or thrice a week. In addition to that, there must be a daily admissions journal. There is also the possibility to deliver assignments.

Approximately all email software provide filtering option in mailboxes and the user can adjust the theme features and functionalities. The Filters select received e-mails into suitable folders; and follows pre-set rules personalized by the user. Once in the inbox folder, we gain subscription to various lists servers that sediment mails into a folder named listserv. This latter can be provisionally “turned off” when the user does not log in to avoid accumulation of unread messages. The folders option eases the review of important mail (Brooks, Diane, Nolan, and Gallagher, 2002).

## **2.4 Adapting the Mobile Device for Language Learning**

Briefly speaking, the mobile device regardless of its type whether an iPhone, iPod Touch or just a regular one, has abilities that can be classified in three primary types: The type of smart phones (mobiles) with integrated utilities suitable for language learning. These utilities are either Web Applications and offline-Applications (Zhang, 2012).

The integrated functions of the mobile devoted to language learning are the recording option and the voice command. Nearly, all mobile devices these days possess both the audio and video recording options. Furthermore, within the voice and video recording functions, there are two connected capabilities nowadays, one of them is trimming. One can “trim” a recording; for example, if you have an unnecessary video sequence, you can trim it off the recording (Zhang, 2012).

The second option is to directly send recorded files, both sound files and video files, as e-mail attachments. After a recording is made, the teacher or learner can select to “share” the files. Let us say, a sound or video file can be e-mailed in the mp4 format or uploaded to YouTube. In addition to that, assignments may be asked for in “voice diaries” that use voice memo format. The student may be required to record a “diary” entry and forward it to the teacher for evaluation and grading. In a similar case, a team leader could conduct an interview between a student and a native speaker of the target language. Hence, the video is then shared through e-mailing directly from the smart phone with the teacher and other learners (Zhang, 2012).

As far as mobile voice command, a language learner may adapt this to check whether the pronunciation of numbers is correct in the phone numbers or to examine if the pronounced personal names stored in the phone directory are exact. To make applicable to English language learning, the learner has the choice to put hypothetical names in the target language or else a vocabulary phrase. If the phone recognizes the hypothetical names, or the phrases, the learner will know his pronunciation is correct. (Zhang, 2012).

### **2.4.1 Using mobile-built-in applications for language learning**

They are not the same as web-based applications. Applications accessed in “off-line” mode are, previously, downloaded and installed in smart phones. They do not need internet connection to operate. Some of the applications are beneficial in improving vocabulary with sound use; they are equipped with a quiz with which students can self-test their progress. For example, in

quiz mode, there are two ways: One a quiz without sound, and the other uses sound. In each time, an English word shows on top half of the screen. Instantly, four German words show in the bottom of screen: out of which the student selects the correct word (Zhang, 2012).

Sometimes, the learner has to choice to try the free version of the application before requesting the paid one. Nonetheless, there are also pre-programmed applications for solitary learners. For learners within an institution such as university or high school, it would be fruitful if mobile applications supplied extra practice of the same classroom vocabulary or grammar. But, by means of applications that enable the user to customize content, it can be made possible. A good example of a “customizable” applications (App) is “Wordbook free”, found at the following url: <http://www.sonoran.co.jp/iPhone/fcards/en/>. This application presents real-like flashcards and a mode that randomize each card order. You can give each card a rating (from one star to five stars) so that you classify the cards order from the highest rating to the lowest or vice versa. The application is customizable because a learner can add items to sort new flash cards. For instance, the learner can add today’s lesson specific vocabulary by constructing a new pile of cards (Zhang, 2012).

YouTube videos can be an excellent plus for learning. The user may collect flash cards to make the flashcard fully audio-visual and share it on YouTube. This video production capacity visibly inspires for new promises for flashcard exercises.

Smartphones incorporation is quite new to academic language learning. Yet, innovative teachers are recommended to consider them as potential education tools (Zhang, 2012). This is a survey illustrating mobile use carried out by Zhang (2012) in Canberra University in Australia in which she used the smartphone to teach English language pronunciation. Davies (2010) studied the progression with which post-graduate international students’ registrations have risen since 2002 and more than 70% of them were in Business/Management, Computer Science and Engineering. Most EFL were from Asia and China and they could not be hired because of their poor pronunciation (Birrell, 2006; Zhang, 2012).

This students’ deficiency in communication skills was faced with a mixture of body movement and mobile technology to remediate their poor English learning, mainly inappropriate pronunciation.

## 2.4.2 Mobile Assisted Language Learning (MALL)

The merging of the mobile phone, the laptop and desktop computers formed a hypothetically influential tool and median for learning as a whole ( Pachler et al., 2010), and for language learning specifically (Cui and Bull, 2005; Zhang, 2012).

Practically there is not a big difference between the operations of laptops and desktop computers as they are beginning to impress users the same way the computer did (Chen, Chang & Wang, 2008). These days mobiles have gone a step forward by its handiness, lightness and movability. GSM networks facilitate unpremeditated learning, in short time cuts when occasions are presented. There is no solid theory and models. The adoption of mobile phone for learning stays problematic. However, in terms of accessibility, interactivity and multimedia facilities, it affords impressive prospects; the promise is worth the try (Zhang (2012).

The inconvenient side of mobile devices include many things: storage shortage (rather in first generation mobiles) storage, speed and capacity, screen size and dynamics, and above all the issue of data and editing. In a multimedia interactive enterprise like Mobile-Assisted Language Learning (henceforth: “MALL”) these issues could potentially prove very limiting, and could restrict MALL (Cabrero, et al. 2002; Zhang (2012).

On the other side, mobiles are good in provision of text, graphics, audio and video, and the interactive diffusion; they are also efficient recorders. These characteristics make mobiles appropriate for three skills learning: listening, speaking, and reading. As for writing, with mobile phone, we write short messages: Short Message Service (SMS) and tweets. Nonetheless, there are limitations related to the keyboard functionality.

**2.4.2.1 Text input and voice input.** One of the basics the mobile language learner can notice is the predictive text and the spelling check options. In the same context, checking grammar and possibility to use so many dictionaries, mainly in English, or bilingual dictionaries which are available, too. The voice can also be activated to add in text into the mobile in a form of sound or text; this is done by giving commands to the device. This option is growing in preciseness through the development of dictation software. As a result, this shows the promising capacity of voice input as an editing tool in mobile phones. Another efficient dictating tool is the activated Google’s voice which is used to

execute commands or search stored items. Nonetheless, until now, even the best voice-recognition and dictation software has failures and mis-recognitions.

According to (Boscolo (1990) as cited in Zhang (2012), there are not many researches dealing with dictation use in text structuring or as assisting disabled learners. However, audio dictation has potential to lead in text input and construction, it will be necessary to explore how well audio-writers can compose almost in real time. The acquisition of such skill would ease writing and speaking and enhance learners' competence through the MALL. This needs multifaceted interaction between audio arrangement and the charting and formation instruments afforded by the word-processing software.

**2.4.2.2 Treating texts through the MALL.** The common mobile devices incorporate the tablet that can handle texts, graphics, audio or video (Chen, Chang, Wang, 2008; Zhang (2012). Through their connection to internet by wifi, the users could claim that text processing is treated everywhere, unlimited by a single place. The modern multimedia contact to genuine language learning content provides well-fitting MALL role for mobile devices. The audio option in the mobile allows the learners to practice the two productive skills and get an eventual correction or feedback from on a tutor on the net in a short time.

It is worth mentioning that learning through computer technology tends to throw up affordances (Gibson, 1986), as cited in Zhang (2012). According to the same author, technology affords so many possibilities for English language learning and teaching although they were not intentionally created for education objectives but they showed considerable assistance in enhancing writing.

**2.4.2.3 Mobile-enabled communication and collaboration.** The phone is regarded as a solitary learning instrument by (Johansen and Hansen, 2006, as cited in Zhang, 2012) who thinks it is not totally linked to the surrounding individuals. However, each solitary individual is able to interact with a similar individual in a different area. Another more beneficial mobile activity consists in texting or tweeting especially out of the school. Hence, basically, it is a one-to-one knowledge transfer through mobile device; the chain continues to link a third individual to reach an endless number of collaborator. Another important option of this



device is the interactive learning application: either those built-in or installed from the web, denoting what is known as MALL.

Moreover, within the speaker mode of the phone advantage several users could listen at one time and so make oral converse about what they hear from the other end of the line. Sharing text, however, is related to the size of the screen. One can show a small screen to his/her peer. In addition to this, learners could show each other texts or pictures or else share them through Bluetooth, but the inconvenient side is the size of the screen and in this case tablets screen are far better. The editing mode of the MALL has some requirements and have to:

- Be portable in size and weight;
- Be integrated with or complementary to the phone: either a physical part of the phone, or a separate device;
- Provide feedback, not only by the display of characters and formatting on the screen, but also ideally in tactile form as well.
- Be sound, both in terms of speed with comfort, but also speed with medically safe.
- Be flexible, usable by people with hands and fingers of different sizes;
- Preserve privacy. This is where voice recognition is needed.

The editing option attainable by the appropriate use of technology promise improvements in mobile and tablets in two ways:

- The convenience and handiness of the mobile phone would better help improve text editing capacity in comparison with the laptops.
- It is possible that the tablet would be resized as the mobile phone and to produce bigger influence.

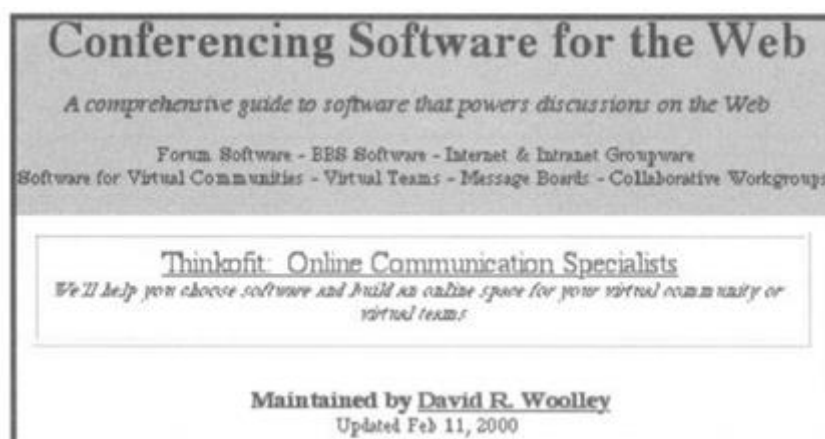
As far as developing the listening skills, MALL offers software that enable “read-aloud” feedback option which can be exploited by learners to further their listening capacities. Besides there are transcription systems that provide phonology practice. Therefore, the MALL is apt the same way the Computer Assisted Language Learning (CALL) was and is still. They both generate technology advantages to support and update education in modern times.

## 2.5 Online Teaching Platforms

The technological shift from traditional television, audio tapes and radio to the computer technology and now the digital revolutions in mobiles and tablets are offering sphere of changes and continuous innovations in the field of education. Within the last progress, there are platforms of Facebook community and YouTube which need to be approached with more reflection than fascination in order select what is appropriate for teaching and learning. So, what makes them appealing in education?

### 2.5.1 Web-teaching software.

As experienced Web users might suspect, there are websites that specialize in disseminating information about discussion forums and related software. Numerous web conferencing software packages are available as in the example reported by figure2.2 below.



**Figure 2.2** Conferencing Software for the Web<sup>13</sup>

Many web courses management software packages contain the conferencing feature. Your purpose would be to use one of them to share information and interact with your students in order to improve their language learning (Brooks, Nolan, and Gallagher, 2002).

<sup>13</sup> Note: adopted from Web Conferencing {U05.17} software site. *Web conferencing usually means asynchronous conferences-where contributions are made successively at different moments in time.*

They are conversations held and diffused at the same moment while taking place; they exist as long as internet exists. It is called chatting as messages except those shared openly with a wide audience. They are more like posting. The software responsible for enabling synchronous discussions comprises the following chat features:

- private “rooms”
- member lists
- private messages
- members-only access
- embedded HTML commands
- embedded URL links
- spellchecking
- freeware

### **2.5.2 Video conferencing**

The low prices of camera made them available for many users to link them constantly to their computers. Webcam software made their videos available on the net. Both sender and receiver must regulate their computers and cameras installations; although video and sound consume great deal of memory, also, data require a consistent mass of bandwidth, and the request on real time connection still continues (Brooks, Nolan, & Gallagher, 2002).

Faculty office hours can be arranged in advance by e-mail, and conducted from faculty home or office to student home or workplace. Web teleconferencing may do even more. With a more sophisticated camera and some higher resolution software, the quality of the transmitted images might enable supervision of lab work or collegial assistance.

It has proven possible for small groups (three or four students) to work at a terminal while being encouraged and led by a faculty member at a distant site. Electronic conferencing within student groups is a strategy for enabling student’s collaboration (Brooks, Nolan, & Gallagher, 2002).

## **2.6 Socializing and Interacting outside School**

Communication nowadays is structured and contextualized in definite ‘social media’ platforms according to people’s home, office, pub, high street, telephone, political debate, school, and so on. Social media networks do not make sense of their own; they express themselves

differently following their culture, gender, occupation, trade, social status and so forth (Miller, 2016).

Social media communication is changing from written form to visual as embodied in platforms. Instead of considering every social media platform as a single entity i.e. different from other media, we need to know that each of them dwells in a place in next of kin to all the others that a person uses. So, social media enable individuals to climb up the social ladder in a clearer way. Polymedia is yet a greater model of accomplishment but without dehumanizing people (Miller, 2016).

Social media directors of commercial agencies were asked why they made the decision to use social media applications to reach their diverse audiences, the majority replied with a very similar slogan: “We have to be where the people are if we want to reach them” (Mergel, 2010).

### **2.6.1 Facebook**

According to the Statista webpage, in an article written by Dixon, S. (2022), Facebook has roughly reached 2.93 billion monthly active users in of the second quarter of 2022, Facebook is the most used online social network worldwide, and its platform has reached a milestone within the last 13 years in comparison with other networks. (Mergel, 2010) further asserted that when you open an account on Facebook, it is possible to design a personal contact page, get in interrelated with other subscribers a in a reciprocal confirmation way, share posted content with the friends of your friends and get all the newsfeed. Facebook has developed ever since and houses pages for professional broadcasting and online necessities. These organizations’ pages differ from individual ones.

As it is attracting thousands of subscribers worldwide including students, Facebook social network links and broadens relationships with its convenient dynamic platform which impacts the learning circumstances. When the teacher presents Facebook page to his/her learners, to post lessons and course material to involve them into group interaction, collaboration, and increases relationships. This can be done through sharing videos, images, boards, chatting, and private messages. Besides, the teacher has also the possibility to use Facebook pages to connect to other social media platforms. This is one of Facebook’s limitless advantages that makes it a credible social learning platform (Dhanya, 2016).

The teacher may make the most of Facebook benefits by:

- Organizing learners in closed groups to interact and develop relationships.
- Designing specific bigger groups if the lecture is destined for a wide audience. Numerous Massive Open Online Course (MOOC) programs possess Facebook pages to appeal to as many learners.
- Introducing polls for students' feedback on the course or on the application you are applying, and construct statistics on it.
- Administering questionnaires to know the likes, dislikes, interests and preferences to diagnosis upcoming learners' level and needs.
- Uploading content and resources to the students' closed group that have 24/7 availability.
- Getting reception notification instantly. The material is guaranteed to serve distant students and thus classroom timing is reduced.
- Organizing students in macro groups to cooperate, connect, make up-hold collaboration work in doing tasks.
- Updating his posts on his timeline, and motivate learners to translate the text into their mother tongue by using prompts of translation on Facebook (Dhanya, 2016).

### **2.6.2 YouTube**

YouTube is a platform used to distribute videos; it enables connectors to upload free of charge, and each video is allocated a single URL to be sent to friends; implanted on websites, blogs, or Facebook; or via Twitter (Mergel, 2013). These days, three billion YouTube videos are viewed each day; YouTube's blog, informs that 48 hours of video are uploaded every minute. The same source also reports 142 million exclusive visitors per day, as a result, YouTube platform has become the most known social networking platform in the world.

As a social network, YouTube provides a true alternative to traditional television (TV) and press coverage. On their YouTube channels, subscribers could post their own statements or responses directly to YouTube, remodeling the material on their own websites and or on their Facebook pages, and tweet it to their followers, including members of the press (Mergel, 2013).

A very popular website and is considered as vast source for education. In fact, there are more than 10,000,000 videos regarded as purely educational. To take benefit from it, the teacher can create an account to submit the videos created by his learners to build a blog of their hobbies,

thoughts, opinions or novel stories in order to develop their English language learning. S/he is participating in the blog and the video selection (Dhanya, 2016).

1- Videos are brought to the class by the learners. They contain visual and audio features that describe the topic dealt with in a very dynamic way. The teacher avoids monotony of a lecture, keeps the students motivated and engaged in the topic. Some preparation is required from the learners such as doing a search on the net and browsing for good websites to find good videos already talking about the topic dealt with or the ones that fit the subject better.

The teacher can adjust this by setting some questions and elaborating video related activity that facilitates students understanding.

2- Similarly to lesson planning, the teacher can manage to create playlist of videos needed in the lectures on the basis that watching videos helps learners better than readings at home. If given as an assignment, videos would really prepare students better; it can be done by sending links to the learners, and they would download them from the internet.

3- The teacher can even adopt a technique to record lessons and lectures presented in class for different topics and store the records for future viewing. YouTube can be useful for storing videos that are relevant to a particular group through sharing the saved lectures. YouTube offers facilities of sharing videos through giving ready-made links by simple click on with the right side of the mouse; in the context menu, it allows also to keep track of the different videos previously watched. The classification of videos will help in the preparation of the following year program (Dhanya,2016).

### **2.6.3 Twitter**

Twitting is the online activity that permits internet users to write short message of 140 characters in a form of messages which are brief, different usual text. Twitting can be a reference to online resources of an organization's news, events, or other public information (Mergel, 2012).

Lately, Twitter has developed remarkably, to have twenty-five million single visitors in the United States alone, and at the present time, it accounts 140 million active subscriber accounts. Progressively, Twitter has selected the social form users who usually adopt the hashtag symbol (#) and the abbreviation RT for a retweet—and made them part of the platform's functionality (Mergel, 2012).

The registered users of Twitter can send receive modify messages while unregistered one can only read messages. It is a Twitter access interface through a website or a mobile application device. The teacher can create a Twitter account keeping in mind that all his tweets in a foreign language must be within the 140 characters limit; and also make sure that his students do have Twitter account and are ready to start up conversing with you and interacting with you in this service (Dhanya, 2016).

- 1-The teacher should create an informative list of material and resources that s/he needs in his course before s/he starts using Twitter. S/he chooses a captivating engaging content in a form of information to share with learners to keep them interested. The content must not be given all at once but must be divided into pieces and parts and every time you tweet one part, so that you keep up a regular rhythm of posting.
- 2- Prepare learning hashtags. It must be captivating so that you will get your learners to communicate on the material.
- 3- Develop topics for learning through hashtags. It is feasible to do so with Twitter to start daily chat happenings and engage learners to converse by posting likes and commenting on their tweets.
- 4- It is also possible to create groups of Twitter users out of the learners. Therefore, your learners would follow the group tweets lists.
- 5- Twitter also offers a very precise search engine that would be very helpful for teachers to get the most relevance pieces of information needed. Teachers can also try Twitter trail.
- 6- While in Twitter, the teacher has the opportunity to follow pioneers in the field like popular authors, well known developers, instructors, designers, subject experts, and professors in order to share with his/her learners these people's tweets according to their needs.
- 7- The Golden rule with Twitter is retweeting and retweeting and encourage learners to do so and commenting on the relevant tweets they shared.
- 8- Make favorite tweets so that the twitters know that you liked theirs tweets and save the tweets for later use (Dhanya, 2016).

#### **2.6.4 Skype**

It is a protocol service about voice over the internet used for communication between students and teachers and their colleagues. This service requires encouragement as opposed to working with textbooks and pictures. Personalized and visual prompts can be stored while still images, videos and the color level are fixed by the teacher. S/he may use directions buttons to adjust parameters (Dhanya, 2016).

Dhanya has further stated that the smartphone on its own supports learning by offering a high level of independence for the learner or the user and provides a bridge between society and education. However, mobile learning is still depending on the user's manipulation and search for information on the internet. It also depends on the use of practical mobile applications, such as the dictionary, grammar, spelling and encyclopedias, Wikipedia text translation tools, Google translate, and Google map. These constitute precious tools that evolve learner's independence when accessing information (Dhanya, 2016).

According to the same source, a new configuration of the teacher and the learner roles is gaining ground in education. The teacher is no longer the holder of knowledge as a unique source of information and the student is required to be more autonomous in accessing information through ICTs and social media networks that goes hand in hand with their learning needs and future perspectives (Dhanya,2016).

### **2.7 Social Media Networks and EFL Learning outside the Classroom**

To shed light on the impact of networks on EFL learning, a case study is chosen in which Facebook is considered as an effective teaching learning interactive platform. The research focused on illustrating the influence of ICT and social media on the learners' vocabulary acquisition. The researcher has chosen or population of language learners from the faculty of economic Sciences, first and second intermediate and upper intermediate students. This study explores the effect of Facebook on EFL learning, mainly vocabulary. In order to know whether social media affect students' progress in foreign language learning. The scholar elaborated a work in language plan using an experimental method with two groups: the experimental group and the control group. Bearing in mind the assumption that there would be a considerable difference between the two groups using ICTs and Facebook and those who did not, in terms of vocabulary learning progress. This



experiment targeted 127 students of economic Sciences of the University of Oradea, in Romania, in the academic year of 2013- 2014 (Sim & Pop, 2014)

The findings, according to Sim and Pop, showed no significant difference between the performances of the two groups in the test diagnosis in both groups before starting the experiment. Therefore, they had the same knowledge of vocabulary before the experiment. The group working with technology instruction gained more vocabulary and more confidence. They were motivated to improve the English language acquisition. They sent comments and ideas as they collaborated and interacted with the teacher. The advantage is that they worked with each other on Facebook anytime they wanted to.

Facebook could be the medium that enhances their autonomy most. “Effects of Facebook tutoring on English language learning as a second language” Chang-Hwa Wang and Cheng-ping Chen Graphic Arts and communication National Taiwan National University. Taipei, Taiwan. Of the many social media, Facebook is a very interactive platform for social communication that is getting more and more popular every day. That is why many educators believe that could be an influential educational platform for both informal and formal learning. In this study, there is an explosion of the diverse effects of Facebook tutoring on learning English language for 60 elementary students from an English tutoring program that included two groups of Facebook group and the traditional teaching group. There were some techniques used like communication, collaboration, and information sharing in both groups. The findings showed that participants under Facebook program showed a positive higher improvement under this type of learning experience. It is understood that when we do not bring the right teaching procedure both students group learning experience were influenced by Facebook teacher’s lack of experience (Sim & Pop, 2014).

### **2.7.1 Cooperative and collaborative learning**

In order to generate interaction that leads to cooperation between learners who have the same target, first, we must create groups who share common interests and similar future purposes. To reach that aims, learners need to build relationships with each other. Actually, they have to construct online relationship upon which they can rely for interaction and collaboration. Hence, there are ways to search to build your own learning. The traditional instruction model of learning directed many computer-based trainings that involved learners. Then, emerged constructionism

model, which prioritized learner's experience as a basis to learning. Thus, e-learning feature was innovated another time for it took into account learners' specific needs based on their developmental stage, their previous qualifications, observations, and experiences (Wang, 2011).

According to the constructivist theory, knowledge is co-produced with peers through communication and common work. In this context, e-learning integrated several channels to ensure communication. To team up with an online group to innovate your own learning it is crucial to adopt adequate instruments matched with correct methods to ameliorate common inventiveness (Nemiro, 2004 & Wang, 2011). Through the implementation of online learning, the common created learning content is kept safe in internet servers to be managed through software facilities such as "cloud". An important element governing social relationship nature in online learning is trust for it is built upon identification for group access and facilitates contribution in group tasks according to the pre-set rules by leaders spirit and personal traits, work protagonists and levels of collaboration history (Chou & Chang, 2008, as cited in Wang, 2011). But also special professional from outside the group may cooperate under an anonymous learning situation of information sharing; the same procedure can be adapted between individuals using virtual profiles (Kilner & Hoadley, 2005; Wang, 2011).

The social theory about online learning proposes that interactions between improves personal development of meaning inspired by cognitive modeling other than the one given by despite the professionals mutual engagement, common range or class and roles form virtual communities of individuals that take part in specific groups (Goggins, Laffey & Tsai, 2007; Wang, 2011). According Cox and Morris (2004); Wang, (2011) these community ties are solidified through socialization, sharing knowledge, concepts creation, symbols, and stories.

**2.7.1.1 Some aspects of online collaboration.** Online collaboration can include implicit knowledge (Baker-Eveleth, Sarker; Eveleth, 2005; Wang, 2011) and elaborate ideas through formal and informal exchanges. They help information search and knowledge construction. Communities of design practice extend the learning prospects through mediation and dissemination, tutors and counselors are designed to supervise the distant collaboration. Fisher (2005) and Wang (2011) indicates that online learning design can cover several years ahead and it

is possible that group members collaborate on detached and single projects. The management of online energies also needs appropriate ways to attain group members, to register clear data communications and decisions taken and the suitable technologies with the accurate levels of articulation for each specified task. Virtual or online collaborations, basically, necessitate a shared comprehension of terms employed for indicate items, practices, common targets. In addition to that, collaborators requisite a collective visual workplace (Kraut, Gergle, & Fussell, 2002; cited in Wang, 2011).

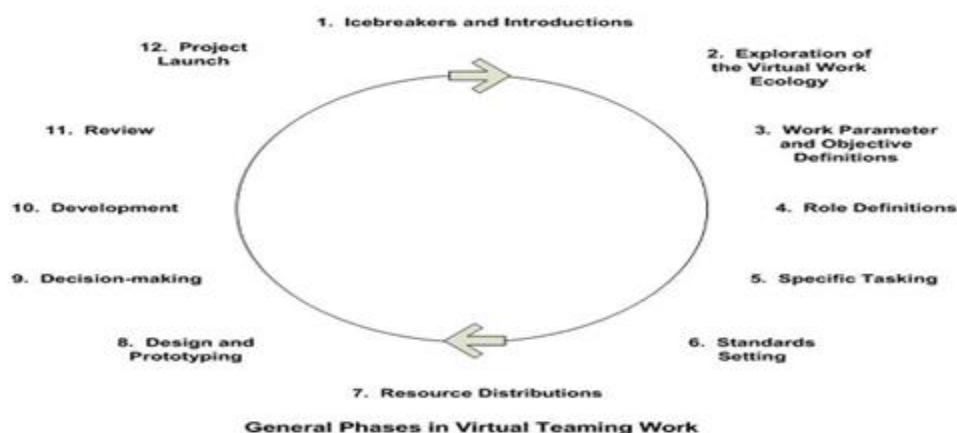
**2.7.1.2 *Appropriate technological functions.*** To understand the various technologies that may be employed for virtual collaborations, the primary condition to guarantee collaboration outside the institution is apprehend the numerous technology instruments. In addition, you need to choose the most reliable and mediate tools that are both up-to-date and work non-stop. The technologies must have an easy manipulation and access to assist communication between users (Adams, Blandford, & Lunt, 2005; as cited in Wang, 2011). The technologies ought to resist users' faults; on the other hand, collaborators should switch alternatively to a number of devices without making errors such as answering a phone call, writing an email, messaging or capturing a live video. The collaborators have to be cautious as technology provides both benefits and impose restrictions mainly if these are too difficult to deal with. To avoid disturbing the system of work, the tasks must be planned well to escort the engagements of an online community (Di Iorio, Zacchioli, 2006 & Wang, 2011).

**2.7.1.3 *Direct communication.*** Live communications are important in collaboration, they are developed through the use of audio and video diffusion and it also recorded, besides being accompanied by simultaneous text editing in a form of microblogging or simple messages. Group leaders can interchange relevant digital files and capture images; Murphy (2001) indicates that digital materials differentiate in their tenacity, and some of it is simply temporary (Murphy, 2001, p. 1; cited in Wang, 2011). In addition, each prototype or design or work sample has to be annotated and commented on and stored by every group member. Live communication is also interactive and its configuration need to integrate all five senses: visual, auditory, tactile, olfactory, and taste; and the presence of projection devices (Cao, Forlines, & Balakrishnan, 2007; as cited in Wang, 2011). Any group of learners are expected to have full online access to the digital resources, under a well organized system that keeps safe data reliability of all work constituents.

Online collaboration should provide common storage; and the memory includes coherent information management for the communities of practice (Wang, 2011). The rich work output instruments guarantee an effective collaboration while others fix the pattern of the processes usually named “collaboration scripts”. Participants are granted authorization by the leaders to review and even produce digital content in the workload, then comes sharing part. There must be a special foci paid to each digital object or an expertise for a special time-limit (Wang, 2011).

**2.7.1.4 User privacy.** The user within a given project in online collaboration has to enjoy the privacy of brainstorming and digital files within the interaction. Besides, there are open or public spaces for the same purpose. The protection of intellectual property should be urgently evoked for there is close link between the emotional state of owners that might be touched within the collaboration based on technologies meant for sharing so as not to break the will for creation (Wang, et al., 2011). The safe protection from the piracy of innovative works is a significant step for the success of collaboration; without this, the user’s trust lowers and online work validity deteriorates (Nov & Wattal, 2009; as cited in Wang, 2011).

**2.7.1.5 The virtual collaborative team.** Online collaborations usually reflect common projects; hence, for group work to improve, they need to be conducted under 12 phases as illustrated in the figure below:



**Figure 2.3** *General Phases in Virtual Teaming*

Here are brief descriptions of the main stages of online interaction and collaboration:

**a - Icebreakers and introductions.** Icebreakers sets friendships between different skills and standpoints of members, and provide a safe working environment for a groups.

**b-Exploration of the virtual work ecology.** Step 2 denotes the general socio-technical structure that operates according to work universes (public, semi-public, and private), documentation, and resource distribution. It prepares platform for the task to evolve virtually

**c-Work parameter and objective definitions.** Collaborative virtual work necessitate common grasp of the goals, clarifying them and deciding upon the sub-goals.

**d- Role definitions.** The numerous members are previously appointed according to their capacities and orientations. Sometimes, it happens that each leader voluntarily reveals his aptitude.

**e- Specific tasking.** Designing specific projects to learners and specific groups who just need to register online and do his tasks

**f- Standards setting.** To reach value of work, the learners have to meet standard qualifications. This is confirmed in academic assignments.

**g- Resource distributions.** This step considers distinguishing types of learners and differentiates instruction through resources access.

**h- Design and prototyping.** Supplying a model of online work that functions as a paradigm for team member to sort their proficiency to collaborate with all the learners.

**I- Decision-making.** There is a superior committee group, as in wiki, that takes on the responsibility of planning work ahead to meet the predefined standards as deposited by a computer.

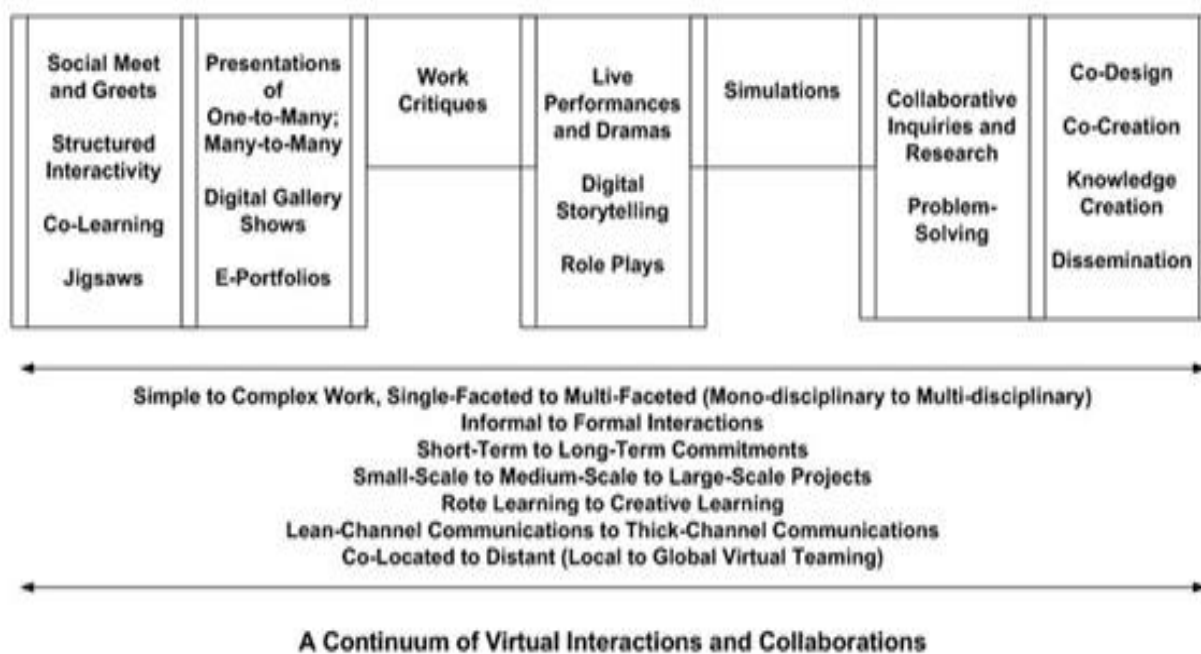
**J- Development.** It is to improve the work on hand by executing the agreed-upon designs.

**K- Review.** To make a review of the work achieved and analyzed it according to the pre-set expectations. At this step, the merits are given to the collaborators as a recognition of their original contributions.

**L- Project launch.** In the final step, the online team as a whole partake the outcomes of the work with a larger community of learners. Depending on the nature of achievement,

they present what may be a digital learning object or e-book or an online publication.

We emphasize more problem-based and project-based group or teamwork. Multiple abilities learners cooperate to solve problems and realize assignments. There are diverse contexts and activities of online collaboration that results sometimes in being cyclic; previously collaborating teams may meet for a second time to share tasks (Wang, 2016). The figure below illustrates the main features of online interaction and collaboration.



**Figure 2.4** *Features of Online Interaction and Collaboration*

**2.7.1.6 Online collaboration paradigm in higher education.** The most common examples of virtual collaboration in higher education reported by (Wang, 2016) consist in doing online classes such as get students involved through ice-breaking exercises to carry out research, get the needed information and presenting it in the classroom for their classmates. It is a way to make them feel responsible and cooperate with each other as they participate in evaluating their peers' papers, slideshows, designs, digital artworks and e-portfolios. They may create avatar to participate in dramas, or act out historical events as in role-plays.

Wang further explained that these students also connect to chat with other students from worldwide to practice the language and plunge into the culture of the country's target language. They can develop newsletters and online publications in a form of scripts or short stories. On the other hand, their informal cooperation consist in texting and chatting through videos webcams to exchange hints on how to do assignments and homework; thus, they form online learning groups to support one another. They acquired new learning habits which are different from conventional face-to-face; they collaborate relying on instant communication, and easily overcome distance barriers (Wang, 2016).

According to the same source, virtual collaboration makes distant online learning by offering several advantageous facilities in communication, technology-based creativity and design, offering digital contents, sharing and growing people's mind. However, due to unfamiliarity with modern technology, there are menaces of hardships in leadership. Furthermore, nowadays, there are no laws to determine and to defend intellectual property and research or publication rights. Future prediction of online collaboration would proceed from simple to complex, informal to formal, short-term to long-term, small-scale to large-scale; escalating from memorization learning to inventive learning, and from maigre to important communications channels. In early technology online learning, group members were designed hastily and collaboration may be expected from unknown individuals. Higher education students are beginning to encounter that phenomenon in e-learning collaborations while doing projects (Wang, 2016).

### **2.7.2 Supporting students' autonomous learning**

Learner autonomy, in the context of foreign language teaching and learning, is not a new phenomenon (Evans, 2009). Autonomy for Evans is the shift from the classical meaning of learning by heart to improving the learning capacities with which to acquire knowledge. There are ways through which learners can develop their skills to take in charge their own learning. In this section, skills linked to learners' autonomy are discussed to illustrate the influence of modern technology and social networks paradigms that affect learner's oral and written productions. In a research for US National Institute for Literacy, Warschauer and Liaw (2011) investigated the modern technologies and namely the digital ones applicability to promote learning autonomy, the emphasis was on listening and speaking, collaborative writing, reading, and language structure, and online interaction. To ensure efficiency the researchers worked on Digital media that comprises podcasts,

blogs, wikis, online writing sites, text-scaffolding software, concordancers, multiuser virtual environments, multiplayer games and Chabot. As in all instructing situation, a needs analysis of adult learners was carried out to set the program previously mentioned.

**2.7.2.1 *Perceiving and speaking.*** Concerning listening and speaking support, the podcast was used as digital tools for uploading, downloading and playing audio leaning files, especially by Hegelheimer and O'Bryan (2009), as cited in Warschauer and Liaw (2011), who found them a flexible resource. The website ESLpod.com contains more than 500 free downloadable audio files prearranged by topic for English-language learning (ELL).The podcasts enhance academic listening skills, ease tests preparation, and list grammar recommendations. Moreover, podcasts function as storehouse of class debates or lectures for use outside the classroom to further learners' autonomy.

Learners are equipped with MP3 players to complete class work beyond the usual teaching hours to instruct them according to their needs in the domain of hotel areas. The content included pronunciation or listening drills dealing with lessons on wines and moods intended for a student who worked as a banquet server. Their ELL was assessed and had attained a considerable advance, including computer skills, which is positive for their occupied posts. Another advantage was a chance to record the speech in various themes such reports, simulated broadcasts and oral presentations. In addition to partaking with peers or to keep for future reflection on learning improvement (Warschauer, 2006; as cited in Warschauer & Liaw, (2011). Still, there is another option shifting further than podcasting, we mention an example of a website like English Central (<http://EnglishCentral.com>) that uses speech detection to assist learners in refining pronunciation and spoken language. This website sprang in 2009 with Google support enabling Learners to select from popular videos, listen to words or sentences at controlled speeds, read and imitate what they hear. They are granted feedback on their pronunciation and syntax. This monitoring support ELL both inside and outside the classroom for self-study, and online centers are augmenting authentic listening resources (Peterson, 2010; Warschauer and Liaw (2011). For example, some universities provide listening authentic materials like the center at Kanda University of International Studies (Dudney & Hockly ,2007, as cited Warschauer & Liaw , 2011) indicated that lectures recording as podcasts are beneficial to absentee students to enable them download at convenient time in computers or mobile devices.



**2.7.2.2 Collaborative writing.** Blogs are appreciated instruments to teach writing; they allow individual learners to create their own publications and easily share their written content with the least technology tool either ancient or digital. In the study, (Warschauer, 2011) a class blog was made available for students to read, interact with each other's posts, and after that they can submit their academic papers. Warschauer has indicated the experience of Abdullah, a Somali student who mastered vernacular English, but had difficulties with academic writing. In the beginning, he relied on his vernacular to communicate individual experiences but soon joined the social community of the class blog. After sometime in the blog, he could present and defend his topics written in academic language.

Another example of blogs' benefits is the one reported by Fellner and Apple (2006), as cited in Warschauer and Liaw, (2011) about the extensive course of given to EFL Japanese students who were recommended to write daily on the blog. Hence, they improved their English vocabulary, and also created their own blogs on <http://blogger.com> to debate their preferences and interests. It has been claimed that such autonomy in elaborating and writing in blogs leads to enhancing English language competence reflect a positive image for the job market researchers, by validating to an employer a learner's language expertise and technology use.

**2.7.2.3 Online interaction.** Interaction in writing for ELL can be assured Wikis as good tools for self-directed expression. For this reason a simplified version, simple English Wikipedia, was adopted to facilitate access to information for both English-language learners and adults and non-literate youth. The new Wiki version is based on simple vocabulary and grammatical patterns and constructors avoided idiomatic expressions, jargon, and wrote shorter articles.

A free-access center is provided to assist students by giving guidance through workshops of how to publish in wiki. Besides, there is a website called FanFiction.net designed for fiction writing. The output could be books, cartoons, games, comics, movies and television shows. Black (2008) as cited Warschauer and Liaw (2011) studied how students volunteered to contribute in this website; she found out that peer-review practices of the site lowered criticism of form with interest for content and rhetoric, minimized aggressive feedback and attended to authors' needs as communicated in their notes or in communication between writers and reviewers. While cooperating to enhance writing smoothness and developing stratagems to helping students become

confident as English writers, they count on online instruments that might look secondary as far as writing preciseness and mechanics are concerned. Nonetheless, it all depends on who uses what instrument and for what purpose. That is to say, teachers create exceptional activities to achieve that goal (e.g., using Wikis to identify and remediate mechanical errors in formerly written texts) or equip the tools with other material to teach language construction and finally, involve students to do these tasks independently.

## **2.8 Technology-based Instruction under some Learning Theories**

In order to review the common learning theories, we primarily need to denote learning. All learning plans spring from the principle that responds to how to define learning. Learning theorists agree that there is no common, single, definition for learning; they add that it has been conventionally indicated as knowledge and capacities gaining while in modern days the meaning comprises social and emotional extents (Ileris (2009, as cited in Walling, 2014).

The learning theories can be classified into three main types: the behaviorist theory which is mainly based on the learner's response and behavior that is usually categorized in patterns. The cognitivist theory refers to the mental processes that incite behavior, relying on observable behaviours to distinguish the ideas inside the learner's mind. The constructivist is based on the idea that learners build comprehension by referring to what they perceive and what they experience in their social environment.

### **2.8.1 Under behaviourism**

Throughout the application of Behaviourism as a learning theory in school practice, many limitations appeared to the surface such as when students diminish interest as a result of rewarding. Researches showed that this phenomenon is most apparent among intrinsically motivated learners. It has also been noticed that rewarding grouped learners benefit most the bright ones only; while others endure harmful influence, mainly the low-leveled ones (Secada, 1992; Tomei , 2010).

Online learning environments are typically conceptualized based on human behaviour in order to grasp facts, perception and evidence. Thus, they enable learners to retrieve information, and denote meaning, also to translate and interpret commands. ICTs allow problem solving situations by bringing visual evidence, and students are prompted to use illustrated concepts and apply them in new situations in the classroom and outside school.

Traditional learning counts on inside the classroom observable behaviour of learners to identify attitudes and beliefs. So, in order to control the behavior. We need to see the results of the acts. As lecturers come to design technology-based learning environment for such learners, they need to recognize the consequences of these actions. One to these is the feedback that teachers rely on habitually. For instance, multiple-choice or true-false quizzes assist learners to categorize conceptions whereas demonstrating skills help them to establish facts and figures. There is also a website designed to incite students to categorize and sort out information, and place it in an outline, then create links by matching data. Microsoft word processing software is extremely appropriate to convey content based on behavior. As it embodies word processing patterns, it reacts to learner's writing and instructs him to modify or alternate the spellings or sentences when wrong. In classrooms, technology use shift content from lecture-based, one-way teachers transfer information to a more collaborative approach of instruction (Tomei, 2010).

On the other hand, electronic calculators offer support to learners' confidence on answers correctness and minimizes reliance on rote memory, drill and practice to further perspective of mathematics content instead. Excel software widens behavioral applications that is based on mathematics but possesses progressive features (e.g., formulas, forms, auto-correct options, and error checking) that assist learners in advancing theoretical and practical base. Besides, the common drill and practice, simulation, and tutorials supported by the computer laboratories known as Computer Assisted Instruction (CAI) are conceived on behavioral theories and meant for traditional learning. In recent years, there emerged web-based gaming that is promoting improvement in educating traditional student (Tomei, 2010).

### **2.8.2 Under constructivism**

According to Walling (2014), introducing technology through the use of tablets or mobile devices in classrooms goes appropriately with the theory of constructivism, from the point of view of scholars like Piaget, Dewey, Lev Vygotsky (1896–1934), and Bruner (b. 1915); because, they generate thought-provoking, and engaging interactions on the basis of the four W's (what, when, why, where) technology-vehicled learning.

The teacher as a designer of technology-based learning adapts prompt from Bruner's Man: A Course of Study (MACOS) project of the 1960s. A course of study modernized to human; it can be accessed online at <http://www.macosonline.org>. This website indicate the cultural aspect

of the human behavior by questioning about what makes human beings human; how did they get that way; and how can they become so? This focus is crucial as the offer to error from technology-mediated to technology-dominated learning can be tough. Built-in or installed apps in mobile or tablets devices are appealing for all categories of learners but present a risk of addiction. While innovating teaching designs by adopting technology, it is vital not to be embarked totally and have restrictions. In fact, five clarifications can undermine learning under constructivism that is technology-based. A constructivist philosophy urges to diversify actual illustrations, avoids complicates clarifications from the real-world, stresses structure, inspires rational thinking and withstands social and cooperative learning. As one scholar expresses it, tablet technology is “not just about replacing textbooks but inventing new ways of learning” (Bonnington, 2013; as cited in Walling, 2014) .

To exemplify the importance of using social media through the constructivist theory this study was conducted to see how two groups of students connecting to construct knowledge through their prior knowledge use, past experiences and common cultural factors governed by the environment they live in. The reasons behind the use of Facebook as an outside the classroom platform for learning were problems occurring during the teaching and learning practice: lectures incongruent with students’ level, absenteeism, administrative meetings, insufficiency of monitoring, lack of consulting students projects progress. Those problems lead to inefficiency and less productivity on part of students. So, Facebook is used from the perspective of the social constructivist tool that enhance Computer Mediated Communication (CMC) (Mohd Noh & Jing, 2017).

The social interaction and the development of communication among students were under qualitative investigation, and the findings showed that the use of Facebook has served as a good tool for graphic design students to achieve better social interaction amongst them throughout the learning sessions.

Thus, both students and lecturers should participate to overcome the constraints of face-to-face instruction which involves complicated development of ideas long before the student could produce their final artwork. For example in the “Major discipline” which is a compulsory course, the graduating students have to undergo as an essential prerequisite to qualify. Since CMC exists and is growing rapidly, a variety of studies and research have been carried out on each of the

applications such as Internet Chat QUERY (ICQ) , Weblogs, Friendster, Myspace and the latest is Facebook (Hoo et al., 2011, as cited in Mohd Noh & Jing, 2017). In effect, Facebook is adopted by lecturers as an alternative media to guide students work and follow their work progress. All students were immersed quickly to achieve the project; simultaneously there is a social constructivist approach among them shown in collaboration (Mohd Noh & Jing, 2017).

The objective of Facebook was to serve as a platform interaction for learning between Friends, the same way Mark Zuckerberg first launched it in 2004. Facebook facilitates its access by adopting 37 languages, and there is the possibility to use various basic applications that provided many free options in Facebook; either to promote events or invite friends to attend, or identify users attending, events, and group pages. (Mohd Noh & Jing, 2017).

The results have indicated that students' frequency of using Facebook for consultation and communication outside the classroom session as well as the discussion of the progress was significant. The effectiveness of using Facebook as a social constructive media is measured through the graphic design and digital media program to promote better quality artwork and the involvement of peer-to-peer discussion while the lecturer acts as the moderator (Mohd Noh & Jing, 2017). It was found that students perform their activities in three ways through Facebook:

- They visit their Facebook group page
- They post educational topics
- They discuss various topics

All students log into Facebook group page designed for the discipline course, in this case study, to go through the eight (8) weeks discussion. Some students consult the page many times a day to their peers latest posts and discussions. In addition to that, the review of their design artwork it was found 84.78 % of students or participants had taken parts in the topics posted(Mohd Noh & Jing, 2017).

## **2.8 Applicability of Social Networks in Teaching and Learning outside Classroom**

The following section deals with the extent to which could teachers apply social media networks into the teaching and learning process such as completing work or collaborating to do an assignment. Some researches findings are exploited and discussed to better foresee the educational perspectives of social networks outside classes.

### **2.9.1 Attendance in social network learning**

Learners of foreign languages suffer from anxiety related to their lack of companionship in dealing with a new context within an anonymous online atmosphere. Thus, according to Hutchby (2001), as cited in Lamy & Hampel (2007) teachers have to adopt the technique of mental method of common presence' with others, although it is not always effective to provide authentic interaction between learners. Hutchby attempted to remodel online paradigms that resemble face-to-face communication. Social presence, regardless knowledge and data conversation, is denoted as being conscious of situations linked to a particular social group or community as 'a state of mind' that covers knowledge of others' presence, procedures, incentives, aims and attention (Lamy & Hampel, 2007).

Thus, there is continuous research on how to integrate social presence in online learning environment, but the results were controversial. Some claim that synchronous tools aid in improving social presence, group unity and integrity better than asynchronous ones do. They advance a common social identity and belongingness to a special group. However, others believe that online learning environments need distinct ways of communicating to ensure socialization. Hutchby further states that when conferencing online, there are prompts ready to use in conversing but these were restricted to the written forms. If we look at it from another angle, there is often tendency to be misunderstood because language has an implicit side and the risk of mismanaging something new is expected. First encounters, discussions of learning community standards, and replies to contributors necessitate bigger determination to succeed. It is a brand new way of communication process to be adopted which is not a mere change from speaking and listening to reading and writing (Mann, 2004, as cited in Lamy & Hampel, 2007).

Online communication varies a great deal from face-to-face contact; furthermore, learners are urged to build social acquaintances and know how to socialize online, such as keeping the mental picture of those they interacted with in face-to-face meetings like those of their mates or tutors.

### **2.9.2 Social networks anonymous access**

While creating a profile on social network services, the user has to create a profile that is public, searchable through the search engine of Google or Bing, and the page of the profile needs to be customized by the user including his/her personal information that s/he wants to show to other users. The identification he is anonymous except for email address that is personal in order to verify the account of the real person. By the same token, the user needs to adopt a pseudonym instead of his real name to ensure his/her protection and security (Horowitz, 2011 & Mergel, 2013).

Social networking services permit users to advertise the work of their social subscribers, somehow denoted as social graph according to Narayanan and Shmatikov (2010), as cited in Mergel (2013). For instance, the appearance of Facebook friend lists leads you into the number and names of network knobs that the user keeps, but other users can also grow the prestige of their friendship, the history (through mutual connection in university networks), or the types of associations sustained. The combined network contacts users continuously bring up-to-date their status and share content such as newspaper articles and links to websites.

All contacts who subscribe to the contents automatically receive updates in their individual newsfeeds. The fact that there is an accumulation of information, it influences the users in two ways: Firstly, the users would benefit from information in their newsfeed, which is posted from the trusted relationships. Thus, this information is becoming part of an ongoing appearance and becomes viral on Facebook. Secondly, the users would shift attention in search of his friends or contacts list relationships according to their preference rather than waiting for the automated mechanisms of Facebook appearance (Watts, Dodds; Newman, 2008 & Mergel, 2013).

### **2.9.3 Learners' motivation**

Both intrinsic and extrinsic influences have a role in shaping the degree of the learners' motivation; it is ranked from interest and purpose to external benefits and rewards (Dörnyei, 1994, 2001a; as cited in Lamy & Hample, 2007). Nowadays, motivation in Computer Mediated Communication for Learning (CMCL) for its own sake is very rare in comparison with face-to-face classroom instruction. Within an asynchronous written environment, the learners are not commended by the teacher's presence to do the task; as a result, students remain unseen, in the

background. The same thing happens in asynchronous environment where students cannot get teacher's reaction, or their peers' feedback, besides the long delays between posts. In practical terms, these drawback refrain students from interacting and communicating.

One way to remediate these inconveniences is to adopt the set of procedures brought by Warschauer (1997), as cited in Lamy & Hample, (2007) to ameliorate intrinsic motivation in CMCL by enabling learners to:

- Write for a real audience (email exchanges or publishing work on the internet);
- Develop useful technical skills;
- Communicate with distant partners;
- Work collaboratively;
- Create projects that reflect their own interests;
- Participate in authentic exchanges with peers and/or native speakers.

#### **2.9.4 Some motives behind using social networks in education**

Each progress in science and technology has imperatively an effect on education. Even though, social networks were created for commercial and social relations, they seem to benefit learning and mainly languages. However, the current social researchers alarmed people that online relationships would definitely destroy face-to-face relationships although major studies show that they can deepen, enrich them by spreading relations and contacts over the country's frontiers and beating distance and time (Chambers, 2013).

**2.9.4.1 *Technology-based relationships.*** According to Fulk and Collin-Jar vis (2001), as cited in Chambers, (2013), communication technologies as channels have the speed and richness that enable people to establish relationship and share information instantly. In the same context, Baym (2010) as cited in Chambers, (2013) considers the rise of internet as fortunate happening that brought back the sense of 'community' in an electronic way through giant social network websites like Facebook and Twitter. Furthermore, SMNs are favoring personal ties of friendship and intimacy and offering wider horizons for individuals to open up for a multitudes of contacts for personal instead of professional purposes. The more intimate the contacts are, the more platforms and channels they have in commons to support their interaction for they enabled to trace and check links within networks. These links keep you informed about the whereabouts of both new and old contacts by indicating their status and social lives, too.



**2.9.4.2 Online relationships.** Because people generally choose to do something that their friends, relatives or acquaintances are doing, besides being beneficial to them, they are attracted to act the same way as their online contacts. Similarly, this factor is more likely to influence their adoption of social networks for learning. Until now, online-based interactions are regarded as substitute to face-to-face communication. In research findings, the latter is estimated as having superior advantages. However, Baym (2010), as cited in Chambers, (2013) thinks that old mediums like letters and phone calls are more likely to shed uncertainty and confusions. Disagreements may take place because of the lack of visual clues and approved standards of interaction. Another reason to consider social media technologies is that they are rather complicated (Madianou and Miller 2012; as cited in Chambers, 2013). Yet, Baym believes that to remediate mediated communication to face-to-face one, there are emoticons inserted within instant messaging as symbols to express emotions and avoid confusions about tone, temper and attitude.

As there exists several communication mediums, the disadvantage of one of them gives way to use another; sometimes both are used simultaneously (Haythornthwaite, 2005; as cited in Chambers, (2013). This the same belief of Hutchby's (2001), as cited in Chambers (2013) who advances the theory affordance to refer to the advantage of a particular medium and get how many media can constitute a framework to complement one another, though each one has specific style of expression and emotional catalogue.

**2.9.4.3 Asynchronous' versus synchronous communication.** A good option inciting to adopt SMNs to support education is their double possibility to encompasses direct and indirect communication. A very distinct characteristics of online communication is the difference between asynchronous and synchronous channels of communication. Synchronous is direct and meant for intimate contacts for the reason that they implicate the speech and in that way entail personal devotion and rely on voice chatting through the telephone, Skype and SMS suggest intimacy (Broadbent, 2011; cited in Chambers, 2013). This type of communication is agreed upon in advance as it involve intimacy. Previously, the mostly used media were letters or phone calls while nowadays we live in a polymedia environment.

Broadbent (2011) further elucidates that asynchronous channels are rather reserved, engaged for great number of contact. The communication is usually in written form as emailing. Unlike social networks, emails gives the impression of being more serious and professional, used

for private communication like semi-administrative tasks (reservations, communication with institutions – schools, associations and others.). However, outside work context, emails stay for sending attachments as private photos, and exchange of PowerPoint themes. According to Jenkins, 2006, cited in Chambers, (2013), emails, for adults, denote a mutual obligation or an expectation to reply. The actual social network site communication folds many previous media counting email, text messaging and Instant Messaging(IM), and thus they provide multi-layered means to ease social interaction through YouTube video, blogs and Twitter with optional links sharing in internet-enabled mobiles to social networks such as Facebook. The latter assures an asynchronous intimate communication between contacts in exceedingly effective way.

**2.9.4.4 Large-scale communication.** Most educators and teachers attempt to integrate social networks platforms into in their practice because they notice the large number of their daily visitors. On this account, they know it would affect the vast majority of learners. As they detain means of mass communication (not just individuals), social media networks are communication means that operate as many layers exceeding the individual limits and reaching large public audiences Castells (2009). According to the same source, there are three interlinked modes of communication: the interpersonal, the self-communication and the mass-communication. Castells describes interpersonal communication as different from mass communication for it is taking place between the sender(s) and receivers(s) while Interpersonal communication is bilateral and reciprocal as there is an exchange of messages and reactions.

In mass communication, known as one-directional emitted from a sender to numerous receivers, the content of communication has the prospective to be spread to bigger audience like society. As an illustration, there is YouTube video upload or a blog with RSS feeds to a range of web sources or a message to a massive email list. Castells (2009, p.55) states: “Self-communication designates self-generated messages, the potential receiver(s) is self-directed and the electronic retrieval is self-directed. Mass self-communication combines these features of mass communication and self-communication”. In fact, the three types of communication are jointly operating and co-occur, interrelate, and complement each other. It has been recognized so far that SMNs have combined, mixed the multiplicity of cultural divergences in language expression into one hypertext that vehicle societal interaction.

## 2.10 Social Media Networks Influence on Teaching and Learning outside Classrooms

Social networking sites like Facebook or LinkedIn constitute an online planetary for educators to put in their profiles and to construct communities of practice or groups with common ideas (Wenger, 1998; as cited in Wang, 2011).

Garrison and Vaughan (2008); as cited in Weinstein, Rocco, & Plakhotnik, (2011) Wang (2011) considers the teaching objectives of blended learning to produce a disciplined community of investigation with emphasis on the social presence and the cognitive teaching presence to attain meaningful learning outcomes. The teaching standards that were suggested by Garrison and Vaughan implicated the (design), simplification of direct discourse, education and evaluation:

**a-Design.** enables free communication in an learning environment where there is trust.

**b-Cognitive presence.** It is sustained by offering subjects critical reflection, discourse and collaboration. So, the tutor sets the roles of both teachers and learners; the teacher should be a moderator not dominator.

**c-Facilitation of discourse.** By working on a definite learning skill, online teaching is maintaining the community by promoting consistent and intentional, deliberate reactions. Learners have a tendency to reflect and criticize the content more than in face-to-face classroom. Thus, the teacher is supervising and coaching the inquisitive tasks conducted by learners themselves.

**d-Direct instruction.** The teacher must equilibrate between direct leadership and permitting student-centered learning situations. Nonetheless, students' collaborative work must correlate with taking responsibility of their own learning.

**e-Assessment.** It must measure learning outcomes. Online environments facilitates the diverse procedures: Peer and self-enhancement openings. However, the teacher must define criteria for evaluation to alert students metacognition towards discourse measurement areas.

The best illustration of online interaction outside the classroom environment with Facebook, originates in cultural and social gathering and connectivity. According to Vygotsky (1978), as cited in Jones, (2012) students' culture is enhanced through students' interaction in social environment when they communicate their needs. Besides this, Mohd Noh & Jing (2017) further determined that the internalization of social networks instruments lead to higher order thinking skills, for the participants using Facebook logged in their accounts when needed to ask for advice

from a lecturer or to share ideas with their peers. Unlike face-to-face teaching, the role of Lecturers and students have changed. The students needed to play an active role whereas the lecturer role is more like a guide or a facilitator. The participants-feeling unstressed- used Facebook to communicate, to develop their project on their convenient time and place (Mohd Noh & Jing, 2017).

In addition to that, the same research findings have showed that participants are more daring to voice out their opinions and share ideas with their peers, even the passive ones. Surprisingly, they have interesting ideas, genuine for the construction of their artwork, except that their lecturer was unable to evaluate their learning potential individually.

### **2.10.1 Blended learning**

One way to complement classroom learning outside the classroom walls is to further the lesson practice by figuring out some continuation to the classroom work to be done through social networks. As this mixture is sometimes encouraged by educators, University institutions are devoting significant time and money into blended learning. Apparently, blended learning has positive effects on learning, but it is imperative to admit that it is rather complex for students. To join in blended learning demands certain capacities and prior knowledge, and it is worth trying because blended learning offers relevant advantage for students.

Blended learning has the power to change pedagogy with the voltage based largely on variety and multiple occasions to reflect on accessible communities of inquiry and authentic learning (Garrison & Vaughan, 2006; as cited in Wang, 2011). It guarantees meaningful learning prospects. It can make use of numerous tools and stratagems to accommodate several individual needs and learning styles, this way learning results would be enhanced. “As learners are diverse in terms of learning styles, learning proficiency, as well as learning ability, blended learning can make it possible for individualized learning and self-regulated learning to happen. Blended learning imposes the review of traditional models of learning, and tolerate elasticity of time and place for students to access content and collaborate (Wang, 2011).

**2.10.1.1 The challenges of online blended learning.** As teachers assume new roles in blended learning, it is quite hard for them to become guides and facilitators in an unknown terrain. Furthermore, teachers are not as trained as they should to moderate online discussions the same way they do in face-to-face teaching. Soon, the teachers found themselves shifting from instruction to designing online learning environment that enormously increases demands on their time.

Blended learning environments require well-involved technological skills and metacognitive capacities; it also require from students to be self-directed learners with higher order thinking skills and learning to learn abilities, besides being organized, committed and possessing technology tools.. According to (Garrison & Kanuka, 2004 & Wang, 2011), the policy makers for higher institutions have to adopt a straightforward strategy or policy to manage blended learning since it is not convincing that the already existing models fulfill the different socio-economic needs of learners. There is still no definite answer as to whether affordable blended learning models can be developed and “still address the needs of different populations with different socioeconomic circumstances worldwide. (p. 16).

Throughout observation, Bonk, Kim and Zeng (2006); cited in Wang, 2011) deduced that blended learning would spread into community and higher education environments. They foresee that “blended learning is an everlasting tendency not a fading practice (p. 554). Blended learning schemes drives based on technology integration through which each device develops distinct promises. Recyclable content things and knowledge management instruments are fixed to generate maximum effect of e-learning diffusion (Bonk, et al., 2006). According to the same source, there are ten directions and expectations linked to blended learning cited as follows:

- The use of mobile and handheld devices,
- Visual and hands on activities,
- Learner responsibility for deciding programs and courses,
- Community building and global connections,
- Authentic learning experiences and on-demand learning,
- Reinforcing the link between work and learning,
- Less strictly defined scheduling of learning,
- Courses and programs designated as blended learning options

- Shifting instructor roles to mentor, coach or counsellor
- Emergence of specialist blended learning designers.

## **2.11 Conclusion**

This chapter has presented the well-known types of SMNs, like Facebook, YouTube and Twitter in addition to some social and educational practices on the web such as emailing, blogging. More focus was on the educational aspect of modern technologies namely digital devices as the mobile phone.

The study also sheds light on technology historical background, mainly the development of Web 2.0, shows how progress has brought typical learning styles inspired from the affordances of modern instruments. The communication based tools, either conventional or digital, have facilitated interaction both in Synchronous and asynchronous ways, incited learners and teachers to collaborate and developed intimate, social and professional relationships. Yet, the role of pedagogy has not been altered, and the instructors have accumulated more responsibility in dealing with new virtual learning environments that require more preparation and commitment. The teacher as the principal education agent has become a designer instead of a lesson planner and has to find ways to involve learners from outside the classroom through SMNs.

The next chapter will shed light on the research design adopted for this study, including the sample populations, the method, data collection tools and the needed methodology frames that vehicles this study.

# **Chapter 3**

## ***Research Design & Data Collection Procedures***

## CHAPTER 3 Research Design & Data Collection Procedure

<b>3.1 Introduction</b> .....	96
<b>3.2 Objectives of the Research</b> .....	96
<b>3.2.1 Significance of the Study</b> .....	97
<b>3.2.2 Contribution of the Study</b> .....	97
<b>3.3 Explorative Research Design</b> .....	97
<b>3.3.1 The type of research</b> .....	98
<b>3.3.1.1 The research method</b> .....	98
<b>3.3.1.2 The mixed method</b> .....	99
<b>3.3.1.3 The case study</b> .....	100
<b>3.3.2 The sample population</b> .....	101
<b>3.3.3 Data collection</b> .....	103
<b>3.3.3.1 Data collection tools</b> .....	104
<b>3.3.3.1.1 Students questionnaire</b> .....	105
<b>3.3.1.1.1 Description of the questionnaire</b> .....	106
<b>3.3.1.1.2 Administering students questionnaire</b> .....	109
<b>3.3.1.2 Teachers questionnaire</b> .....	110
<b>3.3.1.3 The Interview Protocol</b> .....	112
<b>3.3.1.3.1 Description of teachers interview</b> .....	113
<b>3.3.1.3.2 Interview procedure</b> .....	114
<b>3.3.4 Data analysis</b> .....	115
<b>3.3.4.1 Data analysis Procedures</b> .....	116
<b>3.3.4.1.1 Teachers questionnaire</b> .....	116
<b>3.3.4.1.2 Students questionnaire</b> .....	117
<b>3.3.4.2 Interview protocol</b> .....	119
<b>3.3.4.3 Triangulation</b> .....	120
<b>3.3.4.4 Validity of Research Questionnaires</b> .....	120
<b>3.3.4.4.1 Internal validity</b> .....	121
<b>3.3.4.4.2 External consistency</b> .....	121
<b>3.3.4.4.3 Piloting instruments</b> .....	122
<b>3.3.4.4.4 Validating teachers' interview</b> .....	122



<b>3.4 Experimental Research Design</b> .....	124
<b>3.4.1 Planning the experiment.</b> .....	125
<b>3.4.2 Data collection tests.</b> .....	126
<b>3.4.2.1 The Experiment statistics.</b> .....	126
3.4.2.1.1 <i>The Students statistical test</i> .....	127
3.4.2.1.2 <i>The Independent sample t-test</i> .....	128
<b>3.4.4 Conducting the Experiment.</b> .....	129
<b>3.4.4.1 The Pre-test.</b> .....	129
<b>3.4.4.2 Test assessment.</b> .....	130
<b>3.4.5 Treatment.</b> .....	131
<b>3.4.5.1 Implementing treatment</b> .....	131
<b>3.4.5.2 The procedure of Experimental group treatment</b> .....	133
3.4.5.2.1 <i>Academic versus Non-academic Writing</i> .....	134
3.4.5.2.2 <i>Writing an Argument</i> .....	134
3.4.5.2.3 <i>Facts and Arguments</i> .....	136
3.4.5.2.4 <i>The Introductory Paragraph</i> .....	137
3.4.5.2.5 <i>Attention Grabber (The hook)</i> .....	138
3.4.5.2.6 <i>General Statement</i> .....	138
3.4.5.2.7 <i>The Topic Issue</i> .....	140
3.4.5.2.8 <i>Claim and Counter Claim</i> .....	140
3.4.5.2.9 <i>The Thesis Statement</i> .....	141
<b>3.4.5.3 Control group treatment.</b> .....	142
<b>3.4.5.4 The Post-test.</b> .....	142
<b>3.5 Ethical Considerations</b> .....	144
<b>3.6 Limitations of the Research</b> .....	145
<b>3.7 Conclusion</b> .....	145

### **3.1 Introduction**

The first two chapters have presented the theoretical background of the research while this one describes the research methodology and the procedure of how this study is conducted. In this research, four tools and an experiment are used to collect data from the sample populations. Participants were selected from EFL teachers and their Master one students at the English department of Ibn Badis University. The tools include teachers and students' questionnaires and a teaching experiment were designed to collect quantitative data while a teachers' interview gathered qualitative data.

In the analysis phase, results from the four instruments would be combined and triangulated. At the beginning, the tools were piloted before being administered in order to get insights from participants about technology adoption extent in higher education and to test the contents construction and validity of instruments. Then, through both questionnaires the researcher proceeded in gathering data about participants digital technology and SMNs perceptions, motivation, access, experience and frequency of use in an EFL teaching/learning outside classrooms. Besides, the interview brought data concerning integration difficulties to manipulate web resources, engaging students, training and online assessment. This chapter also indicates measures and precautions taken to ensure both external and internal validity, ethical issues encountered and reports remarks on the limitations of research instruments.

### **3.2 Objectives of the Research**

This research main aim is to give the EFL teachers, students and academics in Algeria an exploration of how technology and especially SMN are adopted master EFL settings. The case of master one Ibn Badis University students is selected to reveal teachers' and learners' attitudes and perceptions and also challenges encountered to infuse online learning outside classes at this level of education.

This research attempts to determine the frequency of ICT and social media networks (SMN) use for EFL learning outside classes; and see whether it can lead to some innovation and impacts students' autonomy. The results of this research may give insights into a permanent implementation of SMN and technology in master studies in an official way in Algeria. Exploring the degree of technology integration and the kind of learners' SMN exposure in their social

surroundings can enchant students to opt for complementing the classroom practice through SMN platforms.

### **3.2.1 Significance of the study**

The young master one students learners are fascinated by the new technology tools mainly, the personal computer (PCs), the cell phones or mobiles and tablets and are eager to use them to connect to internet on a daily basis. Their focus is on digital tools and on the applications; they could bring in terms of pictures, videos, songs and on the chatting on the social media networks on the internet. As a consequence, teachers cannot teach them using the old methods because they are not attracted to the books but to e-books or videos since they spend hours in front of their laptops or tablets at home. In this context, this investigation endeavours to explore whether they are attracted to English language learning through these modern digital tools and if their outside-school learning is contributing to their academic university achievement. If so, this study will be of benefit to teachers, first of all, as it enables them to plan lessons accordingly by taking outside-school digital learning into consideration and to policy makers so as to reconsider the EFL curriculum on this basis.

### **3.2.2 Contribution of the study**

Interestingly enough, this research is carried out with the intention to serve university students who intend to become future teachers of English, and the actual EFL teachers in higher education institutions since it provides them with an insight of what their students are using social media for, what interest them most, and how they could capture their interest. Typically, teachers can supply teaching material associated with the use modern technologies and social media networks and educational websites.

The results of the research will certainly reveal the extent to which Algerian university students are able to use the social media for learning English language with relation to their school curriculum.

## **3.3 Explorative Research Design**

The research design sets the paradigms of the present work which includes the research questions, the hypotheses, the research method, the population and the data collection tools. The design is based on mixing quantitative and qualitative type of data and integrates three tools to

collect the data. Then, data from field of the experimental group and control group. The findings are analyzed and interpreted before being added to previous ones from the research tools.

### **3.3.1 The research type**

This research is of the explorative type. It explores students' and teachers' perceptions and attitudes in using ICT and social media networks in learning and teaching EFL students outside master one classrooms. It looks more like a cross sectional study which takes a 'snapshot' of a certain population at a particular point in time (Cohen et al, 2000). It surveys teachers of English Department at Abdel-hamid Ibn Badis University, and learners in order to explore the utility of social media networks for themselves and the learners outside classroom setting: the frequency of use, the difficulties, and possible aspects of innovation in teaching through technology use.

Descriptive research can be heuristic or deductive. While technically, qualitative research is also concerned with description, descriptive research as a type or category of research refers to investigation which utilizes already existing data or non-experimental research with a preconceived hypothesis. (Seliger H.,W., & Shohamy E., 2000, p.117)

This research describes the extent to which students incorporate ICTs and social media networks in EFL learning outside classes to enhance their university formal learning, mainly the productive skills in written and oral communication. The concept of the research questions gives this study an exploratory aspect picturing the influence of Social Media Networks on learners' work, and an assessment of their learning outcomes within experimental group making.

**3.3.1.1 The Research method.** The method adopted to carry out this study is a case study of Master One students at the English language department at the university of Abdel-hamid Ibn Badis in the town of Mostaganem. The sample populations are surveyed through three research tools: the learners' and teachers' questionnaires and a teachers' interview.

Within the scope of this research, the mixed method of data collection is used. It is based on a mixed method design. It is mixing quantitative and the qualitative methods in a single research. We need to look at the nature of each type of research to get its positive aspects. The quantitative

research is founded on the assessment of quantity or amount. It is appropriate to any phenomenon which can be described in terms of quantity (Kothari, 2004).

This research is partly quantitative as it surveys teachers' and students' perceptions of social media networks use to improve master education. According to (Babbie 1990) as cited in Creswell, J.,W., (2009), surveying in research is giving numerical descriptions of trends, attitudes or opinions of a population by studying a sample of that population by using a structured questionnaires or interviews to gather data, then to generalize from that sample to a population. "The choice of which research approaches to use largely depends on the types of questions being asked in the research study, and different fields of research typically rely on different categories of research to achieve their goals." ( Marczyk G., DeMatteo D., and Festinger D., 2005, p.17)

In the present study, both quantitative and qualitative types of research are essential to achieve all the needs of social media networks: besides quantifying participants, the qualitative measurement of the human aspects of the students and teachers, who are the active agents of education, is also crucial to the study.

**3.3.1.2 The Mixed method.** Mixed methods are not as popular as the quantitative or qualitative approaches. As they, first, appeared in the works of Campbell and Fiske (1959), as cited in Griffee, (2012) .Other researchers followed them and attempted to mix methods then, to screen approaches for data collection. These approaches were quickly made appropriate with qualitative data instruments like observations and interviews which were combined with traditional surveys as quantitative data (Sieber, as cited in Creswell, 2009).

The method used in the present study is the Concurrent Mixed Method. According to Creswell (2012), it is a method, in which the researcher combines both quantitative and qualitative data, for the sake of giving an overall comprehension or analysis of the topic of interest. Both types of data are gathered simultaneously. After that, the interpretation of results is included. In this type of design, small forms of data i.e. either quantitative or qualitative are embedded into the larger data gathering to be able to analyze all types of questions (open or closed ended). The qualitative focuses on the research process whereas the quantitative deals with the outcomes (Creswell, 2009).

According to the research type continuum of Brown and Coombe (2015), research goes from being descriptive to exploratory, then quasi-experimental and Experimental. In this study, as

far the selection of population of groups experiment participants, attention should be to the factor of availability rather than randomization. Thus, the quasi-experimental type is more appropriate. Hence, the pre-test and the post-test for both groups: experimental and control ones are tested on the basis of quasi-experimental type of research. The cause-effect of independent variable that is the use of social media networks is tested on the experimental group while the control group received treatment in face-to-face teaching.

The rationale behind using such a design is to compensate the weaknesses of one method procedures and instruments by another one so that the researcher gets an exhaustive comprehension of the research problem through the collection of both qualitative and quantitative data (Creswell, 2012). As a matter of fact, in this study, the questionnaires collected data are mostly quantitative data; they are mixed with the qualitative data collected from the interview and the classroom observation so as to compensate the weakness of one tool by another.

**3.3.1.3 The case study.** This research is considered as a case study since it has a qualitative aspect. The case study is more efficient when it focuses on a real life context and uses various methods and data sources to investigate it thus it is possible to obtain a rich research content which reflects the participants' perspective (Stark, S. & Torrance, H., as cited in Somekh B., & Lewin C., 2005). The case of EFL Master one students in Ibn Badis University is a sample representing other master students in similar Algerian universities.

Case studies generally aim to provide a holistic description of language learning or use within a specific population and setting. However, whereas ethnographies focus on cultural patterns within groups, case studies tend to provide detailed descriptions of specific learners (or sometimes classes) within their learning setting.

(Mackay and Gass, 2005, p.171)

This study is also following a case study design for research is, first thought of as qualitative and traditionally ethnographic as considered by Rogers (2002); Creswell (2002) and Mackay (2006). The interview tackles the qualitative aspect of this study beside the semi-structured questionnaires where open-ended questions are used. The qualitative aspect of the research and the inclusion of participants from one specific university in Mostaganem gives it the case study profile.

### 3.3.2 The sample population

The first population selected to conduct this research are the Master one students of the University of Abdel-hamid Ibn Badis, in Mostaganem. The young age of this category of participants seems to allow them to be easily engaged in visiting the internet and the social media websites more than any other category. For this reason, this particular population is more commonly known as the e-generation. In fact, these learners constitute good potential of future users of ICTs and SMNs platforms. The context of the study involves having a global view of Master population groups in terms of identification and numerical statistics. They are seven specialties on the whole. Table 3.1 below indicates statistics of each specialty according to the academic year (2021) when data were collected.

**Table 3.1**

*EFL Master Specialties in Ibn Badis University*

<b>Master One - Statistics 2020/2021</b>			
<b>Master one specialties</b>	<b>Number of students</b>		<b>Academic Year</b>
	<b>Master one</b>	<b>Master Two</b>	
Didactics and Applied Languages	47	28	2020/2021
Didactics and Foreign Languages	37	38	2020/2021
Literature & Interdisciplinary Approaches	29	30	2020/2021
Language and Communication	47	42	2020/2021
Linguistic	28	20	2020/2021
Literature & Civilization	42	35	2020/2021
Science of Language (science du language)	32	18	2020/2021

There were 69 students have participated in this study, and their age ranges from 20 to 25 years. This chosen population of students is composed of students from nearly all master branches: Didactics and Foreign languages, Didactics and Applied Languages, Language and Communication, Linguistics, Literature and Interdisciplinary Approaches, and Literature and civilization. This selected sample can allow us to generalize the findings on Master one sample population at similar universities in the region. To make the results more representative, the sample

is selected at random from different Master specialties in the offered formation of Ibn Badis University in Mostaganem. Marczyk (2005) argues that it is vital to get accustomed to the commonly employed methods in this field to select the right group of participants. As there is difficulty to generalize results on other larger groups especially those not included in the study. To avoid this, the researcher would not want to limit participation on one specific group only, but it should include sample from the entire population. However, because of the lack of time, money and other resources, the researchers cannot cope with such a large population. That is why they use a sample population of interest (Marczyk et al., 2005).

The second population represents all EFL teachers in the department of English at Abdelhamid Ibn Badis University in Mostaganem and other similar higher education institutions in Algeria. The participants are randomly selected. The only criteria of selection is availability and the crucial variable is age; thus, teachers can be from different levels of teaching experience. It comprises 34 teachers, aged between 25 to 60 years.

The most commonly used method of selecting participants is Randomization (Marczyk et al., 2005). Randomization in the present study is employed to a certain extent as the targeted population is already known. However, the informants are not specified in advance or preferred one over another, in term of choice. The simple random sampling method is used in selecting the participants and is called “convenient sampling”. The typical procedure used in simple random sampling is to assign a number to each individual in the population and then use a random numbers table (Creswell, 2012); however in this study, the simple random choice was based also on convenience sampling, as it easier for the researcher to access. In effect, the questionnaires are emailed or administered through Google docs and link were emailed or sent via SMNs. Thus, those who approved to participate would complete and re-send the completed questionnaire through the same means.

As there is a difficulty to generalize results on larger similar groups because of the lack of time, money and other resources, the researchers cannot cope with such a large population. That’s why they use a sample of the population of interest (Marczyk et al., 2005).

Accordingly, the sample population in this research consists of EFL teachers and students. In order to make it representative of all Algerian teachers of English at this level, the random procedure of participants selection is adopted in a way that the entire population has probability of

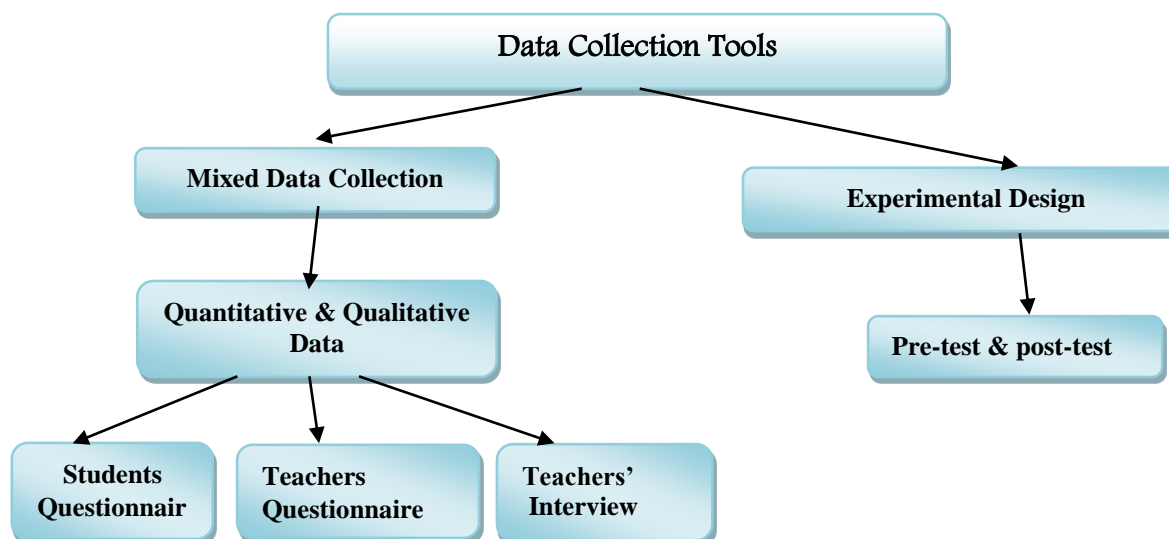


being selected in the study (Kazdin, 1992). To be able to generalize it, the researcher needs to do replication studies to prove that the sample results can be generalized (Kazdin, 1992).

### 3.3.3 Data collection

The semi-structured questionnaire is be piloted on a sample group of students randomly selected from different master branches. This study is based on three different types of tools: a teachers' questionnaire, a students' questionnaire, a teachers' interview and testing. These tools collect both quantitative and qualitative data for the research needs.

According to Creswell (2012), both qualitative and quantitative data are collected, analyzed separately. Data results are compared, constructed and interpreted to check whether they converge or not. So, data from all of the instruments, in this study, are collected and analyzed separately. The results are compared through triangulation method to see if the results corroborate with the platform testing. As shown in figure 3.1, below text, the different tools are used to gather ICT and SMNs use data collection.



**Figure 3.1** *Data Collection Tools*

The figure is indicating collection was coined with the integration of the mixed method, and in order to distinguish it from other methods, some of its features needed to be mentioned in here: Both qualitative and quantitative data are considered the same in the mixed method research.

- Data gathered from qualitative and quantitative i.e. from an interview are as important as those from a questionnaire.

- In a mixed method, the researcher will gather both qualitative and quantitative data at the same period of time. He can collect qualitative data about students learning meanwhile he can collect quantitative observation on students by using a checklist.

The results are therefore compared after analysis to see if both qualitative and quantitative databases are similar or dissimilar (Creswell, 2012). The Concurrent Mixed Method Design is appropriate for the present study. It is the convergence of both quantitative and qualitative data to supply an intensive examination or analysis of the researched topic. In this design, the two types of data are gathered at the same time and after the interpretation, the information is integrated (Creswell, 2009). Quantitative and qualitative data are collected simultaneously; and then analyzed separately. After that, they are either compared to the results of the tests of the pre-experimental design. If the results are then mingled, though they may be different, and related into one body of information. The last step is the interpretation of the mixed results altogether.

In effect, the comparison of results in the present study is done according to the mixed approach: the results from qualitative and quantitative data are described separately. The quantitative statistical results are given first, then after that, the researcher supplies the qualitative data output to either confirm or disconfirm those statistical results. Finally, there comes the interpretation stage of the whole data. To ensure an accurate data analysis, the data collection has been made consistent through the use of well-constructed questions in both teachers' and Students questionnaires and also in the teachers' interview. The data collection tools have been reviewed and corrected after being tested on samples from the targeted population in the piloting stage so as to make them more consistent and reliable. The next sections will include the four data collection tools used in this study.

### **3.3.1 Data collection tools**

The tools included in this research are teachers' and Students' questionnaires and a teachers' interview and an experiment which is described in a separate section. Each tool is described to illustrate its utility and purpose. "All relevant data from various data streams (interviews, observations, questionnaires) are collected to provide a collective answer to a question." (Cohen et al, 2007, p.468). The tools, in fact, are surveying the use and influence of the ICT and social media networks on EFL learning outside university classes.

This research is based on the use of learners' semi-structured questionnaire that is administered to Master one students at the university of Abdel-hamid Ibn Badis, Mostaganem to collect quantitative data through both hard copies and online by using Google Forms. Another questionnaire simultaneously is delivered to the university EFL teachers through the same procedure. These participants are questioned about the utility of ICTs and the social media in developing students' learning skills mainly the productive ones, and knowledge outside the classroom and its influence on completing their formal achievement.

The third research tool is an interview protocol that is conducted with the population of teachers in order to collect qualitative data. This sample population is composed from the teachers of master one level at university of Ibn Badis, Mostaganem. The questions to be included need to measure teachers' attitudes and opinions towards the use of digital technologies and social media networks outside the classroom to further promote English language teaching and learning.

**3.3.1.1 The students' questionnaire.** Since the present study emphasizes on the students' profile concerning the impact of technologies and social media networks, students' contribution is crucial part of the teaching and learning process. In order to explore their attitudes and the role of ICT in their social environment a questionnaire is administered to them.

Though the students' questionnaire consists of both closed-ended and open-ended questions, it is more made more structured. This was done for two reasons: firstly, it is due to the age and number of participants: secondly, it will restrain the replies within the research objectives. According to Cohen (2000) the bigger is the number of participants, the more structured, closed and numerical the questionnaire needs to be, and the smaller the number is, the less structured, more open-ended the questionnaire may be. That is why the present questionnaire is meant to gather more quantitative than qualitative information from Master one students. It explores their opinions and their social attitudes on the infusion of ICT and social media networks in English language learning.

Data from questionnaires are self-reported data. A questionnaire is an appropriate instrument for collecting data on what your students think or believe about certain issues. For this reason, a questionnaire is a standard data-gathering instrument for need analysis.

(Creswell, 2002, p.421)

The population questioned in this study are master one students attending regular course at the university of Abdel-hamid Ibn Badis in the town of Mostaganem. The students questionnaire participants are indicated in the table below according to their type of master specialty.

**Table 3.2**

*The Distribution of students questionnaire population according to their master specialties*

	Participants' of master one Specialties	Male student	Female student	Age range	
				20-25	+25
1	Didactics and Foreign Languages	05	12	11	07
2	Didactics and Applied Languages	05	16	18	01
3	Language and Communication	01	03	04	00
4	Linguistics	03	06	07	02
5	Literature and Interdisciplinary Approaches	05	04	06	03
6	Literature and Civilization	07	02	08	01
	<b>Total</b>	<b>26</b>	<b>43</b>		

They are administered a questionnaire and is purposefully divided into sections so as to make it easier to complete. The objective of the questionnaire is to reflect the learners' social environment influence toward the use of ICT and social media network for learning. It explores participants' attitudes and readiness to learn through the use of technology to further practice and master English language beyond school hours.

There are 69 respondents: 26 male student and 43 female students. The age is set up into two age range categories: [20-25] and [+25] which correspond to the educational level of master students in Algeria.

*3.3.1.1.1 Description of the questionnaire.* The questionnaire is composed of seven sections. The first one provides background information about students' population such as gender, age range, master specialty; and whether they possess a Facebook accounts.

The following section reveals the different major social media networks besides Facebook as YouTube, Twitter, Instagram or any other. It also draws attention to experience of students use and the type they usually perform on computer/laptops or tablets. These may include email writing and exchange, manipulating MS-word, PowerPoint docs, doing research through Google Search, downloading lessons and e-books. In addition to these, the study also investigates their capacity to

develop oral skills by using social media chatting, video sharing, further also their ability to edit pictures and videos.

The third section provides us with data on social networks and visiting frequency of use and the amount of time students spent connecting on these social mainly Facebook. They are also asked whether they visit educational blogs, or follow any YouTube channel on laptops, mobiles or tablets.

The fourth section inquires about students' perceptions and attitudes towards social media networks (mainly Facebook and YouTube). A Likert-scale based table would report whether the students agree/disagree to use Facebook as a support for lesson understanding and through does sharing and consulting mates. Likert scale is a valuable and important part of survey research, which is commonly used in educational research. It is named after its inventor, the US organizational-behavior psychologist Dr. Rensis Likert (1903-1981), the Likert Scale is a prearranged scale from which respondents select one option that best expresses their opinion or judgment. Likert scales frequently have five possible choices (strongly agree, agree, neutral, disagree, strongly disagree) but sometimes go up to ten or more. The final average score is taken as an overall level of accomplishment or attitude toward the studied subject.

The table also collects about students' perceptions towards using technology tools like the PC or the mobile to inquire about their English language spelling, grammar mistakes and improving their vocabulary. Beside asking students about their ability to do word-processing and arrange various text types into files, they were questioned whether they use face-to-face communication, update their knowledge and do assignments.

As social media networks interaction, the next section (the fifth one) of the questionnaire is devoted to assess the number of virtual contact participants have and the number they interact with from their classmates on Facebook. This is crucial for research data collection, especially question 12 which asks for the number of Facebook English language learning groups each respondent has the name of the frequently visited groups. In questions 13 and 14, the respondents are asked whether they possess other social networking accounts and name them. The researcher wants to know about their social network interaction and further asks participants, in question 14, if they post/exchange with their classmates beyond school hours, and how often they do that.

The following section further specifies Facebook's role in students' interaction for EFL learning purposes by presenting learning activities and asking for the frequency of their performance in a scaling table that ranges downwards from strong frequency (7/7days) to the minimum frequency (1/7 days) or the don't know option. The students' learning performance is measured through seven online activities. They are asked about chatting and updating Facebook status, clicking likes/dislikes icons next to EFL learning posts and on how often they comment and interact with photos and classmates publications. In statement (d), the respondents are asked about the frequency of sending messages in private chatting boxes between learners and sharing docs besides receiving support from similar learners, and seeking support from teachers, from other e-mates or from available social networks users by organizing discussions in created Facebook learning group. Thus, in statement (g) learners would be able to support each other to better manage educative material. In the next statement (h), respondents are questioned about the frequency of getting feedback from teachers, classmates and researchers on the content they had posted on Facebook.

The seventh section is divided to inquire about the role of mobile phone in learning outside the university. This was elaborated in questions from 16 to 19 in the questionnaire. The respondents were asked if they installed Android learning applications on their personal mobile phones to practice the English language. The applications are concerned with pronunciation, vocabulary, grammar, sentence patterns, reading, written practice and dictionaries. In addition, there is an option that inquires about other learning applications they may have installed, regardless whether it works in online or offline mode. In question17, the respondents are prompted to state the frequency of application use by choosing from given options: "*Almost daily*", "*Several times a week*", "*Twice a week*", and "*Never*". Both questions 18 and 19 probe respondents to tell if they share those installed learning applications with their mates and to report how often they do it. They are further asked whether they collaborate with e-mates and e-friends within social media networks groups and its frequency, by selecting replies from given options: "*Yes, everyday*", "*yes, at weekends*", "*every two weeks*", and "*No, I never do*". Finally, the respondents are invited to drop comments on the topic under investigation in a provided space.

**3.3.1.1.2 Administering students' questionnaire.** Data collection tools, including the students' questionnaire, need to be tested since the researcher cannot be sure how the respondents will interpret the questions. Therefore, it is advisable to pilot the questionnaire, at least once, on three or four participants who have the same features as the targeted population and who have quite an accepted level of language mastery ( Gay, Airasian & Griffiee, 2012).

The students' questionnaire has been tested on five students from Master one level at university Ibn Badis University, English department for the sake of testing the questions and making some adjustments. These participants are handed the questionnaire at random so as to be completed and returned. Only three have completed the questionnaire. After that, there are corrections and modifications like the choice of easier vocabulary items in English. So the questionnaire is corrected in term of language to be well understood by the targeted population. Besides, the questionnaire focuses on students' ICT and social media use regardless of their English language oral or written competences.

The students' questionnaire was administered online through google docs. Those who approved to participate in this study therefore they were guided on how to fill it in and send it back. That Guidance help them and guaranteed that participants would not fill the questionnaire inappropriately, in case they misunderstood something. The questionnaire's response rate was considerable; 69 students responded.

The questionnaire was piloted to see whether it contains any deficiencies and to get some suggestions to improve the research instrument. The questionnaire was tested on a small population of three (3) teachers from the target population of teachers. Most of the participants' age ranges from [24-60]. These participants work in English Language department in the faculty of foreign language of Ibn Badis University and are selected randomly from those who teach master one students. They are allotted enough time to complete it; and are provided both hard and soft copies (through emails).

After preliminary analysis of the returned questionnaires, it is found that some respondents did not answer all the questions due to some ambiguous sentence formulation. To redress that, a number of changes have been made: as the reduction of the number of questions, and the type of questions was made simple and direct to be easily understood. We also avoided unnecessary additions to avoid misleading participants.

**3.3.1.2 Teachers' questionnaire.** A questionnaire is an instrument which is made up of open-ended and closed-ended questions with the purpose to gather information from research participants which are used meant for doing statistics for data analysis. Questionnaires are commonly used (Griffiee, 2012).

The researcher anticipated that use of SMNs outside the classroom circle would not be significant in learning unless when encouraged by teachers' directives in conformity with higher education syllabus. Accordingly, in terms of methodology, a teacher's questionnaire administration is necessary to test the readability of this population for distant teaching to complement classroom practice. The participants who are a priori EFL teachers have been administered a questionnaire that consist of six sections. Section one denotes personal and professional information of the selected population from university teachers such as gender, age range, teaching experience, besides three other questions to describe the teachers ICT and social media profile. These questions include having Facebook account or any other social media networks; whether one asks if they hold any degree in computer science (informatics) specify the type of degree or specialty.

Section two is elaborated to report information about the number of Mater one groups they teach and the composition of each group and the class attendance rate. Section three is devoted to collect data about resources and internet access at university because if we want learners to use these tools for learning purposes, they must see their teachers or lecturers using ICT and social media networks inside university. Thus, questions four, five and six about the computers/laptops availability at the higher education institutions and the rate gathered through guided questions which students access them [once a week], [twice],[thrice], or [never] and whether internet is provided. After that, the respondents report if other ICTs resources available inside the classroom, like the data show, laptops, projectors, and smart boards. The frequency with which they bring their laptops or other devices in case they are lacking at the institution. There is another question ten on interactive white/smart boards and its potential use, and in question 11, the researcher asks if there is ICT instructor or technician in the institution.

In section four, the researcher gathers data from respondents about ICT and social media networks access outside the higher education institution. Each teacher provides answers to whether he/she has permanent internet access and the type of connection whether it is via Wireless Fidelity (WIFI), third or fourth generation mobile connection. In question 13, the researcher wants to know



if students contact their teachers through emails, or social media networks, and how often they do so. They are also solicited to inform the researcher about their platform logging on, and they are implored to state the reasons of not being able to do so. They are also asked if they have an e-library at the faculty they teach at.

In the fifth section, the questions turn around the impact of social media on learning English outside the classroom but in conformity with the curriculum. This section collect information about the means of contact between teachers and their learners: email or social media networks or both, and it indicates the social media that would positively influence their students' EFL learning outside the classroom. In question 18, teachers are asked if their master one students use Facebook or YouTube in particular to further practice the language and for which pedagogical purposes and the frequency with which they perform these activities "daily", "weekly", "every two weeks", "every month" and the "no answer" option. Then, they are asked their students can manage to access these delivered resources, and consequently how they would assess the given work, in question 20. Question 21 is reporting the number of teachers who have flipped their classroom teaching and the frequency with which it is done in addition to the type of work being done like grammar, reading, or audio-visual files. The following question 22 inquires about tutoring and coaching students to learn using social media networks and to see their attitude towards them. It reveals how they would cover and support the amount of practice they assign to their learners.

The fifth section reports about ICT skills in questions: 24, 25, and 26 presents a table that test their confidence in manipulating ICT tasks. The respondents can choose from the provided options: "A lot", "Somehow", "A little", and "None" to grade tasks such editing by using word processing, creating presentations and animations using PowerPoint, taking part in forums, blogs and social networks besides being able to download and install software. They are also questioned about the availability of an ICT guide or a technology pedagogical leader whether they have been trained to work with e-learning platforms and to do school conferencing and to describe the type of training received as sufficient or insufficient.

The last section of the questionnaire is meant to describe teachers' beliefs and attitudes towards technology in a given, coded tabulation that is graded from 0, +1,+2 standing for *Neutral*, *Agree* and *Strongly Agree*; and -1, -2 standing for *Disagree* And *Strongly Disagree*. The participants tick(x) in the appropriate column to respond to\* the provided statement related to the

facility and easiness of technology use, its hazardous effects, faith in online resources, internet over-use by the students for learning and the suitability of e-learning platforms to support learning outside the classroom. Finally, teachers are implored to add comments as far as this research is concerned in a provided space.

The teachers' questionnaire in this research was printed and handed directly to the population of participants in a form of a test. Since it targets EFL teachers at university, it was handed to those who teach master one EFL students.

**3.3.1.3 The Interview Protocol.** The interview is the second tool used in this research, after the teachers' questionnaire. It is used to question participants and collect a more qualitative data that complete the quantitative data already gathered by the questionnaire. Nunan (1992) defines the interview as the elicitation of data by one person from another, through person-to-person encounters (Kvale, 1996, as cited in Griffée, 2012). He regards it as a conversation with a structure and purpose whereas Cohen, Monion and Morrison (2000) consider the interview more than a tool for collecting research data ; for them, it is also a social interpersonal encounter. To sum it up, an interview can be regarded as a research instrument with a structure, a form and a definite objective. It is rather a face-to-face or a person-to-person conversation with the aim to gather meaningful data that requires analysis and validation (Griffée, 2012).

According to Hitchcock and Hughes (1995, as cited in Griffée, 2012), there are eight types of interviews. Two main categories are: standard interviews and non-standard interviews. The standard type consists of structured, semi-structured and group interviews while the non-standard type refers to group, ethnographic, life, history, informal and conservation interviews. The Standard Interviews have predetermined questions to be followed literally by the interviewer without changing or asking for clarifications; in contrast to the semi-structured interviews where the questions are prepared in advance but the interviewer is free to ask more questions for clarifying purposes. In the structured interviews, a very large population is asked the same questions. Finally, in the non-standard type of interviews, several people are interviewed at the same time, those who have similar features such as academic problems, failure or leadership.

Each type of interview will be used depending on the aim, knowledge and the skill of the researcher (Griffée, 2012). In fact, the standard semi-structured interview type includes previous

preparation of questions and the possibility to search more for new insights and further clarification, while interviewing the respondents. That is why it is mostly used in academic researches.

The researchers usually choose the interview as a tool for data collection because it is considered easy and talking is natural (Griffiee 2012; Lazaraton, 2002, as cited in Griffiee, 2012). Another reason for preferring the interview instrument is that candidates for interviews like students and teachers are generally cooperative. In the present research, the interview is selected for the advantage of being cross-sectioned with other data from questionnaires of both teachers and students. Using triangulation method is opted for to strengthen the validity of results.

*3.3.1.3.1 Description of teachers' interview.* A sample population of teachers exercising at the English language department of Ibn Badis University in Mostaganem and teaching the targeted level-Master one students- are interviewed. The objective of the tool is to collect qualitative data, consisting mainly of attitudes and opinions of using ICT and social media networks to support learning outside school as a complementary practice to the conventional and formal teaching inside the classroom.

The interview protocol consists of 18 questions and five parts. It is a semi-structured interview designed to collect qualitative data from university teachers. The interview starts with the part questioning about internet connection tool that contains questions 1, 2 and 3. It reports whether participants use Facebook, YouTube or other Social Media Networks (SMN) for teaching purposes. These enable the researcher to get the profile of each participant, as savvy i.e. technophile or technophobe. Part two describes the perceptions of participants of SMN utility and effectiveness in education through asking them if they think that Facebook, as the most used social media network, would benefit learners, and whether it would enhance teaching the course being taught by interviewed teacher. Then, in question six, the interview is prompted to design the Social Media Networks that works best for him/her in terms of flexibility of material exchange: doc in word processor, audio-visual files, picture and so on. In question seven, we want to know whether SMN can serve to relate learning outside the classroom with the conventional learning inside classes. Both of questions eight and nine collect data about flipped classrooms and inversed formal teaching as a basic learning model in which ICT is used to see whether it is perceived as an enhancing method.

After that, the participants are questioned about difficulties and challenges they face while using social media networks outside classes to promote EFL learning. The researcher further investigates in question 12 about the negative influence that SMN could exercise on EFL learners. In the same line of thought, the interviewees are invited to suggest better ways to exploit Facebook or other SMN for their own students' advantage. Therefore, they are asked whether they keep posting on a personal or professional blog, or on a Facebook page or diffuse videos on a YouTube channel to improve EFL learning. If so, the participants would tell about their experience.

On the other hand, the core of this research is to teach and learn online through SMN and e-learning platforms are meant for distant learners or learners outside the classroom, either for lecturing or TD sessions practice. In this last part of the protocol, the researcher has asked interviewees if they have given lessons to students by means of e-learning platforms, namely those put forward by the Algerian universities during the lock-down period of the pandemic of covid-19. It would be very interesting to know about the online teaching objectives and the adopted pedagogical method under the influence of online learning option. The following question 16 inquires about the teachers' procedures to ensure or provide online learning interaction and meet learners' needs. The interview participants in question 17 gives information about how they can evaluate students work online or through SMN platforms in order to provide a credible assessment. Finally, interviewees may want to offer suggestions or comments on the study under investigation.

*3.3.1.3.2 Interview procedure.* The interview is tested on two teachers selected randomly from the targeted population. A number of corrections have been made in the interview to serve the main objective, and not to make it too long to avoid boredom. After the interview is piloted, some changes have been made on the order of questions; some of them are omitted to make it shorter and some other are moved upward or downward. Coherence is ameliorated by rewording sentences and altering some inappropriate vocabulary items.

The participants were interviewed either face-to-face in the faculty or through phone interviewing during Covid-19 lockdown. A software application *call recorder* in the smartphone was used to record the interviewees after getting their consent. We assured participants who agreed to be recorded anonymity to guarantee the credibility of information they supply, knowing they would be recorded. This was done in accordance with Labov caution that a recorder might undesirably falsify the data's quality (Labov, 1972, as cited in Gordon, 2012). In the same context,

the researcher has planned to reduce the “observer’s effects” on interviewees by avoiding recording audio or video during the face-to-face interviews. They were made feel comfortable in the English language department by considering Labov (1984) statement:

They were put in equal footing as the researcher. Both the researcher and the interviewee have the same status. The participants are also being told that they can withdraw from the conversation and choose not to answer any question they consider as inconvenient.

Labov (1984) cited in Váradi and Kontra M., (1998, p.7 )

Another criterion favouring good interviewing is the participants familiarity with the topics of research i.e. technology which is related to education and the place of the interview-the school (Cukor-Avila, 2014, and Bailey, 2000). Furthermore, the interviewee is allowed enough time and not interrupted to let him/her to reflect on the questions. Observation skills are relied upon to note the interviewee’s facial expressions and even his/her body language. However, there are others who accepted to be audio-recorded; they are mostly male participants and because of that gender difference is not considered as a variable nor emphasized in this study.

### **3.3.4 Data analysis**

Before starting to analyze the collected data, the researcher has to take into account the format of the data analysis s/he is going to adopt. The lay out and structure of the questionnaire, for example, will allow him/her to order and classify data into categories, do numerical statistics and analyze the data results. Thus, s/he could be able to interpret them (Cohen, Manion and Morrison, 2000).The mixed method adopted in the data collection in which both qualitative and quantitative data collection tools were used determines the type of analysis used in this study. The findings from each tool would be compared with those derived from another through triangulation.

The gathered data will be analyzed according to qualitative and quantitative data from the interview protocol and the teachers’ and students’ questionnaires. The results from these instruments will be triangulated to seek validity. The finding will be compared to check convergence.

Participants received survey questionnaires for which the response rate is considered. The data collected are analyzed using the manual percentage and through Google docs, partly by using

descriptive Statistical Package for Social Science (SPSS) program to calculate frequency with the median, the mean and the mode.

The data from the teachers' interview, the teachers' and students' questionnaires are collected nearly and classified into categories according to the research questions and the hypothesis. The data are analyzed with reference to independent variables like age, teaching experience and ICTs experience. First, the collected data are screened, cleaned of irrelevances. Then, they are organized into categories and sections. After that, they are analyzed according to the concurrent mixed method procedure. The teachers' and students' questionnaires quantitative data are analyzed separately and so are the data collected the interview. After that, the findings are compared and triangulated for convergence. Finally, all the data results are interpreted (Creswell, J.,W., 2012)

**3.3.4.1 Data analysis procedures.** Data are collected from both teachers' and students' questionnaires. Closed-ended and open-ended questions are used in the two of them in order to collect quantitative and qualitative type of data. Thus, they will be analyzed accordingly. Cohen and Manion (2000) suggest we first need to prepare data for analysis by cleaning, manual coding for small surveys but before doing that there is editing. We mean by editing, checking the data to draw out errors made by the participants. This operation goes through the following steps: completeness of answers, accuracy and uniformity.

**3.3.4.1.1 Teachers' questionnaire.** The data that the researcher got from the questionnaire is first cleaned to be ready for analysis. The non-answered or half-completed questionnaires are not taken into account. Only the well-completed, neat copies were selected. After the questionnaire has been piloted, some questions were modified to ensure validity and to collect clean and more accurate data.

In most explorative studies data analysis procedure comprises three steps: arranging the data for examination, analyzing the data, and inferring conclusions so as to testing the research hypothesis and come to credible implications (Mackey and Gass, 2005). In this context, the questionnaire questions are grouped into categories to be easily manipulated. This can be done in a five steps process: first, the collected data is transcribed for manipulation. Second, the researcher should think about how s/he plans to analyze data and group it accordingly. Third, he needs to read

it thoroughly to get key ideas. Fourth, he has to read the key ideas again to identify re-occurring themes to get the broad lines. Fifth, each theme ought to be exemplified through a response.

Following Mackey and Gass (2005) steps in analyzing data, the questionnaire data are divided into sections and categories. Each section comprises at least two (2) questions. The data derived from this questionnaire are quantitative. Thus, they will be separated from the interview derived data. However, they will all be analyzed about the same time. Tabulations, graphs and histogram are drawn to illustrate the data gathered.

The obtained results from data are analyzed and put into tabulations. Nominal data are gathered on the different types of ICT devices (laptops, mobile, tablets, software applications) used outside the classroom and the percentage (%) is mentioned in tables. The data brought by closed-ended questions are quantitative and calculated in tabulations and graphs would illustrate them. The frequency data from questions like “how often” and “once, twice.” are put to measure the rate of ICT and social media network use.

There are also data obtained from open-ended questions that report the obstacles preventing online implementation of social media networks for learning outside classroom. These data are to be quantified and calculated with percentages. The researcher get data representing participants’ attitudes through a coded tabulation ranging from: [-1 to +2] which stands respectively for: strongly disagree, disagree, neutral, agree, strongly agree, according to Likert Scale.

Multiple Choice Questions (MCQ) and Yes / No type measure the data showing participants’ ICT and social media network or online training. They are classified and quantified. The same is done for the participants’ support.

Correlation is sought between the rate of contemplating social media networks, training and the rate of teachers’ digital competence for online teaching. The frequency of online teaching and learning practices is measured by assessing online e-learning platform logging, group work interaction, and project-based activities.

*3.2.4.1.2 Students’ questionnaire.* The learners’ questionnaire is analyzed according to its objectives. The major one is to explore their responses toward the use of communication technologies in their social environment and in learning. It is important to state that data collected from the learners’ questionnaire is used for purely explorative purposes. This data can be cross-checked with that of the teachers’ interview or their questionnaire since both tools are answering

similar research questions. Hence, there are some considerations to contemplate before analyzing the questionnaire. One of these is the preparation of data for analysis. According to Creswell (2012), this will help the researcher decide upon the method of measurement to use. Since some respondents' answers were either missing or not completed properly, they are avoided and left out. After the handed and mailed data are collected, they are cleaned and organized into categories which are connected to the main sections.

Bio information is collected through direct questions and multiple choices questions. In order to analyze them, they are classified in tabulations and compared on the basis of age variable using numerical data and percentages. Master specialty constitutes the second variable to consider in analysis. The selected data for SMN access in section two are classified into categories to count the biggest percentage while SMN is accessed most and which is the least used, the frequency is counted in the number of years. The frequency of applications practice in mobiles is counted through selecting from a provided list. Facebook frequency of use by participants is measured by the number of times visited every day and the duration of connection counted by hours. The more participants stay connected to Facebook, the more they benefit from it; the frequency of exploiting educational blogs and YouTube channels is analyzed the same way.

In order to reveal participants perceptions towards SMN as Facebook and YouTube, a Likert scale tabulation (strongly disagree, disagree, neutral, agree, strongly agree options) is measuring attitudes towards SMN influence on learning grammar; vocabulary and promoting oral communication and writing through the use of word processor and pdf and multiple file extensions. Thus, participants' responses on performances are counted from most to medium and least by percentage to find out attitudes. Data describing online collaboration and interaction is inverted with nominal and numerical statistics through yes/no responses, multiple-choice questions (MCQs) about virtual contacts, Facebook learning groups, frequency of docs exchange and duration of interaction. In section six, data about measuring participants engagement in Facebook network and the rate of performing learning tasks is scaled from 7/7 days to once a month. To extract diagnosis of use frequency and reveal the extent to which they are engaged in online learning through SMN, for example, activities highly rated are those of commenting on classmates' posts, sharing EFL learning files, organizing discussions and supporting other learners' online.



In addition to that, using Android applications in smart phones is calculated in nominal data denoting those for pronunciation, vocabulary, grammar, dictionaries and language practice. Also, the data indicating the amount of benefit derived from smart phones applications is counted and illustrated by numerical figures, graphs through percentage use. The last optional suggestions of participants, for the actual study, are quantified by assembling similarities and differences and added as qualitative data to enrich the results.

**3.3.4.2 Interview protocol.** According to Wolcott (as quoted in Griffiee 2012, p.59) every human being keeps a story for himself and will not share it unless someone knows how to ask. This saying stresses the importance of having well-prepared questions before interviewing participants. The interview, as the second important research instrument, has an objective is to collect qualitative data which is, then, analyzed on the basis of the concurrent mixed method design. These data are analyzed separately from those of the teachers' and master students' questionnaires but they are cross-checked, compared and interpreted to see to see if they converge.

The interview data analysis is done after splitting the responses into categories. The variables to emphasize on are teaching experience and the interviewees' social media profile, technology training to use digital tools. The interview questions are divided into sections to provide a structure for analysis and interpretation. Tabulations are created for the sake of comparing percentages to enumerate difference and significance in participants' responses. This is due to the nature of the interview collected data. The qualitative research, however, deals with qualitative phenomena, i.e. those in relation with quality or kind. For example, those involved in exploring the reasons behind human attitudes, motives and desires. Interviews, among other tools, can be used as a suitable measure in this type of research (Kothari, 2004).

The data collected from the interview is considered as raw data. It does not reveal anything until is interpreted Griffiee (2012). He actually reported that data interview can be analyzed in two ways, according to Hitchcock and Hughes (1995), as cited in Griffiee, (2012), first to become familiar with the data and then try to get coherent categories to be analyzed. The data interview of this study is collected through an audio-recorder, in some interview notes taking. After analyzing the recordings, the scripts are written down exactly as they were uttered.

Before proceeding in data analysis, themes, headlines and categories are created: social media profile, SMN perception of utility, online learning, outside classroom challenges and online

teaching platforms. When analyzing data, importance is given to social media networks use frequency with relation to the teaching experience and technology skills as software manipulation. The teacher attitudes are to be cross-checked with the questionnaire's results. Another major concern is the teachers' difficulties to innovate in their teaching practice while using technology.

**3.3.4.3 Triangulation.** Triangulation is defined as two or more methods of collecting data in making research on activities or attitudes of the human beings. Literally meaning, triangulation is a procedure that concerns a physical measure. Triangulation was well-known for the ancient Greeks and Egyptians. For many centuries, it was generally used by the maritime navigators, who used to position their ships during trips (Hales and Peersman, 2010).

By using triangulation, the researcher acquires confidence that the data s/he collected are generated from multi-method procedures (Lin, 1976) as cited in Cohen, Manion & Morrison(2000, p.112). S/he further stated that this is reached as the researcher gets similar results after analysis. If the outputs of a questionnaire survey are somehow the same as those obtained from an observation research of the targeted domain, the researcher is self-assured. In this study, assurance about data analysis results is reached by cross-checking results from the two questionnaires with those from the interview. After that, they are screened seeking relevance of social media networks effect in the field work tests results. Triangulating these three sources of data collection offers more reliability to the study results and implications.

Accordingly, the triangulation method is adopted in the present research and the results of all the gathered data tools are analyzed, compared and contrasted to see if they converge or diverge. By the 1990, the mixed method integrated both quantitative and qualitative data. According to Tashakkori and Teddlie (2003), as cited in Creswell (2009), the findings of one method can show the participants the weakness of the other. Furthermore, these results of both methods can constitute important database or the results reinforcing each other.

**3.3.4.4 Validity of Research Questionnaires.** Both of the validity and reliability are focused upon in the teachers' questionnaire, classroom observation and the interview. The tools have been made valid through some methodology procedures. The teachers and students' questionnaires are research instruments that must be very well constructed to fit their purpose i.e. collecting data in an efficient way; they need to be both accurate and reliable.

*3.3.4.4.1 Internal validity.* This refers to the ability of a research design to carry out a sound study in which the results are not likely to accept other interpretations other than the one advanced in the present study. There must not be another alternative plausibility or explanation of the reached results (Marczyk G., et al., 2005).

To reduce measurement error and make it reliable, the questionnaire was clearly typed and the instructions were made easily understood for all types of participants. The level of difficulty in the vocabulary chosen is adapted to the convenience and grasp of both the certified teachers and the beginners. It contained tables and structured questions enabling testing and scoring consistency.

To achieve internal consistency, the structured and semi-structured questions are made to correlate with one another; thus, they complement one another. Questions of ICT attitudes are directly linked to training, frequency and experience of using social media networks. The level of the participants' competence is a parameter indicating how they would approach using social networks. Accordingly, this leads to a question about the extent to which social media networks are adopted for learning outside the classroom. The logical question following would be search for challenges or difficulties faced by both poles of participants, learners and teachers.

To minimize the threats of internal validity, the tools are made more efficient and reliable after the piloting. Many arrangements are made to correct the mistakes and avoid bias. Validity of the questionnaire's results is ensured when they are cross-checked with those gathered with qualitative tools like the interview or class observation. The results can be similar or different. If the findings are similar, there is validity and the tools are reliable.

*3.3.4.4.2 External consistency.* External consistency or validity is about being able to generalize the results of a particular study to larger extent. To minimize the threats to external validity, we need to ensure that the research is well constructed and objective.

With external validity, we are concerned with the generalizability of our findings, or in other words, the extent to which the findings of the study are relevant not only to the research population, but also to the wider population of language learners.

(Mackey and Gass 2005, p.136)

In this research, external validity is enhanced by selecting a sample population from a larger group which has the same ethnicity, religion and language. The representative sample studied enables the findings to be generalized on other university students at the same level.

Another threat concerns the effects due to testing. Participants tend to respond in a different manner when they know they are being evaluated. In order to lessen the degree of artificiality in their responses, we assured them confidentiality and anonymity both before the distribution of the questionnaire and before being interviewed. They are also promised that no personal information will be revealed either verbally or in written form. There was a second administration of the teachers' questionnaire, sometime later on. Hence, replicating the questionnaire is to increase the validity of results and see whether this research instrument is reliable.

*3.3.4.4.3 Piloting instruments.* Both students and teachers' questionnaires are tested, first on a small population to check their validity and ensure that they would be reliable instruments of data collection. The participants could ask about ambiguous questions or those unclear to them before completing it. The level of difficulty was taken into consideration by facilitating the formation of questions and making them as simple as possible.

The informants are provided with a brief and concise explanation of the study significance and of what they are required to do and why. They are also guaranteed anonymity and confidentiality for their participation in the study.

Touchy subject-matters (personal inconveniences) in items were avoided because respondents might not respond honestly or at all. Leading questions were also avoided for they suggest to the respondents that one response is more appropriate than another. Each question stands on its own; but all questions serve the general purpose of research. Creswell (2012) also clarified that respondents are not required to supply their names so they respond at ease and this would reduce subjectivity.

*3.3.4.4.4 Validating teachers' interview.* To validate the present interview findings, it has been triangulated with the learners' and teachers' questionnaires results. The findings, from qualitative data, are cross-checked with those of the quantitative ones from these questionnaire to check validity. A technique proposed by Hitchcock and Hughes (1995), as cited in Griffee, (2012)

suggested re-interviewing as a check on the connections between data interpretations of the same respondent. Thus, after the summary has been done, the respondent was consulted for his opinion on the interpretation of the interview he has been part of. If s/he approves on the interpretation, the researcher will then have the results validated. But if s/he does not approve, the differences in opinions will be discussed to find out the point of disagreement. A brief re-analysis is most like to be planned by the researcher.

Apart from triangulating results from two different sources, there are other ways to improve reliability of an interview. In this research, most of the interviewees were told about the topic and the objective of the interview but not of the questions content. Sub-questions are added so as to get the maximum of explanations and details from the respondents. The interview is reworded after piloting and is made shorter and precise. According to Kvale (1996), we can make an interview more concise by excluding unnecessary small talk. Furthermore, the interviewer should know his objective very well and has to be articulate enough to keep the interview with the same length for all the interviewees. After each interview is audio-recorded, the researcher reworded some key questions to ask them differently to check if the interviewee's answers are consistent, as suggested by Kvale (1996).

Another major threat of the interview data collecting instrument resides in the bias of the interviewer himself. S/he has to get rid of his/her own beliefs and assumptions so that not to influence the interviewee in one way or another. According to (Long, 2005) as cited in Griffee, T. D. (2012), one way to minimize the interviewer bias is to become aware that s/he is more than a question asker. S/he can lead the interviewee's answers without being aware of it; for example, like through nodding, facial expressions or through body gestures. To ensure validity, the interviewer made efforts to act neutrally when conducting the interview by avoiding nodding and other leading gestures. A special care was given to the following factors of influence: interview of location, length, timing and other environment factors, just as advised by Cohen, Manion and Morrison (2000).

The locations chosen to conduct the present interview are the interviewees' places of work: the teachers' room in the English department of the faculty or in free teaching rooms. They gave perfect conditions of quietness for an interview. The respondents are generally available there and there are no social constraints, so the respondents are more comfortable for the interview.

### 3.4 Experimental Research Design

This part discusses and presents the research design dealt with to prove the efficiency of incorporating SMNs imbedded in ICTs on EFL learning and teaching outside the faculty classrooms. As set by Kellett (2005) in humble words, experimental methods involve *cause and effect*, provided that the researcher would be capable of *assessing* the degree of an effect and assign the most probable reason. The study achieves that by precise handling and guidance of the research *variables* (P.89). In addition to the qualitative and quantitative survey methods of the interview making and the two questionnaires, a planned experiment is added to cross-check with previous tools data and ensure more validity as stated by (Marczyk, DeMatteo and Festinger, 2005). “After articulating the hypothesis, the next step involves actually conducting the experiment (or research study).” For example, if the study involves investigating the effects of SMNs and ICTs on the level of EFL learning, the researcher would design and conduct a study that attempts to deal with that question. They added that “a key aspect of conducting a research study is measuring the phenomenon of interest in an *accurate* and *reliable* manner” (p.10)

Henceforth, the researcher gathered data on the learning levels, namely the writing productions, of the study participants by a medium of a precise and trustworthy measurement instrument. Next, he has compared the written productions performance levels of the two groups under experiment to check whether the teaching treatment had provided had any influence or impacts on the performance.

According to Denscombe (1998), as cited in Bell and Opie,(2002) the independent variable has direct effect on the dependent variable regardless of its size, number, structure, volume or any other autonomous factor is distinct from the other variable. However, any change in it would cause the dependent variable to change in view of changes to the independent variable. On the other hand, any change in the dependent variable would not necessarily influence the independent variable. On this ground, to obtain reliable data gathering, the researcher had set two variables: an independent and a dependent one to define the context of the research hypothesis.

According to Lodico, Spaulding, and Voegtle (2006) researchers adopt descriptive statistics to sum up the sample data, in some types of studies, they can also come up with a conclusion based about the population from sample utilized. As such, the score numbers they obtain from the sample (e.g., the mean and standard deviation) are named statistics, and the equivalent

values in the population are called parameters. In the present research, the researcher adopted descriptive analysis tools besides surveying and using percentages to evaluate questionnaires' and interview results.

### **3.4.1 Planning the experiment**

Denscombe (1998), as cited in Bell and Opie, (2002) suggests that as you conduct an experiment the objective is to demonstrate that the dependent factor reacts to changes in the independent factor (p.50). For instance, in the present study, the progress of argument writing in Master one productions would respond to participants' exposure to social media networks during the online teaching as treatment. To do so, the researcher needs to be sure that it is the effect of SMNs only that cause for the positive progress levels in written arguments papers, excluding other factors. Therefore, this type of relationship is assured through the introduction of independent and dependent variables as of dependability, hence the independent variable would affect the dependent variable. In this context, the use of social media networks, as an independent variable, would affect Master one students' EFL learning outside the classroom, as a dependent variable. To build that relationship, there is a scientific procedure which starts with inculcating a pre-test to the sample population of participants, in here it is experimental group of Master one students.

On the other hand, the researcher had to control the variables to avoid extraneous variables that may affect the dependent variable; thus, he must ascertain that influence comes only from the independent variable inflicted during the treatment (Lodico, Spaulding, and Voegtle, 2006). Here after, similarly, the same pre-test would be given to a control group from similar population as Kellett (2005) designated that to control the variables, one ought to ensure that participants in both groups were not getting any other type of teaching elsewhere in addition to being exposed to parallel amounts of the intervention (p.91). Consequently, the researcher delivered a pre-test to both experimental and control groups before providing any treatment concerning academic productions of any type. After giving teaching as treatment on the basis of the pre-test evaluation deficiencies, participants are administered a post-test to assess whether there is a progress thanks to the treatment or not. This is realized through the comparison of both groups' scores. In terms of statistics, the difference between groups' performance can be computed through t-test for individual illustrations according to what is advocated by Jackson (2009), "The *t* test for a single sample is similar to the *z* test in that it is also a parametric statistical test of the null hypothesis for

a single sample. As such, it is a means of determining the number of standard deviation units a score is from the mean ( $\mu$ ) of a distribution” (p.184). In accordance, a null hypothesis together with its alternate one can be represented in the follows:

- Null hypothesis (H<sub>0</sub>): If EFL University teachers use online teaching, their students would not show improvement in argumentative writing performance.
- Alternate hypothesis (H<sub>1</sub>): If EFL University teachers use SMNs and online teaching tools, their students would show improvement in argumentative writing performance.

### **3.4.2 Data collection tests**

Cohen, Manion and Morrison (2007) stated that “researchers have at their disposal a powerful method of data collection, an impressive array of tests for gathering data of a numerical rather than verbal kind.” (p.414). A test is meant to measure the performance of students on a given task to reveal how much they have comprehended a particular topic or area of study. Thus, according to Salkind (2017), the **t**-test is a statistical test that produces important supposition that the amount of variability in each of the two groups is equal. This is the resemblance of variance assumption. Eventually, the researcher adopted the t-test that because it is appropriate with the allotted time and up-to the participants understanding and level. Therefore, it would score their previous knowledge in a well-elaborated written form.

The pre-test and post-test in this experiment were graded on the basis of overall scale and sub-division sections marking for each target elements of the introductory paragraph of an argument writing, such as the general statement, the topic issue , the claim and counter claim and the thesis statement. Tests are administered before and after treatment so as to trace participants’ progress in both groups as either owing to social networks incorporation outcome classroom hours or credited to face-to-face instruction inside the faculty.

**3.4.2.1 The experiment statistics.** Next to manual calculation of the percentage values given in tabulations in data analysis of both teachers’ and students’ questionnaire beside the interview, descriptive and inferential statistics for the experiment part is dealt with Statistical Package for the Social Sciences (SPSS) which determines the mean, the mode , the median and range. “Additionally, t-test is employed to test if the mean of a continuous numeric variable is equal to a hypothesized value of the population mean, which is part of Inferential Statistics for Comparing Means.



Descriptive statistics are there to describe data in order to display them in a form of frequencies. The common number values that do that are such as the mode, the mean, the median, the range, the variance, the standard deviation, the standard error, the skewness and the kurtosis. These measure purely record results in various numerical forms (Cohen, Manion and Morrison, 2007). Conversely, they further stated that inferential statistics attempt to examine implications and expectations by using the data collected. This is done through hypothesis testing, correlations, regression and multiple regression, difference testing (e.g. t-tests and analysis of variance, factor analysis, and structural equation modelling. Usually these statistics are more prevailing and appreciated by researchers. This study encompasses both descriptive and inferential statistics.

Dispersion in statistics provides the extent to which the scatter of the values of items of a variable in the series around the true value of average. In other words, it measures this spread out in calculated statistics. “Important measures of dispersion are the range, the mean deviation, and the standard deviation”, (Kothari, 2004, p.134). In the present study, to simplify the meaning: it is to compare the highest scores, the lowest ones, and the frequency of each value of them. Additionally, Hanneman, Kposowa and Riddle (2013), define the concept of dispersion is more appropriate with the daily language of variation, variability, diversity, and difference. Which means that it describes the value that all cases are not scored similarly that is to say (i.e.) scores differs from case to case (p.138). Hence, inferential statistics allow drawing conclusions about the experiment effects; moreover, it enable to detect the main differences in variables in addition to correlations between the variables which are relevant to the research questions.

*3.4.2.1.1 The students’ statistical test.* In addition to other tools, this study is also based on quantitative research that is ensured at this step by the experiment arranged on two groups. Testing these groups prior to treatment and post it, to get scores constitute quantitative data collection. The t-test is more appropriate for this study because it can deal with two groups, and the differences between *means* are computed. “T-test also experiences relationships between two variables, and validate for the significance of the correlation coefficient”, (Salkind, 2017, p. 309). In the projections of this study’s outcomes, data statistics for analysis would be better calculated with the t-test independent samples to sort out the means for each key element. After the researcher has determined the test type to employ so that to examine differences values, and distinguish the cause-effect of the research variables.

Scoring values that determine differences by comparing results of the two groups should be made reliable and valid regarding the central tendency and dispersion elements. This is achieved by selecting the most appropriate statistical test for this research paradigm. Researchers most commonly adopt either the *z*-test or *t*-test) as statistics powerful instruments for parametric comparisons of results between two independent groups; subsequently, the *t*-test has been preferred to the *z*-test for it is more practical and offers many options. Kothari (2004) noted that *t*-test is most applicable when the researcher has a case of small sample(s) if population variance is unknown (p.196)

*3.4.2.1.2 The independent sample t-test.* The independent *t*-test is there to check if the means are statistically significant. By definition, it is a technique that opposes and compares the means of two unconnected groups. Therefore, the study must have two variables for a sample representing one population. Kothari (2004) pointed to the appropriate test statistic *t* is calculated from the sample data that is compared with its probable value, based on *t*-distribution (reading should be done at the table of probable values of *t* for unrelated levels of significance of the dissimilar degrees of freedom) at a precise level of significance of degrees of freedom. The results allow to accept or reject the null hypothesis (p.169).

Screening if the means are significant is realized by a statistic formula that is used to calculate the observed *t*, next the researcher compares it to the tabulated *t* value which is determined by three norms: type of the hypothesis, the number of degree of freedom, and the level of significance.

Thus, the researcher needs to begin by defining if his research hypothesis is one-tailed type or a two-tailed type. As he seeks to explore the positive effects of ICT and social media networks on master one students' argumentative writing, he opted for one-tailed hypothesis. This research is predicted to reveal the –one way- influence of the independent variable (learning online through SMNs) on the dependent variable (master one EFL argument writing). In case the researcher wanted both positive and negative influence, it would have been two-tailed hypothesis with different statistical test inferences.

Then, the researcher calculates the degree of freedom in order to determine the critical value. The formula of mathematics to do that is:  $N_1 + N_2 - 2$  ( $N_1$  and  $N_2$  stand for the number of the two independent sets of subjects).

After that, the next measure is the level of significance that is fixed by the researcher as 0.05 level. It is estimated that the level of positive result would reach 95% of confidence of the efficiency of the treatment inoculated to the participants. Keys to abbreviations used in the computation of observed  $t$  are provided in the *Appendix F*.

### **3.4.4 Conducting the experiment**

To carry out the experimental study, the researcher proceeded in realizing a number of operations that begun by a pre-test, the evaluation of the pre-test, providing teaching sessions to remediate the shortcomings found in the pre-test. Immediately after that, the researcher proceeds in assessing whether there is progress through administering a post-test. The analysis of the second test findings will enable the researcher to compare them with the previous ones and between control and experimental groups in order to draw out conclusions based on quantitative statistics.

**3.4.4.1 The pre-test.** When starting the experiment, the experimental and control groups were tested at the same time. The pre-test was intended to gather information about how participants in both groups would approach academic writing precisely the argumentative one. The researcher wanted to know whether they would be able to identify topics requiring argumentation, and if they get to follow the process and organization of argumentative writing. It was estimated that there were no major difference between the productions of the two groups participants.

Eventually, the pre-test writing objective was to sort out the participants' main writing obstacles towards argument writing, globally speaking from both of process and content sides of writing. The test entailed three topics to choose from and write an argumentative essay introductory paragraph. It is done inside the department classroom, same amphi-theatre where the writing production is taking place.

The pre-test is an essay introductory paragraph should consist of at least 100 words. The topics are about common daily life to incite the participant to easily generate ideas, this was done without any other direction from the researcher who did not provide any hints about the utility of the pre-test. In effect, he remained objective and let participants organize their essay as they know. The objective was to get the participants write argument and support them through evidence, develop claims and counter claims of well-developed issues. Copies ought to be analysed, evaluated and scored accordingly.

**3.4.4.2 Tests assessment.** Hibbard and Wagner (2013) promoted that when it comes to assessing academic writing, we need to use both holistic and analytic procedures to elaborate an evaluations list. The basis of such an evaluation was derived from the authentic writing attained by writers in their professions and daily life, and from the students drafts samples chosen to define norms for a model writing performance.

As far as argument and persuasive writing are concerned, the analytic headings would comprise aspects of : Organization, Sentence Structure, Fluency, Word Choice, Mechanics, Citations, and Neatness. Similarly, the headings were developed to assess both pre-test and post-test; thus, the researcher developed elements like the Attention Grabber, the General Statement, the Topic Issue, the Claim/ Counter Claim and Thesis Statement of the introductory paragraph of the argumentative essay. Additionally, he would screen writings from analytically to target each formerly mentioned introductory paragraph components, and from a holistic trait to evaluate the paragraph as whole. Furthermore, the wording and number of elements have to correspond to students' knowledge and skill; and predetermined scores have been set in advance of testing.

This study deals with writing arguments as an academic procedure to bring argument and their opponents to the surface, also the issue, the arguing problematic, and developing a Thesis Statement. These are components upon which testing is constructed. This being said, evaluation would be focus on participants' competency in formulating, and coherently combining the above mentioned argumentative elements within an introductory paragraph.

Now, it is time to set scoring scale to quantify the performance of participants in both experimental and control groups. The five aspect are similarly assessed sparing two points to each element; this gave ten points; therefore, each element would be scored from zero to two points. The researcher relied on the assistance of a colleague, during assessment, in scoring and screening the participants' papers. The double correction could be followed by a third one from another teacher, in case, there were inconsistencies in the marking. The total performance of each group is computed to get statistical evaluation of the mean, the mode and eventually counting the aspects of dispersion.

### **3.4.5 Treatment**

Treatment is given after analyzing and scoring the pre-test of both experimental and control groups. Thus, the treatment covers the deficiencies recorded in the assessment of the pre-test, namely inconsistencies related to lack of elaborating the topic issue, the lack of acknowledging the claim that ought to be followed, logically, by an opponent argument (the counter-claim) in addition to the formation of the thesis statement for argument writing. It is worth mentioning that in the context of argument writing, the essay components are sufficiently distinct from other types of essays. Hence, treatment is planned to captivate participants' attention to these crucial particularities. Due to the experiment demands, treatment of the experimental group is managed through SMNs, especially Google Classroom and Google meet while the control group is taught through the usual face-to-face method, in the presence mode; needless to mention that Covid-19 lock down was a favoring factor in switching work between presence and online modes. Consequently, the duration of treatment differed significantly in comparison of how long it would have taken in the previous years of instruction. Therefore, Corona pandemic conditions have shortened the period of inflicting treatment, and affected the whole corpus of the experiment.

The researcher was in the obligation to limit the experiment treatment of online mode in order to adjust it to face-to-face mode. Thus, the experiment did not cover the whole essay study and was restricted to the introductory paragraph since this latter covers the major significant elements of argumentative writing. Without a sound formatting of introductory paragraph components: general statement, topic issue, the claim-counter claim and thesis statement, the developmental paragraph will not cover much; since they depend completely on the arguments that you announce in the introductory paragraph.

The duration of the treatment lasted prematurely for the reasons mentioned earlier, instead of 24 sessions only 18 were realized with corona lockdown promoting time for experiment was not possible during academic year of 2020-2021. A number of hours was added for evaluation were needed, as well.

**3.4.5.1 Implementing treatment.** The researcher prepared e-learning material, virtual classes and social media integration namely Facebook and the Moodle e-learning platform. Since students are used to the daily use of social media, participants from the first group i.e. the experimental group are instructed to login in at precise moments of the lessons, agreed upon to

accord with the usual face-to-face classroom timing. On the other hand, the participants from the second group which is the control group is instructed to keep working only with the face-to-face material provided by the teacher in the classroom and not to rely on any other online material concerning these chosen Academic Writing lessons. They are also not informed of the control group, as they may want to exchange learning material with its members since this would compromise the tests results, and threaten its validity.

Treatment is realized to test the variables of this research. The hypothesis states that sharing information, collaborating and interacting through ICTs and social networks could significantly enhance EFL students' formal argumentative writing in academic productions such essays. Learning to improve writing is a dependent variable while SMNs and ICTs adoption is the independent variable. Thus, the results scores reveal the impact of the independent variable on the dependent one, and determine the impact and effectiveness of online complementary work to blend with face-to-face comprehension and production. After preparing the lessons, the experimental group is the one receiving the treatment.

The treatment consists of a series of lectures that cover some of the official syllabus of Academic Writing for Master one level in Ibn Badis University, in Mostaganem. Sometimes the teacher has to remediate to the lack of previous instruction not being realized and inculcate the needed lessons. It is usually the case in the department of English, in the faculty of foreign languages, there is no common syllabus or course of Academic Writing / Writing Techniques neither in the gradation nor in the post-graduation writing canvas, as mentioned in *Master 1 Writing Techniques* canvas of Ibn Badis University of 2016-2017 (Appendix G). Thus, we may find different programmes at different levels, and each teacher has to adopt the teaching material according to each levels needs.

In scientific experiments, the experimental group is exposed to treatment in order to demonstrate that there is change or an improvement occurring after it is accomplished. Accordingly, the researcher would test the efficiency of independent variable, as indicated by (Cohen, Manion & Morrison, 2018):

The participants are allocated to a control and experimental groups randomly, but The basis of the allocation is that one member of the control group is matched to a Member of the experimental group, on several independent variables, considered important for the study (those independent variables are considered to have an influence on the dependent variable, such as sex, age, and ability. (p. 403)

This was started by a pre-testing both experimental and control group to make sure participants in both groups have equivalent skills especially in producing writing and formal argumentation. In fact, the elements of the treatment the subjects were exposed to were selected in concordance with academic writing components as these would constitute the potential capacity to format the master dissertation in the following semesters. Meanwhile, the control group received treatment by adopting only face-to-face teaching for the duration of one semester; two successional sessions were scheduled per week, one for lecture and the other for practice. The treatment lasted 24 hours. Among the programmed lessons for treatment, the researcher selected four (4) relevant components for testing. Another additional four (4) hours were needed for assessing the progress of both study and control groups; it was accomplished face-to-face for the sake of validity.

**3.4.5.2 The procedure of experimental group treatment.** In the present work, the researcher provided ample explanation of the aspects of academic writing elements to be covered through online teaching via many tools mainly Google Classroom, Google Meet, and messenger. He also made sure all of the group had easy access to internet all the time of lessons delivery, in addition to requesting their commitment to attend by connecting on due time as they are tested on the online taught lessons. The covid-19 lock down had helped authenticating such a distance learning option. The provided lessons would be covered on the basis of participants needs depicted from the correction of the pre-test included crucial elements in argumentative writing like attention grabber, issues, giving arguments; exemplifying and providing evidence; counter-argument and elaborating thesis statement.

We have adopted the Rhetorical Approach as a teaching method that is based on genre, argument types of academic writing within real-life texts situation, including a purpose and an

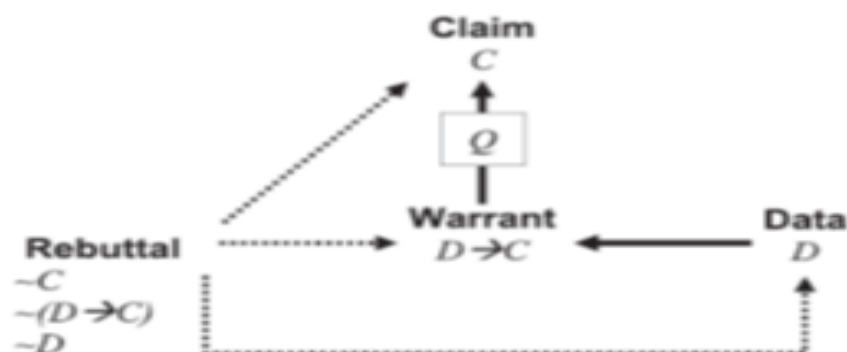
audience; it also emphasizes on text organization and sentence structure or pattern as it partly relies on the process of writing. Hence, in order to reach end product writing multiple drafts are required (Oliver, 2005).

*3.4.5.2.1 Academic versus non-academic writing.* The first option was to clarify the concept and meaning of Academic Writing. Petelin (2016) defines Academic Writing as “the type of writing performed by qualified academics, teachers and researchers in higher education centers or universities. They publish this writing in scholarly journals, books, and collections of papers conveyed at academic seminars or conferences. It is featured by specific agreements and jargon fitting subjects or domains of writings”(p.9). Hence, drawing distinct line between what is academic and what is non-academic feature, such as tone, formality, objectiveness, preciseness, accuracy, explicitness and hedging is crucial to master one participants to handle preceding any argument teaching. The subjects needed to know about the basics of formality and style before guiding them further, into the argumentative writing features. According to Van Geyte (2013), an academic essay is contemplated as a final product of a writing process as a conventional style among other academic genres. Subsequently, participants are instructed how they could gradually design argumentative essays, and make them sounder by bringing evidence.

*3.4.5.2.2 Writing an argument.* That is quite a complex lesson if we take it as a whole; therefore, only the most common and typical features are selected to be taught as far as it is required in academic writing for the subjects. These elements concern the format and organization of an academic essay, the components, and the introductory paragraph constituents.

First, the researcher explained orally how to make debatable topic in an attempt to change peoples’ views about particular points. It is crucial to make state their argument about specific topics and defend their stand in addition to the formulation of the counter-claim or the opponent stand by supplying evidence for each of them, based on clarity. In Toulmin’s model (1958), as shown in figure 3.2 below, there must be a clear claim that allows other opponents’ opinions that explain the issue differently. The evidence of this claim is indicated as ‘data’ either quantitative or qualitative representing facts mostly, armed with statistics from reliable sources. The data have to reinforce the claim, and how pertinent the data back up the claim is termed a ‘warrant’ which indicates the connection between the two of them (Wentzel, 2018).





**Figure 3.2** *The Claim in the Toulmin Model*<sup>14</sup>

Throughout the lecture, the researcher purpose is to identify the hook/attention grabber within the introductory paragraph in argumentative writing. He aspires to guide the subjects to become more familiar with the distinct types of attention grabbers whether a question, a quotation, statistics, a story or an anecdote. Through using videos and pictures, the subjects would distinguish the grabber different types. To make the content applicable to the scope of the study at hand, the researcher provided tasks with purposes as follows:





1. To distinguish between facts and arguments
2. To identify the pattern/organization of an argumentative essay either as block or point-by-point pattern.
3. To provide free practice like to ask them to turn questions into argumentative topics of writing.
4. To identify and differentiate attention grabbers /attention getters /the hook.
5. To read digital texts and label the components of an argumentative piece of writing. (Underline the claim, double underline the counter-claim, circle or highlight using Microsoft word all of these parts with different colors).

<sup>14</sup> Note: Toulmin model as adopted by Wentzel, (2018) from Mitroff and Mason (1980: 337).

Since they are in a visual text-based method, experimental group participants' writing cannot be structured as in the process method in which more concern is on the lay out. Hence, the table below would help participants to organize their introductory paragraphs according to a well-known, approved of model of argumentative essay structure.

**Table 3.3**

*Classical Structure of the Argumentative Essay*<sup>15</sup>

<b>Organization Plan for an Argument with a Classical Structure</b>		
<p><i>-Exordium</i> <i>-Narratio</i> <i>-Propositio</i> <i>-Partitio</i></p>	<p><b>Introduction</b> (one to several paragraphs)</p> 	<ul style="list-style-type: none"> <li>-Attention grabber (often a memorable scene)</li> <li>-Explanation of issue and needed background</li> <li>-Writer's thesis (claim)</li> <li>-Forecasting passage</li> </ul>
<p><i>-Confirmatio</i></p>	<p><b>Presentation of writer's position</b></p> 	<ul style="list-style-type: none"> <li>-Main body of essay</li> <li>-Presents and supports each reason in turn</li> <li>-Each reason is tied to a value or belief held by the audience</li> </ul>
<p><i>-Confutatio</i></p>	<p><b>Summary of opposing views</b></p> 	<ul style="list-style-type: none"> <li>-Summary of views differing from writers (should be fair and complete)</li> </ul>
	<p><b>Response to opposing views</b></p> 	<ul style="list-style-type: none"> <li>-Refutes or concedes to opposing views.</li> <li>-Shows weaknesses in opposing views.</li> <li>-May concedes to some strength.</li> </ul>
<p><i>-Peroratio</i></p>	<p><b>Conclusion</b></p>	<ul style="list-style-type: none"> <li>-Brings essay to closure</li> <li>-Often sums up arguments</li> <li>-Leaves strong last impression</li> <li>-Often calls for actions or relates topic to a larger context of issues</li> </ul>

**3.4.5.2.3 Facts and Arguments.** Large portion the participants were identified in the pre-test as not distinguish writing about simple facts from writing about argument, the researcher had planned to deal with this deficiency in the treatment part. Ramage, Bean and Johnson (2016) indicated that, "an argument is a creative and productive activity that engages us

<sup>15</sup> *Note:* from: Writing Arguments, A Rhetoric with Readings. (Ramage et al., 2016,p.53)

at high levels of inquiry and critical thinking” (p.3). Therefore, to make instruction more engaging for the experimental group, the researcher had adopted end products methods models of arguments which are diffused in YouTube and some relevant pictures from Google search. The teaching objective is to differentiate basic facts from arguments, which mean statements for topics that involve providing views with standpoints; to which the participants must support these by evidence, rather than simply describe statements simple facts. He opted for a role-play task to ensure collaboration between participants. This complementary between participants require them to work in pairs to identify facts, then opinions and then exchange roles. Some practice examples are provided below:

*Examples of facts:*

- According to the results of the tests, he is negative of Covid-19.
- Scientists have recently discovered the medicine for Covid-19.

(These are based on observation data )

*Examples of Opinions*

- She claimed that she was the most beautiful in the class.
- Many scientists suspect that Covid-19 is a virus that came from animals.

To practice further, they were asked to google some pictures about opinions and other about simple facts and exchange them with their peers and the teacher through google meet or sometimes Facebook Messenger for evaluation.

*3.4.5.2.4 The introductory paragraph.* Formal academic writing, at the level of master studies in Algeria, follows a distinct syllabus. Thus, the adopted canvas of Academic Writing module for master one students is based on writing as a process type of instruction - (Offre De Formation Master 1, Didactique de l’Anglais et Linguistique Appliquée, 2016, p.28)- Master 1 Training Offer, Didactics of English and Applied Linguistics, 2016, p.28. However, the researcher regards teaching argumentative writing also as an end-product. According to (Morley, 2013) as a researcher in this field, he advocates that the process of creation start with planning that comprises to actively read about the topic, get inspired by some composing model and addition to making research about the topic in hand and reflecting on it.

Since the evaluation of the groups of participants is based on end-product procedure of correction, the researcher has dealt with instruction based on the process type, as adopted in the following sections.

*3.4.5.2.5 Attention grabber (the hook).* It is the opening statement. At this step, in the introductory (introduction) paragraph of an argumentative essay, students need to recall information related to how to interest the reader. This took five minute before presenting online three steps: the attention grabbers are taught through some example from the net and YouTube videos. This phase is more focused upon because it is crucial in generating ideas and unleashing the writing process. Master one students usually tend to approach writing an argument by ignoring the attention grabber (getter) that serves as a hook to the reader. Online instruction of the Attention Grabber followed these steps:

-Step 1: the researcher has posted online pictures on Facebook group of the participants - the linguistics group- and also in primary medium Google Classroom, with the definitions related to the types of attention grabbers, for instance question attention grabber, statistics information, anecdote, striking event, narrative (story)

-Step 2: Practice: 1. Participants listen and identify different attention grabbers

2. Participants Write similar attention grabbers, share them in Google Classroom/or through Messenger, and other groups would correct and comment.

It is worth mentioning that students were unaware that attention getters are not important to a big extent in the introductory paragraph of an argumentative essay. In fact, attention grabbers attract the reader's attention, curiosity, avoid boredom and encourage them to read more and take the reader to the next level.

*3.4.5.2.6 General statement.* General statement is the topic sentence or extension of the main idea of the paragraph; it becomes specific by narrowing the topic with supporting statements. "A thesis statement is more than a *title*, an *announcement of your intent*, or a *statement of fact*. Although a descriptive title orients your readers, it is not detailed enough to reveal your essay's purpose or direction", (Kirszner & Mandell, 2018,p.106) It introduces the general topic, background information, and the reason for the argument or the controversy. General

statements introduce the topic of the essay and give background information in a form of declarative sentences. These sentences lead into the thesis statement. They are usually the topic sentence or the main idea of the paragraph while Specific Statements are the supporting information for the topic sentence or main idea.

This is where the researcher started the treatment by demonstrating online how to link the topic to their previous knowledge about it. As argumentative essays usually necessitate substantial literature as an empirical research in which student obtains data through interviews, surveys, observations, or experiments. Pinkwart and McLaren (2012) stated that “Argumentation theory investigates the dialectic as well as the rhetoric aspects of putting forward reasons for or against a claim”. Therefore, it felt important to urge them to include it to back up with such pieces of evidence to make writing sounder. However, during tests common logical supporting arguments were accepted due to time constraints of testing. The researcher proceeded as follows:

- He requested the participants to use websites mainly Google search to look for information corresponding to their previously selected topics during Attention Grabber’s role-play. The objective is to expand them to write general statements, and from there make them more specific while evoking the topics issues.
- He asked them to select information found and make it more topic relevant. Participants did not need to consume time since they needed only some lines to paraphrase, or ideas to inspire from.
- Participants exchanged posted their General Statement sentences with peers in the comment space designed in Google Meet.
- Participants are asked to keep their statements for the coming writing steps.

Through the use of four-part tabulation, participants were asked to use Microsoft word editor and label each part of the provided paragraph by a heading that names it. Then, each participant is instructed to highlight the content words within the general and specific statement in the provided paragraph, using the keyboard shift and direction keys of the PC or the mouse, or else his phone digital touches, in order to grasp the topic.

Once this is done, they are required to further to write their own general statement and send it to one of their peers by messenger or email, and ask him/her to complete it with a suitable specific statement or a lead in. Participants exchange roles to make the task more challenging and increase competition. At first, grammar mistakes and spellings are disregarded. After finalizing

work, they are asked to select the most appropriate general statements and write the first draft on their Facebook walls.

*3.4.5.2.7 The topic issue.* The participant are instructed online on how write about an issue within their previous suggested topics. Back to their chosen topics, they are asked to indicate the issues in there, and determine whether these are arguable or not. If there was no issue to discuss, it would simply be a fact. If they are not arguable, they could not build their claims and predict counter-claim (counter-arguments) for each topic.

The researcher explained to participants that writing the Topic Issue could be done by narrowing the focus to the problem dealt with in the topic and that is in the specific statement. The issue must be arguable so that each of the participants has his/her own claim. The work was carried out by sending messages as comment, after discussion, participants were required to send neat versions of the written topics issues via email. The interaction at this step was slow, the researcher preferred to grant more time for reflection provided that they would post them.

The subjects were encouraged to adopt any word processing tool like Microsoft word or word pad, and engage in the whole task. This must not exceed 10 minutes; meanwhile, they are reminded to pay attention to the word processing automatic correction, to have more benefit, before finalizing the draft.

*3.4.5.2.8 Claim and counter claim.* According to (Wentzel, 2018) an argument is a form of communication that is based on a standpoint, that is particularly your own, and that is debatable, as to allow interaction with other visions. To deal with claim/counter claims explanation, pair-work imposes itself at this step to make the notion of claim/ counter-claim clearer and simple to understand. In each topic, there is possibility that each participant takes a stand or a point of view on the raised issue to tackle with his or her peers who basically should have a counter-claim/argument, preferably about their previous dealt with topic. After the researcher has posted YouTube video links in Google Classroom, he asked the participants to identify the claim and counter-claim of the speaker and precise how long it is, whether formal or less formal, and where is it located in the introductory paragraph. As a practice, they provide topics/hear speeches on videos and identify each component. As an end-product, method of essay writing participants are supplied with audio-visual texts models.

**3.4.5.2.9 The thesis statement.** As the *Thesis Statement* is the last component of the introductory paragraph, the researcher has included an online activity that sums up the previous steps. Ramage, Bean and Johnson (2016) stated that “The *claim* of your essay is the position you want your audience to accept. To put it another way, your claim is your essay’s *thesis statement*, a one-sentence summary answer to your issue question. Your task, then, is to make a claim and support it with reasons.”(P.60) In proportion to that and through the use of YouTube video, the researcher has initiated participants to how to write a better *Thesis Statement* for an argumentative essay for their topics. Links like this one: <https://youtu.be/8sfspg882lq>, were very helpful as they combine the voice of the teacher explaining, and screened written information that is short and precise, and in different forms like mind mapping forms. Once the participants have finished with the video, they are requested to try draw a scheme (table-like form) representing what they just saw in the video; thus turning visual information into a written so as to memorize better. They may be allowed to watch the video several times. The table to complete looks like the one below:

**Table 3.4**

*The Structure of Argumentative Essay Introductory Paragraph*

Argumentative Essay Introductory Paragraph		
<b>Attention grabber</b>		.....Text.....
<b>General statement</b>		.....Text.....
<b>Specific statement</b>	<b>Topic Issue</b>	.....Text..... .....Text.....
<b>Claim/counter-claim</b>		.....Text.....
<b>Thesis</b>		.....Text.....

As a free-practice, participants were required to use Microsoft word or Excel and draw a similar table, and complete it with the all previous introductory paragraph components of an argumentative essay. They are encouraged to share it with their Facebook group or through in any SMNs.

The experimental treatment group was based on online teaching while the control group was taught traditional way. However, some aspects of online teaching were based on the face-to-face teaching since the researcher attempts to measure SMNs influence as complementary tools. They add to knowledge of presence teaching and do not eliminate it. It is notable that these aspects of instruction are somehow a cumulus of both types of teaching. The total purpose of these lectures was to draw participants' attention to the different elements involved academic argumentative writing.

**3.4.5.3 Control group treatment.** The control group subjects are instructed at Ibn Badis University via face-to-face mode. The researcher proceeded on the choice of the group based on availability. Although the choice of participants in purely scientific research must done at random, this could not be possible due to the university work conditions and timetable restrictions. The teaching method were prepared on the principal of Presentation, Practice, Production (PPP) methodology and based on the learner-centered approach of teaching. Harmer (2007) showed that there was variation on Audio-lingualism as the most common method that adopts which is the Presentation, Practice and Production (PPP), then it is integrated into the CLT<sup>16</sup>. The method originated in the structural-situational teaching whose purpose was to teach language through clear situational contexts. Accordingly, the teacher announces a situation which contextualizes the targeted language points. Henceforth, learners reproduce exactly through reproduction practices in either task performing. Drills were the main medium of practice and are applied to teach structure. The control group participants are informed that they are being part of an experiment, and they gave their consent. The researcher wanted to adopt the ethical procedure in research; meanwhile he assured them that they would be studying the usual way and the experiment would not be on something they would not do.

**3.4.5.4 The post-test.** After having finished the treatment of both groups, a post-test is administered to test the two groups. The test is submitted face-to-face for the sake of more reliability and credibility. Thus, the same testing conditions are provide to the two groups at the

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<sup>16</sup> Communicative Language Teaching

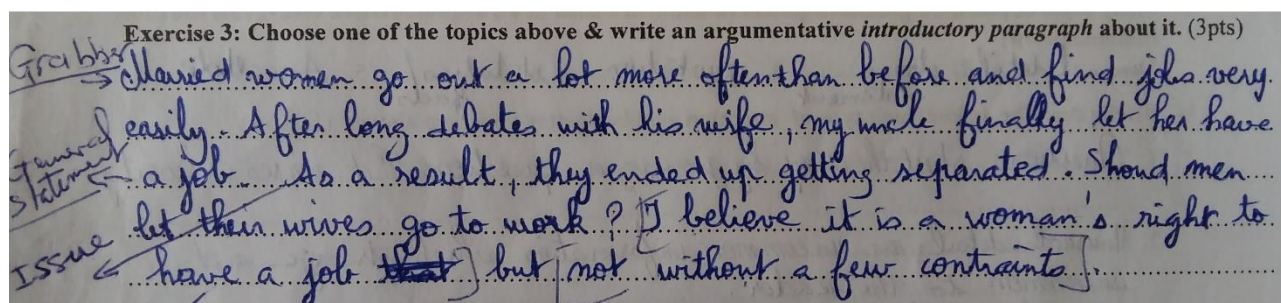


same place, an Amphi-theatre under the supervision of the researcher himself who was assisted by two other teachers.

The central objective is to examine whether the treatment (i.e. online teaching) had positively influenced the subjects in the experimental group more than regular traditional teaching had on the control group. Additionally, the researcher aims to detect if ICT and SMNs had any distinct impacts on participants learning outcomes since, so far, considered as complementary teaching/learning instruments used outside university classrooms. Therefore, the test was built in similar manner as the pre-test, and the researcher graded using the same scale. The topics which the participants are asked to write about are debatable and selected to facilitate writing engagement.

- Is home schooling effective?
- Should married women be allowed to have permanent jobs?
- Is it foolish to believe in superstitions?

Before collecting the test papers, the researcher required from the participants to codify them by putting a secret number instead of their names to be able to correct more objectively and get credible grades. The correction of essays was limited to the introductory paragraph as this comprises the needed elements of an argumentative essay, mainly those focused on the treatment period besides that time constraints during covid-19 period did not allow participants and the researcher to stay beyond the two weeks period. When participants came back, and due to time constraints assessment was limited to introductory paragraphs evaluation, disregarding the rest of the essay, partly because most of the participants have not finished writing all essay, and partly because the researcher wanted to seek equal chances of testing because the two group. Figure 3.4 below shows how some of the typical answers that were handed to the researcher.



**Figure 3.4** Sample of the posttest participant's answer

Nonetheless, after treatment, papers indicated signs of slight positive progress, taking into consideration the components of introductory paragraph in an argumentative essay that is clear in the participant's paragraphs sample above. However, this cannot be taken as valid proof of progress until statistic calculations are achieved. Treatment is supplied on both groups, the experimental by implementing online treatment based on exposure through Google Classroom and Google Meet; and the control group was instructed similar content but in face-to-face mode of treatment.

### **3.5 Ethical Considerations**

The data in this study are ethically collected according the academic research norms. "Questionnaire respondents are not passive data providers for researchers; they are subjects not objects of research", Cohen (2000, p.245). One of the most important standards is the participants' consent. It is verbally granted by participants when accepting to fill in the questionnaire or take part in the interview. The educational institution, in this case the department of English, in Ibn Badis University in Mostaganem granted the researcher approval to conduct the research, hence he gets the consent and cooperation of informants. It is crucial for carry out social or educational studies (Cohen, L. et al, 2000). Diener and Grandall (1978), as cited in Cohen, Manion & Morrison (2000) have defined informed consent as procedures through which people decide to join an investigation after being told about different facts surrounding that research.

However, according to Cohen, Manion and Morrison (2000), the researchers in educational circles are not faced with such a dilemma. There is, somehow, a sort of a compromise. Informant consent is always sought so as to keep the welfare of the subjects during and after the research process. That is what is sought in the present research.

The topic of the research and its objectives are clarified. Thus, the main components of the questionnaires are explained to both population of participants: either students or teachers who are encouraged to participate when assured confidentiality and anonymity. It is in accordance with (Cohen, Manion and Morrison, 2000) who advised to provide complete anonymity for informants when completing the questionnaire. Neither the participants' identity nor the information gathered would be revealed. Thus, participants in this study cannot be traced through names or occupational details or symbols.

### **3.6 Limitations of the Research**

When making a research, many parameters have to be taken into consideration. Nonetheless, there are always some research aspects that could not be managed properly. In this section, we mention some limitations of the teachers and students questionnaires and the interview protocol.

The case study of Master one English students of Ibn Badis University on the adoption of ICTs and social media networks cannot be generalized to the whole population of Master one students in other Algerian institutions due to various differences in students and teachers personal traits, temporary or permanent internet access, the possessions of ICTs such as laptops or mobile phones and the level of training. This study does not cover the use of other means of improving English language learning provided by books at home or in public libraries that could influence the participants' level of EFL mastery.

The Algerian university master students' cultural tendencies and their needs constitute barriers towards the use of social media for English language learning through these media. The technology resources and equipment provided to them are not always at reach, and therefore did not always permit them to guide learners into a clear strategy of adopting the social media networks for the benefit of language instruction.

As far as the interview making is concerned, the researcher could not, sometimes, find available people to interview and when he finds them, they might not have the right information needed plus being sensitive to the subjects (Griffiee, 2012). So, the availability of interviewees can be an issue for the researcher. On the other side, a large number of participants are female teachers and who, for social and cultural constraints did not approve to be video recorded in the face-to-face interview. The camera-shy respondents among the randomly chosen population of participants from master teachers did not accept to be video recorded, too. Thus, the taking notes procedure is adopted during the interview-time.

### **3.7 Conclusion**

This chapter has presented the research design used in this study and illustrated the different methods employed to gather data. Surveying teachers' ICTs and social media networks use in an EFL instruction from a distance. The research is conducted using two semi-structured questionnaires to survey both populations of Master one students and their teachers. These tools

have been piloted on small populations in order to test their efficiency in collecting data and serving the research purposes. Ibn Badis University EFL teachers are questioned and interviewed. Similarly, the selected sample of students population is handed the questionnaire after assuring them that their personal information would be kept anonymous.

In this work, the mixed method of research has been adopted. Before analyzing the data, they are cleaned, prepared and organized into categories. After the findings have been compared and cross-checked, they are interpreted and illustrated through tabulations, like pie charts and graphs. Some arrangements in the instruments of research have been made to ensure internal and external validity.

Finally, this chapter ends up with mentioning some precautions taken for the sake of ethical considerations, in addition to some research limitations encountered. The next chapter will be composed of two parts that are both devoted to analyze and discuss the data collected from the teachers' questionnaire and interview.

**Chapter 4**  
**Data Analysis**  
**Part I**

*The Teachers*  
*Questionnaire*  
*&*  
*Interview Protocol*

## CHAPTER 4 – DATA ANALYSIS I

### Part I: Teachers Questionnaire

<b>4.1 Introduction</b> .....	147
<b>4.2 Data Analysis</b> .....	147
<b>4.2.1 Teachers' Questionnaire analysis</b> .....	148
<b>4.2.1.1 Teaching experience</b> .....	148
<b>4.2.1.2 ICT and social media profile</b> .....	149
<b>4.2.1.3 Classroom situation</b> .....	151
<b>4.2.1.4 ICT resources and internet access at university</b> .....	152
<b>4.2.2 ICT and social networks access outside university</b> .....	155
<b>4.2.2.1 Reaching students online</b> .....	155
<b>4.2.2.2 Access to university e-learning platform</b> .....	156
<b>4.2.3 Social media networks effects on students EFL learning</b> .....	157
<b>4.2.3.1 Frequency of using social networks outside the classroom</b> .....	158
<b>4.2.3.2 Online educational resources</b> .....	159
<b>4.2.3.3 Online assessment of students' work</b> .....	160
<b>4.2.3.4 Flipping the classroom</b> .....	160
<b>4.2.3.5 Tutoring students to use social media networks and e-learning platform</b> .....	162
<b>4.2.3.6 Supporting teaching practice outside classrooms</b> .....	163
<b>4.2.4 Teachers technology competence</b> .....	164
<b>4.2.4.1 ICT required skills for EFL online teaching</b> .....	164
<b>4.2.4.2 Training about e-learning platform and school conferencing</b> .....	167
<b>4.2.5 Beliefs and attitudes about ICTs' use for online teaching</b> .....	167

### Part II: Teachers' Interview Protocol

<b>4.3 Teachers' Interview Data Analysis</b> .....	168
<b>4.3.1 Attitudes and use of SMNS among EFL teachers</b> .....	168
<b>4.3.2 Use of social networks for academic purposes</b> .....	169
<b>4.3.2.1 Ways of enhancing teaching through SMNs</b> .....	171
<b>4.3.2.2 Keeping contact with students</b> .....	171
<b>4.3.2.3 Motivation, engagement and interaction</b> .....	171
<b>4.3.2.4 Authentic online resources</b> .....	172

<b>4.3.3 Lesson practice outside the classroom</b> .....	172
4.3.3.1 <i>Illustration of difficult concepts.</i> .....	173
4.3.3.2 <i>Time Saving and feedback provision.</i> .....	173
<b>4.3.4 SMNs as pedagogical tools for students.</b> .....	173
4.3.4.1 <i>Formal networks.</i> .....	173
4.3.4.2 <i>Informal networks.</i> .....	174
<b>4.3.5 SMNs bridging face-to-face with online learning.</b> .....	174
4.3.5.1 <i>Inversed teaching through flipped classrooms.</i> .....	175
4.3.5.2 <i>For Inversed teaching.</i> .....	175
4.3.5.3 <i>Against inversed teaching.</i> .....	176
4.3.5.4 <i>The Flipped classroom strategy and learning outside classrooms.</i> .....	176
<b>4.3.6 Training programs in education.</b> .....	177
4.3.6.1 <i>Pre-service training.</i> .....	177
4.3.6.2 <i>In-service training.</i> .....	177
<b>4.3.7 Some EFL teaching difficulties beyond the classroom context.</b> .....	179
4.3.7.1 <i>Difficulties related to students.</i> .....	179
4.3.7.2 <i>Demotivation &amp; engagement.</i> .....	179
4.3.7.3 <i>Credibility of the homework.</i> .....	179
4.3.7.4 <i>Equipment and facilities issues.</i> .....	179
<b>4.3.8 SMNs influence on EFL learners.</b> .....	180
4.3.8.1 <i>SMNs influence on students' learning outcome.</i> .....	180
4.3.8.2 <i>SMNs influence on students' attitudes.</i> .....	181
<b>4.3.9 Online teaching versus face-to-face teaching.</b> .....	182
4.3.9.1 <i>Teachers' experience with SMNs.</i> .....	182
4.3.9.2 <i>Facebook page.</i> .....	183
4.3.9.3 <i>Facebook groups.</i> .....	184
4.3.9.4 <i>Blogs and Moodle platforms.</i> .....	184
4.3.9.5 <i>Engaging students online.</i> .....	185
<b>4.3.10. Outside- the-classroom teaching experiences.</b> .....	185
4.3.10.1 <i>Some situations outside the classroom teaching context.</i> .....	185
4.3.10.2 <i>Unsuccessful experiences.</i> .....	186
4.3.10.3 <i>Adoption of e-learning platforms and SMNs.</i> .....	187
4.3.10.4 <i>Moodle platform.</i> .....	188
4.3.10.5 <i>SMNs.</i> .....	189

<b>4.3.11 Evaluation of social media impact on teaching approaches.....</b>	<b>189</b>
<i>4.3.11.1 SMNs positive impact.....</i>	<i>189</i>
<i>4.3.11.2 SMNs negative impact.....</i>	<i>191</i>
<i>4.3.11.3 Lack of interaction effects.....</i>	<i>192</i>
<b>4.3.12 Assessing online complementary teaching.....</b>	<b>192</b>
<b>4.3.13 Pre-requisites for SMNs adoption.....</b>	<b>194</b>
<i>4.3.13.1 Complementing face-to-face teaching with online teaching.....</i>	<i>195</i>
<b>4.4 Conclusion.....</b>	<b>198</b>



## **4.1 Introduction**

The present chapter clarifies the methodology adopted, and in this first part of data analysis, the researcher reports the results from mixed data, quantitative and qualitative. They are collected by the instruments of teachers' questionnaires and the interview protocol to either confirm or disconfirm the research hypotheses. In sequence, the teachers questionnaire surveys access, use, depict SMNs impact on the process of teaching and learning concurrently the interview portrays beliefs and attitudes of participants from the sample population.

Moreover, this chapter highlights the inclusive content of the presented work: sampling analysis representations in tabulations and graphs, and it supplies ample description and discussion of the research findings of these two tools. The data are jointly connected whereas it supposed to reveal distinct or complementary results determining Ibn Badis University participants' preparedness, ICT and SMNs profile, experience of use, training, attitudes towards adopting SMNs and e-learning platforms. Additionally, the sections of each of the tools include information gathering about the institution technology infrastructure, internet access and resources, and whether they allows ICT integration within the faculty borders before exploring participants initiatives outside the classrooms.

## **4.2 Data Analysis**

The data gathered from the population of teachers participants are analyzed in chapter four while the data collected from students are analyzed in chapter five. Not to mention that the analysis would be limited to relevant questions as these target answering the leading research questions in order to confirm the contemplated hypotheses; along with denoting constraints and reservations encountered during the research process.

It is hypothesized that when both university Master students and teachers perceive the use of SMN in a positive way, ICTs and SMNs can be efficient teaching-learning tools that reinforce formal education and augment performing and achieving better performance in an EFL setting. The second hypothesis puts forward a condition on the users either teachers or students: if they wanted to take a maximum benefit for education outside the classroom from SMNs as embedded in modern ICTs, they have to fulfill essential requirements related to technology availability, access and training, engagement and collaboration. In the third one, it is supposed that the more ICT-

trained, devoted and experienced teachers in manipulating digital software, can surmount complications and adopt technology to teach Master students beyond the classroom. This study premises that teachers possessing sufficient technology training and the right pedagogy, could ensure online teaching and enable their students to work independently. The fourth hypothesis is developed to seek confirmation in the fifth chapter, pre-suppose that students' sharing information, collaborating and interacting under a virtual learning environment could significantly improve EFL their academic writing and productions. Subsequently each hypothesis is to be evolved throughout the data analysis of the appropriate section devoted for it.

### 4.2.1 Teachers' questionnaire analysis

This questionnaire is elaborated to search the effects of Information Communication Technology instruments and social media network on EFL teachers in Higher Education, notably at Master level. The first section is devoted to depict the biographical information of the University teachers of Master one students' age, and their technology profile. The results reports that 61.8 % of the participants are in the middle age range between [36-46]; it is followed by the category of [25-35] with 20.6% and the last significant category is of [47 ] years and more with 17.6 % as shown in the figure below. It is noticed that this sample population is moderately young. Table 4.1 below reports the different age categories.

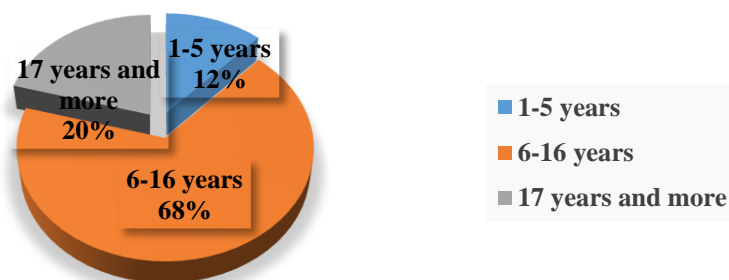
**Table 4.1**

*Participants Age Range*

Age range	[25-35]	[36-46]	[47 ] years and more
Participants	07	21	06
%	20.6%	61.8%	17.6%

**4.2.1.1 Teaching experience.** The second characteristic worth mentioning feature is the teaching experience. It is found that teachers in Abdel-hamid Ibn Badis University are centered in mostly in the category of between 6-16 years of teaching experience with the highest rate of 67,6% while another 20,6% have more 17 years of experience and more. It is found that teachers with a minimum of experience between [1-5 years] with only 11,8%. The majority of participants are not beginners and not very old either as illustrated in figure 4.1 below. Therefore, it can be

concluded that the teachers experience profile is generally numerous in the middle-aged with [6-16 years] work experience.



**Figure 4.1 Teaching Experience**

When correlating working experience with the three age categories, it is also noticed that middle aged category 36-46 years old has the highest number of participants with 16 teachers and have between [6-16 years] of experience as illustrated below in table.

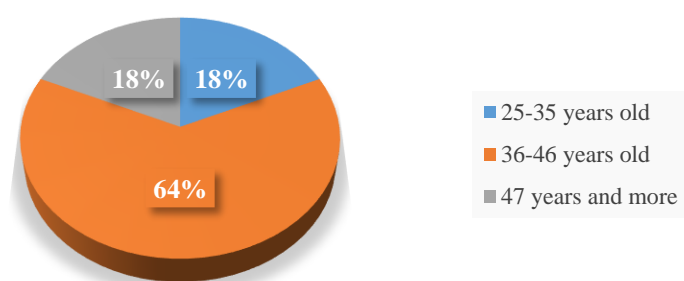
**Table. 4.2**

*Correlation between Teaching Experience and Participants Age Categories*

<b>b-How long have you been teaching at University?</b>						
<b>Participants' Age Range</b>		<b>25-35 years old</b>	<b>36-46 Years old</b>	<b>47 years and more</b>	<b>Total Teaching Experience %</b>	
<b>Teaching Experience in Population Age Categories</b>	<b>1-5 years experience</b>	02	00	02	04	11.76 %
	<b>6-16 years experience</b>	05	<b>16</b>	02	23	<b>67.64%</b>
	<b>17 years and more experience</b>	00	05	02	07	20.58%
<b>Age categories % in the Sample population</b>		<b>07</b> (20.58%)	<b>21</b> (61.76%)	<b>06</b> (17.64%)	<b>34</b>	<b>100%</b>

**4.2.1.2 ICT and social media profile.** The third characteristic of teachers profile is their social media account. When asked if they have an account in any SMNs, 94.1% of them

confirmed having at least one SMN account. According to the participants' age categories, the middle aged one [36-46 years old] is the dominant by scoring 64% of those who possess SMNs accounts while the other age categories have the same percentage, 18% each as shown in figure 4.2



**Figure 4.2** Social Media Accounts According to Age Categories

It is noticed that the most significant age category that possesses the largest social media accounts holder is the category aged between 36-46 years old, the middle aged one. The table 4.3 below indicated the Participants SMNs named by the participants. In a sub-questioning for question “b”, the participants have named their favourite social media networks and the duration of use.

**Table 4.3**

*Naming Participants Social Media Networks<sup>17</sup>*

Participants' Social Media Networks According to Age Category			
Ages categories	25-35 years old	36-46 Years old	47 years and more
<b>Social Media Networks</b>	Facebook(4), Instagram (5) YouTube(4), Skype (4), Viber (4), LinkedIn (3)	Messenger(2), TikTok (1), Snapchat (1), WhatsApp (2), Facebook (17), YouTube (11), Skype(11), Viber (12), LinkedIn (10), Instagram(14)	Facebook (4) Messenger (2), Viber (2) WhatsApp (2) -YouTube -Twitter, Gmail, Zoom, -Instagram

<sup>17</sup> Note: the number between brackets ( ) indicate the number of users and each participants would use multiple SMNs.

Unexpectedly, no significant difference is found out among participants with different age categories concerning SMNs adoption in the type of distance teaching actual study settings. As such, the more commonly used and the leading social media networks comprises all age categories involved in the actual research and are listed in the following downward order: Facebook, YouTube, Skype, Instagram, LinkedIn, Viber, Messenger and WhatsApp. Next, comes the less used: Snapchat, TikTok, Twitter, Gmail and Zoom.

The readers' attention is drawn to the most widely used SMNs are Facebook and YouTube beside others, and the duration of use in the context of academic learning may not always reflect educational use. However, it in this case it serves to have an insight into participants' technology and SMNs profile. Thus, we could determine the types widely utilized among participants.

In order to have an understanding of their ICT background profile, the teachers are asked further in a sub-question (d) *whether they possess any Information Technology (IT) degree*. The result indicated that only eight participants (23.5%) had an IT degree, a very basic degrees simply in IT basics: Microsoft Word, PowerPoint, and Excel manipulations. It is found out that, although it is not a compulsory requirement, for them to have such degrees such as the one of computer or Lab technician and software-programming engineer but still ICT knowledge is a good help for downloading software, installing android applications and for doing necessary research.

**4.2.1.3 Classroom situation.** The second section of the questionnaire is devoted to find out the master classroom profile such as rate of class attendance, number of designed groups. In fact, (35.3%) of the participants have groups that embody between 31 to 45 students while 11.74% have groups between [1-20] students. For class attendance, groups or classes of [21- 30] and [45 students] have the same low rate of attendance as illustrated in table 4.4 below.

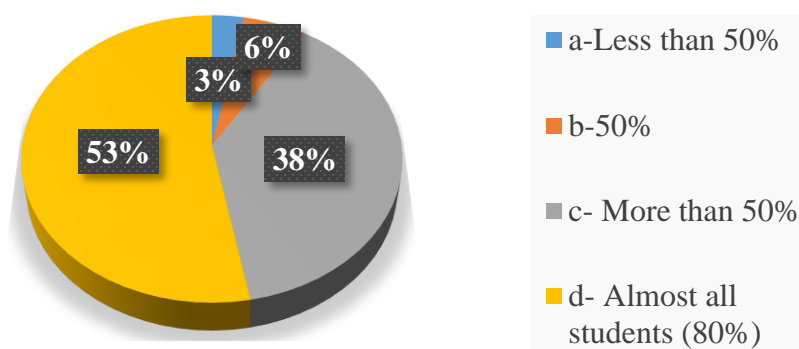
**Table 4.4**

*Master one Pedagogical Groups*

Master 1 Groups	Number of groups	Percentage %
1 group	21	61.8%
2 groups	06	17.6%
3 groups and more	07	20.6 %

Moreover, we noticed that more than half participants (52.9%) have a higher rate that reaches 80%. 13 participants have more than 50% of students attending their lessons while only

two of them have a rate of 50% of students attendance. As a conclusion, we can confirm that master EFL teachers have considerable class attendance upon which they could rely to deliver an appropriate face-to-face teaching before designing the online complementary work to be assigned to students. The majority also have only one Master group (61.8%). Six teachers have two groups and seven have three groups and more. With a significant attendance rate that can reach more than 70% in totality. The figure 4.3 interprets students attendance rates inside Ibn Badis University.



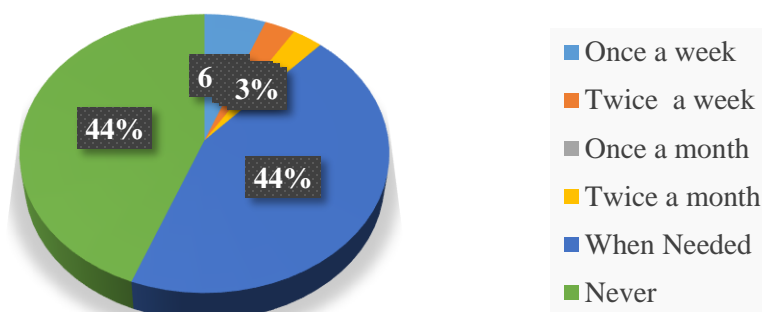
**Figure 4.3** Master one Students Attendance Rate

**4.2.1.4 ICT resources and internet access at university.** The next section is devoted to reveal ICT resources and Internet access at Higher Education institutions. 35.3 % of the participant reported that there are no ICT tools available in the faculty. 32.4 % of the teachers admitted the existence of the technology material but complained that it was insufficient. 29.4% did not know of the availability of ICT resources inside the faculty. The population is divided into nearly three equal samples: those who confirm availability, those who deny and those who do not know. The researcher could not draw a precise conclusion regarding the resources in the department, unless he relies on the highest percentage of 32.4% that confirm ICT availability.

The next question focused on the students ICT frequency of access; hence the graph below reports the results defining frequency from “*Once a week*”, “*Twice a week*”, “*Once a month*”, “*Twice a month*”, “*When needed*” or “*Never*”.

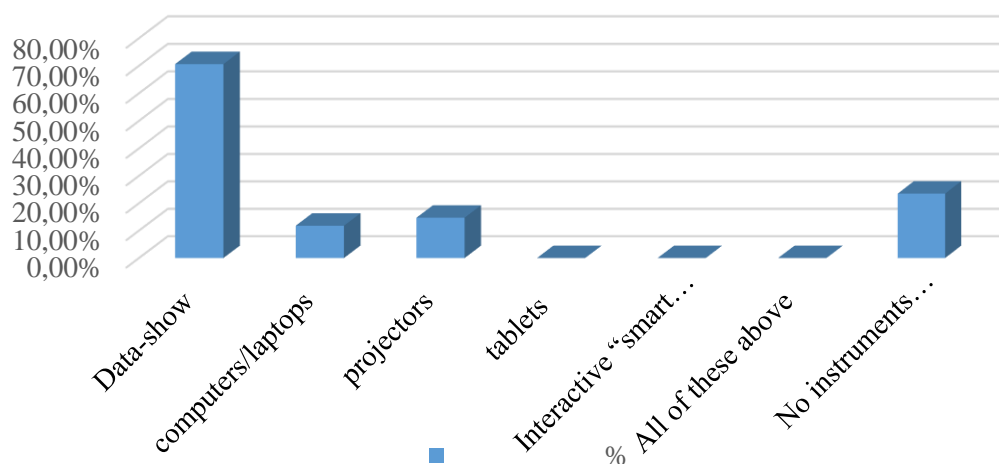
Answers to question five to “*how often do student access computers connected to data-show in classrooms, amphitheaters*”, the participants were divided into two equal major responses (44.1%) of those who introduced it into the classroom *when they need* to use it for pedagogical matters; the same percentage have *never* used it at all. All the rest of the teachers, either are using

once it" a week" (5.9%); "twice a week" (2.9%), or "twice a month" by (2.9%) which is not a significant percentage. The illustration of these results is supported by figure 4.4 below.



**Figure 4.4** *Frequency of Computers and Data-Show Access*

Concerning whether these PCs or laptops are connected to internet, 91.2% of the participants confirmed of the unavailability of any type internet provider within the faculty all foreign languages. Figure 4.5 below reports results of an important question.



**Figure 4.5** *ICT Resources available in Classrooms*

The question eventually helps to draw a picture about the English language department faculty of foreign languages as to "whether it possesses the technological equipment to ensure an ICT-based education" and guarantee further online complementary lesson practice outside

classrooms. Hence, Question seven investigates the existence of further technology resources in the English language department. The following table reports that 70.60 % affirm the availability of data-shows in classes and amphi-theatres.

It is worth mentioning that the participants indicated no other tools other than data., but some of them affirmed they had to bring their own laptops and mobile phones.

Answers to the sub-questions of number seven : “*If none, do you and your students bring your own technology devices to the classroom, and how often?*” have indicated that 29.4 % of the participants reported they *usually* bring their own laptops to classrooms while 35.3 % *sometimes* do. 23.5 % *rarely* brought any ICT device to classes and 11.8 % *never* brought their technology instruments to the classrooms. Overall, regardless of the different frequencies, 64.7 % of participants manage to bring ICTs to support lesson delivery and practice because of the educational potential they afford.

In the following question, eight, participants are asked “*if their students have similar access to ICT resources*”, and only 14.7% admitted having similar access to resources while 41.2 % said they do not have the same resources and 44.1% are unsure of this issue. Thus, the majority of participants do not know whether students have similar access to ICTs inside the faculty. Such a question is not an end in itself; yet the aim is to get an overall picture of technology infusion within the faculty, that is the immediate students’ learning environment that would most likely impact their ICT and SMNs adoption for formal learning beyond classrooms.

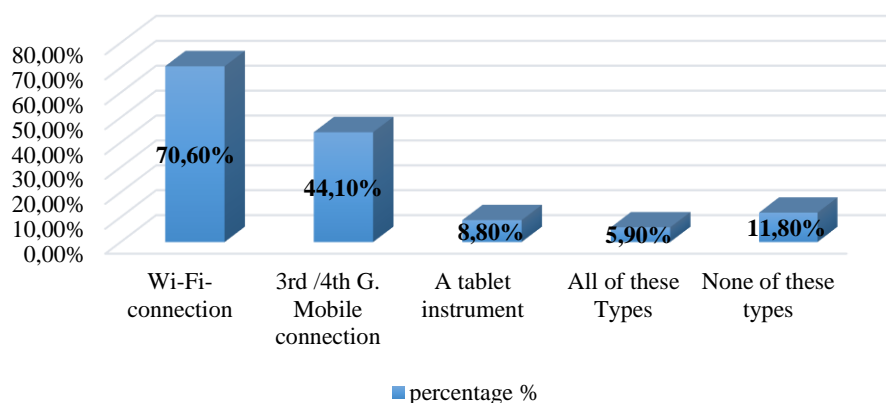
In addition to that, having technology equipment would necessitate assistance and maintenance; thus, teachers are asked in question nine *if they have an ICT technician* to keep the material repaired and functioning longer. Results revealed that 70.6% of the participants informed the researcher that there was no appointed technician in the faculty to do such a job, but 20.6% said there is one, indicating to the Amphi-theatre guard who usually takes the initiative to help teachers when they don't know how to proceed with the data-shows, instead of a real technician.



## 4.2.2 ICT and social networks access outside university

This is the second section that explores ICTs and SMNs access outside the University of Ibn Badis of Mostaganem and comprises 11 questions to investigate internet access, social media networks, e-learning platforms, e-library at university, online resources, flipped classroom, students' online tutoring, teachers' training and skills.

Question ten of the in this section explores “*if teachers, as the most important element of change in this research, had permanent access to internet*”. Almost 79.4% have confirmed they had internet available at their homes while 20% did not have such a permanent privilege. Then, they are asked in sub-question to specify the type of connection they had. The figure(4.6) below illustrates results.

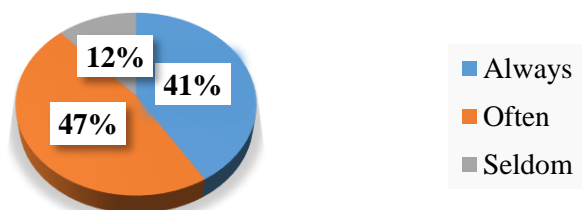


**Figure 4.6** *Types of Internet Connection*

The largest internet connection type adopted by participants (70.60%) is Wi-Fi beside the third or fourth generation of GSM mobile type (44.10%), it is followed by the low percentage of digital tablets connection (8.80%). It is worth noting to illicit the percentage numbers are not complementary as the participants had either two type of internet connection or all of them and thus have chosen both option unintentionally.

**4.2.2.1 Reaching students online.** The second essential element that guarantees the link between teachers and students and ensures online learning outside the faculty is emailing or through SMNs. All students participants responded positively to adopting these tools to reaching

students outside the classroom. Figure 4.7 below indicates teachers' frequency of getting in touch with Master one students through emails and SMNs for academic purposes.

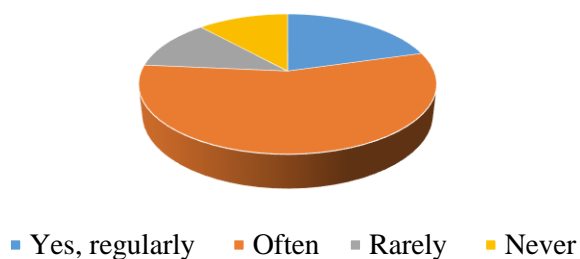


**Figure 4.7** *Reaching Students Online*

The figure indicates that both of "always" and "often" frequencies recorded 41.2% 47.1% respectively that is to say it is a total of 88.3% between the two frequencies. Nevertheless, 41.2% of the participants "always" use social media Networks to contact their students. Actually, it is a good and significant rate to rely on for enabling online interaction.

**4.2.2.2 Access to university e-learning platform.** The findings reveals that 94.1% confirmed that they have accessed Ibn Badis university Moodle platform in <http://e-fle.univ-mosta.dz/> to upload lessons and lectures to their students but two teachers could not do so.

Those who succeeded in accessing the e-learning platform are asked to state how often they did so. The results in figure 4.8 showed that 55.9% *often* accessed it while 20.60 % do this on a regular basis. Another 11.8% *rarely* do so and the same number of teachers *never* did. The platform frequencies of access are more or less acceptable; those who could not access the platform justified it and explained the issue by stating a number of reasons.



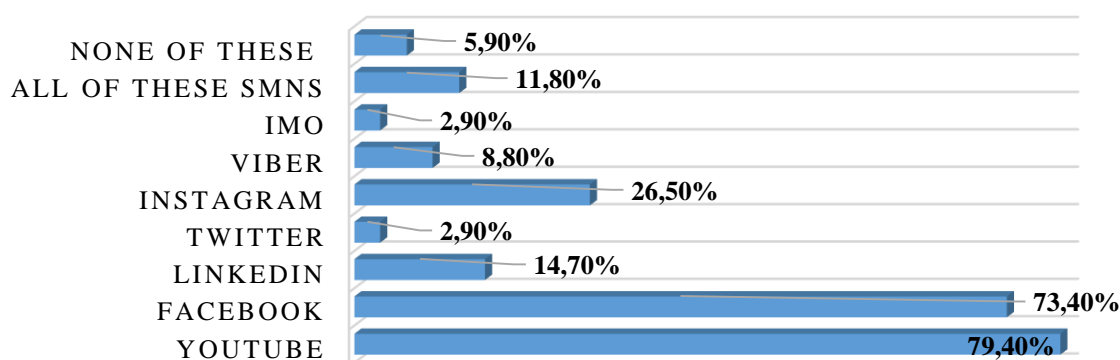
**Figure 4.8** *Learning through the University Moodle Platform*

One of the reasons was that attention drawn to the platform only lately during the period of covid-19. Technical difficulties, access issues and websites problems are among the major causes revealed by the participants. Other EFL teachers claimed there was not a need to use platform they have already using the face-to-face teaching and just delivered lectures to their students via emails.

Beside e-learning platform, teachers would need trustable online resources to consult and rely on; therefore, when inquired- in question 13 - to indicate whether they benefit from an e-library website of the faculty of foreign languages at Ibn Badis University: <http://e-biblio.univ-mosta.dz/handle/123456789/1708>, to which half of the participants claimed there is not an e-Library. Likewise, 35.3% do not know about its existence. However, 14.7 % certify to know an e-Library website address of the foreign languages faculty that confirms its existence. They provided the following link: <http://www.e-biblio.univ-mosta.dz>. Another 25 % of the participants mentioned the Système National de Documentation en Ligne (SNDL).

### 4.2.3 Social media networks effects on students EFL learning

Also asking about internet connection availability, its type and whether teacher participants have a link with their learners either through emails or through SMNs, they are asked a quantitative-driven question 14 about which of the networks would have a positive impact upon their students English language learning outside University. The following figure (4.9) presents the different findings.



**Figure 4.9** Social Media Networks' Use

The highest score in terms of influencing students learning is YouTube by 79.4% followed by Facebook network by 73.5%. The third rank goes to Instagram by 26.5% followed by LinkedIn by 14.7%. Some other SMNs had insignificant scores Twitter, Viber and Imo. This is an interesting score since the networks with a higher score like YouTube and Facebook both possess audio-visual structure and frames that empower community interaction the hosts engagement of language learning. However, participants are invited in the sub question to supply other social media networks names they use for learning and they wrote the followings: TikTok, Google, email, messenger (Facebook), Viber (for supervision) and Zoom is better for teaching. One teacher, actually, suggests accessing University e-learning platform through implementing tasks and grading them.

**4.2.3.1 Frequency of using social networks outside the classroom.** The results indicated that 35.3% all of the participants regularly incite students to use SMNs to promote their learning. Another important rate describes denotes the “*usually*” frequency option with 44.1%. The third and the weakest rate is 17.6% for the participants rarely asked learners to use social media Network for learning purposes.

Furthermore, the participants are asked to state objective for such assignments and qualitative data is reported as it is as follows:

- To widen knowledge about the presented lecture
- To learn about the given lecture on the e learning platforms.
- videos are uploaded in order to explain lessons and facilitate comprehension for students.
- To provide self-study tasks to improve students level to be able to learn autonomously.
- To help students autonomously increase their academic level.
- To make students assess information, acquire skills and improve them.
- To complement and support lectures given in the classroom.

Teachers have multiple objectives behind asking your students to use social media like Facebook or YouTube to further their lessons practice outside the classroom. The most relevant answers are summarized below:

- To make students learn more about the given lecture, the teachers upload videos from YouTube on the e-platform that explain the lectures in order to facilitate comprehension.

- To complement in-class lectures and improve students' understanding and ensure further lesson practice.
- To allow students to access authentic material on the time that is convenient to students.
- To infuse the flipped classroom and blended learning methods so that to help learners get much knowledge, be self-dependent and autonomous; Hence, learning would no more be teacher-centered but more of the learner-centered type.
- To easily access information, improve students' skills and widen knowledge about the presented lecture.

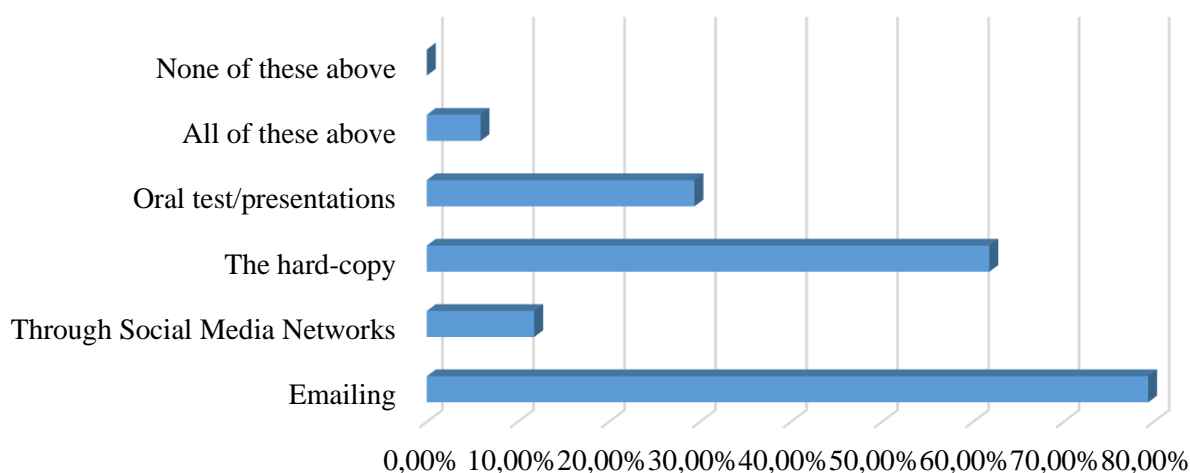
**4.2.3.2 Online educational resources.** Another Factor that the researcher claims would improve and boost students EFL learning outside school is to "equip" them with online educational resources. Without having these educational supplies, learners would not have authentic pedagogical support and references to rely on, especially that it is common feature that ICT connected devices offer constant consultation of documents.

The results obtained showed that most of the participants generally provide their learners with online resources but 23.5% " *always* " or " *regularly* " do that; while 55.9% " do it as any " *usual* " activity but a minority of 5.5% " *rarely* " provide any type of online support all resources two students. 8.8% actually never did any online support; it is counted with 5.9% who preferred not to answer this question. Those who assist students with online guidance gave examples of valuable importance in the form of qualitative data; the most applicable of these resources are listed below:

- British Council online resources and [learningenglish.org](http://learningenglish.org)
- Videos, PowerPoint and word, pdf documents, or in The Hyper Text Markup Language (HTML) Services, with assigned activities.
- Two Minutes Learning English for Pronunciation.
- Electronic books and articles consulting websites.
- Pdf files, YouTube conferences and videos to study the notion of authenticity in ESP.
- Handouts of face-to-face lectures are posted on the platform in pdf format including links to the original sources used to design the lectures.
- Educational websites, slides and educational YouTube videos
- YouTube tutorials, eBooks and web links
- Pdf articles, videos, web-links and e-docs

- Websites to download eBooks
- Sending tasks and questions for discussion. For extra readings, links of BBC or Cambridge courses on YouTube are provided.

**4.2.3.3 Online assessment of students' work.** After online support and teaching, this question targets a very important issue that concern how they would assess their online work. It is found that emailing pioneering the assessment list with 79.4% as represented in the bar graph below.



**Figure 4.10** *The Evaluation of Students Online Work*

Unexpectedly, the teachers would teach students online and come to assess their homework by asking for the hard copy of their works. It is found that 61.8% of the participants impose it on students. 29.4 percent participants think there is a possibility to ask students for an oral presentation either face-to-face in classroom or by doing an online presentation. Assessment online work through social media Networks represents 11.8% and only 5.9% assess the students through the use of all the previous techniques previously mentioned. One of the participants reported that he was assessing his students differently using a written project (expose) records training.

**4.2.3.4 Flipping the classroom.** "The Flipped classroom" is giving students lesson content to prepare outside school, through ICTs or SMNs use for the forthcoming session. The

objective is to enhance learning and achievement by reversing the traditional model of a classroom, focusing class time on student understanding rather than on lecturing.

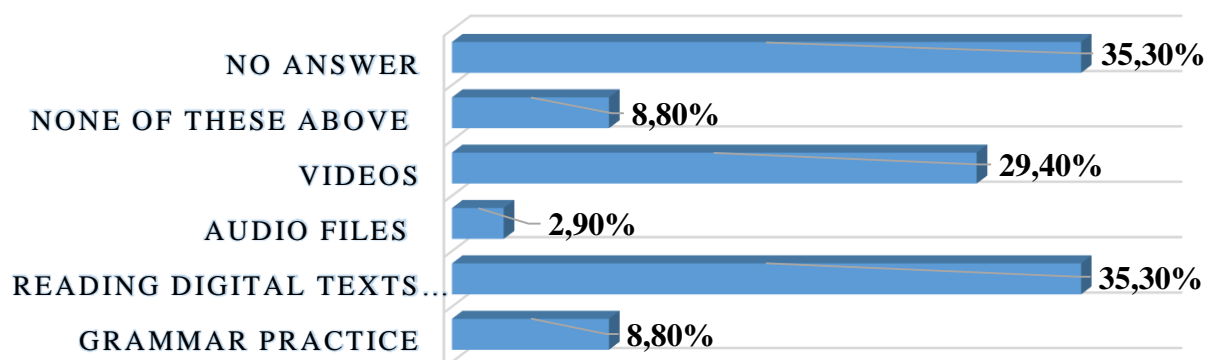
It is one of the features of online learning for teachers to flip their classrooms. After being asked, 58.8% of the participants indicated is that they flip their class work and about 20.6% of them do it practically *every week* while 8.8% do it *every two weeks* and only 14.7% do it *once a month*. However, 23.5% participants do not flip their classrooms and 17.6% do not know about the existence of this teaching technique.

**Table 4.5**

*Flipped Classrooms*

	Yes	NO	Don't know this technique	No answer
<i>Flipped Classroom</i>	20	08	06	00
	58.8%	23.5%	17.6%	00%
<i>How Often do you flip your classroom?</i>	Every week	Every two weeks	Once a month	No answer
	07	03	05	19
	20.6%	8.8%	14.5%	55.9%

Among the participants who flip classroom work, there are those who specified its frequency in the teaching practice. Hence, the types of activities for online preparation to flip the classroom are indicated in figure 4.11 below:



**Figure 4.11** *Types of Activities in Flipped Classroom*

The most common works given to students to be prepared as a basis for flipping classrooms is through *reading digital texts in Microsoft (MS. Word) format* or any word processing application for 35.3% all the participants proceed this way; whereas, 29.4% would provide *videos* to work on and only 2.5% of them give *audio files* for the same pedagogical purposes. It is noticeable that 35.3% did not reply to this question, 8.8% supplied other flipping resources and alternatives that are mentioned below:

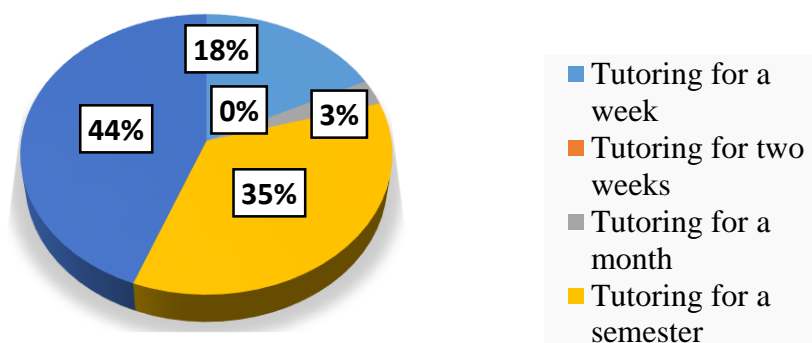
- They assigned writing essays or preparing presentation slides.
- They organized discussions to get the students' feedback.
- They did the preparation orally to supply examples and illustrations.

#### ***4.2.3.5 Tutoring students to use social media networks and e-learning***

***Platform.*** In question 19, teachers participants who want their Master students to interact with them and with each other online. The EFL teacher needs to act as a guide, a facilitator, a controller, a prompter, a tutor and even as a resource (Harmer, 2007). Therefore, participants are asked to state whether they tutor coach their students on any SMNs like: Facebook or Moodle platform to do practices and lectures or lessons complimentary work outside the classroom. It was found out that 41.1% of the participants answered positively; they coached the students when needed, as the same number of them just did not. If we consider that nearly half of the participants act online as tutors for their learners, it is an indicator the online learning is taking place.

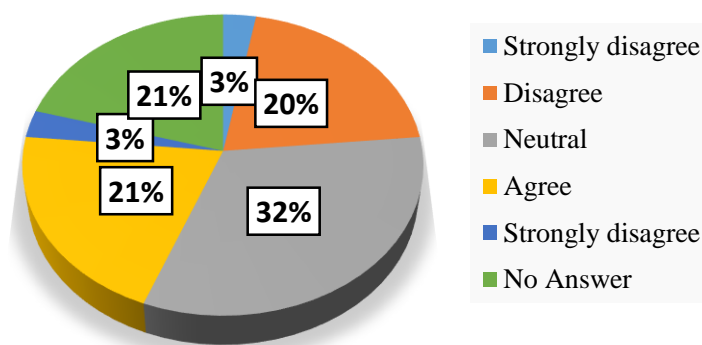
To ensure precise answers from participants, they are given periods to select from "how long they have been coaching their students online?". Figure 4.12 below shows replies which indicated that 17.6% assisted their students online for a period of "*a week*", and 2.9% did so "*for a month*" while 35.3% did it for "*a whole semester*". Notably, 44.1% of the participants preferred not to answer this question. It can be interpreted that this large portion of participants would not tutor their students to do online work. However, when asked in a sub question if they are assisted their students for other periods than the options provided, they replied that they are ready to assist them whenever they needed to. This was the case of what they did during covid-19 pandemic close down.





**Figure 4.12** *Tutoring Students Online*

In another sub question, the researcher further inquiries about the participants' attitudes to see whether they agree or disagree to teach their students online using social media networks. The responses, represented in figures 4.13 below, are graded according to Likert scale: *strongly disagree*, *disagree*, *neutral*, *agree*, and *strongly agree*. It is noticed that the rates of responses are close in percentage between participants: 20.6% *agree* to take in charge the learners work online and a similar percentage *disagree*; hence, the same remark can be said to the options of " *Strongly Agree*" and " *Strongly Disagree*". 20.6 % did not answer this question and 32.4% stayed " *Neutral*" on this matter.



**Figure 4.13** *Teachers Attitudes towards Coaching Students Online*

**4.2.3.6 Supporting teaching practice outside classrooms.** As the respondents are mostly concerned with improving online learning; their responses are positive to the use of

ICTs and SMNs in online teaching side the classrooms. The most significant portion of participating population has reached 52.9% of those who "*partially*" used ICT and social media networks for that purpose and it gradually became a "*mostly*" used procedure in instruction by 26.5%. It progressed further by 17.6% of the participants to become "*a total*" adopted teaching method for full-time learning. Table 4.6 below shows the extent to which teachers supported their Master one students in online learning.

**Table 4.6**

*Online Teaching through Social Media Networks*

Supporting Online Teaching through ICT & Social Media Networks					
Measurement	Yes, totally	Yes, mostly	Partially	No, they don't	No Answer
N <sup>o</sup> of Participants	06	09	18	01	00
%	17,6%	26,5%	52,9%	2,9%	00%

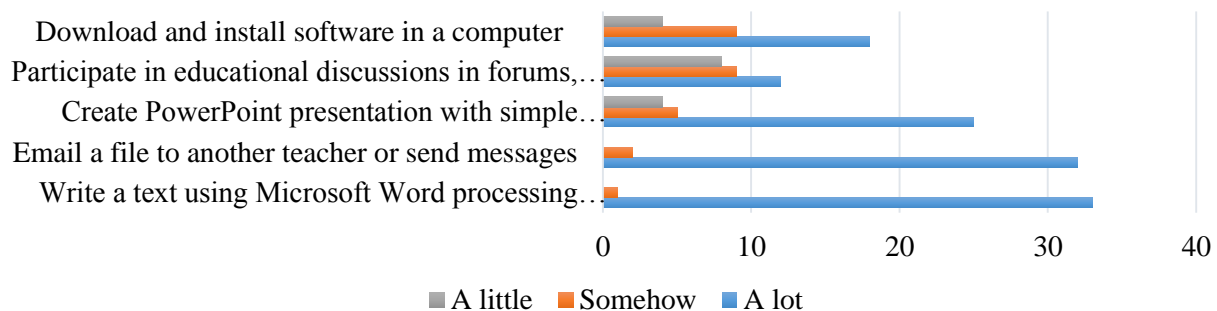
All participants, to certain degree each, supported ICT-based online teaching through SMNs except one of them who did not opt for online teaching outside the classroom, and he justified that by the lack of students' access to social networking sites for learning.

#### 4.2.4 Teachers' technology competence

This section highlights the participants capability to handle ICT and social media networks in education. Henceforth, they are asked how they qualify their ICT competence in order to manage online teaching. 47.1% of the participants have good technology skills and know how to manipulate ICT tools while half of them possess an average technology competence, except one participant who has little competence. In the same context, participants are asked if their colleagues manipulate ICT well. The findings show 38.2 % replied that most of their colleagues know how to manipulate technology well. 17.6 % did; however, 44.1 % are unaware of their colleagues' competence.

**4.2.4.1 ICT required skills for EFL online teaching.** The participants are asked-in question 23 - to complete a table through which they need to express their attitudes towards performing task by using ICTs. The researcher needs to know the extent to which they can

manipulate technology instruments and software to elaborate pedagogical activities. Figure 4.14 illustrates the results.



**Figure 4.14** *Using ICTs to Perform Online Teaching Tasks*

As illustrated in figure 4.14, it could be assumed that on the whole results show that EFL teachers generally participants are clearly able to manipulate ICT tools, use internet and applications to promote EFL teaching/learning outside the classroom. To measure teachers' confidence performing ICT-based. Statements are measured respectively from the highest value of performance to the no performance: “*a lot*”, “*somehow*”, “*a little*”, and “*none*”.

It is found that 97% of the participants are more confident in using Microsoft Word processing program and emailing each other. To a lesser degree, (73.52%) of them could create Power Point presentations, with animation of pictures, and integrate videos into lessons' activities. Furthermore, more than half of the teachers i.e. 52.94% can download and install software that facilitate and empower English language learning on a PC or a smartphone. This option also append 26.47% who can “*somehow*” accomplish similar activities while 23.52% of them under can do that just “*a little*”. They have “*little*” participation in educational discussions in forums, blogs and SMNs like Facebook or Twitter when the options “*somehow*” and “*a lot*” scored respectively 26.47% and 35.29%.

In order to implement ICT and social media networks further in teaching practice, teachers would need an ICT leader to guide them through ICT-based lectures preparation, classroom presentation and in online work, outside university.

#### ***4.2.4.2 Training to use e-learning platform and school conferencing.***

Answers to question 24 are meant to reveal teachers' ICT training especially about e-learning platforms and school conferencing. 41.2% have been trained to use

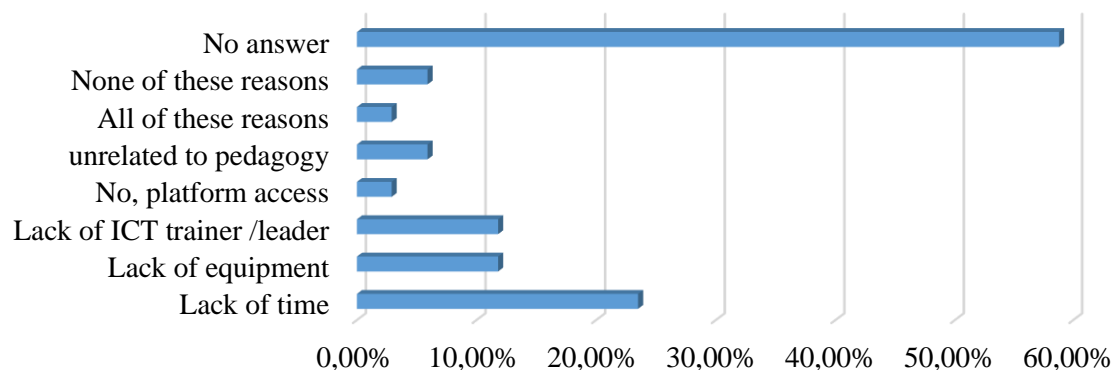
platforms for the sake of learning while 58.8% reported that they have not received any training as indicated in table 4.7 below.

**Table 4.7**

*Training Teachers to use ICTs*

<b>Participants' response</b>	<b>Yes</b>	<b>No</b>		
<i>Training about e-learning platform</i>	14	20		
	41.2%	58.8%		
<i>The quality of the training</i>	<b>Very good</b>	<b>Good enough</b>	<b>Insufficient / Inadequate</b>	<b>No answer</b>
	02	02	10	20
	05.9%	05.9%	29.4%	58.8%

Few of those who have received this type of training specified that it was very good (5.9%) or good enough to be able to use Moodle platform while 29.4 % claimed that it was an insufficient and inadequate training. The latter group was asked to provide the reasons behind inappropriate training, so they complained from many obstacles as illustrated in figure 4.15 below.



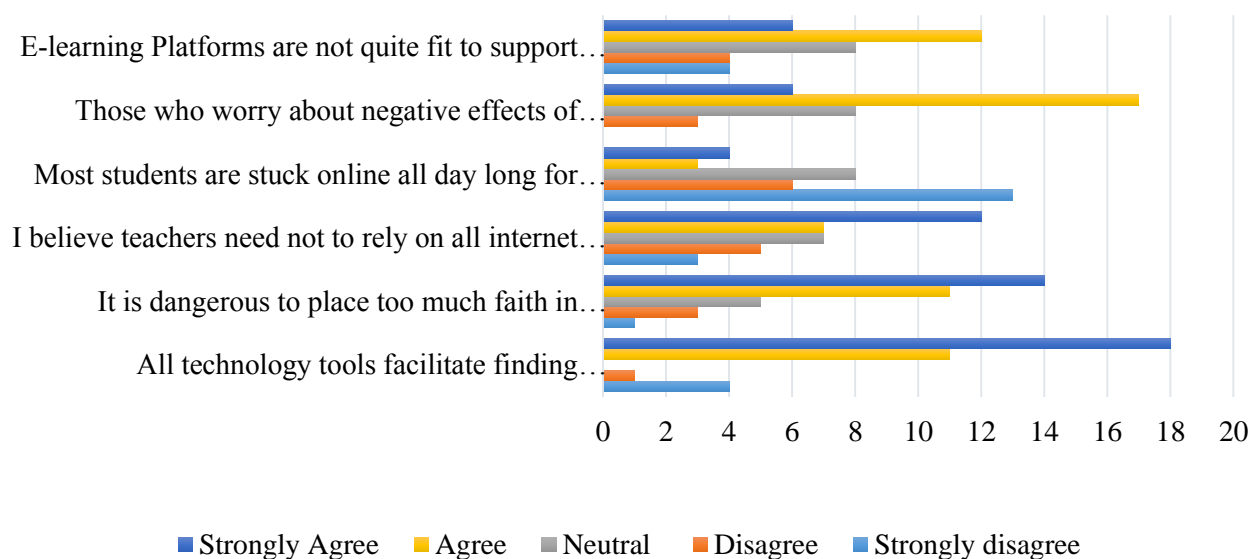
**Figure 4.15** *Causes of Insufficient Training*

The most prominent reason advocated by 23.5% of the participants is the lack of time. It is followed by two other major reasons, the lack of equipment and the lack of ICT trainer or leader

11.8 percent. In addition to that, that is the problem of platform access, the training was unrelated to pedagogy as reported by two teachers while one teacher has complained of all the reasons stated above and reported that training has been started, suddenly stopped for no obvious reason.

#### 4.2.5 Beliefs and attitudes about ICTs use for online teaching

In question 25, participants were all asked whether they agree or disagree on some selected statements which are crucial to the functioning of online teaching and learning outside the classroom. Through this, the researcher would determine teachers' readiness and preparedness to infuse technology and SMNs teaching-learning process with their students outside classes. The findings showed that 18 participants (52.94%) *strongly* approve of this saying that technology facilitates information findings quickly. Another 32.35% also *agree* on this statement. Figure 4.16 below better illustrates the findings.



**Figure 4.16** Teachers' Beliefs about Online Teaching Utility

A second statement claiming that it was too dangerous to place too much faith in technology, on which 32.35% participants *agree* on it and 41.17% *strongly agree*. We notice that in comparison with these two statements that other numerical values are insignificant. 35.30% of the participants *strongly agree* on the belief that teachers should not rely on all internet resources while 20.58% just *agree* on this statement, and the same portion of participants preferred to keep *neutral* while 23.52% others *disagree* on that. It was noticed that 55.88% of teachers *disagree* on the statement saying that students are not stuck online all day long for

academic learning. Another 20.58% do approve of this reasoning. In the opinion of 67.64% , there is not much concern about the negative effects of technology, and it is better to consider the modern conveniences available today. However, three teachers disapprove of this thought while another 52.94 % *agree* on the conclusion that learning platforms are not quite fit to support the learning process, and eight 23.52% of the participants *disagree* on this statement.

**Table 4.8**

*Teachers' Beliefs about Online Teaching Utility*

N°	Statements	- 2	- 1	0	+1	+2
1.	All technology tools facilitate finding information faster and easier	4	1		<b>11</b>	<b>18</b>
2.	It is dangerous to place too much faith in technology.	1	3	5	<b>11</b>	<b>14</b>
3.	I believe teachers need not to rely on all internet resources.	3	5	7	<b>07</b>	<b>12</b>
4.	Most students are stuck online all day long for academic learning.	<b>13</b>	<b>06</b>	8	3	4
5.	Those who worry about negative effects of technology should think about the modern conveniences available today.	/	3	8	<b>17</b>	<b>06</b>
6.	E-learning Platforms are not quite fit to support the learning process.	4	4	8	12	06

*Note.* Strongly disagree (-2), disagree (-1), neutral (0), agree (+1) strongly agree (+2)

### 4.3 Teachers' Interview Data Analysis

After interviewing the teachers' participants, the data collected from their answers are cleaned and organized into categories, according to the topics developed from the questions objectives. To enable a significant interpretation of the results, qualitative data are mostly turned into quantitative, and represented into tabulations with a rating percentage.

#### 4.3.1 Attitudes towards SMNs use among EFL teachers

The first question's results indicate that most interviewees (69,66%) use technology in EFL teaching, and the various ICT devices used are represented in table 4.9 below according to their categories.

**Table 4.9***Teachers' Attitudes towards ICT and Social Media Networks*

<b>For Technology Use</b>	<b>Against Technology Use</b>	<b>ICT Devices and Equipment</b>	<b>Social media networks</b>
29 participants	01 participants	- overhead projectors, PCs, Smartphones -computer, laptops, data-show- tablet- Internet connection (cable & wireless)- pictures- audio visual aids	Facebook, Messenger, YouTube social media networking sites

It is noticed that a variety of ICT tools are adopted by the participants who included three main categories: the hardware (equipment), the software programs that constitute windows built-in and installed applications and SMNs. Among these instruments, overhead projectors, computers, laptops and audio-visual aids can be used inside university classrooms while others can be available both inside and outside classrooms. There are also smartphones, data-shows, Tablets, Modems, cable and wireless internet instruments. Likewise, there are embedded software such as Microsoft PowerPoint and Microsoft word. Furthermore, there are social media networks such as the mostly used among participants like Facebook, Messenger, and YouTube.

As we can infer from the above table that the majority of informants approve of baking EFL teaching by incorporating these communication tools and SMNs. More than 36% of those who have positive attitudes towards SMNs and ICTs adopt them to support both face-to-face and online teaching. This is applicable to overhead projectors, PCs, and smartphones. ICTs are the best tools to complement traditional teaching, beside PCs and smartphones for sharing documents and engaging students.

#### **4.3.2 The use of social networks for academic purposes**

The second question targets the use of SMNs like Facebook, YouTube for academic purposes. The participants specified that they incorporate SMNs in teaching Master one students at the University of Ibn Badis. 80% of them are using different SMNs for several academic purposes as illustrated in table 4.10 below.

**Table 4.10***Social Media Networks Use for Academic Purposes*

<i>SMNs</i>	<i>Facebook</i>	<i>Messenger</i>	<i>YouTube (videos)</i>	<i>Others</i>	<i>Blogs</i>	<i>Email</i>	<i>Platforms/ Moodle</i>
<b>%</b>	15-	01	05	<b>%</b>	02	05	03
<b>Purpose / What for?</b>	- to post for my students - Post my lessons and announcements - sharing documents	- communication	- Plenty of channels for educational purposes  - pronunciation videos	<b>Purpose / What for?</b>	- sharing documents -post lessons and practice	-give them links -share documents	-for academic purposes but I take resources from it

Currently, 20 % of the participants do not embrace SMNs into their pedagogical work with Master students and one these simply uses email for that purpose. 80% of them , however, adopt SMNs in teaching their students online to complement their classroom work. Thus, 50% use Facebook to post lectures and receive students' feedback, or give instructions and share supplementary documents. Another 20% adopt Facebook Messenger for communication purposes and YouTube for selecting appropriate lecture-related videos. 33.33% post their lectures either in web-blogs or Moodle platform and preserve the email to sharing website links and extra learning material. Nevertheless, almost all participants agreed that Facebook and YouTube are taking the lead in students' world as one of them testified:

I use Facebook with Master students, they are mature enough and know how to use Facebook for learning, I do always use it to share files with students. I use Facebook for the sake of communication and sharing documents only, but not teaching and among YouTube channels, I select pronunciation videos. (an interviewed participant)

Being as such, teachers are selecting SMNs according to their pedagogical needs: for some it is teaching-phonetics requirements, and for others it is the flipped classroom type of work to inverse teaching and reinforce comprehension.



**4.3.2.1 Ways of enhancing teaching through SMNs.** SMNs, such as YouTube, Facebook or Gmail may enhance online teaching/learning in many ways if they are adapted to formal learning and used properly. Typically, this teaching technique resembles e-learning or blended form of learning when powered by SMNs to complement formal class work. The collected data, in this regard, would elucidate whether they have a significant learning impact.

**4.3.2.2 Keeping contact with students.** One way SMNs can improve online teaching is through what participants replied to question three of the interview that showed on the whole teaching practice from outside the classroom relies basically on keeping in touch with learners using available SMNs that afford teachers many advantages in the teaching/learning process. Despite this, 30 % of the teachers reported that SMNs allow them to remain in contact with their students outside the classroom walls. According them, students show positive attitude to lecturers through SMNs as a means of instruction. As one participant puts it:

I think that using social networks is fruitful for it helps teachers and students Connect and so keep an ongoing communication beyond the working time and is also time-saving way of teaching. (an interviewed participant)

Citing Facebook provides a better example as best means to keep in touch with the learners' progress; it can be used for announcements and, it is helpful for reminding students to do tasks. Interestingly enough, using SMNs facilitates transmitting courses, conducting assessments, and sending feedback regardless of the physical context they found themselves are in.

**4.3.2.3 Motivation, engagement and interaction.** Another 16.66 % of the participants consider SMNs as a source of motivation and engagement for students. An English for Special Purposes (ESP) teacher used business English videos to spark students' curiosity. He stated: "I used business English videos to enhance students' curiosity." Using online platforms or social media facilitates document sharing, besides allowing the discussion of certain points where everyone shares his/her opinion without shyness impact."

Another participant informed that s/he uses online platforms or SMNs for sharing documents to motivate his students, then engages them in online discussions through which everyone expresses his opinion and eliminate shyness. In addition to that, two participants indicated that the use of SMNs could greatly enhance the teaching of the subjects in the sense they make the teaching and learning experience more interactive, lively and purposeful. While two others stated that SMNs provided a practical side to her course and helped in saving time by flipping class work and asking students to prepare videos or docs ahead of time at home.

#### ***4.3.2.4 Authentic online resources.***

For 13.33% of the participants, YouTube podcasts great and abundant pedagogical content for Master one students in a form of lectures; they can be supplied with relevant references for further readings and documentation. They argued that due to time constraints, Facebook is becoming the go-to place for teachers and students alike where they have virtual meetings or to submit assignments. Besides that, online lectures can offer interactive virtual classrooms which enhance the effectiveness of the teaching process.

On the other side, according to two other participants, SMNs namely Facebook and YouTube provide students with various online documents and material that may be used by instructors to complement class tasks, especially in Covid-19 times. Eventually, the teaching time is significantly reduced and students meet their teachers for short periods. For example, one of the interviewed participants in charge of the module of culture and civilization uses YouTube to provide diverse content on the different cultural aspects of English Speaking countries, especially in the USA and the UK. Thus, it can be a supportive teaching aid for our students. Another 16.66 % (5 participants) attest that SMNs facilitate access to the lesson contents and engage students and motivate them to learn EFL language.

#### **4.3.3 Lesson practice outside the classroom**

Social networks facilitate access to online information and mainly lessons authentic resources, such as documents, pictures and videos foster understanding items and clarify new or complex concepts. The following section indicates how the participants benefit from these online affordances.

**4.3.3.1 Illustration of difficult concepts.** A minority of participants (6,66 %) approve that SMNs could involve a practical side to face-to-face teaching course. The same number think it helps in time management, like asking students to watch videos of topics related to the lecture. They serve as illustrations, visual aids that can explain complex concepts, ideas, events or philosophies which are better presented in social media network. Two teachers reported that students could also make use of platforms to create activities that are more engaging, upload their lessons and communicate with the learners remotely.

**4.3.3.2 Time Saving and feedback provision.** 10 % of the interviewed teachers consider SMNs are efficient as long as they are easily accessible and motivating since they include videos, images, graphics, music and other options. With one click, students could get knowledge and massive information at low costs. There are multiple SMNs facilitating the teaching process and make it less time-consuming. An appropriate use of these networks helps the teaching/ learning process in a number of ways: First, they save time and they make teaching more vivid. Besides, they aid teachers to provide the students with quick feedback and direct them to valuable educational sources.

#### **4.3.4 SMNs as pedagogical tools for students.**

The participants are asked to reveal which SMNs enable learners and mainly for Master students to learn better and share various educational material like word documents, audio-visual files and pictures. 83.33% of them stated many networks that can be classified either as formal or informal means for delivering information and ensuring interaction and collaboration. They are listed below according to their degree of formality and frequency of use.

**4.3.4.1 Formal networks.** Concerning the adoption of formal resources to enhance ELT, 20% of the participants use only emails to share lessons, electronic books and references. Most of the time, participants use emails because not all the students can have access to other SMNs. Thus teachers usually send docs to their students via email and now they do the same thing via the e-learning platform named Moodle. Practically all participants use many mailboxes either in Yahoo or in Gmail. Additionally, Teachers often connect to Google Classroom which is actually used to maintain the formal aspect with students also use Google meet; where they can store e-books in multiple formats in Google Drive. For more lucidity and conferencing purposes, they sometimes use Zoom application or WhatsApp. Besides, there are personal blogs constructed by

teachers to aid students to get useful information, to connect with their peers and to provide their feedback in convenient ways.

**4.3.4.2 Informal networks.** The network that is still counted as non-formal is Facebook where students can freely express themselves and give out feedback on their Facebook pages and manipulated it well although it is noticed that recently most of Master students are into Instagram. 36.66% claimed that Facebook remains the most used network jointly with Facebook Messenger that is useful in instant communication and educational docs sharing.

LinkedIn as a social networking website was designed for business professionals that allows to share work-related information with other users and keep an online list of professional contacts (<https://techterms.com/definition/linkedin>). In academic circles, it is not accustomed by students whereas Facebook would be perfect for sending updates and alerts daily to users beside additional options that take in charge audio-visual files. In addition to that, creating Facebook pages, diffusing alive and creating discussion groups.

The networks that assure oral communication and diffuse videos are liked by both teachers and students as YouTube, mainly for sharing videos and streaming live lectures, and Instagram is for sharing pictures. Twitter is rather a formal SMN and can be exploited for education. With advent in SMNs, Viber and WhatsApp are offering practical options for information exchange. Because students are keen on new technological inventions, teachers could exploit them to offer more interaction between students-students and students teacher.

#### **4.3.5 SMNs bridging face-to-face with online learning**

76.66% (23) of the participants contemplate that SMNs serve as a bridge that links outside the classroom learning with the formal one inside the institution. A participant puts it in an exhaustive way: “The internet is most certainly an asset to learning inside and outside the classroom environment. With the Covid-19, the internet and social media do definitely serve as a bridge.” That is to say, they positively complete what students and teachers are supposed to do within the classroom environment especially that most students advocate. The majority of participants think SMNS can play an influential role in collaborative learning, as well, so their adoption has become inevitable at the 21st century era.

Another proportion of seven participants (23,33 %) hesitated to consider SMNs as bridge that links classroom learning with outside university ICT-based complementary work. They would

consider them as such provided that they are used properly. This can be possible when students' learning motivation is high, when they viewed SMNs as a resource, and when learners' awareness about the pedagogical utility of these means is mature. Besides, some consider that online learning must be imposed due to Covid-19 Pandemic crisis. Few teachers, though, believe that SMNs complement classroom learning in the near future.

**4.3.5.1 Inversed teaching through flipped classrooms.** Teachers of Master one students inverse their teaching by adopting the "Flipped Classroom" strategy in the master level classes in higher education as a continuation of the formal class work. "The Flipped classroom" is giving students lesson content to prepare outside school, through ICT or social networks use for the coming class session. The objective is to enhance learning and achievement by reversing the traditional model of a classroom, focusing class time on student understanding rather than on lecturing. Half of the interviewed teachers (50%) proceed this way as a continuation of the classroom pedagogical work; because they argue that, this gains time, whether as teachers or learners. Students feel less stress when they consume the teaching material at their own rhythm. Hence, some of the participants even use social networks more than the face-to-face method of teaching although three (3) others reported that *sometimes* as frequency for use. Another 13% of the participants confirmed they use flipped classroom technique as a solution to involve demotivated master learners since one of them said: "Flipped Classroom technique does not work only in one case; when students do not bother to look at the posted lessons." The other teacher opted for this strategy on several occasions! In addition, it really helped him increase his students' engagement; yet, many learners expect the teacher to do all the work. In some respects, this is justified since face-to-face teaching seems more organized in terms command and knowledge provision. By contrast, the flipped classroom appears less controlled because of interruptions that result from the internet disconnection or slow speed.

**4.3.5.2 For Inversed teaching.** 16% of the interviewed teachers also adopt the flipped classroom method of teaching through the use of technology either by email, through the university platform or SMNs under the pressure of Covid-19 distance teaching constraints. Therefore, due to the current pandemic, it has become necessary to opt for such a teaching method in order to increase students' chances for efficient learning. According to the same group, this

option is a continuation of classwork as a necessity during the lock-down. Another teacher indicated that he had used this strategy even before covid-19.

**4.3.5.3 Against inversed teaching.** There are five, that is to say (i.e.) (16.66%), participants reported not adopting the flipped classroom method either through any document, pictures or videos into any type of teaching. One justified his procedure by advocating that students find the module she teaches difficult, and they prefer attending traditional classes and listen to the teacher's explanation in face-to-face instruction. However, 6,66% of the participants advocate that online learning cannot be helpful if not supported with face-to-face learning in classrooms while according to 10% of them advanced that it is a possible future practice that teachers would inverse teaching through flipped classroom strategy as a continuation of the formal classroom.

According to the report of 10% of the participants, few teachers flip classes but in a very limited way because they think that students have not prepared for that, yet. Not all of master students consent to prepare the lecture at home. They admit that, in reality, a small portion of teachers flip classroom work in an effective way.

**4.3.5.4 The Flipped Classroom strategy and learning outside classrooms.** Almost all the participants (80%) effectively use the flipped classroom method in teaching master classes in Ibn Badis University. Among those who use this method, there are different groups. Nearly 30% confirmed using it without specifying further details. One of participants confirmed that using "Flipped Classroom" helps students learn on their own terms that is to say (i.e.) when ?, where? and how? while 20 % of this group use it this method with a lower frequency describing it with "*sometimes*" or "*to a certain extent*" or "*to a certain degree*". Another 37.5% have precised their purposes behind flipping classes: two participants provide the simulation of learning autonomy, interest and critical thinking where the teacher's control of the process is positively reduced. Three others stated that it supports more face-to-face teaching because it contributes to giving students a clear idea about the course.

Teaching/ learning outside the classroom environment provides an opportunity for extra learning and consolidation. The same number of participants believe that flipped classroom method enhances the learning process by allowing more practice in class, so it would certainly contribute to the quality of education. As a result, this undoubtedly lead to positive effects because it improves the student's ability to work with the course content delivered to their convenience, and as such,

they could answer all types of questions. In addition, this method proved additional efficiency during the current situation of Covid-19 pandemic.

Another 13.33% (5) of the participants argued differently. They linked the introduction of flipped classroom method in Master one classes with condition to be fulfilled such as the mastery of this method by EFL teachers to evolve more reliability in the learning process. However, this would depend on the commitment and willingness of students to make individual efforts by relying on their own abilities and understanding. If students cooperate well, we need a collaborative community. In general, they insist on the general management of this method so as it proves credible and efficient. Two participants had some reserve on answering this question.

### **4.3.6 Training programs in education**

Each university institution organizes a pre-service and in-service pedagogical training, including technology incorporation for teaching and learning purposes. The participants are asked whether the employing institutions or any other organism has trained them. Half of them responded positively; 50 % of the participants had benefited from pre-service and in-service training programmes.

**4.3.6.1 Pre-service training.** The collected interview data revealed that 20 % from the trained participants benefited from pre-service training organized by university. The teachers' training provided by university was not satisfactory. The mentor simply explained theoretical and practical pedagogical roles of a teaching within particular classes. This has been followed by organizing an in-service- training: through seminars, conferences, training programs. In the same line, some teachers had previous training when they were Middle School teachers. It was pedagogically beneficial in the preparation of competent and responsible teachers. A fellow-up in-service training is planned almost twice every three months, during the holidays.

**4.3.6.2 In-service training.** The trained participants, counted to 80%, benefited from in-service training at the university. The number of participants who had in-service training largely exceeds those who had pre-service training. Table 4.11 below reports the type of training and the duration, the place, and the pedagogical aims.

**Table 4.11***Teachers In-service Training*

<b>Trained Participants</b>	<b>Periods</b>	<b>Type of training</b>	<b>Where?</b>	<b>Pedagogical Objectives</b>
<b>15</b>	- 1 week to 1 year	-In-service Training program for novice teacher	Mostaganem University (ITA)	-ICT (one week for Moodle training) - Teaching & Pedagogy
	- 1 year	-In-service	Online Training	-ICTs: instructional software: Moodle, OPALE & VUE
	-1 month	In-service	-University	- Pedagogical guidelines & Teaching issues
	- 2 weeks to - 2 months	- Online courses as part of my CPD	- British or American embassy	- A Massive Open Online Course (MOOC) <sup>18</sup> a model for delivering learning
	- Ongoing (Periodic)	- Training program - presence and online mode	- US embassy (Algiers) - UK course	-EFL context -Teacher development

In fact, periods of training could be a day, a week, a month or a year, and it took place at the university institution. The principal objective was to prepare teachers to manipulate and integrate technology into teaching through learning about ICTs, Moodle e-learning platforms functioning, software like OPALE and VUE or simply basic word processing and general teaching pedagogy. The majority of interviewed teachers have praised in-service training although they have complained from its pedagogical insufficiency and the lack of equipment, short periods or training that did not corresponds to their needs. Most of the training was in a form of seminars which lasted one day or a week, or programs that lasted from one month up to three months; some teachers paid for an ongoing training provided either by the United Kingdom (UK) or the United States of America (USA) embassies. Others had interesting training as the Massive Open Online Course (MOOC) for two months and on software such as Moodle, OPALE & VUE; but they were very few and half of the participants complained from not benefiting from any type of training.

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<sup>18</sup> *Note* A Massive Open Online Course (MOOC) is a model for delivering learning content online to any person who would like to take a course, with no limit on attendance.



### **4.3.7 Some EFL teaching difficulties outside the classroom context**

There are difficulties of learning online that appear evident and related to the technology material itself; however, other obstacles that concern the users nature and their readiness to adopt ICTs and social media networks for education purposes. The following section puts under the spot light some of these challenges.

**4.3.7.1 Difficulties related to students.** When asked to specify the difficulties they encountered when trying to spread their EFL instruction beyond the classroom as a continuation of what they do inside the classroom. Ten % of them have mentioned some handicaps such as time and material and another 10 % had difficulties related to ICTs access, equipment and students' demotivation. In fact, teachers would spend too long trying to fix complex learning and testing requirements into a tight daily schedule. In addition to the unavailability of equipment, as one of the participants reported: "It is hard to introduce a new teaching culture into a rusty infrastructure."

**4.3.7.2 Demotivation and engagement.** Similarly, there are complications that concern students and their attitudes towards online learning with software applications or SMNs; for example, ten participants stated negligence, laziness, demotivation and lack of internet access or low-rate or lack of equipment or means. Because of the lack of students' engagement, teachers struggle in creating motivating teaching materials for further use outside of the classroom. In addition to their lack of ICTs' competence, learners do not read materials (articles, documents or chapters).

**4.3.7.3 Credibility of the homework.** There also some common issues of the credibility of the works you receive online from students, their collection and evaluation. Teachers argue students are much used to the teacher-centered method and rely too much the content provided by the instructor in the classroom. They have taken the habit from pre-university education to plagiarize in their assignments. So, students' productions outside the classroom are not worth trust, especially that we have no plagiarism checker software at the level of English department.

**4.3.7.4 Equipment and facilities issues.** There are major difficulties related to equipment, internet access and ICT skills of the learners' in particular. In addition, to access difficulties to the teaching platforms, the low flow and slow speed of internet mainly in some rural

areas negatively affect documents sharing. 50 % (8 out of 16) of the participants indicate that there is a problem related to internet unavailability, and eventually, not all of them have ICT skills and digital literacy. The same constraints are testified by 18% of the participants concerning Moodle platform inaccessibility, technical complications for both teachers and students without discarding some socio-professional factors which hampers the infrastructure of the teaching materials.

#### **4.3.8 SMNs influence on EFL learners**

This section describes what participants consider as drawbacks which they experienced during their SMNs use. The analysis of the participants' answers revealed several effects; they are split into three distinct categories: negative influence on the language learning process, influence on students' work and the influence on students' personality.

In fact, 20 % of the participants believe that SMNs negatively affect EFL learning process in a numerous ways. Working through online is time consuming, and also the distraction provided by a variety of elements of entertainment such chatting software, songs, noisy games and films among others. Consequently, entertainment would consume students learning time. Beside this, students are over-loaded with homework and receive no assistance from peers through interaction, the role of SMNs would be useless. Also, chatting online and Facebooking, among other SMNs, are known to encourage the use of more informal language. Therefore, students acquire a lot of slang rather than academic language. As far as vocabulary is concerned, unlike in face-to-face teaching, mistakes are not openly corrected and tend to be repetitive and remain.

**4.3.8.1 SMNs influence on students' learning outcome.** Similarly, 46.66 % of the interviewed participants indicate that SMNs affect master one students' work in a non-beneficial manner for they over rely on the use of SMNs such as searching topics that have no relation to their studies and thus wasting time. In effect, this excessive use can lead students learners to acquire bad habits as neglecting writing and rely on abbreviations, smileys or emoji and emoticon to communicate. On the other side, students would lack focus being distracted, and therefore unable to navigate on platforms. "It would be better if they used platforms designed for teaching!", as one of the participants urged.

Another major consequence of SMNs under the conditions of covid-19 most students have abandoned their classes and they relied on ready-made lectures shared mostly on Facebook groups. This has negatively affected their learning process; for instance, instead of reading and

reflecting one lesson contents and doing the practice part, they move unconsciously to publications and commenting.

**4.3.8.2 SMNs influence on students' attitudes.** Further negative effects impacts the students personality as identified by 23,33 % of the participants, and ample qualitative data are provided in table 4.12 as it summarizes the main negative effects and some suggestions on how to deal or overcome them.

**Table 4.12**

*The Negative Influence of SMNs on Students Learning Environment*

	SMNs Negative effects	Lead to...	SMNs are supposed to...
<b>Influence on Language learning process</b>	- SMNs consume great deal of time	-Insufficient time for studying	-If used appropriately, SMNS save you time.
	- Distraction and e-noise, & entertainment	-Students skip learning and heavy online workload to videos and like-dislike post-comments	- Avoid leisure activities - Students have to schedule their learning time.
	-A lot of slang (informal) language	-Forgetting formal academic language	-Provide both informal and academic language
	- No interaction about learning.	-Diminish reflective thinking	-Encourage students to interact and collaborate
	- Plagiarism detected	- Lack of credibility of students' work. -Irrelevant sources of information.	- Teachers can use a plagiarism detector
	- Repetitive mistakes not corrected.	-Slow learning progress	-Provide automatic correction of mistakes.
<b>Negative influence on Students' work</b>	-Over-reliance on social media Networks.	- Students abandon academic Writing & rely on abbreviations.	-Offer applications and software for selective use. -Advise them to use full forms
	-Students search for irrelevant topics.	-They submit identic HW copies	-Invest time in productive activities.
	-Incorporation of slang words into speech and in writing	Mix formal with informal English	- Software allow to choose the degree of formality as Microsoft word.
	-Under covid-19 conditions, students could not manipulate Moodle platforms	- They could not access the posted lectures ; they rely on ready-made ones shared in Facebook groups	- Each university has designed e-learning platform
<b>Negative Influence on students' Attitudes</b>	- Students could become lazy, bored and consider SMNs a place for fun.	- They may forget their primary inquiry as they surf pages aimlessly.	-SMNs can be helpful if teachers advise students to benefit from SMNs use in academic learning.
	- Networks can cause the loss of identity and self-confidence.	- They deprive students of their identity as EFL students.	- It is high time students change their attitudes towards SMNs

The more SMNs afford advantages to learners, the more they turn them into lazy students. They may use SMNs for academic research; however, they find themselves surfing from a page to another, thus forgetting, therefore, their primary inquiry. On the other hand, some participants think they use SMNs to avoid boredom as one declared: “ Honestly, Algerian students consider social media Networks as a place for fun and they need to realize that they can be helpful.” Despite that, some participants who consider only positive influence; they assure that continuous use of these tools would bring direct interaction between students.

### **4.3.9 Online teaching versus face-to-face teaching**

Two teachers find online teaching more appealing than face-to-face especially with small groups of Master one students though it has both positive and negative sides. However, the rate goes higher to 10 % of the participants who consider online teaching and face-to-face teaching as complementary and of equal value since Facebook remains a trend that gives us complete understanding of the learning process. Eventually, there are those who think the opposite: they prefer face-to-face, but expect online learning as effective in terms of freedom and availability of resources. It also promotes autonomy, which is an ultimate objective.

The same number of participants anticipate that online teaching has more chance to flourish in the near future for the reason that, students are not yet prepared for online learning for some reason among them. The teaching objectives and the huge lack of ICTs means and equipment.

Actually, 56.66 % of the participants i.e. 17 affirm that online teaching is not more appealing than face-to-face and one of them even claims that it is not rewarding as well, in terms of learning outcomes. Six participants out of them have various rationalizations of the inutility of online learning through platforms and SMNs as for instance that students still find themselves more secure in face-to-face teaching that is why it remains more efficient and interactive even if the other is becoming more and more prominent.

From another angle, 16.66 % estimate that but Blended learning can be an alternative in unexpected difficult situations, like during pandemics. Hitherto it is just a continuation or face-to-face teaching inside the classroom which considered as a complementary instructional strategy, but face-to-face teaching is more influential and accurate.

**4.3.9.1 Teachers’ experience with SMNs.** Experience is a helpful factor to adopt SMNs and Facebook is one of the largely used worldwide. The benefit could as easy as the creation

of an account that is generated by the research participants to post anything about might be helpful to learners to submit assignment or homework. This social network was effective to accomplish pedagogical needs and purposes before and during the period of Covid-19 pandemic. The table that summarizes the use of Facebook network in with its components for the master online complementary teaching. This describes the using experiences, periods, and the purposes of adopting Facebook pages, Facebook groups, and Facebook Messenger for complementary EFL pedagogical needs outside the classrooms.

**Table 4.13**

*Managing a Social Media Network for EFL pedagogical purposes*

SMNs	USES	Periods	Purposes	Experience
<b>Facebook page</b>	- Send documents before lectures -Support lecture	- Academic year (2020-2021)	- Prepare students	- Satisfactory - Useful
	- To promote resources and I post my classroom videos everyday	- Posting videos since 2017	- Support lecturing - Active learning - Organize workshops & cooperative work	-Great experience, but students do not respect the objectives
	- To post content related to the English language	- Experience lasted one year	- Improve language competency	- Not all Students were involved
	- Contact students - Created according to the students' specialty	- Before and during the pandemic	- Post PowerPoint presentations, learning tips and guidance	- Good experience
	-Students post homework -Teacher correct	- Two terms - Up to 1 year	All students see the posts and corrections	Helpful
<b>Facebook messenger</b>	-Send docs and messages	I have always used it	Pedagogical work from a distance	- Very Simple (basic use)
<b>Facebook account</b>	- Posting - Effective tool for homework submission	- During pandemic	Specifically created for pedagogical purposes	Helpful

**4.3.9.2 Facebook page.** Participants are asked if, throughout your teaching experience, have managed to keep a web page, or a blog, or a Facebook page or a YouTube channel for complementary EFL pedagogical purposes. 60 % keep a Facebook page, Facebook account, Facebook group, Moodle platform account, and some social media network.

Creating and managing a Facebook page has taken the lion's share in the interest of participants as most devoted it to post content in order to support the lectures taught previously inside the classroom or to send documents or videos before lectures in order to prepare students for

the coming sessions as in flipped classes. They have been practicing with students either for one term, a whole academic year or just during the covid-19 pandemic. Almost all of the teachers agreed on the necessity to maintain an academic contact with learners outside classroom to consolidate lectures comprehension through sharing documents, engaging students in active learning strategies and cooperative activities. The majority described online teaching experience as satisfactory and useful except those cases in which students do not respect the objectives or are not involved.

**4.3.9.3 Facebook groups.** Facebook Groups are mostly created according to the needs of each level or module of Master groups. It is where teachers can contact students to publish and request homework or given pedagogical instructions. They are usually operational from one to two years in order to manage learning through tasks and posts; a sort of guiding and supervising students. Participants view conducting work through Facebook groups as helpful, as it is the case with Facebook Messenger for documents and messages exchanges.

**4.3.9.4 Blogs and Moodle platforms.** Participants may create educational web-blogs to publish additional texts and references to the lecture they provide face-to-face, and they associate them with the number of academic terms. Table 4.14 below reports some relevant details about blogs and University Moodle platform; their uses, periods, purposes, and interviewees attitudes about experience done.

**Table 4.14**

*The Web-blog and Moodle Platform for EFL pedagogical purposes*

SMNs	USES	Periods	Purposes	Experience
<b>Blog</b>	I publish articles that relate to my courses	- 2 semesters	Ask students to read as a preparation	Interesting
<b>University Moodle platform</b>	published, there, all the lectures	2 semesters	Send needed material to M1- students	Satisfactory
	send a note to my students	since December 2020	Posting lessons	rewarding
	Posting lessons	for 1 year	Provide interaction	not rewarding no feedback
<b>Other SMNs</b>	sharing documents	For a year now	for educational purposes	- without any major issue -rewarding

Blogs, with contents meant for lesson preparation or revision, are interesting to students. Furthermore, Master 1 students can find all lectures posted on the university Moodle platform (<http://e-fle.univ-mosta.dz/>). The experience reported participants' satisfaction but sometimes there was no feedback from students.

Few teachers envisage to keep SMNs pages, Facebook groups, Facebook pages, Web-blogs or YouTube channels, in future time, to complement classroom work online with their master students while 33.33% of them do not intend to engage in such an adventure because they either do not know how to or they are still reluctant.

**4.3.9.5 Engaging students online.** As the researcher examines the answers, he found that 36.66 % of the participants (11) succeed entirely in engaging their master students to work online, but 54.54% (more than half) of them describe this engagement to “*a certain extent*” or “*somehow*” and is restricted to visiting some websites, read some articles online, doing some activities and taking part in some debates. About 30 % of them, however, affirm that do not intent to involve their students in online lecturing or teaching except for sharing documents claiming that e-learning platforms allow only uploading lectures in PDF format and do not provide option for interactive work. However, unexpectedly 20 % of the participants hesitated to answer this question as if they were not so sure that SMNs would effectively engage students. Some of them, four, (13.33%) even indicated that students at this level are unfortunately simulating engagement only for the sake of grades except an intrinsically motivated minority.

#### **4.3.10 Outside-the-classroom teaching experiences**

The interview analysis of the question that concerns teachers' multiple experiences in extending courses outside university walls by adopting technology devices to attain students' furthered learning through the incorporation of SMNs whether they are Facebook groups, Google Meet, YouTube or other SMNs.

**4.3.10.1 Some situations outside-the-classroom teaching context.** A significant number of participants 36,66% have had a successful online teaching experience using several SMNs, installed applications such as Zoom or Skype and built-in applications like Google Classroom and Google Meet. In effect, each participant has a distinct experience with his/her own master group and different pedagogical purposes to complement his/her teaching aims. Among the

36,66 % of them who are using SMNs and online application, three of them have incorporated SMNs to gain experience and benefited their master students with informative and constructive teaching. Simultaneously, it was effective for other teachers to manage classes from a distance. Actually, nearly 30% of this population incorporate Google Meet for it is organized and user-friendly, easy to use, motivating and accepted by students, except minority who is still struggling to join the virtual world.

However, 20 % of the participants have never used any application or SMNs like Zoom, Facebook Messenger, Skype, Google Classroom, and Google Meet in online teaching. Thus, they have no experience in this domain. We found that 13.33 % preferred not to answer this question 14.

The primary objectives of SMNs and online applications is to share handouts, exercises, and use YouTube videos on Google classroom for lecturing and flipping classrooms. It was also helpful in sending homework and articles. Then, from students' perspective, they can ask questions about any issue, commenting on lesson contents or simply ask about clarifications before submitting their work.

Facebook as a major network is quite effective as it motivates students and easily engages them. The shy ones do not hesitate to ask questions and express their point of views. Furthermore, there are still two other purposes for online teaching: those who successfully used Moodle of the Ibn Badis university platform, in the period of Covid-19, to rehabilitate students' lack of attendance. The second aim was less efficient as an experience that is limited to sending documents or assignments, posting lessons receiving students' feedback and questions via email.

**4.3.10.2 Unsuccessful experiences.** Finally, there are experiences of online use of application that are unsuccessful. 26 % of the participants encountered these obstacles while trying to connect with their students outside the classroom. Some of these are linked to the students' demotivation and their difficulty to access the uploaded documents, and others have been using either Moodle or Facebook, but the experience was not really beneficial. A teacher reported that he tried once to have an oral test, but it was not a good experience for the students were less focused than inside the classroom.



**4.3.10.3 Adoption of e-learning platforms and SMNs.** This section compares teachers' experiences of using Ibn Badis University Moodle e-learning platform with SMNs use. Before examining results, they are collected, summarized according to access, method of instruction, type of work and objectives in table 4.15 below.

**Table 4.15**  
*Teaching through e-learning platforms and Social Networks*

<b>Experiencing teaching through e-learning platforms and Social Networks</b>				
<b>e-learning Platforms</b>	<b>Access/ No access</b>	<b>Teaching Method or approach</b>	<b>Type of work/delivery Procedure</b>	<b>Lesson objectives &amp; experience</b>
<b>Moodle</b>	-yes	Platform combined With face-to-face	Blended with face-to-face teaching	
	-Yes, , under the coronavirus conditions	- posting lectures - no, particular method	-lessons unreachable - Students rely on face-to-face learning.	- not reached
	-accessed –not all students could access it	- used a Facebook page - upload books and further documentation	- not all students accessed it - discuss and explain in face-to-face sessions	- Not Reached - failure to use Moodle
	-Yes, Moodle platform and messenger	- Cooperative learning strategies (group work).	- HW as preparation each week before meeting students	- it was helpful
	- Yes	- to publish lectures (not Interactive)	- usually use email	- Prefer classroom Teaching
	- University platform. Covid-19 period of time.	- Learner-centered Method	- no difficulty to conduct lessons & no obstacle	- objective successfully reached
	- university e-learning platform	- I relied class work - Many technical issues	- uploaded my lectures and students downloaded them.	- Long lectures difficulties in comprehending
<b>SMNs</b>	- Yes	- Eclectic teaching - online module	- understand the lesson content better	objectives were reached
	-Yes	- Cooperative learning teaching.	- Homework submission and posting	-Still experimenting
	- yes	- flipped classroom	- I assigned homework based on YouTube lecture	- It was a fruitful experience

In an attempt to quantify the interview data, the researcher has put it into tabulation after preparing them to better illustrate the participants replies. The table above indicates the tools used, Moodle platforms and SMNs, and the period of online learning environment, the Covid-19 and

also the teaching method or approach were mostly the flipped classroom, cooperative learning, learner-centered approach, and the eclectic method. Concerning the work procedure, beyond the simple lectures posting in SMNs and Moodle platforms, participants also opted for blended learning i.e. explaining lecture's content in face-to-face mode and requesting students to do homework through their online assistance. Some others did the opposite way; they flipped classwork: teachers provided docs and videos resources for the e-content preparation outside classroom by students and the practice was performed in the inside mode, in form of discussions, presentations and groups workshops. To evaluate this experience, we can say that it was beneficial for half of the interviewees and unsatisfactory for the other half. Nevertheless, there were those who are still experimenting and those who had access issues. On the whole, the majority was engaged and online instruction is gaining ground next to conventional teaching.

**4.3.10.4 Moodle platform.** Working through Moodle platforms, namely those designed for university e-learning is not at the expectation of teachers. Although 20 of them, which represents 66.66 % of the participants, tried to manage a kind of teaching through SMNs during covid-19 period. Concerning Moodle platforms, they meant to conduct complementary learning by university teachers. In this survey, data showed they have attracted 14 participants who used platforms to instruct their Master students including other levels, as well, from a distance. This represent nearly half of the participants. In fact, Moodle platform of Ibn Badis University

Working with Moodle platform was noticeable and 14 participants (46.66%) adopted it either to simply post lessons the same way as giving out handouts in face-to-face teaching or to put lectures on platforms and upload Portable Document Format (PDF) e-books and further documentation provided that a discussion and interaction would follow inside the classroom, a type of work reverse. "This can help, of course, but it doesn't exclude the prominent role of the classroom", one participants argued. For some participants, the University platform saved their lives during Covid-19 period, and they even relied on the learner-centered method with no apparent difficulty to conduct lectures and they have successfully reached lectures objectives. Equally, the platform was jointly linked with Facebook Messenger to perform cooperative learning through the creation of teams to prepare work and this was helpful.

However, some other participants encountered many technical issues and could not take advantage of the platform, mainly those who relied on the teacher-centered approach. Therefore, they just used platforms as a mailbox and all learning work was done face-to-face. To conclude, 21% of the cases using platform have been successful.

**4.3.10.5 SMNs.** As far as using SMNs for online learning and teaching, for some participants it was a bad experience. They were merely sending lectures and assessing handouts. This was due to the fact that students do not have facilities such as laptops and Wi-Fi connection. Thus, the real interactive and pedagogical aims were not reached. For those who had online modules to be taught under the e-learning methodology because of Covid-19, they generally opted for the eclectic method and diverse technique like the flipped classroom strategy to achieve their pedagogical objectives. Additionally, there are some teachers who are eager to experiment and learn new teaching strategies; they tried to implement cooperative learning by designing teams and groups, and provided problem-solving type of work to incite students' critical thinking skills and active learning strategies. This type of participants claimed using SMNs and especially those ensuring engagement and interaction like Facebook as it is accessible by the majority of students.

Ten teachers (33.33 %) have not conducted any teaching through the platforms and kept teaching face-to-face. Four of them have justified by stating that they just posted lessons in platform with no special teaching method or any sort of interaction only some instructions provided to learners. Some others did the same thing using Facebook and assigned homework by limited returning deadlines to incite students to work seriously.

### **4.3.11 Evaluation of social media impact on teaching approaches**

Social networks affect teaching/learning process, and thus, they influence the teaching method adopted by the teacher whether it is of the teacher-centered or student-centered type. The students grouping, the material/equipment used, the type of activities, learning objectives and learners' needs and expectations and mostly their engagement. The coming section highlights the extent to which such influence could have positive or negative impacts.

**4.3.11.1 SMNs positive impact.** The results announced that 30 % of the participants identified that SMNs have a significant impact on teaching/learning process outside the classroom. Social media did facilitate the process by making students or learners more active through web-

based group projects. This would encourage students to be in touch with each other through group work. There is an equal share of knowledge as the students can easily interact using communicative activities and participate equally with self-confidence.

Most of the techniques used through the incorporation of ICT and SMNs are as follows similar to the Flipped Classroom that is based partly on self-learning as a preparation outside the university and on collaborative learning and discussing meaning once inside the class. The positive part of SMNs lies in assisting learners to communicate and exploring their needs and difficulties through checking by asking questions and inciting student-student interaction to empower autonomous learning. This resulted in providing students with more readings. SMNs also make you gain time and have more control on managing long or complicated topics through the creating of online pairs groups. Shy or introvert students may feel more at ease to receive lectures' contents and expressing themselves.

**Table 4.16**

*Social Media Networks Positive Influence on Teaching*

<b>SMNs Positive Influence</b>		
<i><b>Interviewer's Questions</b></i>	<i><b>How did u meet their needs?</b></i>	<i><b>How did you proceed to ensure interaction?</b></i>
<i><b>Interviewees Answers</b></i>	Yes to a certain extent	traditional method
	Students chose time, topic & activity	Pair or group work
	providing more readings	Teacher manages it
	Introvert students are relaxed to receive the lessons' content (gains time)	encourage contact between learners to make group discussion
	making students or learners more active (this facilitate the learning process)	Group projects.
	easy getting in touch	group work
	reach equity: students have equal share of knowledge	communicative
	Flipped classroom self-learning	Collaborative Learning
	communicate with learners and discuss with them for the sake of exploring their needs and difficulties	asking questions, checking, and interacting

### 4.3.11.2 SMNs negative Impact.

As there are positive effects of SMNs, likewise there are negative impacts on teachers and learners. The table (4.17) below shows some of the most relevant answers of the interview participants, and they are classified according to their usefulness in assuring the teaching/learning process.

**Table 4.17**

*SMNs Negative Influence on Teaching*

<b>SMNs Negative Influence</b>		
<b><i>Interviewer's Questions</i></b>	<b><i>How did you meet their needs?</i></b>	<b><i>How did you proceed to ensure interaction?</i></b>
<b><i>Interviewees Answers</i></b>	No, I didn't	I noticed no interaction among learners
	I meet my learner's needs through asking questions and adopting the learning content to their needs	I ask questions and request them to provide examples
	being more interactive	No answer
	I send my lectures / lessons via Facebook	Technical issues prevented interaction.
	We simply did not meet our students' need	No interaction through the platform.
	Not really, I mostly rely on classroom teaching: preparation, students were asked to prepare some points	We answered the questions, then discussed their findings
	Needs met after keeping constant posts	I sent reminders via Facebook groups.

36.66 % asserted that they certainly were not influenced by the use of SMNS. They had such a stand as they have noticed lack of motivation, interest and interaction. Therefore, there is a tendency to keep the traditional way of teaching or just sending lectures and lessons via Facebook with no success because of technical issues. Students' needs were not fulfilled since teachers did not know how to incite them for interaction in Moodle platform; they just kept constant posts and reminders via Facebook group. In addition, these type of teachers relied mostly on classroom teaching.

**4.3.11.3 Lack of interaction effects.** Only 10 % of the teachers have evoked encountering many difficulties while introducing SMNs and e-learning platform to teach online for complementary work. Actually, a teacher argued while adopting online teaching as follows: “It is certainly frustrating: I used to teach through question-answer and it is no more possible; knowing not all of students could access Moodle, I sent emails to make sure they receive their lectures”. Thus, it can be considered that the use of social media is limited to sending files and sharing urgent information; partly because learners who display poor technological qualifications find it difficult to access or and manipulate online teaching materials. Nonetheless, learners’ needs are both related to lesson contents and to the use of information technology devices. 20 % of the participants avoided answering this question, they preferred not to comment neither positively nor negatively regarding the impact of SMNs on EFL learning outside the university classrooms due to the lack of measuring parameters.

#### **4.3.12 Assessing online complementary teaching.**

Assessment is crucial for any type of teaching and learning process and online complementary teaching through platforms or SMNs is no exception. In response to a question on how participants assessed their master one students from a distance, 26.66% of them claimed that they did so through some strategies. The major and significant ones are listed below:

- Providing questions that demonstrate students’ comprehension of the input rather than mere assimilation and reproduction of facts
- Keeping a journal of all the students’ progress.
- Designing a grade upon which students are graded/ assessed upon and shared the criteria of the assessment with the students
- Trying to detect plagiarism as much as I could, then I asked those who did not present a personal work to start from a fresh (all over again).
- Evaluating mostly the writing skills.
- Being firm with plagiarized works.
- Making the instructions clear for the assessment, considering learning objectives, taking into account the personal touch of the students and the originality of their answers and asking for justifications and proofs.

In sub-questions, participants are asked how they would assess the online work they set to their master one students, and their answer are summarized and categorized in table 4.18 below.

**Table 4.18**

*Evaluating Online Teaching*

<b>Online assessment is not credible</b>	<b>The reason</b>	<b>Procedure adopted</b>
- No credibility with distance learning's work	- Full of plagiarism	-Traditional way
- No online evaluation	- Not credible, Not trustable	-I actually assess them through classroom tests.
-No online assessment	- All the modules I taught were face-to-face teaching	-keep traditional type
- I did not use online evaluation.	- Teaching grammar or civilization requires face-to-face teaching	- Evaluation was based only on classroom learning
-No online assessment	-I have never experienced this type of evaluation.	Traditional way

36.66 % affirmed that online assessment of e-learning platforms or SMNs lacks credibility. Therefore, it cannot be counted on as trustworthy. The main reason behind this hesitating to adopt online assessment is plagiarism. As the majority of students are tempted to plagiarize the required work, teacher most of the time seem to mistrust it and consider it as incredible. Other group of participants teach only face-to-face modules, for instance grammar or civilization. Henceforth, they keep using the traditional way of evaluation. Besides, there are those who have no experience in how to evaluate online work.

Other case among the participants worth to be mentioned constitute 26%, and are linked to groups where face-to-face teaching was blended with e-learning. Teachers posted lectures in Moodle or sent them via Facebook messenger. Therefore, we adopted classroom testing as one of them commented:

Probably, it is the most challenging activity for most of the teachers. It is impossible to have a true assessment in distance learning because most of learners are cheaters. For my case such activity was done in the classroom to give credibility to the assessment. (an interviewed participant)

Here again because cheating problems, online evaluation could not be initiated. Even those who were asked to evaluate their students online proceeded the same manner they would do with homework. A participant demonstrated, students were provided with the exam questions in a PDF format posted on the platform, they sent their answers in turn in PDF format via email to their teachers who corrected the exam sheets the same way they used to do in face-to face exams and provided their students with their marks!

It is clear that there is no online strategy towards creating an authentic evaluation system. For teachers, regrettably, assessment at the master level is becoming more a pedagogical task rather than a credible evaluation.

#### **4.3.13 Pre-requisites for SMNs adoption**

Participants were asked a key question of what they would love to change to about Facebook or any other social media network for pedagogical purposes. The analysis of the interview revealed that 40% of the participants are willing to change at least something about SMNs to have more benefit from their use. They consider Facebook as an informal device that should be replaced by e-learning platform since most students tend to invade Facebook and neglect Gmail, for example. Others have proposed making Facebook more educational or else recommending adopting Twitter to link learners and educators for the reason that it is very distracting. Some other alternative suggestions have mentioned creating online meetings where teachers and students could interact in video conferences, raising the rhythm of collaborative work and the level of motivation.

Four teachers among the group have advocated some arrangements in the use of SMNs; however, these options already exist, for instance, the video conferencing on Facebook, creating closed groups and assigning tasks to students to work collaboratively. One teacher has assured the best way to conduct safe online teaching is to set groups that ought to be confidential. Table 4.19 below reports opinions of participants on SMNs for future improvements.



**Table 4.19**

*SMNs Expected Improvement for Online Teaching and learning*

What to change about SMNs?	What NOT to change about SMNs?
<ul style="list-style-type: none"> <li>- To access to other platforms through Facebook links.</li> <li>- Create online meetings/ interact through video conferences</li> <li>- There must be some platform created solely for teaching/learning purposes for SMNs are quite distracting.</li> <li>- Would recommend using Twitter rather than Facebook.</li> <li>- Wish to have more educational features on Facebook</li> <li>- Confidentiality</li> <li>- Students' attitudes towards SMNs need to be changed.</li> <li>- Develop awareness about SMNS educational utility.</li> <li>- Stimulate students' motivation and commitment.</li> </ul>	<ul style="list-style-type: none"> <li>-Teachers and students should not refrain from social media.</li> <li>-Quite satisfied with the options that Facebook offers.</li> <li>- Nothing to change, is YouTube is more beneficial</li> <li>- Would have liked to change students' approach and purposes using SMNs.</li> </ul>

36.66 %, thought that there is not much to change about the SMNs, and the way it is used to enhance EFL learning. There is satisfaction with the options it offers. They meditate that the new technologies and the media are blessings on education and they facilitate countless difficulties. Half of the participants state that SMNs users need to change the way they use social media. It is the students who should act more responsibly as one participants expressed: "I would not change these online means, but would have liked to change students' approach and purposes using them." And here, it is necessary to incite learners to adopt SMNs for their own learning and diminish their entertainment use. Probably not knowing to say, four teachers did not have an idea about this point and four others preferred not answer this question.

**4.3.13.1 Complementing face-to-face teaching with online teaching.** When replying to whether they *recommend online teaching to complement the classroom face-to-face teaching to your colleagues*, 80% of the participants do recommend online teaching, whatever forms it took or means it adopt, in order to complement face-to-face classroom teaching and to enhance master students receptive and productive skills. The majority of the participants in favor of online teaching, recommend adopting it as a complementary practice that constitute a continuation of classroom formal academic work. 66.66% are supporting this view stating that online teaching in an e-learning form reinforces institutional learning by consolidating what students have already acquired in the classroom. Such complementary tasks enhance students'

motivation for learning, or else prepare students for virtual learning environments on the other hand to fulfill the tasks that were not finished in the classroom.

Practicing outside the classroom offer the teachers great opportunities to make learning enjoyable and more interesting as it provides authentic reading sources, networking, technologies, and more flexibility in providing the suitable context and the needed materials. This is helpful experience that facilitates learning outside university but needs competence and learners engagement. An interviewed teacher commented:

complementary work is even necessary to combine online teaching with traditional teaching, but with the condition that the authority provides us with quality Wi-Fi connection at university, that the platform provides different services such as video lectures and interactive activities and both teachers and students receive training on ICTs and on how to use the platform. (an interviewed participant)

Next to promoting knowledge, two other participants indicated that it saves time and brings spice and variety to EFL teaching provided that it is completion to face-to-face teaching and not a substitute.

It is agreed upon by participants that students, outside the classroom, need by all means, to keep in touch with their teachers for explanation, evaluation or feedback; thus, it is highly recommended to boost students' self-confidence to use SMNs for learning outside the classroom context to enrich the teaching/learning experience. Table 4.20 summarizes participants' reasons of being for or against online through SMNs to complement the face-to-face instruction.

**Table 4.20***Recommending Online Teaching*

<b>Type of Teaching</b>	<b>Why would you recommend online teaching?</b>	<b>In which way is it beneficial?</b>
<b>Online Teaching is recommended to complement face-to-face teaching</b>	- It is a complementary way to enhance students' motivation and learning.	- It provides more flexibility, more learning opportunities.
	-Yes, I do because it is a plus	- It save time and bring spice and variety to our teaching.
	- Learning outside the classroom keeps in touch with students	- Students need explanation or teachers' feedback.
	- It encouraging online learning since students need extra work	- It is helpful because students feel more confident at home.
	- It is recommended because it promotes Knowledge	-If adequately invested by the students. To complete yes, but not to substitute work
	- To prepare students for virtual environments	-To accomplish the tasks that were not finished in the classroom.
	-Online teaching offers teachers great opportunities to make learning enjoyable and more interesting	-It provides reading sources, networking, technologies, flexibility...
	-It is a helpful experience that facilitates learning outside university	-It needs competence and learners Engagement. Enrich teaching/learning
	-It is even necessary to combine conventional with online teaching,	-Conditions: Wi-Fi connection, platform access, interactive activities, and training.
<b>Online Teaching is Not Recommended</b>	-I do not recommend online teaching	-The majority of students are not ready for that.
	- E-Learning reinforces institutional learning as in exceptional case of pandemic 12 covid-19	- Students absenteeism
	- It only reinforces classroom learning.	- Under good internet coverage
	- Do not recommend online teaching	- Students go beyond their limits.
	- Online & face-to-face teaching are similar.	- Interaction matters most
	- Online teaching entails many benefits if used Properly	- Adequate training, constant internet access and a high sense of responsibility

Another compulsory recommendation was an immediate response to the exceptional case of pandemic Covid-19 that prevents permanent presence of students into classrooms. Therefore, a

sort of blended learning took place i.e. a mixture between face-to-face and online teaching since this type of teaching offers more flexibility and so it can maximize more learning opportunities.

In the same context, there are other options, conveyed by 20% participants, through which SMNs and e-learning platforms can succeed as an electronic pedagogical means. Conditions like equipment availability and suitability for example good 3/4 Generation coverage or good Wi-Fi-internet flow. Another condition deals with students' investments, commitment and interaction. Finally, yet importantly, as a participant highlighted: "There should an adequate training, constant access to the Internet, availability of technical equipment, and a high sense of responsibility on the part of teachers and students alike." Contrary to those enthusiastic participants, four others do not feel like praising online teaching under any form, claiming that students are not ready for such an attempt and that they are not aware of their limits while online.

#### **4.4 Conclusion**

This chapter has provided the different findings of the two research tools: the teachers' questionnaires and the interview protocol. The findings from these instruments have been analyzed independently, then results from each have been presented and interpreted according to their previously designed research purpose. Nevertheless, this paradigm of combining quantitative and qualitative data analysis into the same section reflects the importance of diversifying collection tools of the same population of teachers who are the main agents of EFL teaching/learning process, and this research is no exception.

Interview findings have provided detailed explanation of interviewees' attitudes, access, ICT training and the adoption of SMNs to bridge classroom practice with online work. In the same context, teachers' questionnaire quantitative data analysis also indicated positive outcomes adopting SMNs or Moodle e-learning university platforms for master one learners. Additionally, most teachers have blended their teaching approach especially through SMNs despite the lack of appropriate training and skills to elaborate effective online teaching that would ensure efficient interaction and incite students' engagement and collaboration. The next chapter will present the analysis of the data collected from the population of Master one students by a questionnaire and experimental tests.

**Chapter 5**  
**Data Analysis II**

*Students Questionnaire*  
&  
*The Experiment*

## CHAPTER 5- DATA ANALYSIS II

### Part I: The Students' Questionnaire

5.1 Introduction .....	199
5.2 Students' Questionnaire Data Analysis .....	199
5.2.1 ICT & social networks access and use .....	201
5.2.1.1 <i>Frequency of Facebook use.</i> .....	203
5.2.1.2 <i>Educational blogs.</i> .....	204
5.2.2 Social media perception and utility.....	207
5.2.2.1 <i>Collaboration and information sharing</i> .....	208
5.2.2.2 <i>Other social networking accounts</i> .....	211
5.2.2.3 <i>Posting and exchanging learning documents</i> .....	211
5.2.2.4 <i>Facebook engagement and teachers' support</i> .....	212
5.2.3 Mobile applications.....	214
5.2.3.1 <i>Sharing Phone Learning Applications</i> .....	217
5.2.3.2 <i>Collaboration</i> .....	218

### Part II. Field Work: The Teaching Experiment

5.3 Field Work Research Methodology.....	219
5.3.1. The Experimental design.....	219
5.3.2 Procedures .....	220
5.3.3 The Experimental group and control group .....	221
5.3.4 The Pre-test.....	223
5.3.4.1 <i>The Pre-test evaluation</i> .....	224
5.3.4.2 <i>The Pre-test and post-test analysis</i> .....	225
5.3.5 Pre-test performance analysis.....	226
5.3.5.1 <i>Overall pre-test performance</i> .....	226
5.3.5.2 <i>Pre-test means of the attention grabber levels of the experimental and control groups</i> .....	227
5.3.5.3 <i>Pre-test means of general statement levels of the experimental and control groups</i> .....	228
5.3.5.4 <i>Pre-test means of topic issue levels of the experimental and control groups</i> .....	229
5.3.5.5 <i>Pre-test means of the claim/ counterclaim levels of the experimental and control groups</i> .....	229

5.3.5.6 <i>Pre-test means of the thesis statement levels of the experimental and control groups</i> .....	231
5.3.6 <b>The treatment</b> .....	232
5.3.7 <b>The post-test results' analysis</b> .....	233
5.3.7.1 <i>Overall post-test performance</i> .....	233
5.3.7.2 <i>The post-test results of individual aspects</i> .....	234
5.3.7.3 <i>The overall results of comparative evaluation</i> .....	235
5.3.7.4 <i>The results of overall performance</i> .....	235
5.3.7.5 <i>Comparative evaluation of the results of the individual aspects</i> .....	236
5.3.8 <b>Testing the hypothesis</b> .....	237
5.3.8.1 <i>The T-test for the post-tests of the experimental group and control group</i> .....	238
5.3.8.2 <i>The T-test for pre- and post-tests of the experimental group</i> .....	240
5.3.8.3 <i>The T-test for pre- and post-tests of the control group</i> .....	242
5.4 <b>Conclusion</b> .....	244

## **5.1 Introduction**

The current chapter is considered as the core of the research. It follows what was found in the literature review about methods of research concerning ICT infusion inside and outside higher education settings. The prototype followed triangulating research tools and involved mixing methods of data analysis for the two populations. As for the population of students, quantitative data of the questionnaire is compared to the experiment quantitative results. The quantified findings are classified into nominal and numerical forms to ensure significant clarifications of results. Correlation is made between perception and use according to each SMN. Special emphasis is put on technology access, collaboration, engagement and information sharing by the participants.

This chapter shows how the researcher has planned online teaching experiment, including the experimental and control groups selection, treatment procedure and context, and setting tests' objectives. It indicates that the choice of participants for fieldwork is carried out both in face-to-face teaching and online through the incorporation of SMNs embedded in ICTs. Furthermore, data is generated through tests organization and the evaluation is done by descriptive type of statistics used to calculate the means and t-test to ensure validity of experiment's results. Finally, the chapter displays the analysis and the discussion of the instruments findings.

## **5.2 Students' Questionnaire Data Analysis**

The students' questionnaire is delivered at random to a sample population of participants from all Master one specialties, in the English language department of the faculty of foreign languages, in Mostaganem. Quantitative data from the questionnaire added to the statistical quantitative output of the experiment, would drive this chapter to focusing on learners' findings, which are calculated through the means and dispersion in the t-test in the experiment and through percentage calculation in the questionnaire. For clarification sake, the results are be put into tabulations and graphs or pie charts.

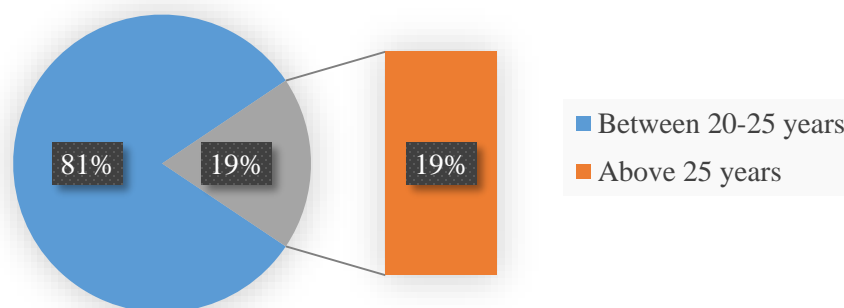
The students' questionnaire is intended for a particular sample population of master one that comprises all opened specialties by the faculty of foreign languages in Ibn Badis University. Hard copies are distributed to students' population on two times: one time when they were studying face-to-face mode in groups through their leaders and the second time by sending a Google form questionnaire link to their emails.



The analysis of the questionnaire sections are determined by collected data from this population that concerns first ICTs, SMNs, mobile applications access and use outside classrooms by taking into account the frequency and availability of equipment and resources. Next, section four assembled participants' perceptions about ICTs and SMNs incorporation in the learning practice, then mechanism and frequency of information sharing, collaboration between students through SMNs. Special focus and measures are put on engagement, mobiles applications' rate and Facebook interaction groups.

The first sample population selected for this research is Master one students of Abdelhamid Ibn Badis University from the department of English in the faculty of foreign languages. After delivering the questionnaire, 69 participants responded and completed it both through the e-mail or by returning the hard copies. The rate of response is important for it reached 86.25%.

The age of the sample comprises two categories:[between 20-25 years] and [above 25 years]. The purpose of this division is to distinguish variables of age with the targeted population. The first category is representing the regular students, the second one indicating the independent learners who are already exercising in adult life, and furthering their study levels for job promotions or status prospects in social life and they represent 20% of the whole Master one students.



**Figure 5.1** *Participants Age Categories*

The participants' specialties are as indicated in **Table 5.1** below entitled "*The Population Distribution according to their master specialty*" of data collection chapter, belong the following specialties: Master of Didactics and Foreign Languages, Didactics and Applied Languages, linguistics, Literature and Civilization, Literature and Interdisciplinary Approaches, and Language

and Communication. The number of participants is indicated according to each master specialty and their age range category in the table 5.1 below.

**Table 5.1.**

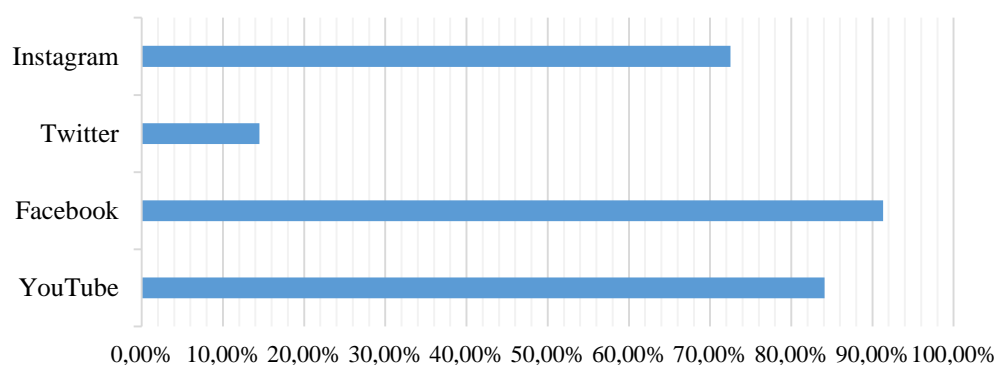
*The Population Distribution according to their Master Specialty*

	Participants' Master Specialties	Total	Male student	Female student	Age range	
					20-25	+25
1	Didactics and Foreign Languages	17	05	12	11	06
2	Didactics and Applied Languages	21	05	16	18	03
3	Language and Communication	4	01	03	04	00
4	Linguistics	9	03	06	08	01
5	Literature and Interdisciplinary Approaches	9	05	04	07	02
6	Literature and Civilization	9	07	02	08	01
	<b>Total Number of participants</b>	<b>69</b>	<b>26</b>	<b>43</b>	<b>56</b>	<b>13</b>

The researcher aimed to find out whether the participants have a Facebook account. The response was positive since all of them confirmed having one. Further sections will explore whether they utilize it among other SMNs for pedagogical purposes.

### **5.2.1 ICT and social networks access and use**

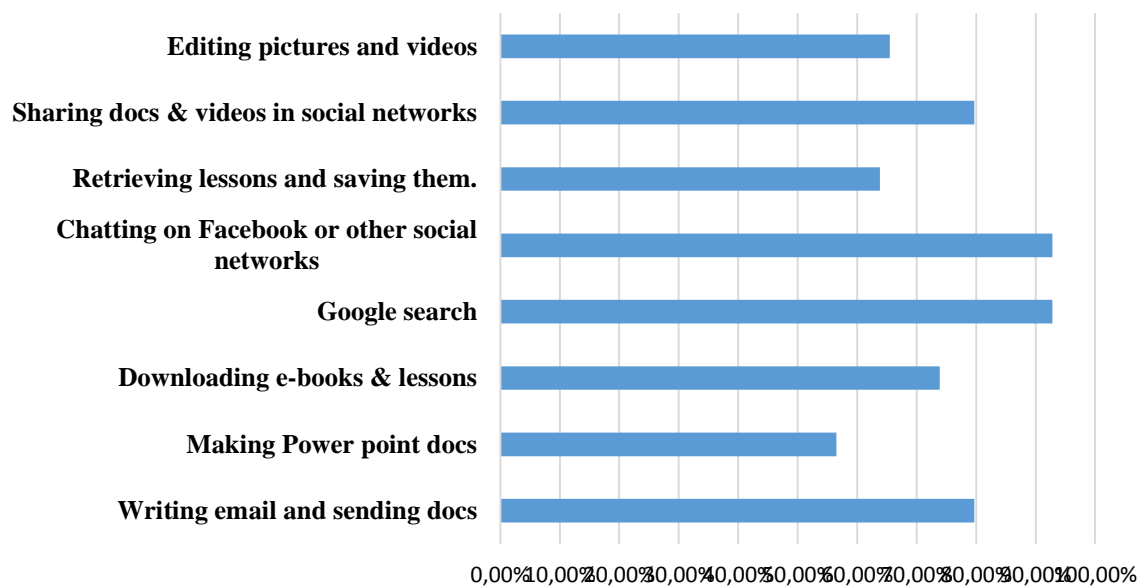
This section has been devoted to know the ICT and social network access and use. The question was put forward as follows: *If you are currently using social media networks, please identify which one: (please, select the networks you work with from below)* 91.3% reported accessing Facebook and SMNs. It was followed by 84.1 % of all those who accessed YouTube channels. Instagram came in the third place with percentage of 72.5% just before Twitter, which is the least accessed by participants (14.5 %). Figure 5.2 below illustrates students' access.



**Figure 5.2** *Students' SMNs Access and Use*

Nonetheless, other social SMNs with less frequency of access are, *Pinterest* with the highest rate of 10.7%. Both of *Snapchat*, *WhatsApp* and *Viber* had a rate of access of 7.1 %. These are the most significant networks. Still ,there are some others like *Azer*, *Imo*, *LinkedIn*, *Skype*, you now, *Baaz*, *Tik ToK*, *Google*, *telegram*, *Weheartit*, and *Rave* With 3.61% rate of access. 40.57% of the participants responded to this first sub question and it was found that

92.8% of the participants have been using Facebook for over four years. This constitutes a vast majority of experienced users whereas 5.8% have an experience of three years, but none of them has used less than a year. Question three has revealed the type of ICTs being adopted by Masters Students use like computers, mobile phones or a tablets. The findings show that the highest rate of 92.8% who used either built-in applications (offline) or the internet-downloaded ones either for chatting on Facebook or through Google search. Another 79.7% use these internet-enabled instruments to write and send emails or share documents and videos on social networks. 73.9% of the participants use ICT downloaded e-books and lectures.



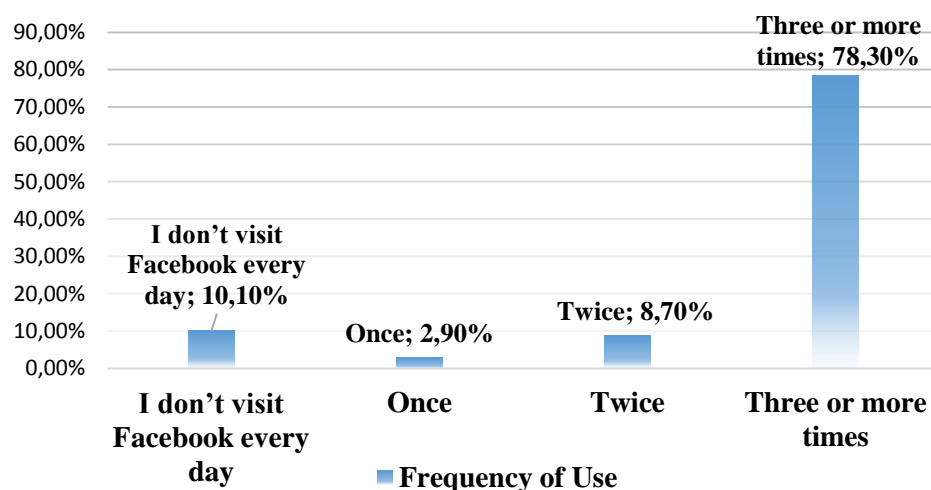
**Figure 5.3** *Built-in and Installed ICT Applications Pedagogical Use*

A considerable number of participants (65.2%) edited pictures and videos, but the percentage of participants (63.8%) retrieved lessons and saved them while more than half of them (56.5 %) created and elaborated PowerPoint documents. Some additional tasks performed by learners through ICTs are creating YouTube channels, editing music videos, reading e-books, searching for docs and resources, check-in money exchange rates, visiting, buying and setting in Facebook groups of cars and houses and Lands, playing online games beside watching movies and series, Consulting for software updates, cooking recipes and the list is endless.

We deduce that the highest number of participants not only use ICTs for the purpose of chatting and entertainment activities but also for EFL academic purposes.

**5.2.1.1 Frequency of Facebook use.** This part is devoted to measure the frequency and duration of using Facebook network. In response question four: “*how often do you visit Facebook per day?*” Unsurprisingly, 78.3% claim to consult Facebook three times or more in a day while 10.1% of the participants reported not accessing their Facebook account every single day. Although it is a low rate of 8.7 % visiting

Facebook, but it is done twice in a day, and at last a minority, (2.9%) that opens Facebook account once a day. Figure 5.4 below indicates the main frequencies of accessing Facebook.

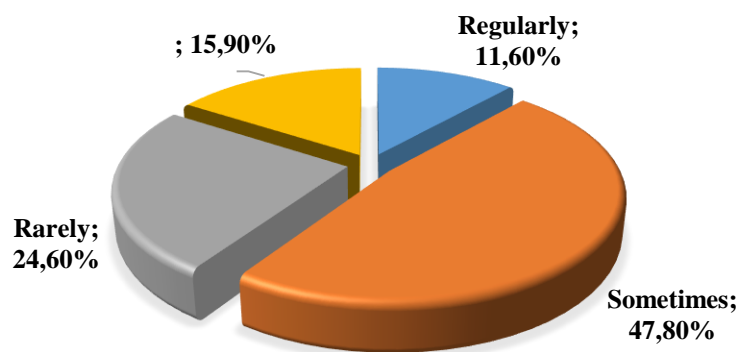


**Figure 5.4** *Frequency of Students Facebook Use*

The result speaks for itself, in fact, most learners check on Facebook accounts many times in a day; however, the most important factor would also be the duration of connection to Facebook Network since it constitutes a key element in the learning process.

The results of question five indicated that the score 39.1% is in the option of using Facebook between "30 minutes and 2 hours". Therefore, the option of "2 hours and more" scored 33.3% which has value than the previous option. The more time we have the less score because the duration is longer, however, this is not true for the option of use "less than 30 minutes" in which the score is only 15,9%. Eventually, that score is higher to those who "don't login to Facebook everyday" with 11.6%. So, there is conclusion that participants answers at this step are seem reasonably credible.

**5.2.1.2 Educational blogs.** When answering question six about *visiting educational blogs for EFL learning purposes*, the participants reported irregular visiting of the educational blogs: 11.6 % do *regularly* visit educational blogs while 47.8% of them "*sometimes*" consult blogs, and another 24.6% "*rarely*" do but 15.9 % have never been interested in blogs. Figure 5.5 below bring a visual illustration of the frequency of accessing educational blogs.



**Figure 5.5** *Educational Blogs*

Participants who frequently visited have e-blogs, have provided the following links of the most accessed ones. The majority of blogs are actually well-known websites; thus, they can be grouped into types according to their functions. Table 5.2 below highlights information.

**Table 5.2**  
*English Language Learning Blogs*

<b>Blogs for research and publications</b>	-Academia, <a href="http://www.academia.edu/">http://www.academia.edu/</a> -The research gate, <a href="http://scholar.google.com">http://scholar.google.com</a>
<b>English learning</b>	-English with Lucy, Duolingo Website, YouTube -MBG Maza business group: <a href="http://www.mbg-training.com/en/about-us">http://www.mbg-training.com/en/about-us</a> -Library of English literature and linguistics -mmmEnglish
<b>Magazines/journal blogs</b>	- Britannica, EFL magazine slideshare, BBC Learning English - <a href="http://blog-efl.blogspot.com/">http://blog-efl.blogspot.com/</a>
<b>Language practice</b>	- Grammarly, views from the whiteboard - <a href="http://EnglishClub.com">http://EnglishClub.com</a> - <a href="http://easyenglish.com">http://easyenglish.com</a>
<b>International schools &amp; universities</b>	- <a href="https://www.coursera.org/courses">https://www.coursera.org/courses</a> - TEFLERS Academy International teachers training academy& language school - <a href="https://www.cambridge.org/us/cambridgeenglish">https://www.cambridge.org/us/cambridgeenglish</a> -British Council blog/ -IELTS : International English Language Testing System

For example, there are some web-sites that were mistaken for being blogs such as international schools and institutions official websites like *Cambridge, Academia, Google*

*Scholar* or else *YouTube*. Regardless this confusion, they mentioned research and publication websites like *Research gate*; sites for English learning like *Library of English literature and linguistics*, other online journals and magazines like *EFL magazine slideshare*, *BBC Learning English* or *Encyclopedia as Britannica*. Besides, there are some websites for English language learning and practice like *Grammarly* and *EnglishClub.com*.

When being asked whether they follow any YouTube channels, in question seven, on their ICTs such as mobiles, tablets or PC's, most of them (87 %) responded positively, except a minority (13%). Thus, those who are following YouTube channels were required to name those channels in order to foresee their tendencies. The data collected is quantified and organized in table (5.3) below.

**Table 5.3**  
*Educational YouTube Channels*

YouTube channels		What is it about?
<b>Films / shows / documentaries</b>	- psych2go -The truth in history, - Channel series of TEDx Talks - The school of life	- Documentaries in English - documentaries - Social media Perception - Psychological Therapy documentaries
<b>Higher Education Channels</b>	-Yale University LingSpace. -Oxford Online English - The school of life -The British Academy	-Yale University Courses - channel of English learning - UK's national academy for the humanities and social sciences and was founded in 1902 -English channel
<b>National Education Channels</b>	موقع الدراسة الجزائري (National education channels for distance teaching during covid).	Learn English among other subjects
<b>Pronunciation</b>	-Speak english -English class 101	-Learning Oral skills -Learn speaking channel
<b>Entertainment</b>	-Jubilee, - shadow music (music channel) - young bloods - travel and vlogging content	-Entertainment (eng) - video blog: Vlog posts consists in creating a video where you talk on subject, a product or an event.
<b>English Learning channels</b>	- zAmerican English - British Council / BBC Learning /easy English - englishlessons4U - Teaching in Education - English Language Academy. - English to Arabic - Learn english with [engVid]	- English learning based on Arabic guidance - Educational websites -a teaching resource for educators -Teaching channels based on translation -Arabic-based English teaching series - series of English language learning of engVid [Emma, Rebecca, Ronnie] -Rachel's English,

A large variety of YouTube Channels have been denoted by students including the categories listed in the table and further others that were mostly not directly linked to EFL formal learning. Despite this, there are those which are very rich in content and beneficial to students and can eventually be used efficiently to improve both oral and written production. The purpose behind getting students' favourite channels was to determine their research abilities and their formal academic connection to language improvement which they demonstrated as positive.

### 5.2.2 Social media perception and utility

The following section is about social media perception as entailed in question eight. The purpose is to highlight the students' perceptions and attitudes towards sharing docs with e-mates. The table 5.4 below reports participants' responses.

**Table 5.4**

*Students' Learning Perceptions of ICTs and Social Media Networks*

	<b>Perceptions of ICTs and Social Media Networks</b>	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly agree</b>
<b>1</b>	Facebook reinforces my lessons' understanding through consulting e-mates sharing various docs.	04 <b>5.8%</b>	07 10.1%	25 <b>36.2%</b>	26 <b>37.7%</b>	07 <b>10.1%</b>
<b>2</b>	ICT tools as the PC/mobile/tablets use enhances my ability to correct spelling, grammar mistakes and enrich my vocabulary	02 2.9%	04 – 5.8%	03 4.3%	40 <b>58%</b>	20 <b>29%</b>
<b>3</b>	Microsoft word, pdf, WordPad, enables me to read different types of texts and lessons arranged in different file forms	04 5.8%	03 4.3%	07 10.1%	33 <b>47.8%</b>	22 <b>31.9%</b>
<b>4</b>	Facebook (messenger) helps me to communicate instantly with my classmates to update my lessons knowledge and homework requirements.	06 <b>8.7 %</b>	01 1.4%	08 11.6%	36 <b>52.2%</b>	18 <b>26.1%</b>
<b>5</b>	YouTube enables me to improve my pronunciation	02 2.9%	04 – 5.8%	04 - 5.8%	28 <b>40.6%</b>	31 <b>44.9%</b>

The Likert scaled table revealed that 37.7% agree and 10.1% *strongly agree*; 47.8% of those approving of Facebook effectiveness in ameliorating learning. Nearly the same number (36.2%) preferred not to say their opinions and stayed *neutral* while 15.9% *disagreed* and did not share this view.



The second statement in the table reveals that the majority of participants that is to say 58% agreed besides nearly 29% of them strongly agree of the effectiveness ICTs in enhancing Learners capacities of new vocabulary, correcting mistakes, spelling and mastering English grammar rules. Students are also in favour of the usefulness of word processors, like Microsoft Word, the Portable Document Format (PDF), and WordPad. Nearly 80% of the participants believe that these empower students reading several types of texts and enable them to arrange them in different file forms.

The same positive attitude is recorded for the next statement concerning the instant medium communication " Facebook messenger". Results report that 52.2% of the participants *agreed* and 26.1% *strongly agreed*; that makes a total of 78, 60% of those who have positive perception about messenger utility in real time "synchronous communication". It helps exchange important updates and knowledge and do homework requirements. As far as pronunciation is concerned, the great majority of participants approved of the efficiency of YouTube channels to improve learners' English language pronunciation and intonation. The videos influence students' fluency since less than 8% disapproved of the audio-visual affordance.

**5.2.2.1 Collaboration and information sharing.** After getting participants perception by Likert scale table, in section five, the researcher is more interested in investigating their collaboration and information sharing are crucial elements for interaction and knowledge exchange. The learners' grasp, compare, increase the amount of information. Effectively, in question nine, they were asked about the number of virtual contacts on Facebook by using prompts. Thus, 37,7% had between 50-100 contacts, followed by similar percentage (26,10%) both for those having between 20-50 contacts and those having between 100-150 contacts or more, only 10% of them had less than 20 contacts. Thus, we conclude that the majority of participants had 20 contacts and more (1<sup>st</sup> category) and above 50 contacts up to 150. The large number of e-contact is supposed to favour information sharing, interaction and collaboration and this is in the essence of SMNs.

Another favoring factor for collaboration is brought by question ten (10) which reveals that 97.1% of the participants' e-mates are from their classrooms in the English

department. Furthermore, in a sub question, they were asked to specify the number of e-contacts they interact with, and their answers are classified into four categories as illustrated in table 5.5 below.

**Table 5.5**

*Facebook Online Interactions*

Online Contacts		ONLINE INTERACTION	
Facebook class-mates contacts		<i>Participants</i>	<i>Online contacts</i>
<i>Yes</i>	<i>No</i>	20,28%	-5 contacts
<b>97,1 %</b>	2,9 %	52,17%	5 to 10 contacts
		10,17 %	29 contacts and more
		4.34 %	11 to 19 contacts
		5.79 %	00 contacts (No interaction)

According to the table above, the majority, 97.1%, had school mates as online contacts. When further asked if they interacted with them, it is found that 20.28% all of the participants had less than five contacts to interact with; 52.17% had between 5 to 10 contacts, 10.14% had about 29 contacts and more but category between 11 to 19 contacts low percentage 4.34%, 5.79% all of the participants who didn't talk on Facebook. 7.24% preferred not to answer this question. We deduce then that participants have an ideal interaction in the two categories of less than five (5) contacts and between 5-10 contacts which percentages increasing from 20.28% up to 52.17%. It can be logically argued that good Interactive learning cannot go beyond 10 students' interaction.

Another key question that targets membership to a number of groups within Facebook or other groups in social media Networks is illustrated in the table below.

How many EFL learning "groups" have you joined on Facebook or other social media networks?

**Table 5.6**

*Facebook EFL Learning Groups*

Facebook / SMNs Learning Groups			
No group	less than 10 groups	between 10-20	20 groups or more
17 - 24,6%	38 - 55,1%	8 - 11,6 %	6 - 8,7%

Results reported that 55.1% the participants that is to say more than half of them belonged to EFL learning groups created on Facebook social network. The number of group membership can reach 10 groups, 11.6% all of them have joined between 10 to 20 groups and 8.7% are already belonging to 20 learning groups or even more; however, less than 25% (24.6%) did not join any learning group.

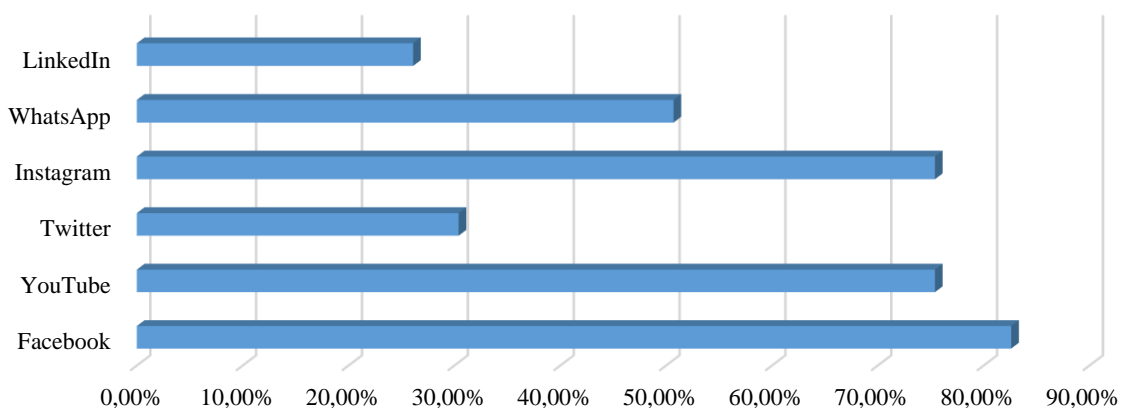
This is positive for EFL learning because it is noticeable that the majority of them interact within teaching / learning groups and that could influence their learning efficiency. When asked to name two of the learning groups they regularly visit and interact in, the participants mentioned the following names; hence, for the sake of clarity these qualitative data, the researcher quantified and grouped them according to domains and categories in table 5.7 below.

**Table 5.7**

*Master one EFL Facebook Groups*

Master Facebook groups	PHD preparation Groups	Teachers' groups	Methodology Groups	Learn & practice Groups	Pronunciation Practice
-First year master English student -Master students all around Algeria -DIDACTICS OF FOREIGN LANGUAGES -Master 1 English students Mostaganem -1Year Master Didactics -Literature and Interdisciplinary Group M1 -Didactics and Applied Languages M2 Mostaganem -DZ university students (LMD) - Library of English Literature and Linguistics	-Doctorate English In Algeria -Algerian PhD Students of English -Preparing PhD -University Student of English	-English Middle School Teacher's e-library" -Algerian English Teachers -Secondary school teachers -Algerian Association of Teachers of English -Future English Teachers -Algerian Association of English Language Teachers -Your Best Teacher	-Preparing for Research Methodology -Research Methodology. -Preparing for Research Methodology and Dissertation -Preparing for Research Methodology and Dissertation	-Algerian English language learners - English Practice -English Forever -English for everyone -Translation Studies -Discourse Analysis -Practice Make Perfect -English Grammar -MmmEnglish	-I am Dz and I speak English -I am Algerian and I speak English -Speak English Language -English Conversation Group -Chatting in English -Talk English and have fun - Sa9si English community

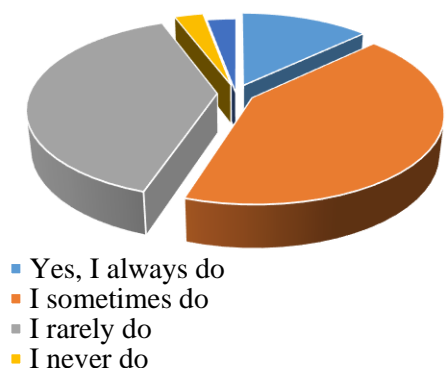
**5.2.2.2 Other social networking accounts.** Additionally, the researcher inquired participants about the eventual presence of other social media networks, in question 12: “*Do you have any other social networking account?*” with the objective to check extra possibilities offered to them for English language learning through engagement and more interaction. The figure below reports participants’ answers.



**Figure 5.6** *Students Other Social Networking Accounts*

The majority of answers mentioned Facebook as a leading social network with 82.6% rate participants followed by both YouTube and Instagram with 75.4%, then came Twitter with 30.4% and LinkedIn with 26.1%. These were the major accessed networks. In fact, question 12 have two parts: The first part is guided (the answers are provided to choose from); and the other part is open-end (participants have provided various SMNs: Telegram, Snapchat, Viber, Imo, Rave, TIKTOK, Pinterest, Skype, WhatsApp and Baaz...

**5.2.2.3 Posting and exchanging learning documents.** Question 13 in section of collaboration and information sharing inquires about how to get knowledge from different social media Networks; thus, participants are solicited to state and precise the frequency with which they post and exchanged learning documents, pictures, audio-visual material with their e-contacts on regularly used media Network. The frequency is illustrated in the figure 5.8 below.



**Figure 5.7** *The Rate of Online Learning Document Exchange*

The results of analysis report that the rate of docs exchange for learning purposes is rather lower than expected, with regards to the enormous possibility and speed of files exchange that ICT could afford. Under the “*yes, I always do*”, there is a rate of only 13% followed by a considerable percentage (42%) of the participants who “*sometimes*” exchange learning lessons and material. There are also those who “*rarely*” do that and their number is significant (39.1%). However, rarity in sharing documents lowers interaction and weakens lessons understanding. But if we consider this shortage of assisting one-another, it could be easily understood. But if we add the percentage of “*always*” frequency to the one of “*sometimes*”, we obtain a considerable/significant percentage; that is more than half of the participants i.e. 55% in favour of interaction and doc exchange through social media networks.

**5.2.2.4 Facebook engagement and teachers’ support.** Through question 14, this section reports about participants’ interaction and engagement in Facebook social network and describes the frequency of engaging activities performed by students. The measurement is realized by providing participants with a frequency table that contains eight statements of Facebook use and engaging tasks. For instance, the first item concerns the rate of chatting and updating Facebook status is commonly accomplished in the first three measurements options: “*everyday*”, “*4- 5 days a week*”, “*2 days a week*” are the most important ones; respectively

scoring 27.53% ,17. 39% and 26.8%. It is noticed that the longer is the time, the less-efficient learning would occur through social media Networks.

**Table 5.8**

*Students Facebook Learning Interactions and Support*

Facebook Engagement & Interactions	7/7 every day	4-5 Days a week	2 Days a week	1 day in 2 weeks	once a month	Never	Don't Know
a- I chat or update my Facebook status.	19 <b>27.53</b> %	12 17.39 %	1 8 <b>26.08</b> %	09 13.04 %	04 5.79 %	02 2.89 %	05 7.24 %
b- I click on “like”/”dislike” icon next to e-friends’ posts: photos, links, docs or other language learning material.	33 <b>47.82</b> %	16 23.18 %	13 18.84 %	03 4.34 %	01 1.44 %	02 2.89 %	01 1.44 %
c- I comment on mates’ photos or classwork posts or EFL educational publications.	11 15.94 %	17 <b>24.63</b> %	17 <b>24.63</b> %	08 11.59 %	08 11.59 %	04 5.79 %	04 5.79 %
d- I send private messages via messenger.	38 <b>55.07</b> %	13 18.84 %	09 13.04 %	03 4.34 %	03 4.34 %	02 2.89 %	01 1.44 %
e- I share class material with many e-mate classmates & friends at a time.	03 4.34 %	12 17.39 %	20 <b>28.98</b> %	05 7.24 %	14 <b>20.2h8</b> %	08 11.59 %	07 10.14 %
f- I receive support from teachers, Facebook e-mates or other social networks users when I organize discussion within a learning group.	06 8.69 %	07 10.14 %	15 <b>21.73</b> %	06 8.69 %	10 14.49 %	14 <b>20.28</b> %	11 15.94 %
g- I learn from social networks how to support others & help them manage educative material.	11 15.94 %	12 17.39 %	19 <b>27.53</b> %	08 11.59 %	07 10.14 %	05 7.24 %	07 10.14 %
h- I Get feedback from teachers, class-mates and researchers on the content you have posted.	09 13.04 %	07 10.14 %	16 <b>23.18</b> %	04 5.79 %	09 13.04 %	15 <b>21.73</b> %	09 13.04 %

Results reported also that interacting with e-contacts posts, photos, web links, docs or other material also has had a more significant score: nearly 50% do this “daily” while 23.18 % do it “every 4 - 5 days in a week”. The longer the period is, the less frequent are participants learning performances: 18.84% “every two days a week”, 4.34% “every 1-2 days in a week”.

Commenting contacts posts and classwork posts or EFL educational publications is more frequent in 4 - 5 days 2 days a week with percentage of 24.63 %. Similar percentage 11.59 for

1-2 days a week once a month(8 persons) while we noticed that 55.07 % of the participants send private messages through Facebook Messenger on a daily basis while 13 (18.89%) and 9 (13.04%) do this in a row “*every 4 - 5 days/ week*” and “*two days a week*”.

Overall, it is perceived that participants interact almost *daily*; however, when it comes to sharing learning material with e-contacts and classmates, the frequency percentage is low, 4.34% “*do it every day*”, some 17.39 % do it “*every 4- 5 days a week*” while 28.98%. This means that 20 participants share documents “*every two days a week*”, and 20.28 % share documents “*once in a month*”. The frequency has diminished. This low educational exchange continues to go below average level when organizing work and getting teacher support, and also the one that concerns mates on social media network as a way to learn with group, has in fact low engagements from participants.

It is noticed that only 8.69% do it every day. This percentage goes up to 10.14% within “4-5 days a week”, and increases more to 21. 73% to take place only.

### **5.2.3 Mobile applications**

In this section, the participants are asked, in question 15, to name smart phones/mobile Android applications they have installed on their mobiles or tablets for learning purposes, and they listed the following applications. For the sake of clarity smart phone applications stated by participants are categorized and describe into tabulation by indicating the use and purpose of each.

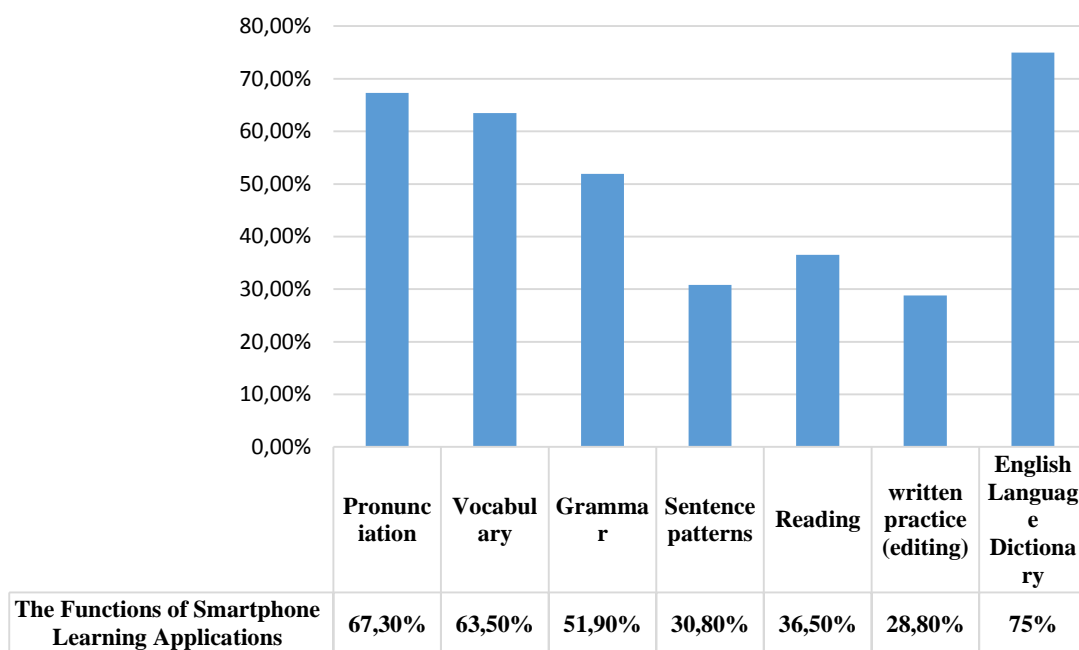
**Table 5.9***Smart-phone Learning Applications and their Use*

<b>Language Functions</b>	<b>Application</b>	<b>Learning purpose</b>
<b><i>Dictionaries</i></b>	-English dictionary - Oxford English Dictionary - Thesaurus - Merriam Webster Dictionary - English collocation dictionary - Online Dictionary - Q dictionary - linguistics dictionary - ProDict- Dictionaries - English language dictionary- dictionaries - Livio Wiktionary	Explain new vocabulary, difficult concepts, definitions and enrich vocabulary acquisition
<b><i>Pronunciation</i></b>	-To Phonetic- phonetics- English phonetic pronunciation- English pronunciation- Hello Talk - Speak & translate	Provide acoustic and permits recording voice
<b><i>Grammar &amp; vocabulary</i></b>	- English Grammar- Grammarly - Oxford Grammar -grammar & vocabulary apps- easy english- Word of the day- Word up	Provide visuals and videos to facilitate learning Grammar
<b><i>English language learning</i></b>	-Duolingo for learning languages-Busuu- Cambly- ITalki- courser - Hello English	Provide interactive learning
<b><i>Chat and discussions</i></b>	-Zoom – WhatsApp – Quora	-formal chatting
<b><i>e-books</i></b>	- bookly app- Anybooks - Books online- English grammar in use - AReader- Novel 1984- Novelcat	- voiced e-books -Read fiction & Write your story
<b><i>Web-sites</i></b>	- BBC Learning English - Khan Academy	Helpful to learn authentic English
<b><i>Complementary Lessons' practice</i></b>	- basic linguistics- Linguist- History of USA - International English Language Testing System (IELTS) practice band 9- Scribd - English poems	additional information and practice to formal teaching
<b><i>Leisure time &amp; games</i></b>	- crossword - Crosswords Puzzles	To acquire more vocabulary
<b><i>Videos</i></b>	- YouTube – wattpad	-Watch video - edit audio-visual stories
<b><i>Translation</i></b>	- Google translation – bilingual – dictbox	- universal dictionary translator
<b><i>Reading &amp; Writing</i></b>	- Microsoft Word-/elevate- in English -turn mobile language into English.	immersion method

Then, they are asked and a sub question to select functions they aim to practise through the installed applications. Findings showed the higher interest involved in installing applications of English language dictionaries with 75 % followed by applications that helps teach pronunciation with 67%. rate. Another 63.5% install and use applications but aid them to enrich vocabulary followed by to 51.9% who are interested and the grammar applications. Around 30% installed Android applications for reading texts and docs for academic purposes, sentence patterns, editing and the written practice.



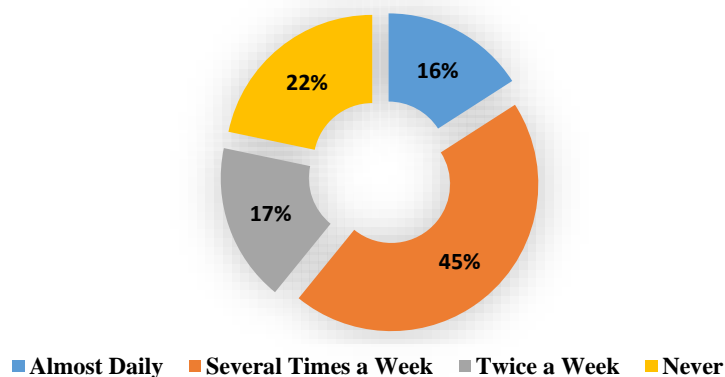
The results are illustrated in the bar graph below.



**Figure 5.8** *The Functions of Smartphone Learning Applications*

In addition to those, participants use other applications to improve their spelling skills, words meaning, translation and writing abilities, to develop their cognitive skills, like thinking or else to do leisure reading such as reading stories, novels and poems.

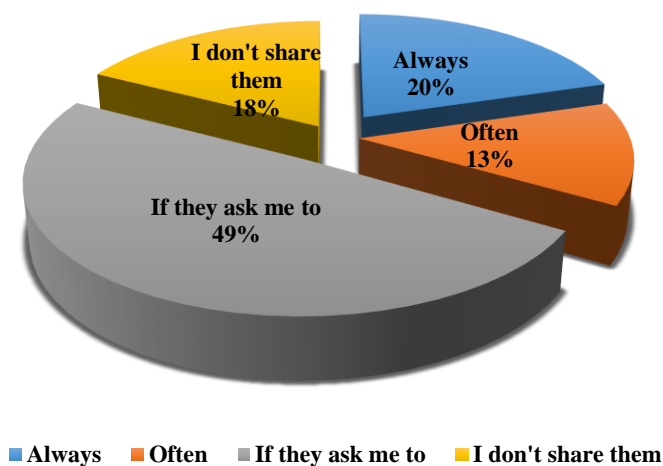
In the following question, number 16, they are requested to indicate the frequency with which they perform those applications as the graph illustrates below. The researcher needs to know Smartphone or Tablets applications frequency of use, and that is what counts most. Thus, more efficient learning would take place, such as the consolidation of understanding and practicing better.



**Figure 5.9** *Frequency of Using Smart-Phone Applications*

As the graph shows, only 15.9% have daily use of learning applications. However, there is a significant number of participants (44,9 %) who manipulates these learning applications several times a week, and about 17.4 % all of them do that twice in a week; which is more or less beneficial to them but 21.7 % have never dealt with or used applications before. For them this side has not been explored, yet.

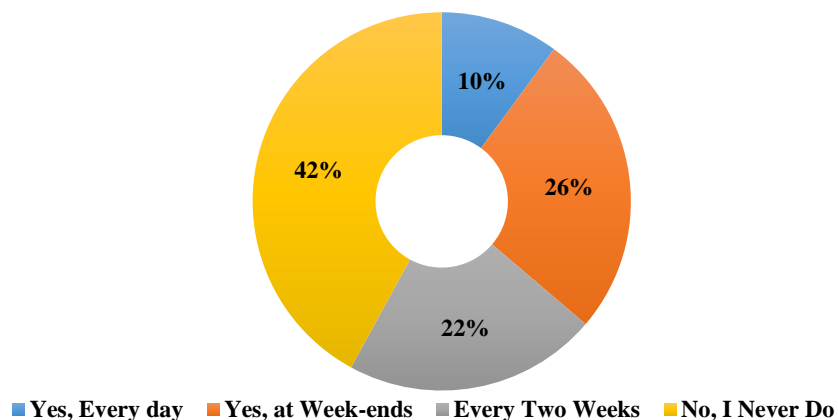
**5.2.3.1 Sharing phone learning applications.** Beside installing educational applications on ICT devices either smartphones or tablets, the frequencies of utilizing, and sharing them with classmates or e-contacts all of the sake of getting advantage all of their learning benefits so they are widespread used by learners. It is found, after examining the answers to question 17 about whether participants share phone learning applications with their classmates, that 20 % of them “always” do as shown in the graph below.



**Figure 5.10** *Frequencies of Sharing Smart Phone Learning Applications*

Nearly half of the participants (49.3 %) share Android learning applications when they are asked to by someone who needs them while 13% “often” share applications. However, 17.4% tend to not share them. The sharing rate is somehow considerable if we take into account sharing on the basis of request that is to say 50 % , if it is added to" always" sharing rate (20.3%), it would give 70% of the sharing rate which facilitates collaboration and mutual support among learners.

**5.2.3.2 Collaboration.** In question 18, the participants are asked if they collaborate when working in groups of social media. The total rate of collaboration in the option of “Yes, Every day”, or less with “Yes, at Weekend”, and even less with “Every Two Weeks” is 85%, which is significant for mutual assistance between master students. The figure below shows all results.



**Figure 5.11** *Students Collaboration in Social Media*

Collaboration, actually, according to the results of question (18 is not given importance buy 42% of the participants, the rest of them is divided into three categories. The first one collaborates with their peers on a “daily” basis, they are minority, about 10.1%. To do that “at weekends”, they are 26.1%. A Lower number of participants (21.7%) collaborate once “every two weeks”. The collaboration rate is rather 36% in the limits of one week added to 21.7 % “every 15 days”. The total percentage of those who collaborate is 57.7 % of the whole participant number.

### 5.3 Field Work Research Methodology

This section includes the methods, the research design followed in conducting the experiment, the sample population, the treatment procedure, in addition to testing and reporting results that are illustrated in figures.

#### 5.3.1. Experimental design

The experimental research design goes under the umbrella of the quantitative approach. Creswell J.,W. and Creswell J., D. (2009) advocated,

An experimental method plan follows a standard form: (a) participants and design, (b) procedure, and (c) measures. These three sequential sections generally are sufficient (often in studies with a few measures, the procedure and measures sections are combined into a single procedure section (p.223).

In conformity with that, the researcher has started to adopt the experimental research method with a procedure that includes an experimental group and a control group. However, due to the nature of the research and the overwhelming widespread of social media networks among students and all types of learners, the researcher would not be able to rely on the control group to not use social media networks (SMNs) for learning outside this study limits.

Thus, this would negatively influence the results of testing to check the influence or impact of use. As Ranjit (2011) reports:

Extraneous variables are several other factors operating in a real-life situation may affect changes in the dependent variable. These factors, not measured in the study, may increase or decrease the magnitude or strength of the relationship between independent and dependent variables (p.74).

To lessen such an influence– the researcher restrained testing on elements academically taught: face-to-face classes to the control group and online through SMNs, through Google Classroom and Google Meet. Consequently, the adoption of an experimental design to further validate the research standpoints has become crucial in determining the effects expected from SMNs on the participants' academic written productions, precisely those focusing on argumentative writing. Thus, the two selected groups are to go under treatment to test SMNs influence on the experimental group, and the effects of face-to-face teaching on the control group by scoring writing productions, and then, comparing the results between both groups and within each group.

### **5.3.2 Procedures**

The master one students were randomly delivered the questionnaire and assigned to the experiment in trying to show how can ICTs and SMNs influence English as a Foreign Language (EFL) learning at this level, from outside the conventional classroom. The corpus of the present experiment emphasizes on improving writing as a productive skill at the master's level that

precedes the last semester of dissertation writing. This sets ground for master students to have the big picture of the writing task awaiting them.

As this research targets the influence of ICT and SMNs, the fieldwork with the treatment will examine the cause-effect relationship between the adoption of ICT and SMNs and the improvement of EFL argumentative writing and considering it as the corpus of experiment. According to (Curry, Goodman, Hewings; Lillis and Swann (2005), technology assists learners in writing; because, it has an enabling impact when it transfers information, and allows access to resources. Beside word-processing, email permits extensive review of grammar, spelling and countless other options (p.131).The effect of using technology outside the classroom is generally intended to engender positive influence on English language writing; and if there were an academic improvement, it would serve participants' future dissertation writing needs. The experimental group will be under examination and control.

The researcher is the one conducting the experiment and is at the same time the teacher of the group. He starts by distributing a pre-test to both groups in order to diagnose the subjects weaknesses and then, decide upon the appropriate treatment. It is recommended to begin with a course involving the targeted knowledge to be in concordance with the academic writing canvas and related to future academic needs. Respecting ethical matters of research, the researcher had told both groups about the experiment that they could be part of, and eventually asked for the consent. After which, those who, for one reason or another, those who could not participate in the online group, they were asked to attend in the face-to-face group. Another precaution taken by the teacher is to have similar lesson versions for both groups: online version (soft copy) for the experimental group and the printed one (hard copy) for the control group.

The evaluation was primarily focusing on the correction of the essay as a whole; however, due to some circumstances such as time constraints, the posttest was restricted to introductory paragraph of an essay. This has enabled the researcher to evaluate as far as possible both tests because of the Covid-19 block-down, the participants could not return.

### **5.3.3 The Experimental group and control group**

Defining the scope of the research problem. The research problem under investigation relates to the participants' lack of writing competence to argue and support arguments in academic writing. Thus, the major purpose behind the group experiment is to explore the extent to which

social SMNs and ICT can enhance their academic argumentative writing productivity while reviewing the previous studies of online influence on learners EFL competency.

We used the experimental group of Master one linguistics at the University of Abdel Hamid Ibn Badis for the academic year 2021 which is composed of 20 students, and for the sake of the experiment, they have approved to work online outside the classroom, as a completion to face-to-face learning according to the experiment's requirements. In effect, the subjects' needs turn around the lack of mastering argumentative writing despite the fact that they may have been previously taught about argumentative essay steps. They are in their seventh semester and the researcher has chosen this group at random when needing to do an experiment, this group was available, beside the fact that, the writing technique module is included in methodology as a fundamental subject taught to most master groups. The experimental group participants are invited to connect online through Google Meet. They were notified by email to connect on an agreed upon time previously, or by Facebook Messenger as it is quicker than mailing.

The researcher has chosen to work a control group that is equal in number, and is composed from master one students. This group is composed of 20 participants and agreed to work face-to-face as they had the same subject (module) of the experiment. Table 5.10 below show the population of participants from both experimental and control groups.

**Table 5.10**

*The Experimental and Control Groups Participants*

Master Groups	Specialty	Male students	Female students	Total
<i>The Experimental group</i>	<i>Linguistics</i>	5	15	20
<i>The Control Group</i>	DFL	4	16	20

*Note:* DFL: Didactics of Foreign Languages

The control group has similar program of Academic Writing and the same fundamental unit credit, coefficient, and timing three hours per week) as the experimental group. It is master one Didactics of Foreign Languages and the other is Master one of Linguistics. The experiment would deal with influence of SMNs on English language learning. The measurement consists of similar treatments to both groups; they will be taught with three different lessons on a duration of four weeks.

### 5.3.4 The Pre-test

To start the treatment, the researcher has administered a pre-test to both groups under the study; the experimental group is informed of the nature of the study and testing and so is the control group. Eventually, the pretest has an objective to reveal the participants' principal obstacles in formal academic writing. The optional topics are given as additional choices for the participants to choose from are as follow:

- Do you think that excessive mobile phone use would lead to addiction among young people?
- Are you in favour of ICT adoption in English language learning?
- Should Algeria change its football sport policy?

The pre-test is an essay introductory paragraph writing. There are three optional argumentative topics to choose from. "Essays are a common form of assessment, for example in disciplines such as Business, International Relations, Law, Elistory, Geography, Theology, Communication Studies, Education and Economics." (Van Geyte, 2013, p.9). For this investigation, one of the purposes of assessing through essays is that, besides being a well-known type of assignment, it makes the students unveil more than information such as taking decisions to take position in order to discuss express opinion and organize thought (p.10).

The topic that participants select should comprise many academic writing aspects that the researcher has previously planned. Students are very familiar with this type of questioning; hence, it is chosen to facilitate doing the task of experiment and save time. This eases sorting out their background knowledge rather than struggling with the questions format; furthermore, they are expected to identify arguments aspects, stands, identifying issues, counter-claims that are implicitly included within the tested topics and act accordingly by writing an argumentative essay.

The purpose is to test participants' prior knowledge regarding supporting argument, claims, counter-claims, treating issues and building thesis statement within introductory paragraphs of an academic argumentative essay. The test is scaled on 10/10 grades, and took by 20 students, instead of the expected 25. Therefore, the control group was also limited to 20 to achieve validity of results.

On the other hand, it is reasoned that the more familiar students are with these notions of formal techniques procedure namely evidence providing, the better they would be prepared for dissertation drafting in master two level. The pre-test took place inside the classroom for the sake



of more reliability. The pre-test is an essay form with choices of topics to suit participants' different trends, this leads to depict the subjects cognitive level rather than focus on vague topics. Participants are used to that type of assignments in their formal writing.

After collecting the pre-test, papers are screened, corrected and evaluated according to the content and purpose of the research. In effect, the primary operational objective of the pre-test is to examine and grade participants' responses to argument writing, and determine how they structure the introductory paragraph as it is the key to essay as a whole.

**5.3.4.1 The pre-test evaluation.** The correction of the test is done in two ways: firstly, a simple correction is done following an adopted scale, and in this test, it was based on ten (10/10) score. Secondly, there is another correction that exposes the secondary marks each section. Thereby, the research would obtain sufficient data regarding areas needing remedy or emphasis, also students' weaknesses. The first correction of the papers provided the big picture that reflects the over-all level of the research groups while the secondary grades focus on each part of the test to depict where students need intervention. Thus, it would be possible to distinguish whether these areas of students' weakness have improved in the posttest after receiving the treatment.

**Table 5.11**

*Argumentative Introductory Paragraph Evaluation Scale*

Introductory Paragraph Score		
Attention grabber		2 points
General statement		2 points
Specific statement	Topic Issue	2 points
Claim/counter-claim		2 points
Thesis statement		2 points
<b>Total</b>		10 points

The topic chosen are of social and opinion-driven context that incite students for writing, such as: "should male and female students study in separate classes?". Actually, this topic was inspired from the book of Alice Oshima and Ann Hogue, entitled: "Writing Academic English", 4<sup>th</sup> edition, (2006), on page 144.

The researcher primary aim choosing an affordable topic to tackle is to encourage participants exteriorize or sort out their arguments (either in favour or against topics' contents). He did not let them struggle to provide information that may not be reachable although argument writing is based on evidence supply. Eventually, he rather intended to give thought-provoking topics based on known social and cultural features or realities.

The main consideration of this experiment is to provide ways to enhance academic writing, as a corpus of methodology. Master students had better be equipped with competences for formatting papers. Henceforth, there is an emphasis on how to defend arguments by planning a sound essay based that comprises arguments, counter arguments, supporting evidence, in addition to a clear issue and thesis statement. Writing an essay in one entity would revealed congruity and redundancy at each writing step. That is why the test is centered on the introductory paragraph for it contains the major required elements of the argumentative essay, namely the attention grabber (getter), the topic background information, the issue; the claim /counter-claim, and the thesis statement.

**5.3.4.2 The Pre-and Post-tests Analysis.** This section scrutinizes the quantitative data from the pre-test and the post-test, and reports their comparison which the researcher would utilize to draw out implication of the results. The latter are triangulated with the qualitative ones from the teachers' interview and the two questionnaires. For this experiment, the researcher uses some statistical calculations, namely the means for each result score and t-test as designated by Cohen, Manion and Morrison (2018) in the case of one-tailed test the researcher expects one group to mark higher than the other, while it is not the case in a two-tailed test. The one-tailed test is a stronger than the two-tailed test since it creates expectations regarding population and the trend of the result.

This is part of the data-screening process as well. As This experimental part data are analyzed using computer Microsoft Excel programme for the calculation of the means and t-test variations while the most common software Statistical Package for the Social Sciences (SPSS) for windows is used to determine the mode, range, median, and mean values.

### 5.3.5 The pre-test performance analysis

In pre-test data collected, those of experimental group and control group are analyzed simultaneously. The researcher previously prepared the obtained data with relation to how are analyzed i.e. through the use of T-test; namely to precise dispersion and variance. The comparison would include the results of both groups in the introductory paragraph about: *Attention Gabber*, background information of the topics dealt with, the topic issue, the *claim-counter claim* statement and the *thesis statement*, as these constitute the argument to be conveyed to the reader.

The test findings are supposed to reveal the background knowledge of argumentative essay writing as it embodies the corpus of the study in hand. Special focus will be put on the components of the argument writing since it would empower master one students in defending their chosen stands in the dissertation in their 3<sup>rd</sup> and 4<sup>th</sup> semesters of master two level. The researcher aims to test whether these components are introduced in the essay writing; if so, it would mean that the participants are aware of their impact on argument building, which is crucial aspects for bringing evidence to the claim, the counter-claim, also the rebuttal argument. The present experiment aimed to test the introduction (introductory) paragraph writing as it contains all argumentative essay elements mentioned earlier. The Pre-test results further illustrate the pre-test findings.

**5.3.5.1 Overall pre-test performance.** The table below indicates a global comparison between experimental and control groups in terms of the mean, the mode, high and low dispersion frequencies.

**Table 5.12**

*The Participants' Overall Performance during the Pre-test*

Groups	Subjects		Dispersion			
	Mean	Mode	Low	Fr.	High	Fr.
<b>Experimental</b>	04.93	04.50	03.50	01	07.25	02
<b>Control</b>	04.60	03.50	03.50	06	07.50	01

The general results of the pre-test including the *mean* and the *mode* showed a slightly higher score in the experimental group in term of performance, in sequence 04.93 and 04.50 against 04.60 and 03.50 in control group. Similarity is distinct mostly in the *mean* of the groups.

The dispersion pointers, indicate that the lowest scores of both control and experimental are the same (03.50) while the number of participants who got 3.5 in control group exceeds the experimental one (6 versus 1). In the highest score in both groups is nearly similar (experimental 7.25, control 7.50) and the difference in the number of participants is not very significant either. It can be concluded that before training the groups, experimental through SMNs and control through face-to-face teaching, they scored different values in the *mode* but quite similar results mainly in the *mean* in the dispersion values. These results would be taken into consideration after the treatment phase in order to determine progression or decrease accordingly.

### ***5.3.5.2 Pre-test means of the Attention Grabber levels of the experimental***

***and control groups.*** The table below shows the results of mean value of both groups with reference to the Attention grabber in the pre-test.

**Table 5.13**

*The Means of the Attention Grabber*

<b>Pre-test</b>	<b>Groups</b>	<b>The Mean (<math>\bar{X}</math>)</b>
<b>Attention grabber</b>	Experimental	01.00
	Control	01.10

The table 5.13 reports that the mean of both control and experimental group are almost the same, except for a difference of 00.10. It is scored by the control group; this confirms the closeness in level of writing master of the attention grabber that is usually written in the first sentence of the introductory paragraph of the essay. This being said, it is be assumed that in academic writing there is a sort homogeneous type of undertaking paragraph writing or at least in the beginning.

It is found out that in the experimental group 16 of the participants got the average (80%) since the attention grabber is scaled out of two points while the control group 14 score average (70%). Some of them provided well elaborated grabbers like this one: “ Technology has developed vastly in the daily life of human beings, and spread all over the world”; or “ Nowadays, young people cannot live away from their mobile phones” Meanwhile, it was noticed that when dealing with the types of attention grabbers, even those who draft attention grabbers well, in majority they write them in a form of a general topic sentence. It was not very appealing to the reader nor very

attracting so as to keep reading. Some examples were as follow: “In Algeria, there are many talented young people who are lost, ignored and not given opportunity and encouragement”, or “Among the many technology devices, the mobile phone turns to be the most useful”.

### ***5.3.5.3 Pre-test means of General Statement levels of the experimental and control groups.***

**Table 5.14**

*The Means of the General Statement*

<b>Pre-test</b>	<b>Groups</b>	<b>The Mean (<math>\bar{X}</math>)</b>
<b>General Statement</b>	Experimental	01.05
	Control	01.05

The participants’ results in the table above (5.3) reveal exactly the same value (01.05) for both experimental and control groups. Thus, the two groups have performed in the same way and reached the same level of effectiveness in manipulating language. Therefore, this shows resemblance in dealing with the background knowledge that constitutes the general statement of the topic discussed by the participants. It is crucial that students develop their own stand in the argument. Besides, another supporting the two groups’ similarity in test performance is that in each of them three (3) participants got full mark (2/2) for this step yet it also shows lack of low proficiency if we consider that 7 of them could not write anything as a general statement while fifteen scored merely one point. Without providing sufficient background information for the topic, it would not be possible to narrow the topic smoothly into the issue or the core matter. This concords with Ramage, Bean and Johnson (2016) quote; “Writers of classical argument typically begin by connecting the audience to the issue by showing how it arises out of a current event or by using an illustrative story, memorable scene, or startling statistic—something that grabs the audience’s attention”. (p.53)

#### 5.6.1.4 Pre-test means of Topic Issue levels of the experimental and control groups.

**Table 5.15**

*The Means of the Issue*

Pre-test	Groups	The Mean ( $\bar{X}$ )
Topic Issue	Experimental	01.09
	Control	00.45

Concerning awareness about the issue that needs to be dealt with in the introduction paragraph. Participants of experimental group significantly scored 01.09 whereas the control group scored 0.45. Developing an issue or the problematic upon which the writer needs to position his stand or own argument that he would persuade the reader to agree on or consider. For instance, (Newell et al., 2015) claimed that: “In argumentative writing, creating a list of pros and cons was not enough; rather they needed to identify the tensions in an argument between the pros and cons.” Admittedly, The less equipped is the participant to conceive an issue, the less ready is he/her to adopt an argument and bring evidence to support his stand or claim. Some of the weakly elaborated issues are as follow:

#### 5.3.5.4 Pre-test means of the Claim/ Counterclaim levels of the experimental and control groups.

**Table 5.16**

*The Means of the Claim/Counter-claim*

Pre-test	Groups	The Mean ( $\bar{X}$ )
Claim/ Counter-claim	Experimental	0.21
	Control	0.48

Both groups *mean* scores are below 0.50 but the experimental one is even lower in value. However, this difference is not significant; the groups can still be considered as possessing equivalent capacities in stating their topics' *claims and counter-claims* within the introductory paragraph. This is where they state their stand and announce the thesis statement.

Later on, they are expected to back up each *claim* with evidence. According to Mayberry (2009):

An argument's *support* is all the material that turns a tentative *claim* into a justified conclusion. Support is the most important component of argument.

Without adequate and suitable support, a *claim* remains merely a hunch or an opinion; with appropriate support, it becomes a sound and credible conclusion (p.8).

Therefore, he found their claims most inconsistent with what argument writing requires. Table 5.16 reveals that both groups lack the means of elaborating claims (arguments) and *counter-claims* (*counter-arguments*) within argumentation writing process in the introductory paragraph. As the participants needed to put in their own claims regarding the topic discussed through expressions like: *for the reason that, assuming, suppose, as indicated by, is implied by, given that, and in view of the fact that*. Mayberry (2009) indicated that one ought to make sure that there is connection between his claim, and its backing, is rational, and that it will match up the characteristics of formal and informal logic. (p.9) Consequently, they have to link to, on one hand, to what they wrote in the previous general statement and on the other hand, to what they compose in the succeeding (following) *counter-claim* in a brief manner, coherently and without redundancy.

Nonetheless, the researcher estimates the results obtained in the pre-test would not affect the treatment to be inculcated to the participants during the experiment. Furthermore, after examining paragraphs, the assessment revealed that in their majority could not comprehend taking stands when giving arguments. For example, one participant wrote: "Because of mobile-phone has many advantages that vary from chatting on social media to taking pictures, selfies, and doing quick research for studies" or another : " The most important sport in Algeria is football which is played and in which teams attempt to get a ball into a goal or zone defended by the other team". There is lack of competency in the formation of claims, counter claims and taking stands.

As Mayberry (2009) stated that the feeling of lack of confidence among many students in their writing skills refrain from taking a stance in arguing and even the more experienced in

drafting rich opinion contents usually make an effort to elaborate a claim. Actually, the *mean* scored by the experimental group (0.21) is less than the one of the control group (0.48). These *means* show that participants generally have an inappropriate approach treating or when dealing with composing /drafting a major element of writing arguments, as shown in their structuring-introductory paragraph.

In fact, they applied descriptive or a merely usual writing procedure applied in outlining and formatting a simple paragraph; as writing a *Topic Sentence, and General Statement* that narrows down to *Thesis Statement* whereas the argumentative introductory paragraph contains more than that, and it approaches topics writing differently, extensively. It includes two further crucial elements/components that enable revealing the writer's point of view, elaborating a captivating *Attention Grabber* so as to grab the reader's attention and interest in the topic, and the claim and counter-claim that precise his/her stand points of view vis-à-vis the topic issue. Therefore, the topic ought to, definitely, contain an arguable issue. Writing needs to precise after the *General Statement*, along with his *claim* without forgetting to refer to the *counter-claim* to enable the reader foresee both opponent views (arguments), earlier in the introductory paragraph of the argumentative essay.

#### ***5.3.5.6 Pre-test means of the thesis statement levels of the experimental and control groups.***

**Table 5.17**

*The Means of the Thesis Statement*

<b>Pre-test</b>	<b>Groups</b>	<b>The Mean (<math>\bar{X}</math>)</b>
<b>Thesis Statement</b>	Experimental	01.55
	Control	01.53

The last element of the introductory paragraph is the *Thesis Statement*. Writing a well-elaborated *Thesis Statement* in an argumentative essay is crucial. In this experiment, the score of the mean of both groups is almost similar; experimental group rated (01.55) and control group got (01.53). This is fairly positive in terms of groups level equivalence. The results revealed that participants did not focus on argumentative writing type as such. Instead, they wrote merely descriptive statements similarly as when dealing with descriptive essays. As conveyed by (Kirszner



& Mandell, 2018) an effective thesis statement must visibly states the essay's main idea, conveys the purpose as to evaluate, analyze or just to describe or inform. It also needs to be persuasive, compelling a strong stand or position. Consequently, this imperfection is to be dealt with in the treatment phase or lesson training. For example, in control group one participant wrote: " It gives us a vast view of the world or what it in happening in the world in all its aspects, natural, politics, economy and entertainment". Another one wrote: "what exactly is the most important sport in Algeria?", or "The impact of Internet on the word is double-sided, the first one is positive whereas the second one is negative". In other papers, some well-thought-of *Thesis Statement* writing came as follows: "I think that Internet is truly the personally best invention of the world". In accordance to these results, remedial work was planned in the treatment of both groups so as to improve drafting argument *Thesis Statements*.

In the experimental group, the researcher found thesis statement as in: "What are the causes that made young people addicted to the mobile phone?, or in: " Algeria is among countries who has given sport great consideration due to its economic importance, health and social importance", or "Why is sport neglected?", or why can't sportsmen with capacities go anywhere?. Except some more interesting thesis statements such as in: "I am among those who believe that the mobile phone badly influences studies, relationships and visual health."

### **5.3.6 The treatment**

The treatment of this study consists of a series of lectures and training development or practice sessions (TD's). The experimental group is not only coached how to use technology equipment or device, but they are also assisted on the learning process in building upon their prior knowledge as recommended by (Prichard, 2007) in the constructivist view of instruction. Therefore, developing further understanding begins by exposing participants' minds to further images from the net associated to the lesson objectives like structuring and organizing an argument essay. The process of treatment would last for definite period, long enough so that researcher could follow the treatment by tests after primarily gauging participants' levels with a pre-test. Edmonds and Kennedy (2017) stated that, "Statistical conclusion validity is the extent to which the statistical co-variation (relationship) between the treatment and the outcome is accurate. Specifically, the statistical inferences regarding statistical conclusion validity." (p.9)This means that in an ideal situation, the treatment is measured by a post-test which would reveal a difference in scores. That

is a sign of a progress that confirm the hypothesis; adversely, it would be regression and hence the hypothesis is disconfirmed. “The impact of the treatment is obtained by calculating the difference between the dependent variable from experimentation group and control group” ( Bairagi & Munot, 2019, p.81) .

Eventually, the treatment targets to measure the effects of SMNs embodied in ICTs use outside the classroom. According to Oshima and Hogue (2006), there are basically the five introductory components of argument writing that would be expanded throughout the developmental paragraph. The present study, intends to enable participants to include those elements in their introductory paragraph, then assesses the extent to which are they able to do it efficiently.

### 5.3.7 The post-tests results’ analysis

This section confirms what has been stated in the methodology chapter as to verify the influence of teaching online and face-to-face. The next step is to test what has been inflicted as a treatment to both groups. The post-test was distributed to both experimental group and control group simultaneously in presence mode, face-to-face conditions following the same precautions as for the pre-test. Before papers correction, the researcher proceeded by categorizing scores to assess the introductory paragraph components both analytically and holistically. The analysis of the post-test will determine whether the treatment had a positive impact. The following section presents the ample analysis of the results.

**5.3.7.1 Overall post-test performance.** The post-test results of the overall performance of both experimental and control groups are calculated by use of the mean (x), mode and the rate of dispersion features, as tabulation indicates. Thus, each item that the treatment comprises is corrected and scored similarly and compared with it opponent in the control group.

**Table 5.18**

*The Participants' Overall Performance during the Post-test*

Groups	Subjects		Dispersion			
	Mean	Mode	Low	Fr.	High	Fr.
<b>Experimental</b>	06.70	07	05.50	02	08	01
<b>Control</b>	05.13	05	01.75	01	07	03

After applying the treatment in accordance to the argumentative writing deficiencies that the pre-test had revealed at the level of the introductory paragraph, remediating argumentative

writing problems was carried out to enhance subjects' academic writing performance. While screening post-test results and as shown, in table 5.18, the *mean* of experimental result (6.70) exceeds the control group's rate, which had (5.13); the *mean* improvement is significant with (1.57). The mode of experimental group is also higher than control group (07 versus 05). As we notice that the lowest value in experimental group is (5.50) while in the control group it is low(1.70). Dispersion also indicates that the highest score is (08) in experimental group while it is (7) in the control group which is repeated three times versus once in control group. Thus, the general experimental results illustrate more amelioration that is significant in the influence of online learning in the treatment as illustrated in Table 5.18 above in details.

**5.3.7.2 The post-test results of individual aspects.** The post-test of the introductory paragraph was also evaluated through designing sub-scores to each of its components that are indicated in the table (5.19) below as individual elements. This is performed by assessing the *means* of each element in both experimental and control groups piece of writing: the *Attention Grabber*, the *General Statement*, the *Topic Issue*, the *Claim/Counter-Claim or stand*, and the *Thesis Statement*.

**Table 5.19**

*The Post-test Means of the Individual Aspects*

Aspects	Experimental Group Mean ( $\bar{X}$ )	Control Group Mean ( $\bar{X}$ )
Attention Grabber	01.80	01.29
General Statement	01.28	02.23
Topic Issue	01.20	02.35
Claim/ Counter-claim	01.40	01.00
Thesis Statement	01.03	0.63

The individual aspects primarily the *Attention Grabber* test reveals (1.80) higher score of experimental group than (1.29) in control group. It is significant score that shows the efficiency of using SMNs in illustrating with videos and pictures how to hook i.e. attract the reader. However, concerning the *General Statement*, the researcher notices a lower score (1.28) for experimental group versus a higher score (2.23) in the control group. This was unexpected; similarly, experimental group scored also less in the issue part (1.20) in comparison with 2.35 for the control group. The researcher has reported that it was due to extraneous factors related to control group members' competency about the topic dealt with or their hidden unforeseen work with technology

with other peers/teachers ensuring, therefore, other modules. It could also be related to the quality of their work performance in face-to-face mode through hard copies, and the fact of being under test challenge motivated them to focus more on improving their results by studying harder.

However, the results jumped up again in favour of the experimental group with (1.40) against (1.00) for the control group regarding the *Claim* or the participants stand about the topic dealt with. This is positive because there is a significant progress in the results of the two groups in comparison with their results in the pre-test score in the *Claim* (as shown in table 5.16), experimental group score is (0.21) and control group has (0.48). Thus, the treatment either in its traditional, face-to-face teaching form or online through the use of Google Classroom, videos and Google Meet was beneficial to the participants as illustrated by the means of the pre-test and post-test of the elements under scope.

**5.3.7.3 The overall results of comparative evaluation.** This part presents the global analysis of the experiment results of both pre-test and post-test of experimental and control groups. It additionally provides the interpretation of findings after comparing groups results rates when they become significant or insignificant. Furthermore, each writing sub-element of the pre-tests and post-tests is compared in terms of performance with its opponent to determine efficiency of the experiment.

**5.3.7.4 The results of overall performance.** Table (5.20) indicate the results of the research comparison of the means of pre-tests and post-tests of experimental and control groups, beside the score of change which define progress or regression.

**Table 5.20**

*Mean Scores of Overall Performance's Change from Pre-test to Post-test of the Experimental and the Control Group*

The Mean	Experimental Group			Control Group		
	Pre-test	Post-test	Change	Pre-test	Post-test	Change
	04.93	06.70	01.77	04.60	05.13	0.53

As far as the experimental group is concerned, there is a significant score of (04.83) in the pre-test versus (06.70) in the post-test. This resulted in (01.77) as an amelioration or positive indicator rate of progression while for the control group there is (04.63) in the pre-test, and (5.23)

in the post-test which gives out a change of progress significance of (0.53). Hence, it is noted that the experimental group has a higher progress significant rate than the control group.

**5.3.7.5 Comparative results evaluation of the individual aspects.** This section describes the comparison of how the results of each individual aspects namely the *Attention Grabber*, *General Statement*, *The Issue*, *Topic Claim/Stand/ Counter-claim*, and *Thesis Statement*.

**Table 5.21**

*Comparative Evaluation of Pre-test and Post-test Performance in Individual Aspects of Experimental and Control Groups*

Aspects	Experimental Group Mean ( $\bar{X}$ )			Control Group Mean ( $\bar{X}$ )		
	Pre-test	Post-test	Change	Pre-test	Post-test	Change
Attention Grabber	01.00	01.80	0.80	01.10	01.29	0.19
General Statement	01.05	01.28	0.23	01.05	02.23	01.18
Topic Issue	01.09	01.20	0.11	0.45	02.35	01.90
Claim/ stand/ Counterclaim	0.21	01.40	01.19	0.48	01.00	0.52
Thesis Statement	01.55	01.03	- 0.52	01.53	0.63	- 0.90

Regarding the means of each element considered as individual aspect that participants are trained on in the period of treatment, the first one is *Attention Grabber*. There is significant progress with (0.80) of difference between (1.00) in the pre-test and (1.80) in post-test. But the progress in the control group is less significant with (0.19). In here, treatment was beneficial to experimental group thanks to complementary teaching through SMNs. The second positive progress concerns the *General Statement* in which there is a significant progress within each group there is a positive increase from (1.05) in the pre-test to (1.28) in the post-test. It is a slight positive change of (0.23) which the control group progressed from (1.05) in pre-test to (2.23) in post-test a considerable increase of (1.18). Therefore, there is more progress in the control group than the experimental group. The researcher has justified this by the presence of some extraneous reasons. Consequently, there is less effect of technology on experimental group learning at this level. For writing, taken separately, the scores showed similar output as in the *General Statement* (progress in both group, but there is more progress among the control group). The members of the control group wrote more successfully about topic issue sort out arguments more properly. Henceforth, table 5.21 reports (1.90) as significant improvement of control group, the output of difference between (0.45) and

(2.35) scores of respectively of pre-test and post-test while in the experimental group scores slight improvement of (0.11) not very significant though between pre-test (1.09) and post-test.

The *Topic Issue* writing has been improved during the treatment; however, the control group scores results that are more significant. Therefore, we can assume, at this stage, that the use of SMNs and Google Classroom to ensure complementary work was not very efficient like the face-to-face work of treatment, or else there were extraneous factors. In relation to *Claim/Stand* and *Counter-claim* or *Counter-argument*, which must be written in the introductory paragraph after introducing the Topic Issue. It is also noticed that there is significant progress in experimental group performance: (0.12) in the pre-test and (1.40) in the post-test, with a score of progress of (1.19). This is thanks to online work within distance teaching. Adversely, the researcher notices low progress in the performance of the control group, a light progress of (0.52) resulting from pre-test (0.48) and post-test (01.00).

For argumentative *Thesis Statement*, the results in of the means indicate unexpected regression in the results of both experimental and control group. There is a regression of experimental group by (0.52) that resulted from (1.55) in pre-test and post-test (1.03) and another regression in the control group with a minus of (0.90) resulting from (1.53) in pre-test and (0.63) in post-test which is even weaker than the regression in the experimental group.

In conclusion, among the five elements of introductory paragraph under treatment: the *Attention Grabber*, *General Statement*, *Topic Issue*, *Claim/ Counter-claim*, and *Thesis Statement*, there is a significant progress in all of these components except the *Thesis Statement*, in which there is a regression in both control and experimental groups. On the other hand, there is a need to precise that in the *Attention Grabber*, experimental group scored more than control group while the latter scored higher in *General Statement* and in the Topic Issue sub-tests. However, in the *Claim/Counter-claim* the experimental group scored higher. In the last component sub-test of *Thesis Statement*, both groups scored lower results, especially the control group.

### **5.3.8 Testing the hypothesis**

In order to test the research hypothesis, t-test is employed to validate the obtained results of the means of experimental and control groups pre-tests and post-tests. The experiment's mean calculations included: the *means*, *variances*, *degree of freedom* and the calculation of the "t". Basically, a null hypothesis together with its alternate one can denoted in the following manner:

-Null hypothesis (H0): EFL University teachers use online teaching, their students would not show improvement in argumentative writing performance.

-Alternate hypothesis (H1): EFL University teachers use SMNs and online teaching tools, their students would show improvement in argumentative writing performance.

The data analysis in the experimental step comprises the analysis and discussion of the results of the *means* and t-test by comparing global performance results of the post-tests of experimental and control groups. Additionally, analysis includes comparison of results within each group: the pre-test and post-test of the experimental group, and the pre-test and post-test of the control group. The calculations are realized by using the computer software Microsoft Excel.

### ***5.3.8.1 The t-test for the post-tests of the experimental group and control group.***

The required data to compute t-value are provided in *Appendix E*

#### **1<sup>st</sup> Calculation of the Mean**

$\bar{X}$  → The mean

The formula is:  $\bar{X} = \frac{\sum X}{N}$  / N: The number of the students per group

$$\bar{X}_1 = \frac{\sum X_1}{N_1} \quad /N_1 = 20, \quad \sum X_1 = 134$$

$$\bar{X}_1 = \frac{134}{20}$$

$$\bar{X}_1 = 06.70$$

$$\bar{X}_2 = \frac{\sum X_2}{N_2} \quad /N_2 = 20, \quad \sum X_2 = 102.5$$

$$\bar{X}_2 = \frac{102.5}{20}$$

$$\bar{X}_2 = 05.13$$

#### **2<sup>nd</sup> Calculation of the Variances**

$S_1^2$ : The variance of the experimental group

$S_2^2$ : The variance of the control group

The formula is:  $S^2 = \frac{\sum X^2}{N} - \bar{X}^2$

$$\text{So: } S^2_1 = \frac{\sum X^2_1}{N_1} - \bar{X}^2_1$$

$$S^2_1 = \frac{907.5}{20} - 44.89 = 45.38 - 44.89$$

$$S^2_1 = 0.49$$

$$S^2_2 = \frac{\sum X^2_2}{N_2} - \bar{X}^2_2$$

$$S^2_2 = \frac{571.87}{20} - 26.32 = 28.59 - 26.32$$

$$S^2_2 = 0.27$$

### 3<sup>rd</sup> Calculation of the degree of freedom

$$df = (N_1 + N_2) - 2$$

$$df = (20 + 20) - 2 = 40 - 2$$

$$df = 38$$

### 4<sup>th</sup> Calculation of the computed 't'

The formula is:  $\frac{(\bar{X}_1 - \bar{X}_2) \sqrt{(N_1 + N_2 - 2)(N_1 N_2)}}{\sqrt{(N_1 S_1^2 + N_2 S_2^2)(N_1 + N_2)}}$

$$t_{(N_1 + N_2 - 2)} = \frac{(\bar{X}_1 - \bar{X}_2) \sqrt{(N_1 + N_2 - 2)(N_1 N_2)}}{\sqrt{(N_1 S_1^2 + N_2 S_2^2)(N_1 + N_2)}}$$

$$(6.70 - 5.13) \sqrt{(38)(400)}$$

$$t_{(38)} = \frac{(6.70 - 5.13) \sqrt{(38)(400)}}{\sqrt{(9.80 + 45.40)(40)}}$$

$$t_{(38)} = \frac{1.57 \sqrt{15200}}{\sqrt{2208}} = \frac{193.56}{46.99}$$

$$t_{(38)} = 0.412$$

$$t = 0.412$$

The calculations above gave **38** degrees of freedom conforming to **0.05** level of significance and for one tailed hypothesis, the tabulated **t** value for independent samples is **1.68**. The results are found to be statistically significant since the computed **t** of **0.412** is higher than the critical value of



**1.68.** Thus, the null hypothesis, which indicates that the experimental group would not show better argumentative writing performance in comparison to the control group, is rejected.

**5.3.8.2 The t-test for pre- and post-tests of the experimental group.** In order to validate the test findings and make it more reliable, the significance difference of the mean scores of the experimental group on variables of pre-test and post-test was tested at 0.05 level. This was done through the use of the independent t-test, and similar techniques were adopted with the control group. The required data to compute t-value are displayed in the *Appendix D* in the end of the dissertation.

### 1<sup>st</sup> Calculation of the Mean

$\bar{X}$  → The mean

The formula is:  $\bar{X} = \frac{\sum X}{N}$  / N: The number of the students per group

$$\bar{X}_1 = \frac{\sum X_1}{N_1} \quad /N_1= 20, \quad \sum X_1 = 134$$

$$\bar{X}_1 = \frac{134}{20}$$

$$\bar{X}_1 = 06.70$$

$$\bar{X}_2 = \frac{\sum X_2}{N_2} \quad /N_2= 20, \quad \sum X_2 = 98.60$$

$$\bar{X}_2 = \frac{98.60}{20}$$

$$\bar{X}_2 = 04.93$$

### 2<sup>nd</sup> Calculation of the Variances

$S_1^2$ : The variance of the experimental group in the pre-test

$S_2^2$ : The variance of the experimental group in the post-test

The formula is:  $S^2 = \frac{\sum X^2}{N} - \bar{X}^2$

$$\text{So: } S^2_1 = \frac{\sum X^2_1}{N_1} - \bar{X}^2_1$$

$$S^2_1 = \frac{907.5}{20} - 44.89 = 45.38 - 44.89$$

$$S^2_1 = 0.49$$

$$S^2_2 = \frac{\sum X^2_2}{N_2} - \bar{X}^2_2$$

$$S^2_2 = \frac{511.86}{20} - 24.30 = 25.59 - 24.30$$

$$S^2_2 = 01.29$$

### 3<sup>rd</sup> Calculation of the degree of freedom

$$df = (N_1 + N_2) - 2$$

$$df = (20 + 20) - 2 = 40 - 2$$

$$df = 38$$

### 4<sup>th</sup> Calculation of the computed 't'

The formula is:  $\frac{(\bar{X}_1 - \bar{X}_2) \sqrt{(N_1 + N_2 - 2)(N_1 N_2)}}{\sqrt{(N_1 S_1^2 + N_2 S_2^2)(N_1 + N_2)}}$

$$t_{(N_1 + N_2 - 2)} = \frac{(\bar{X}_1 - \bar{X}_2) \sqrt{(N_1 + N_2 - 2)(N_1 N_2)}}{\sqrt{(N_1 S_1^2 + N_2 S_2^2)(N_1 + N_2)}}$$

$$t_{(38)} = \frac{(6.70 - 4.93) \sqrt{(38)(400)}}{\sqrt{(9.80 + 25.80)(40)}}$$

$$t_{(38)} = \frac{1.77 \sqrt{15200}}{\sqrt{1424}} = \frac{218.22}{37.73}$$

$$t_{(38)} = \frac{1.77 \sqrt{15200}}{\sqrt{1424}} = \frac{218.22}{37.73}$$

$$t(38) = 05.78$$

$$t = 05.78$$

Provided that it is indicated, it is not imperative for **t** value to be positive or negative. The moment the researcher reports the t-value, it is permitted to avoid the negative sign. Since the computed **t** of **(05.78)** is greater than the critical value of **(1.68)**, the results obtained in the experimental group are significant. This improvement is the output of online work outside the classroom managed through the use of SMNs and technology infusion during the treatment period.

### 5.3.8.3 The t-test for pre- and post-tests of the control group.

The required data to compute t-value are provided in *Appendix E*.

#### 1<sup>st</sup> Calculation of the Mean

$\bar{X}$  → The mean

The formula is:  $\bar{X} = \frac{\sum X}{N}$  / N: The number of the students per group

$$\bar{X}_1 = \frac{\sum X_1}{N_1} \quad /N_1 = 20, \quad \sum X_1 = 102.5$$

$$\bar{X}_1 = \frac{102.5}{20}$$

$$\bar{X}_1 = 05.13$$

$$\bar{X}_2 = \frac{\sum X_2}{N_2} \quad /N_2 = 20, \quad \sum X_2 = 92$$

$$\bar{X}_2 = \frac{92}{20}$$

$$\bar{X}_2 = 04.60$$

#### 2<sup>nd</sup> Calculation of the Variances

$S_1^2$ : The variance of the control group in the pre-test

$S_2^2$ : The variance of the control group in the post-test

The formula is:  $S^2 = \frac{\sum X^2}{N} - \bar{X}^2$

$$\text{So: } S^2_1 = \frac{\sum X^2_1}{N_1} - \bar{X}^2_1$$

$$S^2_1 = \frac{571.87}{20} - 26.32 = 28.59 - 26.32$$

$$S^2_1 = 02.27$$

$$S^2_2 = \frac{\sum X^2_2}{N_2} - \bar{X}^2_2$$

$$S^2_2 = \frac{450}{20} - 21.16 = 22.50 - 21.16$$

$$S^2_2 = 01.34$$

### 3<sup>rd</sup> Calculation of the degree of freedom

$$df = (N_1 + N_2) - 2$$

$$df = (20 + 20) - 2 = 40 - 2$$

$$df = 38$$

### 4<sup>th</sup> Calculation of the computed 't'

The formula is:  $(\bar{X}_1 - \bar{X}_2) \sqrt{(N_1 + N_2 - 2)(N_1 N_2)}$

$$t_{(N_1 + N_2 - 2)} = \frac{\sqrt{(N_1 S_1^2 + N_2 S_2^2)(N_1 + N_2)}}{(5.13 - 4.60) \sqrt{(38)(400)}}$$

$$t_{(38)} = \frac{\sqrt{(45.40 + 26.80)(40)}}{0.53 \sqrt{15200}}$$

$$t_{(38)} = \frac{65.34}{\sqrt{2880}} = \frac{65.34}{53.74}$$

$$t_{(38)} = 01.22$$

$$t = 01.22$$

Since the computed **t 1.22** is less than the critical value **1.64**, it proved the validity of the previous calculated means within each group and between experimental and control groups. The results of both groups indicated significant improvement after the treatment, and globally the experimental over scores the control group. However, both of scored low results in the *Thesis Statement* sub-test.

## 5.4 Conclusion

The present chapter has reported the main findings of the students' questionnaire and the online teaching experiment. Surveying students has offered an optimistic view of online classroom complementary work via SMNs. Henceforth, the quantitative data of the experiment showed positive improvement in writing performances and the findings from students questionnaire were analyzed separately from those of the experiment. Then, the results of each tools were examined and interpreted according to the purpose.

The results of the questionnaire were calculated numerically using percentage and tabulations while those from the experiments were computed using statistics (mean, mode and variance) and a *t*-test. On the whole, the results inferred widespread of SMNs among master one students mainly through Facebook and Moodle platforms for complementing learning outside the classroom. Yet, the frequency of information sharing, collaborating and interacting was low. Nonetheless, the experiment statistical measurement have indicated a progress both groups in similar writing components but an advance of the experimental group was significant.

The following chapter will summarize, discuss and interpret the research findings from all the instruments after which some pedagogical suggestions and recommendation will be addressed to EFL teachers and students.

# **Chapter 6**

*Discussions, Implications  
& Recommendations*

## CHAPTER 6 . Discussions, Implications and Recommendations

<b>6.1. Introduction</b> .....	245
<b>6.2 Summary of the Findings</b> .....	245
<b>6.2.1 Teachers' questionnaire.</b> .....	245
<b>6.2.2 Teachers' Interview</b> .....	247
<b>6.2.3 Students' questionnaire.</b> .....	248
<b>6.2.4 Summary of the experiment.</b> .....	250
<b>6.3 Discussion and Interpretation of the Findings</b> .....	251
<b>6.3.1 Interpreting teachers' questionnaire findings.</b> .....	251
<i>6.3.1.1. Frequency access of online resources</i> .....	253
<i>6.3.1.2 Evaluation of students' online work</i> .....	253
<i>6.3.1.3 Online tutoring of students</i> .....	253
<i>6.3.1.4 Technology competence and training</i> .....	254
<i>6.3.1.5 ICTs perceptions and e-learning</i> .....	254
<b>6.3.2 Interpreting teachers' interview findings.</b> .....	255
<b>6.3.3 Interpreting students' questionnaire findings.</b> .....	256
<i>6.3.3.1 SMNs Access for learning.</i> .....	256
<i>6.3.3.2 SMNs perceptions.</i> .....	257
<i>6.3.3.3 Facebook engagement and interaction.</i> .....	257
<b>6.3.4 Interpreting experiment's findings.</b> .....	258
<b>6.4 Some Pedagogical Implications and Recommendations</b> .....	260
<b>6.4.1 Recommendations for teachers.</b> .....	260
<i>6.4.1.1 Implication for technology resources inside the faculty.</i> .....	260
<i>6.4.1.2 Implications for SMNs access outside the classroom.</i> .....	261
<b>6.4.2 Implications for SMNs effects on students.</b> .....	262
<i>6.4.2.1 Implications for SMNs the e-learning platform.</i> .....	262
<i>6.4.2.2 Flipping the Classroom.</i> .....	263
<b>6.4.3 Tutoring and supporting students outside classrooms.</b> .....	263
<b>6.4.4 Implications for competence of designing online EFL teaching</b> .....	264
<i>6.4.4.1 Implications for teachers' training and e-competence.</i> .....	265
<i>6.4.4.2 Implications for online assessment.</i> .....	266
<i>6.4.4.3 Implications for reconsidering attitudes.</i> .....	267

<b>6.4.5 Some insightful recommendations for master students.</b> .....	267
<i>6.4.5.1 Implications for students' perception of SMNs.</i> .....	267
<i>6.4.5.2 Implications for collaboration and information sharing</i> .....	268
<i>6.4.5.3 Implications for engagement.</i> .....	269
<i>6.4.5.4 Implications for smartphone's applications sharing.</i> .....	269
<b>6.5 Suggesting an ICT Training Guide for Teachers</b> .....	270
<b>6.5.1 About the nature of training.</b> .....	271
<i>6.5.1.1 Digital technology training.</i> .....	271
<i>6.5.1.2 Training organization.</i> .....	272
<b>6.5.2 ICTs' training needs analysis.</b> .....	272
<i>6.5.2.1 Checking ICTs abilities.</i> .....	272
<i>6.5.2.2 Elaborating a work plan.</i> .....	272
<b>6.5.3 Needs analysis data collection.</b> .....	274
<b>6.5.4 The designing of an e-content.</b> .....	276
<i>6.5.4.1 Lectures delivery procedure.</i> .....	277
<b>6.5.5 Teaching techniques and procedures.</b> .....	277
<i>6.5.5.1 The adoption of a didactic method.</i> .....	278
<b>6.5.6 ICT training workshop.</b> .....	279
<i>6.5.6.1 Whole class grouping.</i> .....	280
<i>6.5.6.2 Multimedia language lab.</i> .....	280
<b>6.5.7 Some reflections and evaluations.</b> .....	282
<i>6.5.7.1 E-diaries.</i> .....	283
<i>6.5.7.2 Online peer correction.</i> .....	283
<i>6.5.7.3 Self-assessment.</i> .....	283
<b>6.5.8 Checking out the training progress.</b> .....	284
<b>6.6 Reflections for further Research.</b> .....	286
<b>6.7 Conclusion</b> .....	286



## **6.1 Introduction**

This chapter highlights the main findings of the research tools, including both qualitative and quantitative data, in addition to a fieldwork experiment. Basically, the results from each tool are dealt with separately to avoid confusion; and are interpreted to find out the best SMNs practices embedded in ICTs.

The findings comprise EFL teachers' ICTs' perceptions, access and adoption of SMNs inside and beyond classrooms, authentic online resources and online learning features and designs. Among encountered obstacles, we mention insufficient digital training that affect teachers' competence in designing and conducting online teaching. Hence, to facilitate lectures delivery and practice outside classrooms, an in-service training guide promoting technology manipulation upgrading was suggested to teachers. The guideline is conceptualized and tailored based on teachers' needs analysis and denoted their current ICT profile. At the same time, the interpretation of students' findings involved recommending them more sharing and collaborating with peers.

As the study focuses on illustrating the degree of ICT-driven applications and software influence on formal education, namely academic writing, the researcher gives a synopsis of the experiment organization, and treatment procedure. To the same extent, results of performance tests on argument writing were computed and validated by administering *t*-test measurements.

## **6.2 Summary of the Main Findings**

This section indicates the main findings of the present research. Each instrument brings data that were collected and analyzed from the participants and were analyzed including the results of the teachers' questionnaire and interview, the students' questionnaire and the experiment.

### **6.2.1 Teachers questionnaire**

The sample population of teachers from the department of English in Abdel-hamid Ibn Badis, included three age-categories, and the middle-aged one [36-46] outnumbered others, and is more experienced in teaching and in technology use. These participants frequently accessed these SMNs in raw: Facebook (17), YouTube (11), Skype (11), and Instagram (14). Facebook and YouTube subscribers are pioneering among EFL teachers; however, this does not reflect the extent of adopting SMNs for education. Not many of the teachers (23.5 %) had an Information Technology (IT) degree of basic ICTs utilities.

The results showed teachers' positive perception of the implementation of online teaching to complement to face-to-face teaching via SMNs, knowing that in their majority (85,30 %), participants believed that technology simplify getting information, but 55.88 % were cautious regarding internet content, and assumed that their students were attracted more by internet entertainment.

Online learning outside the classroom depends mainly on classroom teaching conditions. Overall, more than half of the participants had considerable class attendance attaining 80% of master one students. Therefore, lecturing face-to-face through technology implementation could be an impetus for designing online complementary work beyond the classroom. 35 % of the teachers claimed the department does not provide internet access and had insufficient technology resources. Despite this fact, a considerable number of teachers *frequently* introduced the data-show into the classroom when needed *usually* connected to their own laptops but the majority complained of a lack of technology assistant.

In this study, learning and teaching outside the classroom involved internet access, SMNs, Moodle e-learning platform, e-library at university, online resources, flipped classroom, students' online tutoring and teachers' training. Most teachers had Wi-Fi or mobile GSM connection and nearly the average of them regularly contact their students online while more than half of them used Ibn Badis faculty platform. Nonetheless, lower frequencies of academic use were recorded in e-learning platforms and SMNs.

According to teachers, various SMNs mostly impacted their master one students' language learning outside the classroom. YouTube and Facebook were at the top list with 70 %, followed by Instagram, Google, Gmail, messenger (Facebook), Viber and Zoom. The frequency of using SMNs for leaning purposes depends on the utility; for example, 44% of EFL teachers *usually* do this to activate their students' learning process. Another 35,3% found that SMNs *regularly* influenced students to get access to authentic information from educational websites and widen lectures' knowledge, and make use of ICT tools like: Videos, PowerPoint slides, word and pdf documents, the Hyper Text Markup Language (HTML) services. Out the majority of participants who adopted the "Flipped classroom", a minority did weekly. strategy that inverses the classroom learning process. Students used ICTs and SMNs to prepare digital texts, audio or video content at home and did the presentations and discussions in face-to-face mode.

The findings exposed two levels of teachers competence in manipulating ICT and SMNs to conduct distant teaching. 47% had Fairly good ICT skills while 50% had a modest technology manipulation know-how. Additionally, almost all of them were self-confident preparing pedagogy tasks using basic word processing programs, emailing files and more than 70% were able to create animated pictures, videos lesson slides. 35% participated in educational discussions in forums, blogs or social networks as in Facebook. Meanwhile, more than a half of them had the capacity to download and install software on a Personal Computer (PC).

### **6.2.2 Teachers interview**

The interviewees among the sample population of EFL teachers expressed positive beliefs about the utility of technology to enhance education for almost 70% of the interviewees were in favour of the use of ICTs and SMNs in education; but practically, 36% of those incorporated laptops, data-show and smartphones. Moreover, teachers embarked on Facebook, YouTube, and Messenger to communicate with students, post lectures and share documents.

A number of features characterized bridging face-to-face instruction with online Learning. SMNs embodied in YouTube, Facebook or Gmail and various other digital tools can boost education performance online if appropriately adapted to serve pedagogy. In this context, the interview results indicated that (76.66 %) notified that SMNs were assisting them in bridging outside the classroom learning with the formal learning inside the institution and this shows in a number of features.

There are many online authentic teaching resources that could benefit learners and teachers with countless advantages, such as being in close contact with students. 30% of the interviewees reached students through multiple SMNs, namely Facebook, and only 13% of them adapted videos from YouTube to enrich their lectures content and provide further extensive readings from authentic web resources.

Despite their need to motivate and engage students to provide interaction, still no more than 16 % managed to create an interaction rapport with students beyond the classroom. Therefore, they could illustrate concepts nor further practice. Master students needed to learn academic English but the majority of interviewees (83.33 %) regarded SMNs both as formal and informal networks. 20% of them advocated that the formal use of online resources improved learning by sharing documents through Yahoo, Gmail, web blogs and electronic books (e-books ). They used

Google classroom, Google meet next to opening accounts in Google Drive for storing online resources, and they participated in conferences Via Zoom application or WhatsApp. Among the non-formal SMNs, Facebook is the most used thereby 36.66% of the interviewees estimated it as an ideal place for self-expression, live discussions and practical for the creation of pages. Additionally, Facebook Messenger facilitates immediate documents sharing in synchronous communication.

Contrary to what they declared, most of the teachers are actually Facebook group members who have *usually* created Facebook pages. They also posted lessons content, or sent videos before lectures to flip class work for at least one academic term. They found this teaching experience, beyond classroom hours, beneficial to engage students into collaborative tasks and to offer guidance. The longest period achieved is two semesters, and their experiences were *sometimes* satisfactory and some other times not fruitful.

As all pedagogical tools, incorporating SMNs through ICT devices, presented in enormous difficulties for teachers and students beyond classroom environment. Globally, half of the teachers had concerns about complications related to equipment, effective training, technology facilities and internet access, besides the lack of time.

Besides, the teachers were exposed to some limitations of SMNs because they believed they diffuse more entertainment and would negatively influence students' learning. This is when students lose precious learning time and turn towards distractions by downloading games, songs or by watching films. They also might engage in chatting and collect slang instead of formal academic language. Along with that, many teachers claimed that their students kept searching for topics unrelated to studies and used smileys or emoji in their communication instead of formal writing. Additionally, they were quite often concerned about the students' tasks that contained plagiarism, in addition to their demotivation.

### **6.2.3 Students questionnaire**

The students' sample population of Master one students from various specialties, comprised 69 participants and were divided into two age categories: [20-25 years] and [above 25years]. Master one participants accessed ICTs and various SMNs; the most commonly used ones are Facebook (91.3 %), YouTube channels (84.1 %), Instagram (72.5%) and Twitter (14.5%). The results showed that Facebook was in the lead with 92.8 % and students had an experience of at

least four years and more, consulted their Facebook accounts many times a day and spent an average of two to three hours of connected. The technology devices possessed by master students were in succession: laptops, PC's , smartphones and tablets. Through these ICTs, almost all of them installed applications for chatting, downloaded e-books , edited pictures or videos, and retrieved lessons.

In their majority, the participants believed that Facebook reinforces their lessons' understanding through consulting e-mates sharing various docs, and perceived ICT tools as enhancing their abilities to correct spelling, avoiding grammar mistakes and enriching vocabulary. Additionally, they regarded Microsoft word, pdf, WordPad as useful software to read different types of texts. A minority all students (11%) consulted web blogs regularly, and they named some of them as follow: *Cambridge, Academia for Education Publishing, Library of English Literature and Linguistics*.

Although students had a big number of SMNs groups-between 50-100 Facebook contacts, and 97% of them had schoolmates as internet e-contacts- it was not indicator of interaction and collaboration. Another reason to think that SMNs do not necessarily provide learning interaction was that even if 55.1% of students created EFL learning groups on Facebook, and all of them have joined between 10 to 20 learning groups, in which they exchanged documents as in those of: *Master Students all around Algeria, Didactics of Foreign Languages, and English Students of Mostaganem*, still the rate exchanging files registered low frequency (13%), with a moderate exception of 42% who *sometimes* interacted and collaborated with their peers, yet among these only 36%, collaborated doing homework *every week*.

The researcher investigated the type of engagement and interaction that appealed most to the students by using frequency measuring statements. The results showed that statements including chatting, putting likes/dislikes on posts, commenting on photos, and sending messages via messenger scored higher frequency than statements that comprised sharing class material, receiving support from teachers or other users, and organizing learning discussions. This indicated that the learning engagement rate through SMNs was lower than 50%.

Some students are interested in applications to develop spelling skills, find words meaning, translate and write documents that appeal to their cognitive skills enhancement. Leisure reading such as stories or poems. The most significant frequency of using applications were “*Several Times a Week*” and “*Twice a Week*” . Although, there are plenty of sharing options embedded in SMNs, the students sharing rate did not exceed 33%, counting all frequencies.

#### **6.2.4 Summary of the experiment**

The design involved selecting the sample population of participants, treatment, and comparing the results. The control group was taught in a conventional classroom while the experimental group was invited to work online through Google classroom and Google meet.

The research stance predicted positive effects of SMNs on the participants of experimental group in academic writing productions, namely argumentative writing. After the pre-test, the two groups received treatment. The experimental group received its treatment online and the control group by face-to-face teaching. Then, a second test was administered to both groups to assess the results and check the writing progress. The cause-effect relationship presumed to exist between the adoption of SMNs through ICT devices and the improvement of EFL argumentative writing is being tested through the corpus of experiment.

The experimental population sample group is composed of 20 students who belonged to a group of master one linguistics in the department of English at Abdel-hamid Ibn Badis University during the academic year 2020-2021.

Testing started by a pretest was administered to depict their background level in argumentative writing, and that included how to support views and stance. The pre-test topic was to write an argumentative essay introductory paragraph. This way, the researcher could easily identify structures, arguments aspects, stands, identifying issues and claims.

To find pre-test general performance, the calculations of the *means* are done by using descriptive statistics to score values. Then, *t*-test is used to determine *dispersion* and *variance*. The statistics have been carried out to compare the general *means* of experimental group with the control group, in addition to the comparison between the elements of *Attention grabber*, *General statement*, *Topic Issue*, *Claim/counter-claim*, and the *Thesis statement* in both groups. The result indicated a meagre difference in the *mean* with 0.33. The dispersion calculation indicates similarity

in the low values (3.50 for both groups). These results showed homogeneity of results that can favor tackling treatment on similar background aptitude.

The results of the pre-test means of each of these individual components: *Attention Grabber*, *General Statement* and *Thesis Statement* in the introductory paragraph, had similar scores in both groups. The *Topic Issue* of the experimental group scored over the control group: (01.09) versus (00.45). On the whole both groups showed inefficiency in elaborating *claims* or *arguments*.

After the treatment, a post-test is administered to the two groups in presence mode and with the same topic to screen for progress. The correction, similarly to the pre-test, targeted the whole paragraph, and how each component is formatted. The analysis is enumerated by the *mean* ( $\bar{x}$ ), *mode* and the *rate of dispersion* features.

The overall results of the post-test performance affirmed clear amelioration in the *mean* and the *mode*. The experimental group's *mean* (6.70) exceeds control group's one (5.13). There is *mean* progress of (1.57). The *mode* is also higher in experimental group (07 versus 05). Therefore, it is concluded that some progress occurred after applying the treatment and is more significant in experimental group results.

## **6.3 Discussion and Interpretation of the Findings**

The researcher has devoted this section to discuss, compare, and interpret the findings from the four instruments of research: the teachers' questionnaire and interview, the students questionnaire and the experiment. The interpretations would probably precede generating suggestions and recommendations in the coming sections

### **6.3.1 Interpreting teachers questionnaire findings**

This section discusses the teachers' questionnaire findings with regard to the purposes of each section; still it is worth mentioning that the age category of [36-46] is the most significant in this population and represents 61.76% of the randomly selected sample among master one teachers in the department of English.

Participants willing to incorporate SMNs and take their teaching outside the classroom are profiled as technophile. The questionnaire results showed that 94.1% of them possessed social media networks permanent accounts among which the middle-aged category had the lion share.

The frequently accessed networks are Facebook, YouTube and Instagram besides many others that could be used for academic tasks such as Gmail. However, particularly those who have an IT degree of basic computers manipulations of Microsoft Word, PowerPoint, and Excel do not exceed 23.5%. As pictured by Watson and Downes (2000) when they claimed that technology has already affected education in several countries but the question is about the nature of the impact. According to this result, it is not enough sufficient to launch online instruction either inside or outside university, and it is deduced that most teachers had relied on trial-error experience when manipulating digital tools. According to Vai M., and Sosulski K., (2011), the program for accomplishing an online course as Moodle, does not require teachers to be “techno-wizards” Still, being a computer savvy is a must such as knowing how to handle basic word processors programs, photo manager, emailing and how to save, upload, and download files properly.

The participants were asked about internet access inside the faculty to see whether they are accustomed to work online there. Considering that more than half of master one teachers had a higher rate of students class-attendance that reached 80% facing a lack of technology infrastructure and insufficient equipment revealed by 35.3 %. Consequently, only 15% of them were able to introduce technology into classroom; sometimes they brought their own laptops and connect them to data-show or projectors once or twice week. This finding is not promising but this cannot be generalized to all faculties.

Conversely, outside the classrooms 80% of the participants affirmed to access internet at their homes, using WIFI or GSM. Thus, between 41 % and 47 % of them *often* reached their students either through emails and SMNs to deliver lectures or give assignments. Furthermore, the great majority was required to proceed in the same manner by the institution, using the university Moodle e-learning platform but only 20% *regularly* did.

On the other hand, it seems that teachers had a preference for SMNs as 80% of the teachers relied on YouTube, 73.5% on Facebook for pedagogical work because these networks offered both image and sound for improving lesson contents, in addition to Google meet, Messenger, Viber and Zoom. When measuring the frequency of adopting SMNs for EFL learning outside classroom hours, 35.5% *regularly* encouraged students to connect into them to further practice, and 44.1% did it on a *usual* basis. The results confirmed the degree of ICT availability



and access, and they validated working initiatives outside the classes for pedagogical purposes so as to:

- Provide students with self-study tasks to improve their level and trigger their autonomy.
- Complement and support face-to-face delivered lessons.
- Permit the access to authentic language material on students' convenient time.
- Infuse blended learning methods including the flipped classroom.
- Easily access information and share it.

**6.3.1.1. Frequency access of online resources.** The countless prospects offered by the embedded media did not drive all master one teachers to arm students with appropriate online resources in view of the limited percentage of 23.5% who do that *regularly*. Though more than half of the teachers *usually* involved students by supplying authentic language resources, like educational websites as the British Council, electronics books, YouTube conferences, readings and links of British Broadcasting Corporation (BBC) or Cambridge courses.

**6.3.1.2 Evaluation of students online work.** Regarding conducting summative assessment and in order to evaluate students' online work, almost all teachers requested students to send it by email or to bring the hard copy (61.8%), or else do a classroom presentation (30%). They indicated they proceeded as such to avoid or at least minimize students' plagiarism, and to give credibility to their teaching. As far as formative assessment is concerned, 60% of the teachers flipped their classwork to evaluate students' comprehension, and actually, 44% adopt this technique every week or every two weeks. They provided students with digital texts (35%), videos (30%) with specific tasks to prepare at home, and the practice or discussion would be done in face-to-face mode.

**6.3.1.3 Online tutoring of students.** Sometimes teachers had to tutor students who lacked technology skills to make them on the go through SMNs or Moodle platform; in such cases, half of them responded positively and 35% had effectively coached master students for periods going up to a semester. Furthermore, 52.9% *partially* agreed to instruct students beyond classroom hours while 26.5% *totally* agreed on distant teaching. Another solution would to follow the prompts on the screen. Kennewell, S.; Tanner, H.; and Parkinson, J.; (2000) indicated that ICTs supported users by giving prompts and indications or reminders for better guidance and choice making.

**6.3.1.4 Technology competence and training.** To infuse ICTs in their teaching practice, teachers needed digital technology competence. Originally, 47% of them already had good mastery of technology instruments, including word processing, emailing and software installation. More than 70% are able to construct PowerPoint slides to diffuse pictures and video lessons presentations. Additionally more than 30 % took part in education forums or conferences through social networks like Facebook. Such technology skills would enable teacher for undertaking and online education, at least part-time as in during Covid-19 lockdown and for definite practicing concept for students learning insufficiencies.

On the whole, technology training that teachers had benefited from was not enough and inappropriate for their pedagogical needs; out of 41.2 % who had been trained only 5% qualified training as “good” ; Accordingly, implementing ICT or adopting SMNs for pedagogy outside the classroom would be purely adventurous based on personal initiatives rather than an official faculty training outcome. Wenglinsky, H. (2005) states that the low quality of the teaching force and the need for reforms in the institutions of education that train teachers and in the motivations provided to teachers while evolving in their profession. Hence, when participants were queried about insufficient training causes, they pointed out to the lack of an ICT trainer, or mentor, equipment and time.

**6.3.1.5 ICTs perceptions and e-learning.** Insufficient or inappropriate training would certainly affect participants’ attitudes towards SMNs adoption for improving teaching. For example, when asked to provide responses to some statements about ICTs in the teaching practice, 52,94% perceived them as useful and facilitating getting information, 73.52% believed that it was risky to completely trust technology, and 55.88 % thought that students were not sitting connected to internet for long hours to do educational work. At the same time, 52.94% revealed that e-learning platform did not fit the learning process. Conversely, 67, 64 % presumed that one should think about technology affordances nowadays and need not to freak out in front of every ICT inconvenience. The teachers’ opinions can be evaluated as valuable because they are measured by logic, and experience of use.

### **6.3.2 Interpreting teachers interview findings**

The primary concern of this study's interviewing tool is to determine participants' attitudes towards the incorporation of ICT and SMNs into furthering teaching beyond classroom. The findings of the results examination announce that 70% of the interviewees think positively about integrating technology hardware and software into their practice with master one students either inside the faculty or outside it. In this context, Wilson (2009) explains that the additional model keeps the traditional course structure, but complements it with ICT-based activities to improve face-to-face and/or outside class work. The replacement model significantly changes the original course profile, for example, by reducing face-to-face meetings and replacing them with online activities aimed at encouraging interactivity amongst students. Although, it seems so common nowadays to use social networks, and they are widely embraced, the researcher wanted to set ground ahead of asserting their eventual adoption and utility for academic ends. Eventually, 80 % advocated that the main purpose is to complement their classroom online in order to develop the learners' communication skills, post lessons, share documents or YouTube channels links and resources.

Additionally, participants can enhance their classroom practice by working extra time online, along with their students' time convenience. However, that is not common as only 30% of the interviewed did so with the intention to evaluate students' progress, send feedback; remind them about tasks, and post lessons. Similarly, only 16% contemplated SMNs as motivating and engaging when assisting shy students in synchronous online interactive discussions. Furthermore, just a minority preferred to explain complex concepts, use audio-visual tools for illustrations so as to save time.

When measuring formal and informal language exchange between teachers and students, the study revealed that no more than 20% of the interviewed teachers adopted, mostly, formal emails such as yahoo or Gmail, and a few of them Google Classroom or Zoom application. Informal learning through SMNs like Facebook and YouTube were more appealing to teachers for we registered 36% benefited from embed audio-visual features. Nevertheless, 76 % of the participants estimated that SMNs served in bridging the conventional classroom with online teaching that encourage collaboration, but 23% of them had some reserves on this estimation. They believed that SMNs could be effective only if students were motivated and conscious of their pedagogical

benefits. Equally with the questionnaire populations, half of the interviewed population implemented the “*Flipped Classroom*” method in order to save more time for the practice part and to incite the demotivated students. Unlike the questionnaire results, the interview ones showed a higher rate of flipping classes that reached 80% in the department of English during Covid-19 lockdown.

It is commonly known that the university institution organizes pre-service and in-service training. According to Díaz-Maggioli (2004), professional development movement stated that the entire systems of teacher training, despite their efficiency, carry a fundamental and noble aim of enhancing student learning. In this study, 50% the interviewed teachers affirmed receiving training, and 20% among them benefited from pre-service while 80% have benefited from in-service training. Pre-service training was limited to general theoretical background about teaching practices while in-service training covered an initiation to the manipulation of Moodle platform. Nonetheless, it was criticized as being too short and did not fulfill teachers’ needs. Most of them had to rely on themselves and they proceeded as in the apprenticeship method (learning by doing).

The insufficient training according to the interviewees was due to a number of obstacles reasons, such as the lack of equipment, internet and e-learning platform access or technical issues, low levels of their technology skills. According to them, master one students have been accustomed to mostly teacher-centered type of instruction, and were unable to foster the learning autonomy. Therefore, they showed lack of commitment and demotivation when complementing their formal learning outside classrooms and endured the previously mentioned obstacles. As a conclusion, formal learning outside the classrooms is a milestone to go before bridging conventional classroom with online learning.

### **6.3.3 Interpreting students questionnaire findings**

The results have shown that the use of SMNs through ICTs incorporation in EFL learning beyond the classroom, as a 21<sup>st</sup> century trend, was efficiently influencing attitudes in most of language learning aspects.

**6.3.3.1 SMNs Access for learning.** The questioned population of learners comprises master one students from the department of English. The sample included almost all specialties and the questionnaire was randomly delivered to master one students. The most significant age category is between [20-25 years] and represents 81% of the whole population. According to

Tongia (2005), ICT can surmount some of the main obstacles inborn with in conformist teaching. For instance, it can deliver featured instruction with suitable visuals and investigational demonstrations. The results access to ICT tools and social media network is very frequent, mainly to Facebook (91.3%), YouTube (84.1%) and Instagram (72.5%) and about 92.8% of the participants have been using these networks at least for four years. Additionally, they have been using either built-in smartphone applications or internet-enabled ones. They can share documents, videos and e-books beside retrieving lessons, editing pictures PowerPoint slides. It is significant for education purposes if we consider that 78.3 % of the students consult Facebook more than three times a day with a duration of between “30 minutes and 2 hours” by 40% of them.

However, this potential diminished to 11% of those who consult purely education websites such web-blogs and to less than 50% of those who *sometimes* do that. The websites cover EFL blogs, like BBC learning English, Britannica, video links for practice, and links of international schools and universities. It became clear that students were more inclined to internet entertainment since 87% of them named a wide range of films and news channels and documentaries (table 5.3).

**6.3.3.2 SMNs perceptions.** Likert scale (table 5.4) illustrated participants beliefs through responses. They responded positively (from 50% to 88%) on the benefits brought by using smartphones or laptops for information sharing, collaborating between peers and practice outside the classroom. Moreover, most students have at least between 50 to 100 Facebook contacts, they interact with 97.1% and have classmates as e-contacts. If we consider “interaction” for restricted academic aims, and educational groups membership, 55% of students have an average of ten groups. These groups included several of (as table 4.7 shows) names like *Doctor of Philosophy (Ph.D.) preparation, Methodology, Pronunciation, English language learning and practicing groups*. Therefore, it can be concluded that there is favorable learning environment in a virtual classroom context in SMNs.

**6.3.3.3 Facebook engagement and interaction.** Regarding Facebook, engagement and interaction in EFL learning are measured through the use a table containing interaction activities that include engagement features of language learning. Engagement is measured on week- days scale ranging from “7/7 every day” to “once a month”. Most responses concerning entertainment frequently were scored in “7/7 days/week” and “4-5 days/week” marked the highest rates; between 24% and 55% of students were engaged in chatting, expressing likes/dislikes, posting or sending

messages. Conversely, less than 28% of students shared documents and audio-visual material, collaborated with peers, received feedback and support from teachers and peers, so the “days” scores revealed less engagement and interaction. In addition, smartphones engaged with various applications functioning as: dictionaries, pronunciation, and vocabulary, with specific features that appealed to the majority of students except those of reading, writing and editing that interested between 28% and 36.5%. With regard to the frequency of using application for formal leaning, not many participants use them *daily* but nearly 45 % use them “*twice or thrice a week*”.

Difficult concepts are easier when students collaborate and assist each other. Despite the easiness of clicking on the sharing icon embedded within all SMNs, results affirmed that collaboration is not a “*daily practice*”. It was left for the week-ends or done every two weeks by no more than 20% of master one students. To conclude, students did not always count on each other’s collaboration outside the classroom.

### **6.3.4 Interpreting experiment findings**

Two groups of Master one EFL students participated in the teaching experiment with the objective of testing a hypothesis of to what extent could SMNs influence Master one FEL argument writing proficiency, namely within argumentative essay introductory paragraph because it contains elements of arguments.

The two Master one groups of experiments were randomly chosen composed each of 20 participants. They were both administered a pretest in order to evaluate their level and see whether there are major differences in argumentative essay writing. Examination of scores led the researcher to distinguish similarity in the *means* of experimental and control groups with slight difference in *mode* score in favor of the control group. Dispersion values were very close, except for light increase in “high frequency” option with (0.25) for the control group, but it has six grades in the low grade (3.50) while the experimental has only one; though, they almost have equal capacities.

Further, sub-scores of the means of each component of the *Introductory Paragraph* indicate quite different values. Despite that, similar scores are clear in the *means* of both groups in the aspects of Introductory Paragraph writing. The values obtained in the “Attention Grabber”, in the “*General Statement*” are almost identical, and so is the “*Thesis Statement*”, except for a minor increase of (0.27) in the *Claim/Counterclaim* component for the control group. Yet, this is does not

represent a significant difference. This similarity in findings sets promising ground for the researcher to engage in the following step, knowing that the two groups have equivalent writing skills.

On the other hand, the low values recorded in the *Topic Issue* and the *Claim/counter claim* aspects in both groups indicate that students did not know how to format these two components of an Introductory Paragraph, in an argumentative essay. Accordingly, treatment has been applied to experimental group using Google Meet, and Google classroom and to the control group through face-to-face teaching. After doing the post-test, the overall performance score goes to experimental group (4.93) over (5.3) of the mean of control group, which testify of online treatment efficiency for experimental group with a significance of (1.57).

While comparing individual aspects between the two groups, in each aspect's *mean*, we noticed a slight progress of experimental group: in the "Attention Grabber", the same progress (0.40) is in the *Claim/counterclaim* and *Thesis Statement*. Conversely, there is a quite significant progress in the aspects *means* of "General Statement" and "Topic Issue" with (0.95) and (1.15) for the control group. These positive results in control group can be justified either by students' previous knowledge about essay topic of the post-test, or the efficient quality of treatment received in face-to-face mode.

Furthermore, when comparing results within each group, the researcher noticed significant an overall *change (progress)* of (1.77) between pre-test and post test scores, but the score is less significant (0.53) *change* in the control group. Besides, there is clear *progress* in all individual aspects of the experimental group: *Attention Grabber*, (0.80) *General Statement* (0.23) *Topic Issue* (0.11) *Claim/counterclaim* (1.19), except a *regression* with (0.52) in the *Thesis Statement*. Similarly, there is *progress* in all control group aspects except in the *Thesis Statement*; there is *regression* with (0.90). In this context, Robitaille and Connelly (2007) displayed that creating a good thesis statement urges students to narrow the scope of the writing topic, composing a tentative main idea, and brainstorming supporting ideas for the main idea. After this is done, students should review the tentative main idea and turn into a thesis statement..

The hypothesis that university teachers use SMNs for online teaching can lead to some improvement in argumentative writing performance among Master one students of Ibn Badis University is confirmed. The validation of results is done through t-test, and the significance of

scores was tested according to 0.05 level of significance for the pre-test and post-test while t-test scores achieved greater than the critical value.

## **6.4 Some Pedagogical Implications and Recommendations**

The data analysis findings require examination to extract the most likely interpretation of the results. This being done, they would allow the researcher to determine the appropriate type of recommendations or suggestions that can be of benefit to the EFL teachers, students and educators in higher education institutions.

### **6.4.1 Recommendations for teachers**

The overall profile of the teachers is characterized by the supremacy in number of the middle aged category [36-46] and this is the most active category among participants. Accordingly, we presume that the findings were more reliable, and that this age category would take the lead of change since they have more ICT experience, as well.

Moreover, almost all teachers possess multiple SMNs accounts; however, findings showed that their mastery of digital tools did not directly serve EFL profession as a priority. On this account, teachers are appealed to contemplate the educational aspects that social networks can cover rather than being limited to socializing.

A good illustration of that was the findings that conveyed that 70 % of whom think positively various types of ICTs hardware instruments affordances: overhead projectors, PC's, smartphones, laptops, and software like Microsoft PowerPoint, word, videos, blogs, websites, applications, besides Facebook and Messenger; still, only half of them introduced them to support face-to-face or online teaching. Conformingly, teachers' attention should be drawn to the wide difference that exists between being positive about SMNs for daily entertainment and the actual infusion into lessons preparation, diffusion and interaction to engage master students.

**6.4.1.1 Implication for technology resources inside the faculty.** Due to technology equipment shortage; therefore, teachers attempted to programme themselves for once or twice a month. On account of this, the faculty and policy makers ought to sponsor the needed technology equipment in order to facilitate the full incorporation of ICTs into higher education institution for all teachers on due time. The same remark applies to the lack of internet access which constituted another major obstacle since (91, 2%) of the participants complained revealed this



problem. Henceforward, They have to afford modern technology instruments to support lesson delivery and practice.

As the study in hand deals with the integration of ICTs and SMNs outside the classroom for complementary education. This should be understood that the availability of these resources firstly in the education institution, namely the faculty. Consequently, it would prompt students to initiate technology outside the faculty walls for formal learning, contrary to the entertainment use they have been accustomed to. Henceforth, higher education policy makers are requested to afford more internet access to the faculty and more resources, even if there is it is generally not sufficient due to the large number of students and teachers.

On the other hand, although they differ in the frequency of using technology, 64.7 % of teachers manage to bring their own laptops and mobile phone to support lesson delivery and practice. Subsequently, they need a lab technician appointed in case the computers break down, or there are software problems. PCs repair and maintenance are pivotal to digital equipment in good condition.

**6.4.1.2 Implications for SMNs access outside the classroom.** EFL teachers connect with master students by email exchange and through SMNs for formal teaching like delivering lectures online as a complementary practice. The rate was lower than 50 % despite the necessity of educational exchange, especially during Covi-19 pandemics. This implicates drawing teachers' attention to be the first make an ICT initiative and be the leaders in its integration outside the classroom. Thus, they ought to bond with their students more often in order to promote online practice from their perspectives.

The two most important key agents of change teachers and master one students who need to access SMNs, e-learning platforms, e-library at university, and online resources for educational work. Actually, the findings indicated that majority accessed internet but not all of were equipped to ensure online teaching. To attain a beneficial online learning environment, teachers need to be ascertain that Master students possess the required type of connection before engaging on the basis of mere assumptions.

## 6.4.2 Implications for SMNs effects on students

The highest effect on students online learning was attributed to YouTube and Facebook. They highly attract students because they possess audio-visual frames that allow community interaction, and favors engagement in language learning. Despite this fact, it was found out only 35.3% *regularly* encourage their master students to engage in SMNs, and 44% *usually* do this.

In the light of these findings, teachers are counselled to match their positive beliefs and ICT-based education ambition with their students to take advantages of the best utilities of SMNs for formal learning. Eventually, teachers have supplied numerous recommendations about the objectives of adopting SMNs to the global population of EFL teachers, such as widening knowledge about the presented lecture, uploading videos to facilitate comprehension for students, complementing in-class lectures, improving students' understanding, allowing students to access authentic material on the time that was convenient to them, inciting autonomous learning to increase students' academic level, and providing material that appeals to their interests.

**6.4.2.1 Implications for SMNs the e-learning platform.** The Moodle-learning platform of Ibn Badis university is already attracting 94.1% EFL teachers who affirmed accessing it, but it is noticed that its influence is reduced to a lower frequency of 55.9% of those who *often* use it for posting lessons, and to 20.6 % of those who are working in it regularly. Therefore, teachers are suggested to overcome difficulties of access, and the technical issues encountered by referring to the platform engineer of the faculty. Besides, they should inquire about how to exploit the platform to its full potential, especially for conferencing use and the integrated audio-visual options. Additionally, they could collaborate with their colleagues who use it on a daily basis to benefit from their expertise since as this would be the future of EFL learning and even nowadays, there are modules taught completely online especially to the students of the "Language Communication" master specialty.

Another major online learning influence could be measured by the frequency of logging into the e-library website of the faculty of foreign languages in: <http://e-biblio.univ-mosta.dz/handle/123456789/1708>, which unexpectedly, only 35% know of its existence. This website contains hundreds of dissertations and PhD theses. Besides, they are advised to consult the web link of Système National de Documentation en Ligne (SNDL), translated as the "*The National*

*Online System of Documentation*”, which is official and a national rich link that needs to be regularly consulted.

**6.4.2.2 Flipping the classroom.** Basically, flipped learning is to a certain extent new pedagogical method that economizes class time by altering the traditional activities of both teachers and students inside and outside the classroom. In the inversed (flipped) mode , students become more active participants in carrying out activities (Ekmekçi, 2017). In this context, the results showed that 58.8% of the participants flip their class work. However only 20.6% practice it *every week* while 8.8% *every two weeks*. The number of those who effectively do it is rather low although this teaching procedure, as an asynchronous method, does not require as much alertness as online teaching which is synchronous.

Flipped classroom influence that is showed in the frequency of adopting this blended teaching strategy through which students were requested to prepare lessons content outside their classroom to facilitate comprehension for the upcoming session when they would the practice part. Since the flipping classes attracted more participants(58.8%) in the weekly frequency (either in one or two weeks’ time) altogether with the one of one month reached 42 %. Actually, they mostly reading digital texts and videos which is more acceptable as it is just a single strategy. However, EFL teachers are advised to initiate this strategy to the students more often to enhance their learning practice.

### **6.4.3 Tutoring and supporting students outside classrooms**

The results revealed that no more than 41.1% of the teachers coached their students for doing online tasks related to academic learning through either Facebook, Moodle e-learning platform. But a lower number of teachers(35%) supported students for a semester and other periods are insignificant.

On the far side, in distant teaching/learning situation, whether through SMNs or e-learning platforms, the logic of the circumstances, imposes on teachers to tutor their students while communicating synchronously; they were urged to assist students when posting lessons and giving feedback during the Covid-19 lockdown. Therefore, they are recommended to do so because on the long run, this would facilitate the job since it is a self-practicing procedure for both of them to enhance online performance, and to acquire new digital skills and experiences.

Another type of support is providing various online and authentic resources which in this study did not go beyond 25%; in this context, teachers named important resources as the *British Council online resources, learningenglish.org website and YouTube tutorials, eBooks and web links*, but they do this less frequently: *partially* (52%) and *totally* (17.6). Henceforth, more teachers have to be involved in share resources and more often to satisfying their students' quests and needs. On the basis of these results , teachers are implored to devote more time in assisting their master students in complicated tasks that required more intervention; or else provide online clear guidelines with samples of “ how to proceed”.

#### **6.4.4 Implications for competence of designing online EFL teaching**

Research findings testified that 47% of Less than half of the teachers qualify their technology competence as good and 50% qualify it as an average one. Further along, only 23.5% had an IT degree which is limited to basic operations of *Microsoft Word, PowerPoint, and Excel manipulations*. The situation is as such, they are urged to seek more ICT hardware and software training because they cannot rely only on faculty services which are not fully available. That is why, in order to promote the use of SMNs in teaching and learning practices beyond classroom, teachers are appealed to gain more competences that are connected to pedagogical purposes rather than general use. Besides, they must have good control of technology devices including software to prepare pedagogical activities.

When measuring teachers confidence in performing educational tasks related to online learning applications, all the scored values measuring performances were above the average, and centered in the option of “A lot”, except in participating in educational discussions in forums, blogs and social networks, like Facebook or Twitter. They scored 35.29%, and, also an average score, 52.94% in downloading and installing software in a computer or on Android system. Accordingly, teachers are required to complement these lacks and compensate their inabilities as far as the manipulation of these pedagogical tasks to enable their online teaching effectiveness. To this regard, ICT leaders among teachers who would establish a strategy for ICT tools exploitation, announce equipment insufficiency and damage would be crucial.

Accordingly, they could coordinate to purchase the needed technology equipment and to hire a lab technician. On the other hand, they need to meet students' delegates in order to precise

the necessity of having at least a minimum of technology tools like PC's, tablets or smart phones to ensure an online connection that enable them to complement their lectures online either through SMNs or the university Moodle platform.

**6.4.4.1 Implications for teachers' training and e-competence.** The majority of teachers have benefited from in-service teaching and supervised by mentors within interrupted periods of time going from a seminar-day to an academic year, and it took place at the university institution. The objective of training was to enable teachers to manipulate and infuse digital technology into pedagogy through Moodle e-learning platforms, or other ICTs devices. Most of the interviewed have praised training initiative but complained from its pedagogical insufficiency and the lack of equipment.

Since training did not fulfill the teachers' needs in inside and outside the classroom, teachers are recommended to investigate other ways to fill the technology gaps they encounter during their exercise with an emphasis on digital skills (comprised web technology and software installation) continuous training as they are a must in the twenty-second century. One option to suggest is to subscribe to the Massive Open Online Course (MOOC) which is a modern model for delivering learning content online. Especially if we know that 50 % of the participants confirmed that they did not benefit from any type of training about technology use or SMNs for academic aims.

The in-service training targeting Moodle e-learning platform was not significant and benefited 41, 2% of the interviewees, but 30 % described it as insufficient and inadequate to their applied pedagogy. The participants complained of the lack of time, equipment and an ICT professional trainer or leader. To remediate these inconsistencies, Ibn Badis university is required to provide more effective training programme. As such, Liu (2011) as cited in Kai Wah Chu et al. (2017) urged higher education institutions to offer courses that emphasized multiple aspects of twenty-first century skills which lasted enough to allow teachers absorb well the content organized in courses in-service professional development.

Otherwise, to overcome training difficulties, teachers are solicited to search for other in presence mode or online to compensate the inadequacies. They are thoroughly recommended to report Moodle platform access deficiencies and software malfunctioning to the faculty engineer, their ICT leader or a trainer if available. They could demand from the employing institution another

in-service training that targets good manipulation of technology and digital tools to improve pedagogy.

**6.4.4.2 Implications for online assessment.** As far as assessment, the study found the teachers still evaluated their students' work in the traditional method, or at least most of it. Hence, when they taught students online 79.4% of them adopted emailing for correspondence of documents and requested hard copies to evaluate the homework.. On this account, teachers enlightened to rethink about ways and strategies to assess online work. It should be mentioned that 30% have considered the adopting online presentation as an option, or through online tasks by using the SMNs. Thus, they are advised to seek other mechanisms of evaluating the online work of their students. One of the commonly used methods, in such cases, by ELT teachers is keeping an e-portfolio as stated by Motteram (2013), an e-portfolio may be in a form of word processed document, mind maps, CDs or a wide range of digital assets like audio and video recordings. An e-portfolio records what students could achieve during a definite period of time online. A collection of e-mails, adverts, photos, written discussions and assignments may be applicable for evaluating their progress in writing.

One of the solutions to evaluate students work online tried by the 26% of interviewees is to provide some online tasks by asking questions that demonstrate students' comprehension in an individual work. (Kai Wah Chu, et al., 2017) suggested to teachers to keep a journal of students' progress, asked for more writing assignment that corresponds to the learning objectives; not to acknowledge that, sometimes due to the lack of practice, teachers themselves may not be familiar with systems available to deal with plagiarism. It is understandable that 36% do not initiate online assessment because they fear a lack of credibility.

To that end, proceeding in evaluating students online presents high risks of plagiarism; on account of this, teachers are highly advised to read the mechanism of online assessment and avoid by all means asking direct questions. In response to these limitations, teachers are highly urged to take all possible precautions when preparing online tests, and impose strict measures against plagiarism, and check students' works credibility very firmly. They are solicited to purchase a premium version of a guaranteed software of plagiarism detection for a sound evaluation.

**6.4.4.3 Implications for reconsidering attitudes.** The attitudes and beliefs about ICT tools and SMNs implementation in teaching/ learning process outside the classroom context were controversial. According the Likert scale agree-disagree tabulation scores, most teachers (85, 30 % ) were open to technology use and perceive it as useful and facilitating getting information while 73.52 % refrained from this view and considered it hazardous to trust technology. In this setting, it might be better if they renew their confidence in favour of technology for the sake of its advantages, and change their attitudes to positive expectations.

In reaction to 55.88% of the teachers who believed that master students are stuck online for long hours for entertainment not for education purposes. Eventually, it should be stressed here as reported by Kai Wah Chu et al. (2017) that the role of teachers as facilitators rather than instructors, it must understood that facilitation while connecting with students does not mean implementation of a laissez-faire hands-off approach. Therefore, one cannot presume that all students neglect their educative work and surf endlessly online. Furthermore, more than half of the participants claimed that Moodle university e-learning platform did not fit the learning process, and justified that by their lack of training. In reaction to this view, logic says that the evaluation stage of any tool would be reached after being tested and used for a definite period to recognize its positive and negative aspects.

Hereafter, attitudes towards online platform adoption should be reviewed and altered; because, ICT affordances nowadays are pivotal to learning and teachers need not to panic when facing obstacles. Innovation requires training, financial costs, time and a will to get out of the comfort zone.

### **6.4.5 Some insightful recommendations for Master students**

Implications and recommendations for master one students at the faculty of foreign languages in Ibn Badis University would consist in suggestions that deals with their perceptions about ICT and SMNs incorporation in learning practice, the mechanism and frequency of information sharing, and online collaboration among them.

**6.4.5.1 Implications for students perception of SMNs.** All students have Facebook accounts, and 91.3% access it among other social media networks for pedagogical purposes; and another 84.1 % use YouTube channels. Instagram is next with 72.5%. Kappas, A.

and Kraimer, N. C. (2011) pointed out that current communication and interaction increasingly happen online and are mediated through SMNs. This is happening within administrative settings and working teams based on theories of computer mediated communication (CMC) that have advocated approaches that included cues and feature of everyday face-to-face interaction, supported by recent developments in Web 2.0 technologies such as text-based interactions. In this regards, participants increasingly wish to use new technologies that incorporate aspects of everyday face-to-face communication. Conveniently, in terms of attitudes, the participants had positive and the “e-generation” does not miss an opportunity to use digital tools. Most of them (92.8%) adopted SMNs for learning and have been using Facebook for four years and more. Therefore, they recorded a high rate of Android applications installations, mainly on their smartphones or tablet to perform. Owing to that, students were able to edit pictures and videos, retrieve online lessons, elaborate PowerPoint slides, follow YouTube channels, download e-books, and do Google search.

Nonetheless, students’ use rate was not so frequent in comparison with their positive perceptions, notably when accessing educational blogs, for only 11.6 % did and provided one EFL blog link among other: <http://blog-efl.blogspot.com/>. Meanwhile, less than half of them “*sometimes*” visited web-blogs which are far more educative and less entertaining than other SMNs that were “*regularly*” visited, like Facebook and YouTube.

**6.4.5.2 Implications for collaboration and information sharing.** As far as perceptions of students regarding the role of SMNs in performing educational tasks, it was found that in the four measuring statements: Facebook reinforces lessons’ understanding, ICT tools as the PC/mobile/tablets use enhance spelling abilities, grammar mistakes and enrich my vocabulary, Facebook (messenger) helps to communicate instantly with classmates to update knowledge, and YouTube improves pronunciation, the overall score was high and students’ responses were positive.

Another positive learning factor is tightly linked to collaboration and information sharing that were noted as being under the required norms. In order to succeed in sharing, students ought to have several e-contacts with influential educational exchange whereas results uncovered that only 26% of them have between 100-150 e-contacts, and 37.7 % have between 50-100. This does not reflect their high perception about SMNs. According to Higgins, Xiao and Katsipataki (2012), Teachers should support collaboration and effective integration for learning. The use of computer



and digital technologies is usually more productive when it supports collaboration and interaction, particularly collaborative use by learners or when teachers use it to support discussion, interaction and feedback. On the other hand, students are supposed to share and collaborate with each other at a large scale; instead, the highest interaction level is 52.17% that involves less than ten contacts; yet they need to collaborate because the rate of exchanging learning documents, pictures, audio-visual material within Facebook groups, is lower than 50% in both “*always*” and “*sometimes*” frequencies. Thus, unavoidably, students are commended to accelerate the frequency of interaction and intensify online collaboration and student-student cooperation and sharing. After all, knowledge is meant to be shared.

**6.4.5.3 Implications for engagement.** When scoring teachers engagement activities on Facebook, from the students perspective, the results released that interactions associated with daily chatting, like/dislike clicking, commenting on posts, and messaging by messenger have been rated high in *daily* performance, or *4 to 5 days a week*; by contrast, tasks like share class material with many e-mate, receive support from teachers, Facebook e-mates, learning from social networks how to support others, and getting feedback from teachers have scored lower rates of “*2 days a week*”, and “*once a month*”. This proves that interaction and engagement are attempted more for leisure activities than for academic performances.

Supportively with this finding, students are addressed to advantage pedagogical tasks that are congruent with their master perspectives, or at least balance between the two functions of SMNs: learning and leisure use. This requires to raise the educational exchange rate, to organize time and get teacher’s or tutor’s support. Therefore, they are recommended to engage more in tasks associated with their learning purposes.

**6.4.5.4 Implications for smartphone applications sharing.** Smartphones are widely used among master students, and a big number of them listed a variety of Android applications such as installed dictionaries, applications to improve pronunciation, grammar, vocabulary, chatting, lesson practice, translation and e-books. Yet, the applications use was of limited frequency: the students’ *daily* use of applications for learning did not exceed 15.9 % while 44% of them did it few times a week. Also, the fact that only 20% shared learning applications with their classmates was not a favouring factor to spread EFL learning in an online community regardless of half of them who shared *if they were asked to*.

In relation with these findings, smartphone applications are not shared at a large scale, as such, many master students will not benefit. In response to that, students are highly advised to put more effort in sharing applications with their classmates and e-contacts and recommended to increase Android applications use frequency to make more learning profit.

Another major helping factor is collaboration within SMNs. The results of the questionnaire showed a rate between 10% and 26% of students who collaborate with their peers online in periods going from one to two weeks. This rate is much lower than expected; therefore, Master students are reminded that collaboration is crucial for the learning process and it helps students retain information longer than when learned with other techniques.

### **6.5 Suggesting an ICT Training Guide for Teachers**

ICTs have become an integral part of our lives, and mainly in professional life. This guide is for teachers who need to be successful in the 21st century classroom. The training guide would cover basics of ICT applications, their installations and how to install them to facilitate pedagogical work. This is an ICT skills upgrading guide destined to serve teachers who are already exercising and have lack or insufficient technology competence.

The training concept provides insights to teachers' leaders or ICT training professionals who attempt to extend teachers' skills with more digital software or android applications that permit them to keep-up with the latest technology of e-learning Moodle platforms and SMNs to further promote their teaching beyond classroom walls.

It was noticed that most teachers tend to keep up with their conventional classroom methods in face-to-face teaching while they teach e-generation students who are more digital IT users. Consequently, students feel demotivated being taught with former methods. However, with technology teachers could remove physical barriers, allow their students to find huge amount of information easily and access to variety of authentic material. They can increase the engagement and interaction with every single student, despite the challenges. Additionally, applications in SMNs afford addressing a diversity of students' learning styles and experiences, and the possibility to give real-time feedback beyond the classroom. These advantages among plenty others would bridge the gap between formal and informal approaches to education, and provide better sense in incorporating ICTs for learning benefits.

### **6.5.1 About the nature of training**

The training guide in hand provides useful information to higher education teachers on how they can programme digital technology training for their colleagues and even to students and how to enable effective distant EFL teaching and learning on that basis. Furthermore, the guiding work is purposefully meant for teachers' trainers, students' tutors and teachers' leaders who might want to take the lead to innovate EFL teaching and learning process. This training is considered as a level adjustment in-service training course. To this effect, we shall provide answers to some mindful questions.

1. Why getting digital technology training?
2. How is in-service training organized?
3. What methodology is used?
4. How to make most of the training guide?

This guide offers a description of digital training guiding steps not the technology devices instructions and use for this would be the lesson training contents of the tutor. The following sections endeavors to clarify rather the concept of the higher education training, technology utility in promoting pedagogy.

**6.5.1.1 Digital technology training.** Getting digital technology training that would also include smart-phone android applications, windows basic manipulations and software with relation to improve English language teaching and learning at the level of Algerian university. This stage marks the period where the students are turning into more productive language learners, especially those in Master one level who are expected to format final studies dissertation. Furthermore, it is a stage in which EFL knowledge and skills are reinforced and combined, following the previous six semesters learnings. On the principle of Competency Based Instruction adopted by the ministry of higher education in the official curriculum, likewise, this ICTs training course is entitled to ensure this Competency Approach that evolves within its different stages, embodied within group work tasks and individual activities. These competencies includes developing digital technology tool Save Our Ship/Soul (SOS) literacy that targets:

- Online oral interaction
- Manipulation of oral and written messages through software
- Acquiring know-how skills to start using SMNs or Moodle platform.

**6.5.1.2 Training organization.** Digital technology incorporation training would be delivered in steps; in each step, there is training design through which teachers would develop a manipulation competency. The training project will include a variety of tasks and online practice activities that will gradually boost teachers' technology skills for distanced pedagogy.

The training is meant for higher education teachers, tutors or ICT leaders who seek to improve the technology competency; they are provided with this guide so that the tutor or teachers' ICT leader takes the initiative to pursue the upgrading of their technology competence to suit the digital requirements and conditions of teaching /learning Moodle or SMNs.

### **6.5.2 ICTs' training needs analysis**

In order to plan teachers' technology training or upgrading, we need firstly to check their technology-based performance, which is the duty of the employers such as the university directors, deans and policy makers besides teachers' personal initiatives.

**6.5.2.1 Checking ICTs abilities.** One of the feasible ways to check the trainees' levels of their technology skills is meeting trainees in an organized group interview. First of all, the tutor needs to consult the trainees in order to assess ICTs competences through regular meetings by encouraging participants to discuss problems and facilities faced, and also frustrations. S/he could act as a guide who carefully listens attentively to his/her colleagues or the audience in a natural way sharing their own anguishes, troublesome situations while handling technology to complement their category from a distance through any of the social networks (SMNs) carried out through ICTs numerous devices.

**6.5.2.2 Elaborating a work plan.** The trainers wrap up their meeting sessions with collected information needing consideration. A deeper analysis of all of the gathered data would enable the mentor to meet again with the trainees to either provide solutions, facilities, software, web links and other guidelines in order to measure and understand the participants performance difficulties . The following checklist is suggested to guide the gradual or continuous improvements of the trainees performance whether inside/outside the institutions.

The second important step is to create a working plan that include the following measures as guiding points.

- ✓ Situate the dimension of the problems of difficulties.
- ✓ Determine the teachers' performances and the related activities.
- ✓ Identify the possible causes of problems.
- ✓ Figure out solutions

The next table highlights questions and items to guide the tutor, the training coach, or the leader in the collection of teachers' needs.

**Table 6.1**

*Collecting Teachers Needs*

Coaching Steps	Teachers' Responses and Suggestions
The tutor ought to prepare a meeting schedule.	.....
S/he posts the training invitation and elaborates conducting questions.	.....
S/he organizes a group interview for interested teachers.	.....
S/he inquiries about technology handling issues.	.....
S/he decides upon the required ICT-based tasks by consulting teachers' opinions.	..... .....
S/he sets a work plan to decide upon the pair works, group work and teamwork that would perform the tasks.	..... .....
S/he decides when /where the training would take place in the faculty and online.	..... .....
What impact would be expected from ICT upgrading skill training?	..... .....
What problems are encountered to infuse digital technology into pedagogy?	..... .....
What particular needs would this training fulfill?	.....

Once the tutor has collected and analyzed the necessary data from the table above instructions, s/he is required to plan the most appropriate ICT training, diversify and update the training devices as well as simulating software manipulation. The trainer reminds the trainees to coach their students online especially during the training period.

In order to make a diagnosis of EFL teachers' technology training needs, s/he could adopt the following table to gauge the trainees' needs and evaluate the training conditions using the

guiding statements “what if” provided in the table below or any similar obstacles s/he might encounter.

**Table 6.2**

*Identifying Technology Norms*

What if?	Precautions Measures
- Unidentified Technology standards /norms	-The ICT tutor ought to publish the technology norms right from the start. -The tutor makes technology expectations and also the training objectives known to the trainees.
-Lack of online feedback from the trainees	-Teachers have to show commitment and provide feedback to the technology trainer/tutor/leader. - The trainer uses trainees’ feedback as an evaluation tool.
-Teaching content is not appealing and cannot be covered inside classes	-Update information related to ICTs tools and SMNs. -Reorganize your training plan or distant working outside the faculty hours, and online.
- No clear positive outcomes -Teachers’ needs not satisfied	-Evaluate possible negative results of the training. -Provide ICT support and encouragements.
-Trainees turn off attention, knowing the tutor would repeat the same training of technology basics.	-Do not repeat the same Word processing/excel PowerPoint technology initiation courses; instead check priori knowledge by analyzing the data collected about their training needs. - Request from them to explain/ illustrate their interest and motivations.

The objective of setting solid ground for ICT training within a particular case study, that has distinct conditions regarding physical and human resources is to facilitate the process of training in order to satisfy trainees’ digital technology needs and as such ensure a tailored and effective training.

### **6.5.3 Needs analysis data collection**

The tutor/trainer has to prepare an analysis checklist in order to depict the causes behind the lack or any insufficient training found among teachers. Thereupon, s/he sets up a platform of training based on preliminary statistics. This input for need analysis of teachers’ technology skills prior to training through the administration of a series of questions put inside tabulation for clarity purposes such as the following one. There is leading ability question that the tutor (trainer) would be able to answer when he finished analyzing the data collected from the trainees. This is common

procedure that any technology trainer needs to tackle before embarking on the training process. S/he can start ask him/herself: “do my trainees possess the prerequisites and the required profile of technology training? On this account, the following table presents assisting questions and guidelines to collect the needed trainees’ prior technology skills.

**Table 6.3**

*Input Data Collection*

State of the art data collection		
Questions	Trainee’s responses	Input analysis
<b>Training performance and skills</b>		
1. Have you ever performed a professional task-based technology use from a distance?	1.....	.....
2. Did the task have sufficient frequency to guarantee information retention?	2. ....	.....
3. Was training provided to implement such an ICT training task?	3. ....	.....
4. Was training accompanied with furthering practice to enhance retaining/ achievement?	4. ....	.....
5. Were you able to handle ICTs devices and software as soon as the training ended?	5. ....	.....
6. Could you improve technology implementation through continuous use and experience?	6. ....	.....
<b>Training Standards Procedures</b>		
1. All the norms of training must be posted in clear written form, was this figuring in your training?	1. ....	.....
2. Were there established ways or methods to evaluate your training with?	2. ....	.....
3. Were you able to measure the training outcomes objectively?	3. ....	.....
4. Did you ask for assistance from qualified training designers?	4. ....	.....

As the trainer starts to examine the input of the teachers’ responses collected from the table, s/he imperatively has to consider whether he had received ample feedback and if it is precise information that sends back (correlate with) to the previous training potential they declared they benefited from.

### 6.5.4 The designing of an e-content

Once the theoretical ground is established i.e. models which include ICT and digital technology are encompassed, an online training content is elaborated, the tutors must, firstly, initiate the training design for teachers and to organize its development throughout the training period. The training model, and the techniques advocated have general aspects but carries particular importance as it impacts precise knowledge concerning the diverse applications involved in online learning. This would surely originate from the e-Didactics that deals technology-based context of instruction.

This project demands special focus on the central content, up-to-date topics and how it would be communicated to the trainees. In addition, these technical aspects to consider especially the availability of equipment, whether it is operational, the multitude of technology resources needed to achieve a rich training content, its organisation and delivery.

The elaboration phases of training content for an online training are, commonly, ordered as follow:

- (1) The designing structure the course;
- (2) Preparation of the written content, software and digital content, quizzes and consolidation practice consisting of documents, hyperlinks, multimedia files and Web Site);
- (3) The equipment availability and e-content presentation.

**Stage 1** includes the following activities:

- Scheduling of the training duration.
- Planning of the lectures in rubrics and sequences.
- Determining of the interactive program, application and software to adopt.
- Blending technology instruments with the training content.
- Deciding upon the testing forms.

**Stage 2** includes the following activities:

- Prepare the written information, Definition of the documental fonts
- Elaboration of the contents to be taught , determination of lesson plan, Style and fonts to be adopted.
- Fixing the duration and planning the expected online production.
- Planning the tests all the type of evaluation of the training.
- Designing rights and the online resources needed.



**Stage 3:** it includes the following activities:

- Deepen the needed lessons and activities and practice.
- Designing the technical format.
- The model of technology training pursued for in-service teachers would presumably contain a mixture of self-initiated studying and Collaborative Learning in order to ensure more flexible training options that lead towards autonomous self-training. Additionally, trainees are encouraged organized their own learning activities according to their needs, this way Active Learning is promoted through peer teaching, collaboration and information exchange with experts in the digital technology field. The course ICT training will depend on the progression of digital competencies acquisition. The structure of each lecture would generally include the following steps:

**1. Introduction:** in which the purpose and general objectives content are introduced by the tutor.

**2. Presentation:** an interactive audio visual content is presented along with web links, e-documents, and online resources.

**3. Practice:** providing users, and this case trainees with guidelines of standards to evaluate their own learning progress in addition to supplying instant feedback.

**6.5.4.1 Lectures delivery procedure.** In order to communicate lessons, the tutor may adopt two ways:

- *Online training* which relies on autonomous learning, self-assessment (quizzes and activities) instruments sharing, forums, chatting and supporting one another. It is also based on the use of a news board and ICT training equipment possession.
- *Blended method of training* that includes both face to face (presence mode) training activities added to online training through the use of digital instruments to access Moodle or social networks platforms.

### **6.5.5 Teaching techniques and procedures**

A technique is typically a procedure or the way of realizing the method's content according to the founded theory in the approach (Harmer,2001). Techniques might be the shaping the teaching content and its realization in the classroom or online. Many teaching techniques are possible such as lecturing, autonomous learning, stimulating a situation , storytelling, reading Daily newspaper

and reviews, surfing the net, cooperative learning, problem solving situations and in-service training.

Such techniques enable the tutor to attain learning objectives ranked from the lowest to the highest cognitive level as illustrated in Bloom's (1956) taxonomy and revised in 2001 by Anderson and Krathwohl as cited in Wilson L., O. (2016). Particular strategies whether face-to-face or in distant training develop trainees competencies through both written and verbal communication. Besides, practicing following the revised taxonomy by Anderson and Krathwohl(2001) as grading the from remembering, understanding, applying, analyzing, evaluating and creating.

In order to simulate a didactic methodology based on technology infusion, we must include the cognitive dimension of learning as beginning from factual knowledge and ending with metacognitive knowledge as indicated by Wilson (2016):

**a-Factual Knowledge:** basic to specific disciplines and refers to essential facts, details or elements students must know or be familiar with in order to understand a discipline.

**b-Conceptual Knowledge:** is the classifications, principles, theories, models, or structures referring to a specific topic or discipline.

**c-Procedural Knowledge:** knowledge that helps to act on something in a discipline, subject, or area of study. It can be finite abilities, procedures, techniques, and methodologies.

**d-Metacognitive Knowledge:** it is about the awareness of one's own cognition or reasoning. It is tactical or insightful knowledge of how to solve problems, do mental tasks, and learning to learn.

**6.5.5.1 The adoption of a didactic method.** It is assumed that any type of work that concerns teaching and learning is tightly linked to didactics, and thus it is associated with a strategy to carry out the tutoring process. The table below represents a sample procedure of conducting training sessions based on EFL pedagogical needs.

**Table 6.4***Training Techniques and Procedures*

<b>Training Techniques and Procedures</b>	<b>Didactic Activities</b>	<b>Procedures</b>
Elaborating reading tasks	-Face-to-face lecture to online reading	-Autonomous learning -Exercising
Conducting online activities	-Problem posing/ problem solving: situations-cooperative learning:	-Thinking and suggesting solutions - Collaboration though SMNs
Conducting an solo work using online resources	- Giving face-to-face lecture - Carrying autonomous work - Online support	- Guided application exercises - Doing a case study - SMNs discussion groups
Doing online research	- Online lecturing - Simulating case studies - Practice and application	- Providing internet resources - Finding new information - Pairing in online collaboration

**6.5.6 ICT training workshop**

The following section presents the different types of groupings under which the technology training workshop might take place.

**a- Group of Beginners.** This group embodies trainees from EFL teachers who possess no technology skills or at least the elementary skills needed to teach distant learners through manipulation platforms like Moodle or social media networks.

**b- Pair work.** You can pair weak skilled trainees for a completely guided activity that is beneficial. While pairing the trainees, the coach should pay careful attention to construct homogeneous groups, which are more or less equivalent in the degree of ICT manipulation so that he would work with each group separately. S/he also needs to select members who “flock together” as the proverb says to create a positive learning environment.

**c- Group work.** Contrastively to pair work, group work can be done with mixed level groups or similar leveled ones provided that the groups are rather small in the weaker training to feel more comfortable to take part. To ensure engagement, each group should have his/her designed task leading to a general discussion afterwards under the spirit of collaboration.

**6.5.6.1 Whole class grouping.** It is the group in which multi-level activities are provided to encourage students' talking and interaction, shortly before accomplishing a task. Such grouping will enable the introduction and information exchanged between each trainee and a variety of levels of trainees. That is why whole class grouping comes last after individual work, pair work and group work, and it supports multi-leveled technology skills of trainees. A typical activity is:

*Who among the trainees knows how to.....?*

- Who among the trainees knows how to scan a printer word version using a scanning software?
- Who among the trainees knows how to turn a Pdf files into a word format?
- Who among the trainees knows how to transform a JPEG picture into an OCR editable file?

Hence, the work will consist of conducting a survey in order to find among the trainees those who possess technology skills.

The game-like chain would go in a continuous way: one trainee intervenes after the other. When a trainee answers the question positively, he would be asked to develop it more and provide further examples of cases where ICT would intervene to enhance writing productivity. If the answer is negative, the participant ought to ask another trainee and so forth. Ten questions will provide guided practice that would involve many technology aspects such as the mastery of the most common and needed technology manipulations to attempt in distant learning.

Further interaction and discussions between trainees would reveal various ideas not much the same competency needed such as the various ways to open a new folder or install an editing software. This would lead to training enrichment. The succession from individual to pair work, group work and classwork opens discussions and situations which help creating positive working environment that deal with difficulties imposed by digital technology that many of the trainees encounter daily while delivering lectures and doing lessons' practices.

**6.5.6.2 Multimedia Language Lab.** Some of the adaptation measures being put in place to apply theory into practice precisely the skills previously acquired by participants. This lab section would illustrate how the tutor might put into practice the technology theoretical part.

Google classroom best indicates relating face-to-face learning with online learning as follows:

Google Classroom is Google's continuing advance for academic organizations to provide a blended learning platform to simplify the creation, distribution and classification of paper assignments. It combines online media content with standard classroom technology. (Phoenix, M., 2020,p.10)

Phoenix (2020) further indicates how can Google platform be operated through a number of steps: its association with a Google account email address, the possibility to create easily a teaching content by clicking on "+" button once you access it, entering classes names by G-mail addresses and fix online meetings based on students' face-to-face attendance schedule. After you finished created classes, will be prompted for the class code that you need to hand to your students to access the platform.

The same system approximately is adopted in Moodle platform of Algerian universities for e-learning. Accordingly, the teacher is afforded multiple buttons that allows him/her to directly send documents or make them downloadable via Google Drive, listings and educational web links to ensure lecture delivery. S/he could commence teaching with projects by setting deadlines. Students can access their projects in the "Stream", download lessons and complete their practice tasks. In the top right corner, they can further discuss and interact in the options comment section for the "Active" option. This is a suitable place for questioning and discussing students' answers who also respond to each other. Thereupon, the teacher can reuse important posts (announcements, tasks or questions) with another class.

Google Classroom helps students and teachers communicate, build teams, organize and manage homework, paperless completion, chats, tasks, and project management. The users benefit also from a series of Google Apps as free sharing educational tool like Google Docs, Gmail, Google Drive and more others. This goes selecting classes, providing them with access codes. The images and icons provide additional features or options to access other menu; therefore, the user can choose his/her role as teacher or student. Google itself presents use tutorials and also YouTube on how to proceed to get started with Google Classroom. Hence, the usual procedure is to go through these steps:

- Create or participate in lessons by clicking on the + option at the top to create a category or get a class with a class code.
- Create and name your class.
- Click the + button to create a class. Use a continuous nomination agreement for your class name and stay in class. - Upload an image or select a theme from the gallery.
- Enter the details information on the card of curriculum, content, course description, and invitation. The latest versions of Google Classroom offers automatic commenting spaces for each post besides all needed buttons of editing: copy, paste, and delete.

Afterwards, teachers may create category title and describe it. S/he can additionally view the class files created in Google Drive from the provided menu and prepares the lesson schedule. The changes can be saved and elaborated files can be kept during the whole school year. Google Drive can be used for storing documents and YouTube for posting videos. The demonstration flow (the main screen) allows students to use and view activities, topics, announcements and comments. If approved by the teacher, students can:

- Add notes or broadcast queries.
- Create posts and add docs to the lesson file.
- Use work to ask questions at home or for lessons, to share important resources learned in the curriculum.

Alternatively, teachers can add additional content to your post: such as internet websites and resources. In the same way, they can create notifications and questions for reviewing past work or planning a future one or else animating discussions for more interaction. The students, on their own, can check announcements that appear on the broadcast, pay attention to the comments, and download attachments, view documents, videos or links. They are required to complete the tasks, by paying attention to the deadlines and the tasks' description and instructions.

### **6.5.7 Some reflections and evaluations**

Once the teachers have accomplished the training practise, they are urged to think about the training nature, steps, procedure and what new ICTs skills they have achieved and in how they could implement them in their teaching either face-to-face or in distance mode as simplified in the coming sections.

**6.5.7.1 E-diaries.** Virtual learning environments established for distant learning equipment learners, in this case -teachers who are trainees-to write a reflective diary using Microsoft Word or any other word editing processor. Hence, trainees could evaluate an ICT-based lesson delivery, therefore; they would set targets over time and evaluate each other progress. Targets can be short term or long-term ones. Doing reflective evaluation consists in writing reflective texts describing the best options the weakest digital technology infusion performances. Members of the group can share these e-diaries between them and discuss them just sort out some guidelines for teachers' development. Another suggestion maybe is to starting applying as a practice with their students or as homework so that trainees could evaluate their own learning; in relation with their teaching objectives to identify items that need redoing or further consolidation and practice.

**6.5.7.2 Online peer correction.** Peer correction is a good assessment tool, and it is possible to apply it in virtual learning environments, which allow trainees to evaluate a number of items acquired in the training process. Peer correction in teacher training is ideal within the same department where the majority of teachers are technology trainees and want to improve their pedagogical performances. If they pursue to diversify their teaching methods, they need to get each other's feedback on each technology application. This can be done by working in pairs or small groups to make a peer-review, collaborate and criticize each other's performances. As the supporting atmosphere prevails and favours learning, the spirit of socializing arises and emerges technology leadership that is very crucial to the implementation of ICT. Positive comments and good reactions are more than welcomed to improve self-esteem of the trainees.

**6.5.7.3 Self-assessment.** Similarly, trainees have to be encouraged to evaluate their own performances using technology affordances like word processing software, vocabulary, spelling grammar corrections. They can use android applications, pronunciation and bilingual dictionaries. They have to set a series of objectives to achieve, and then try to see how far they can go in realising them. It is an easy task to elaborate a range of teaching strategies that go with the available equipment whether in face-to-face or in distance teaching. Teachers could try to apply the techniques learned previously in the training such as mind maps, diagrams animations, videos, MP3 files, sounds effects, news reports, podcasts, excerpts from radio programs or they can use teaching songs. Finally, trainees could evaluate each other online through some programs like

Google classroom or Google meet acting as if they are teaching their students, accordingly; they can evaluate one another's performances and correct technology misbehaviours or limitations.

### 6.5.8 Checking out the training progress

At the end of the training period, the tutor might want to evaluate the effectiveness digital technology training, although it can last for longer periods of time via distance learning through online SMNs or Moodle platforms. The trainer would supply an evaluation-sheet to the trainees. The following questions in table 6.5 below are suggested to describe the technology training procedure with: “yes”, “no”, and to specify the extent if the reply is “yes”.

**Table 6.5**

*Checking Teachers Training Progress*

N°	Statements	Yes	No	If yes, to what extent			
				1	2	3	4
1	Are ICTs training procedures clear and Applicable?						
2	Was the training performed in a sufficient time?						
3	Was it sufficient?						
4	Did you join in training in an organized place?						
5	Does the institution provide operational technology instruments?						
6	Was technology training continuous or interrupted?						
7	Make sure you adopt flexible procedures while monitoring/ maneuvering training.						
8	It is vital / crucial to provide support to your trainees all along the training steps.						

The tutor is required to get some answers to the following questions in order to get his/her trainees attitudes, impression or feedback towards the training that s/he had conducted with them. The tutor asks the trainees/participants about further training solutions and prospects. S/he can even assist the trainees in depicting the limitations encountered in the previous training by inviting them to complete the provided checklist below in table 6.6. Evaluation would involve their incentives and motives; these guiding questions might be helpful to consider collecting their answers:

- Were your trainees' attitudes toward performing ICT-based tasks?
- Were they encouraged to ameliorate their performance outside the academic circles?
- Did technology-based activities lead to better teachers' achievements in pedagogy?



- Did they show satisfaction and enjoyment?
- Was there any rewarding / prizing for the best technology practices when policy-makers organized training?
- Was there any competition between your participants?
- Did training timing exerts working pressure on the trainees' teaching schedule?

**Table 6.6**

*An Evaluation Checklist of an ICT In-service Training*

<b>An Evaluation Checklist of an ICT In-service Training</b>			
<b>PRESENTATION</b>	<b>Yes, Completely</b>	<b>Partially</b>	<b>Not at all</b>
1. Was the training adequate?			
2. Was it consistent with the content being taught?			
3. Did the duration of training suit within the allotted			
4. Were the tools and equipment available?			
5. Did you benefit from practice sessions?			
<b>THEME/ CONTEXT</b>			
1. Were you taught new technology skills in the training?			
2. Were the resources authentic?			
3. Were they in conformity with the syllabus?			
4. Was the coaching length adequate?			
5. Were the sources and copy-rights indicated?			
<b>ICT-BASED TASKS AND APPLICATIONS</b>			
1. Were the tasks attractive?			
2. Were the instructions worded in connections with ICT tools functions and unambiguously?			
3. Were there a sufficient number of activities for each application and software?			
4. How many ICT instruments did you work on?			
5. How many digital applications did you handle? Name them.			
<b>KEYS AND CORRECTION</b>			
1. Are the practice keys provided exhaustively?			
2. Are all the keys appropriate?			
3. Were the keys training practice in conformity with what they have been taught?			
<b>GENERAL EVALUATION</b>			
1. Was the level difficulty in applications and platforms manipulation adequate?			
2. How does it compare with others software you already work with?			
3. Which parts of the syllabus did ICT training cover best (Theoretical part, Practical part)?			
4. What cognitive skills did you develop while using technology?			

Table 6.6 have presented how the trainer would proceed in the evaluation of the whole training process; it consists of five constituents: the *presentation* of how the training is introduced to the teachers in terms of content, timing and equipment access. The *theme* or *context* part indicates the type of technology skills, the conformity with the teaching syllabus, and the duration of coaching. *The ICT-based tasks and applications* part describes the performed tasks, the number of digital applications with their various functions, the instruments used, and if the instructions given corresponded to digital applications utilities. The next part shows the *keys and correction* appropriateness and conformity with the training received. The last part involves a *general evaluation* of the difficulty of applications in comparison with formerly mastered software, also whether the training was more theoretical or practical and which cognitive skills it targeted.

## 6.6 Reflections for Further Research

Future researchers may want to explore ways to assess students work online, as this presents a shaky issue about credibility. Another possibility to make a study as a follow-up to the present one is to investigate digital technology training because it has a huge impact on education nowadays. Investigating the use of ICT to teach other subjects especially languages like French and Spanish and compare the research results with those of English language studies could be fruitful and beneficial to both teachers and learners.

Other researches may target technology infusion inside universities in regards to the most appropriate teaching methods and approaches. This would benefit English language teachers and especially beginners among them, as they are starting their careers. Further research in the domain of ICTs and digital technologies, researchers could be interested to explore of technology negative effects that hinder EFL teaching and learning.

## 6.7 Conclusion

The sixth chapter has summarized the research findings discussed and interpreted and highlighted the implications on EFL teaching and learning. The interpretations covered teachers and students' questionnaires, teachers' interview and fieldwork experiment. The results of these instruments served to answer the research questions, and confirm the hypotheses. On that basis, the study has elaborated some suggestions and recommendations to guide teachers and students in the department of English , at the University of Mostaganem, to benefit from the positive effects that

could SMNs via digital tools have on teaching/learning outside the classroom and particularly on argument writing.

As a response to teachers' challenges such as internet access and insufficient training, the researcher has provided a set of suggestions and guidelines and suggested a guide of ICT training for upgrading technology use in pedagogy. It consisted of assessing teachers' training for needs analysis, designing and organisation of e-content, delivery procedures, ICTs training workshop, and a reflection and evaluation part. On the other hand, Master one students were required change their EFL attitudes by putting more commitment, engagement in online learning by sharing information and collaborating regularly with peers.

# **General Conclusion**

## **General Conclusion**

Nowadays, the infusion of technology in EFL teaching and learning is a common practice inside and outside the Algerian universities. Therefore, the Algerian educators, teachers and students ought to take into account the advantages and achievements accomplished thanks to digital technology in countless scientific fields, without excluding education.

Despite their popularity for many decades now, social media networks like Facebook, Twitter, and Instagram seem to be over-used for entertainment purposes more than for educational ones. However, it is not known the extent to which these learners use social media networks for EFL purposes. Henceforth, this study has profiled into university Master one students of English, who were keen on the progress achieved by ICTs to investigate their perceptions and skills in manipulating digital tools such tablet and mobiles. This has explored views of academics and researcher who have thought that these tools would revolutionize EFL learning; nonetheless, higher education students do not seem to show significant progress in their essays productions achievement.

The investigation has also focused on teachers' technology engagement in the education process at the level of the EFL master studies; at Ibn Badis University in Mostaganem providing that android-built system offer more entertainments and endless facilities to interact online. The study has put an objective for guidance and simultaneously enquired about the effects that ICT along with SMNs have on formal EFL education mainly productive argumentative writing beyond university classrooms.

The opening part of the present research is the theoretical background of the study. It was tackled in the first two chapters of a thesis composed of six chapters. The third chapter was for the methodological procedures, the fourth and fifth have been devoted to data analysis and the sixth chapter is for the discussions, interpretations of results and recommendations.

The review of literature in first chapter pictured the modern approaches in the field of didactics, namely the shift from teaching to learning that has been characterized by change in features, method and mainly in the role of the students as being more responsible for his/her learning. Similarly, the second chapter has also reported literature but the one related to Social Media Networks and their attributes. There was an ample literature on the integration of web 2.0

technology in education; as a consequence, the emergence of interactive web pages in the World Wide Web, also the creation of websites.

The third chapter displayed the research design and the procedure of the practical part. It has communicated an account of the methods and how data was collected and analyzed. It Furthermore furnished a description of sample population that represented higher education teachers and master one students at the level of English department, in Ibn Badis University, Mostaganem. To collect both qualitative and quantitative data, the research has opted for an explorative study that included a mixed method, and employed the triangulation method to seek validity. Two semi-structured questionnaires were piloted and statistical t-test was used to validate quantitative results that confirmed students writing performance.

The fourth Chapter dealt with the data analysis of the teachers' questionnaire. The analysis of part one covered items that revealed the conditions of technology integration inside university and the preparedness of teachers while the section part of this chapter tackled the interview qualitative data analysis with central emphasis on online teaching motivation, engagement and enabling conditions of online teaching from a distance and the major difficulties.

Chapter five sheds light on the data analysis of both students' questionnaire and the practical part of the teaching experiment. It showed how quantitative data is analyzed students' SMNs perceptions, use frequency of collaboration and online interaction in addition to the smart phone application and software. The analysis was based on numerical calculations through percentages for the questionnaire and the use of descriptive statistics to calculate the *means*, the *mode* and the degree of *variance* of experimental and control groups writing performances for the experiment.

The sixth chapter reported the summary of the findings from all the research tools, their discussions with respect to the main study objectives, and some suggestions and recommendations to educators, teachers and students in higher education willing to benefit from technology instruments and SMNs in order to boost their online teaching/learning process. Suggestions were given according to the major study findings implications. In this context, the researcher has proposed guidelines about a digital technology training initiative to be conduct by the leaders/mentors. While attending the training process, trainees are suggested to keep e-diaries,

work collaboratively online with peers. For efficiency purpose, they are equipped with self-evaluation checklists to assess their progress.

To conduct this study, the research has set four research questions. The first one intended to investigate master one EFL students in the English department, at Ibn Badis University, and their teachers' perceptions, beliefs, attitudes about the utility of social networks for language learning, beyond classroom hours. The second one has targeted the degree of benefit in formal academic learning outcome that students would derive from using ICTs and social media outside the classroom. Thirdly, there was a research question dealing with the difficulties of blending online teaching with face-to-face teaching through social media networks. The last one has indicated the degree of positive influence that technology and social media networks would have on master one academic writing productions, namely in argumentative writing. In view of that, this thesis has attempted to answer these questions to figure out if the findings were plausible with the submitted hypotheses.

The findings of both teachers and students' questionnaires reported positive attitudes towards the implementation of various types of ICT and SMNs into the process of teaching and learning. The results showed that 94% of the teachers have positive perceptions of the use of social media networks into the teaching process especially the middle-age category is the highest with 64%. Regarding ICT access and social networks outside classrooms, large majority 80% have access to internet while 70% have Wi-Fi connection and 44% have the third or the fourth generation mobile connection. The students' questionnaire results also indicated that the majority of students have positive attitudes towards social media networks, especially towards Facebook with (91.3%), YouTube (84.1%) and Instagram (72.5%). In this context, 92% of them have been using social media networks built-in applications or internet-enabled applications in their smartphones. This partly confirmed the first research hypothesis which indicated that when perceived positively and approached appropriately, ICTs and social media networks could be efficient teaching-learning tools that reinforce formal education and increase achievement.

The majority of teachers and students perceived the role of SMNs positively, this makes them expect to behave as active agents in the education process. This is proved again in the findings of 80% of the teachers who counted on YouTube videos, and another 73.5% who have used Facebook since they offer audio-visual effects to support lesson delivery in addition to the

other social networks which texting, chatting and interaction with students such as Google meet, Facebook messenger, Viber and Zoom.

Hypothesis two has put forward a number of conditions for SMNs and ICTs to be beneficial to students outside university and these elements should be interconnected. For instance, there should be positive attitudes and openness towards SMNs, the availability of technology equipment like PCs, smartphones, tablets; access to software and resources, training, and an engagement to work and collaborate online. Apart from good perception and positive attitudes, all the other elements scored lower frequencies, for example, in teachers' questionnaire, 60 % of the participants have kept either a Facebook page, Facebook group, Moodle platform account, or some social media network to post contents to back up earlier taught lesson in classrooms or to send documents or videos before lectures for the coming sessions as in flipped classroom strategy. To a lesser extent, 36,66 % of them effectively engaged their master students to work online, and more than 50% had reserves about its effectiveness. Nevertheless, the majority had good teaching experience, during covid-19pandemic, through Facebook and Moodle university platform. So far, the first hypothesis has partly been approved as the results did not provide strong evidence that students have benefited from SMNs because they are positively perceived positively but not and approached appropriately.

There were other options favoring the advantages of SMNs and eLearning platform like giving students topic choice, activities type, students' login in convenient time were guaranteed by 30% of the teachers to positively impact master one students. Others did so by flipping classroom work, and communicating with students about their needs and learning difficulties (as indicated in table 4.18), in addition, to gaining time and providing relaxed online atmosphere for all types of students, especially the introverted ones. Those facilities that SMNs have provided to ensure good learning experience could demonstrate the plausibility of the second hypothesis. However, there were reserves on online low interaction as complained about by participants that was to students' lack of commitment, teaching tasks were restricted to sharing lectures and posting urgent information.

It is worth mentioning that students have positive attitudes for SMNs, they have too many e-contacts and took part in the creation of pedagogical, were group founders. Besides , they have good perception about smart phones applications but they do not share and focus more on



entertaining affordances of SMNs. We can conclude that among the elements hypothesized only technology access scored positive results; the rates of training, engagement and collaboration were registered as low or irregular. Besides, the frequency of SMNs use for pedagogical exchange was low; therefore, hypothesis two is disconfirmed.

Hypothesis three stated that the more ICT trained, devoted and more experienced in manipulating digital software of modern technology instruments among teachers and students in Ibn Badis University eventually, ensured continuous online teaching to their master one students beyond the classroom time.

Because training is pivotal to the adoption of digital instruments, the findings enumerating trainees among teachers is well valued, but knowing that 41.2% have received training and only 10% benefited is lowering the positive estimations. Similar results were conveyed, by the interviewed teachers who claimed that such training did not meet teachers' expectations. The degree of competence in technology manipulation is affirmed by an IT diploma. Although half of teachers were confident in performing online activities, they could not take part in educational conferences, forums or blogs. Thus, there was less aptitude and confidence in addition to insufficient technology training which indicated the plausibility of the third hypothesis.

The last hypothesis claimed that the influence of SMNs on EFL master one learning, would lead to an improvement in the writing productions. This was proved through the treatment provided to the two groups of students participating in the quasi-experimental experiment. After having administered the pretest, the subjects were under linguistic exposure during the treatment period through the use of SMNs in distant mode for the experimental group, and the content were lectures inflicted to instruct them on how write argumentative essays.

In effect, after the post-test was administered to both groups, the effectiveness of the teaching treatment by using SMNs marked higher results in the experimental group than in the traditionally taught group in face-to-face mode. Therefore, the hypothesis stating that online teaching would have positive effect on learning by increasing writing performance among master one under conducted online teaching with SMNs was plausible and approved.

The findings revealed some positive attitudes of both learners and teachers; they perceived technology tools and namely SMNs as valuable instruments were beneficial to academic education in Ibn Badis University. However, when considering ICT integration inside the institution, as an

anticipation to its use outside the classrooms, 35% of the teacher lacked equipment, a minority had to rely on their own laptops, and 70 % complained of the lack ICT technician for assistance.

The qualitative data from the interview also revealed 80 % of participants with positive perceptions regarding the implementation of digital devices and through them SMNs to complement classroom online. Unexpectedly, only 30% of the interviewees got in touch online with their master one students after the lecturing hours. What worked well for teacher was the flipped classroom in 80% of the cases, especially during Covid-19 pandemic.

According to the teachers, despite that half of them benefited from some training, the pre-service training was restricted to theoretical background about teaching practices while the in-service one dealt with Moodle platform training, they found it ineffective due to the lack of time and equipment. Additionally, there were other challenges facing the proper use of SMNs such as unavailable equipment or digital tools, internet coverage, students' demotivation and work neglect.

The students' population was fascinated with SMNs according to their questionnaire's responses which stated that all of Facebook, YouTube and Instagram are widely used and most of these have been consulted for years. Master one students had good technology skills and knew how to manipulate digital tools well, including software and smartphones applications. Yet, such fascination did not guarantee full adoption of the 21<sup>st</sup> century digitals for educational involvement.

The results have shown that the incorporation of ICT and SMNs in EFL learning beyond the university classroom are influencing students' attitudes and language learning aspects. In the same context, the results indicated low engagement and interaction frequencies in pedagogical activities; instead, they tended to get absorbed by entertainment videos or chatting.

The field experiment was conducted by the adoption of the quasi-experimental features in terms of sampling the population of master one students, notably two groups: an experimental and a control group. The experimental group (1.57) of mean significance has proved the efficiency effectiveness of the treatments performed online on the experimental group through Google Classroom and Google Meet. The hypothesis put forward that if EFL teachers used SMNs in online teaching, it would lead to argumentative writing amelioration in the production of Master one students at Ibn Badis this University is plausible.

The outcomes of this research need to consider in addition to the domain of technology integration into the teaching/learning process, is how to bridge formal online or distant learning with the face-to-face teaching inside classroom to complement comprehension with authentic resources and more practice. The Algerian master one students have the potential to create a safe, rewarding learning environment at home thanks to the affordances of ICT tools and SMNs, which should not be considered only as spaces for entertainment and socializing. With more specialized training, commitment and motivation, students and teachers could achieve better learning performances.

Future researchers may further investigate the influence of SMNs on other learning specialties such as in ESP as a more distinguished field, in which the content-based approach in language learning could be evaluated in terms of efficiency as authentic resources are available. More SMNs based topics could be explored. For instance, to anticipate their influence on vocabulary acquisition or on developing EFL oral proficiency by immersing the subjects into a virtual online learning environment.

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# **GLOSSARY**

## GLOSSARY

**Asynchronous:** not in real-time. In the context of the online classroom, it means that students and the teacher are online at different times.

**Behaviorism:** as it pertains to education, a philosophical orientation to teaching that focuses only on the objectively observable aspects of learning.

**Bias:** in case study design bias concerns the subjectivity of the researcher and the informant. It a threat to validity in all research designs. The researcher can be criticized in the lack of definition of the construct.

**Blended (or Hybrid) learning:** a combination of face-to-face and online instruction.

**Constructivist approach:** an instructional approach in which learners build knowledge for themselves, each learner individually developing meaning as he or she engages in the learning process.

**Digital native:** a person who from childhood has lived with and used computers and the Internet.

**E-Portfolio:** a systematic and organized collection of a student work that exhibits to others the direct evidence of his efforts, achievements and progress over a period of time. It is the basis of learner's evaluation of his performance and it includes a variety of documents in different forms which are stored in modern technology instruments like videos, CD-ROMs, Memory Cards, laptops and other tools.

**Learning style:** approaches or ways that people prefer to learn, for example, visually, verbally, or aurally. Knowing one's learning style helps one develop strategies to compensate for weaknesses and capitalize on strengths.

**Likert scale:** is a valuable and important part of survey research, which is commonly used in educational research. It is named after its inventor, the US organizational-behavior psychologist Dr. Rensis Likert (1903-1981), the Likert Scale is a prearranged scale from which respondents select one option that best expresses their opinion or judgment. Likert scales frequently have five possible choices (strongly agree, agree, neutral, disagree, strongly disagree) but sometimes go up

to ten or more. The final average score is taken as an overall level of accomplishment or attitude toward the studied subject.

**Mean:** It is the arithmetic average of the scores. The "mean" is the "average" you're used to, where you add up all the numbers and then divide by the number of numbers. It identifies the central location of the data, sometimes referred to in English as the average. Example: 13, 18, 13, 14, 13, 16, 14, 21, 13. The mean is the usual average, so:  $(13 + 18 + 13 + 14 + 13 + 16 + 14 + 21 + 13) \div 9 = 15$ . Note that the mean isn't a value from the original list. This is a common result. You should not assume that your mean will be one of your original numbers.

**Median:** The "median" is the "middle" value in the list of numbers. To find the median, your numbers have to be listed in numerical order, so you may have to rewrite your list first, and the middle one will be the median. Example:  $(9 + 1) \div 2 = 10 \div 2 = 5$ th number is the median = 14.  
13, 13, 13, 13, 14, 14, 16, 18, 21

**M-learning:** learning with mobile technologies such as handheld computers, MP3 players, netbooks and smart phones.

**Moodle:** a learning management system (LMS), that educators use to create and teach courses online.

**Randomization:** a process to help insure experimental generalizability by giving large numbers of individuals an equal opportunity to be included in a study in either the experimental or the control group.

**Social networking:** building and reflecting relationships among people who have the same interests and/or participate in the same activities on the Web.

**Software:** computer software is a general term used to describe a collection of computer programs, procedures and documentations that perform some task on a computer system.

**Synchronous:** meaning students and the instructor are interacting online at the same time.

**Technology integration:** Technology integration is the use of technology resources: computers, mobile devices like smartphones and tablets, digital cameras, social media platforms and networks,

software applications, the Internet, etc. -- in daily classroom practices, and in the management of a school. Successful technology integration is achieved when the use of technology is:

- Routine and transparent
- Accessible and readily available for the task at hand
- Supporting the curricular goals, and helping the students to effectively reach their goals

When technology integration is at its best, a child or a teacher doesn't stop to think that he or she is using a technology tool -- it is second nature. And students are often more actively engaged in projects when technology tools are a seamless part of the learning process. Willingness to embrace change is also a major requirement for successful technology integration. Technology is continuously, and rapidly, evolving. It is an ongoing process and demands continual learning.(from: [edutopia.org/technology-integration](http://edutopia.org/technology-integration))

**Web Blog:** a composite website and online diary (or journal) organized either chronologically or thematically.

# **Appendices**

## Appendix A: Teachers Questionnaire

*Dear Teachers,*

*This questionnaire is elaborated to conduct a research on the impact of Information Communication Technology instruments and social media network on English as a Foreign Language education at Master level of Higher Education. Thank you for your cooperation.*

### **Background information**

a -Age Range: 25-35  36-46  47 years and more

b- How long have you been teaching at University? *Choose from option below:*

1-5 years  6-16years  17 years and more

c- Do you have an account in any social media network? Yes  No

*If yes, name it/ them: .....*

*How long have you been using it/them? .....*

d- Do you have a degree in **Computer Sciences** or **Information Technology (IT)**?

Yes  No

*If yes, is it a degree of:*

a) Information Technology basics: *Microsoft Word, PowerPoint, Excel manipulations ...?*

b) Computer technician? c) Lab technician (platforms)?

d) Software-programming engineer?

*Another degree: .....*

### **Classroom Situation**

1. How many students attend your class?

a- 1 to 20 students  b- 21 to 30 students

c- 31 to 45 students  d- more than 45 students

2. How many Master one groups do you teach?

a- 1 group  b- 2 groups  c - 3 groups and more

d- I do not teach master students

3. Please, specify class attendance rate of your group(s).

a-Less than 50%  b- 50%  c- More than 50%  d- Almost all students

(80%)

### **ICT Resources and Internet Access at University**

4. Are the computers/laptops in your department's rooms?

a- Sufficient in number  b-Insufficient  c- Broken-down

computers



- d- No ICT devices available  e- No idea
5. How often do students have access to computers connected to data-shows?  
 a- Once a week  b-Twice a week  c- Once a month  d- Twice a month   
 e- When needed  f- Never
6. Are the computers connected to internet?  
 a- Yes, they are  b- No, they are not  c- I don't know
7. What other ICT resources are available in your classroom?  
 a- Data-show  b-computers/laptops  c-projectors  d-tablets   
 e- Interactive "smart whiteboard"  All of these above   
 No instruments available  Another tool: .....
- If none**, do you and your students bring in your own technology devices?  
 a- Yes, we usually do  b- Yes, sometimes  c- We rarely do  d- We never do
8. According to you, do all Master groups have access to technology resources inside the faculty?  
 a- Yes, they do  b- No, they don't  c- I don't know
9. Do you have an ICT technician to assist you?  
 a- Yes  b- No  c- I don't know

### **ICT & Social Networks Access Outside University**

10. Do you have permanent access to internet?  
 Yes  No
- If yes**, do you connect through:  
 Wi-Fi- connection  3<sup>rd</sup> /4<sup>th</sup> G. Mobile connection  A tablet   
 instrument  
 All of these above  None of these   
 Another type, specify: .....
11. Can your students reach you either through email or social media networks?  
 a- Yes  b- No
- If yes, precise how often:**  
 Always  Often  Seldom
12. Do you have access to the university e-learning platform?  
 a- Yes  b- No
- If yes, how often? Choose from options below:**  
 Regularly  Often  Rarely  Never
- If No, please explain why not?**  
 .....

13. Do you have an e-library at university?

a- Yes, we do                       b-No, we don't                       c-I don't know

*If yes, please mention the link below: .....*

14. According to you, which Social Media Networks, among the followings, positively affect students learning at home?      *You can tick as many choices as needed:*

YouTube       Facebook       Linked in       Twitter       Instagram   
Viber       IMO       All of these above       None of them

*Others: .....*

15. Do you ask your students to use social media such as Facebook or YouTube to further practice lesson parts outside the classroom?

I regularly do       I usually do       I rarely do       I never do

*-If yes, state its objective(s): .....*

16. How often do you supply your students with online educational resources?

a-Yes, all the time       b- Usually       c-Rarely       d- Never

*If so, provide an example:*

.....

17. How do you proceed to assess the given work? Is it through :

Social media networks                       Emailing                       The hard copy   
Oral test /presentation                       All of these above                       None of these above

*If differently, please, tell us how: .....*

**"The Flipped classroom"** is giving students lesson content to prepare outside school, through ICT or social networks use for the coming class session. The objective is to enhance learning and achievement by reversing the traditional model of a classroom, focusing class time on student understanding rather than on lecturing.

18. Do you flip your classroom?

Yes                       No                       I don't know this technique

*- If yes, how often do you flip your classroom?*

Every week       Every two weeks       Once a month       No answer

*- If you do so, what type of activities do you give as a support?      Select your choices:*

Grammar practice       Reading digital texts (through MS. Word)       Audio files   
Videos       None of these above

*- If none of these, please precise: .....*

19. Does it happen that you tutor/coach your students on any social media networks like: Facebook, YouTube or a Moodle e-learning platform to do the work outside school?

Yes                       No                       No answer

- *If so*, for how long have been doing it? *Choose among period:*

For a week  For two weeks  For a month  For a semester

If for a longer period, please specify: .....

-*If you didn't coach your students*, would you agree to teach them online through the use of social media networks ?

Strongly agree  Agree  Undecided  Disagree  Strongly disagree

20. Are ICTs and Social Networks supporting your teaching practice outside the classroom?

a-Yes, totally  b- Yes, mostly  c-Partially  d- No, they don't

- *If No, please, tell us*

*why?*.....

### **Teachers' ICT skills**

21. How do you consider your ICT competence? *Do you have :*

a- Excellent competence  b-Good competence  c-Average   
competence

d- Little competence  e- No competence

22. Do your colleagues manipulate technology tools well?

a- Yes, all of them  b-Most of them  c-Only a minority  d- None of them   
e- I don't know

23. To what extent are you confident while performing the following ICT tasks?

*Tick one box for each row*

Statements	A lot	Somehow	A little	None
-Write a text using Microsoft Word processing programme.				
-Email a file to another teacher or send messages.				
-Create PowerPoint presentation with simple animation of Pictures, video and integrate into the lesson activities.				
-Participate in educational discussions in forums, blogs and social networks like Facebook or Twitter.				
-Download and install software in a computer.				

24. Do you have an ICT leader to guide you in pedagogical matters?

a- Yes, there is one  b - No, there is not  c- I don't know

25. Have you ever received any training about e-learning platform and school conferencing?

a- Yes, I have  b- No, I have not

*If YES*, what was the quality of the training?

a- very good                       b-Good enough                       c- Insufficient /Inadequate

-If your training was insufficient or inadequate, please choose the reasons why from the provided list below: (select your choices):

a- Lack of time       b- Lack of equipment       c-Lack of ICT trainer /leader   
 d- No, platform access       e-unrelated to pedagogy       f-All of these reasons   
 f- None of these reasons                       No answer

- Another reason, specify: .....

**Beliefs and Attitudes**

26. Say whether you **agree** or **disagree** with the statements in the table by ticking in the right column.

Strongly disagree (-2), disagree (-1), neutral (0), agree (+1) strongly agree (+2)

N°	Statements	- 2	- 1	0	+1	+2
1.	All technology tools facilitate finding information faster and easier					
2.	It is dangerous to place too much faith in technology.					
3.	I believe teachers need not to rely on all internet resources.					
4.	Most students are stuck online all day long for academic learning.					
5.	Those who worry about negative effects of technology should think about the modern conveniences available today.					
6.	E-learning Platforms are not quite fit to support the learning process.					

27. If you have other comments regarding the topic under investigation, do not hesitate to comment and provide suggestions in the box below:

.....

.....

.....

.....

.....

.....

Thank you for your cooperation

## Appendix B: Students Questionnaire

### Dear Students,

*This questionnaire is meant to collect information about the use of social media networks as tools for enhancing EFL learning among Master students of Ibn Badis University in Mostaganem. Please, take time to read thoughtfully before you fill in the questionnaire. You are assured that the information you provide in here will remain anonymous.*

### Background Information

a. Choose among the given items to indicate your age below:

Younger than 20       20-25 years       more than 25 years

b. Specialty: .....

c. Do you have a Facebook account? (If yes, please continue completing this survey)

Yes       No       I intend to have one

### ICT & Social Networks Access and use

1. If you are currently using social media networks, please identify which one:  
(please, select the networks you work with from below)

YouTube       Facebook       twitter       Instagram

-Other social networks. Please, specify.....

2. How long have you been using Facebook?

Less than 1 year       2 years       3 years       4 years and more

3. Tick the Computer, Mobile or Tablet applications that you can perform

<input type="checkbox"/> Writing email and sending docs	<input type="checkbox"/> Chatting on Facebook or other social networks
<input type="checkbox"/> Making Power point docs	<input type="checkbox"/> Retrieving lessons and saving them.
<input type="checkbox"/> Downloading e-books & lessons	<input type="checkbox"/> Sharing docs & videos in social networks
<input type="checkbox"/> Google search	<input type="checkbox"/> Editing pictures and videos

-other tasks, name here ....., ....., ....., .....

**Frequency of Use**

4. How often do you visit Facebook per day?

I don't visit Facebook every day     Once     Twice     three or more times

5. How many hours do you stay connected on Facebook per day?

I don't login into Facebook everyday     less than 30 minutes  
 between 30 minutes -2hours     2 hours or more

6. Do you visit any educational blogs related EFL learning?

Yes, regularly     Sometimes     Rarely     Never

-If yes, can write their links/names: http://.....

7. Do you usually follow YouTube channels on your PC, on mobile or on tablet?

Yes     No

- If yes, please name some of these channels: ....., ....., .....

**Social media Perception**

8. How do you perceive ICTs and social media networks (mainly Facebook/YouTube) as an online EFL learning support?    *Respond to these items in the table below:*

	<b>Perceptions of ICTs and Social Media Networks</b>	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly agree</b>
1	Facebook reinforces my lessons' understanding through consulting e-mates sharing various docs.					
2	ICT tools as the PC/mobile/tablets use enhances my ability to correct spelling, grammar mistakes and enrich my vocabulary					
3	Microsoft word, pdf, WordPad, enables me to read different types of texts and lessons arranged in different file forms					
4	Facebook (messenger) helps me to communicate instantly with my classmates to update my lessons knowledge and homework requirements.					
5	YouTube enables me to improve my pronunciation					

### Collaboration & Information Sharing

09. How many virtual contacts/“friends” do you have on Facebook?

- Less than 20 friends     
  between 20-50     
  between 50-100  
 between 100-150 or more

10. Do you have Facebook contacts/“e-mates” from your classroom?

- Yes     
  No     
  No answer

-If yes, how many of them (approximately) do you interact with?

.....

11. How many EFL learning “groups” have you joined on Facebook or other social media networks?

- None     
  less than 10 groups     
  between 10-20     
  20 groups or more

-If yes, can you name two groups you regularly visit: ..... - .....

12. Do you have any other social networking accounts? *Tick your choices*

- Facebook     
  YouTube     
  Twitter     
  Instagram     
  WhatsApp  
 Linked-in

- Other accounts, name them.....; .....; .....

13. How often do you post/exchange language docs, pics, audio and video material with e-mates on those social media networks? *Tick your answer*

- Yes, I always do     
  I sometimes do     
  I rarely do     
  I never do  
 No answer

### Facebook engagement & Interaction

14. How often do you do the following activities on Facebook? *Tick in the table below*

Facebook Interactions	7/7 every day	4-5 Days a week	2 Days a week	1 day in 2 weeks	once a month	Never	Don't know
a- I chat or update my Facebook status.							
b- I click on “like”/”dislike” icon next to e-friends’ posts: photos, links, docs or other language learning material.							
c- I comment on mates’ photos or classwork posts or EFL educational publications.							
d- I send private messages via messenger.							
e- I share class material with many e-mate							

classmates & friends at a time.							
f- I receive support from teachers, Facebook e-mates or other social networks users when I organize discussion within a learning group.							
g- I learn from social networks how to support others & help them manage educative material.							
h- I Get feedback from teachers, class-mates and researchers on the content you have posted.							

**Mobile Applications**

15. Name some Android applications that you installed on your mobile/ tablet for English language practice purposes: .....

-If you installed applications, tick their learning functions. *If No, skip this question*

- Pronunciation     vocabulary     grammar     sentence patterns
- reading     written practice (editing)     English language dictionary
- Other functions: .....

16- Please, indicate below how often you use these applications:

- Almost daily     several times a week     twice a week     never

17- Do you share your phone learning applications with your classmates?

- Yes, always     often     if they ask me     I don't share them

18- Do you usually work in collaboration within social media groups of classmates or e-friends?

- Yes, everyday     yes, at weekends     every two weeks     No, I never do

***N.B. If you have other comments regarding the topic under investigation, do not hesitate to comment in the present box below:***

.....

.....

.....

.....

.....

.....

.....

***Thank you for your cooperation***



## Appendix C: Teachers Interview Protocol

### Teachers' Interview *Questions*

*Dear Colleague,*

As a Master I teacher at the University of Abdel-hamid Ibn Badis, I warmly invite you to take part in this interview about the influence of social media networks and ICTs teaching and learning outside the classrooms. I would love to take your opinion how this important topic affects teaching learning process in master one education. Thank you for your collaboration.

1- Are you for the use of technology in teaching, if so, what ICT devices do you use most?

2- Do you currently use Facebook, YouTube or any other social network for academic purposes with your Master students?

3- In your opinion, how does the use of Facebook, YouTube or any other social media network enhance the teaching of the course you are currently in charge of?

4- Which other social media networks enable your students to work best? Which of them enables you to easily share various educational material such as word docs, audio-visual files, pics and others.

5- Can we consider the use of social media networks in education as a bridge that links learning outside the classroom with the formal one inside higher education institutions (universities)?

6- Do Master1 teachers, yourself included, inverse the teaching process by opting for the flipped classroom as a continuation of the formal classroom teaching?

7- Does it (flipped classes' method) constitute an enhancement for learning outside the classroom?

8- Did you take part in a pre-service or in-service training program in education?

-if yes, how? Where? How long? In which way was it beneficial?

9- Can you, please, specify other difficulties you encountered while trying to promote EFL teaching beyond the classroom?

10- According to your social media networks experience, what negative influence could they have on EFL learners?

11- Do you find online teaching more appealing than face-to-face?

12- Throughout your teaching experience using social media and ICT tools, did you manage to keep a web page, or a blog, or a Facebook page or a YouTube channel for complementary EFL pedagogical purposes?

-If so, how long have you been publishing in it? Is it a rewarding experience?

How were you managing work with your students?

13-Do you succeed in engaging students in online work?

14-If you have already taught your student online through the use of any social media network application such as Zoom, Facebook messenger, skype, google classroom, google meet or others, please tell us of your experience:

15- Have you conducted teaching e-learning platforms or on any specific Social Media Network?

-If yes, how was that teaching experience(s)? Describe it and tell us whether you have reached your teaching objectives?

- Did you follow any particular teaching method(s) or technique?

16- Did the use of social media influence your teaching approaches? If yes,

- How did you proceed to meet your learners' different needs?

- How did you proceed to ensure interaction among learners?

17- How did you succeed to ensure a credible assessment while evaluating your students while in distance learning?

18- If you had the choice, what would you change about Facebook or the social networks that you adopt with your students?

19-Do you recommend online teaching to complement the classroom face-to-face teaching to your colleagues? If yes? Why? if no, why?

*Thank you for cooperating*

## **Appendix D: Experiment Pre-test and Post-test**

### **The Pre-test topics:**

Select one of the topics provided below and answer it in a form of an essay.

- Do you think that excessive mobile phone use would lead to addiction among young people?
- Are you in favour of ICT adoption in English language learning?
- Should Algeria changes its football sport policy?

### **The Post-test topics:**

- Is home schooling effective?
- Should married women be allowed to have permanent jobs?
- Is it foolish to believe in superstitions?

## Appendix E: Experiment Statistic Calculations

### The Students' Pre-test Scores

Students	Experimental Group $X_1$	Control Group $X^2$	$X_1^2$	$X_2^2$
1	7.75	4	60.06	16
2	7	4.5	49	20.25
3	5.25	5	27.56	25
4	4	3.5	16	12.25
5	5	6.5	25	42.25
6	5	3.5	25	12.25
7	3.5	3.5	12.25	12.25
8	4	3.5	16	12.25
9	4	6.5	16	42.25
10	4.5	6	20.25	36
11	4.5	5	20.25	25
12	4.5	4	20.25	16
13	4.25	7.5	18.06	56.25
14	3.75	5	14.06	25
15	7.25	4.5	52.56	20.25
16	7.25	3.5	52.56	12.25
17	6.5	4	42.25	16
18	4.5	4	20.25	16
19	4.5	3.5	20.25	12.25
20	5.5	4.5	30.25	20.25
$N_1=N_2= 20$	$\sum X_1= 98.5$	$\sum X_2 = 92$	$X_1^2 =$	$\sum X_2^2 =$

### The Students' Post-test Scores

Students	Experimental Group $X_1$	Control Group $X_2$	$X_1^2$	$X_2^2$
1	7	6.5	49	42.25
2	7	1.75	49	03.06
3	5.5	3.25	30.25	10.56
4	6.5	6.5	42.25	42.25
5	7	4	49	16
6	7	4	49	16
7	6.5	7	42.25	49
8	7	6.5	49	42.25
9	6	5.5	36	30.25
10	7.5	6	56.25	36
11	7.5	5	56.25	25
12	5.5	4.5	30.25	30.25
13	6	5	36	25
14	6	4	36	16
15	7.5	3	56.25	09
16	8	5	25	25
17	6.5	5	42.25	25
18	6	7	36	49
19	6.5	7	42.25	49
20	7.5	6	56.25	36
$N_1=N_2= 20$	$\sum X_1= 134$	$\sum X_2 = 102$	$X_1^2 =$	$\sum X_2^2 =$

## Appendix F

Here are below the **keys to abbreviations used in the computation of the observed t** :

- $N_1$  = stands for the number of the participants of the first group.
- $N_2$  = stands for the number of the participants of the second group.
- $X_1$  = stands for the mean of the first group.
- $X_2$  = stands for the mean of the second group.
- $S_1^2$  = stands for the variance of the first group.
- $S_2^2$  = stands for the variance of the second group.
- $df$  = degree of freedom.

The researcher has followed these steps in calculating an independent t-test:

1<sup>st</sup> Calculation of the Mean

The formula is:  $\bar{X} = \frac{\sum X}{N}$ : The number of the students per group

N

2<sup>nd</sup> Calculation of the Variances

The formula is:  $S^2 = \frac{\sum X^2 - \frac{(\sum X)^2}{N}}$

N

3<sup>rd</sup> Calculation of the degree of freedom

$$df = (N_1 + N_2) - 2$$

4<sup>th</sup> Calculation of the computed 't'

The formula is:  $t = \frac{(\bar{X}_1 - \bar{X}_2) \sqrt{(N_1 + N_2 - 2) (N_1 N_2)}}$

$$t_{(N_1 + N_2 - 2)} =$$

$$\frac{\sqrt{(N_1 S_1^2 + N_2 S_2^2) (N_1 + N_2)}}$$

5<sup>th</sup> Comparing the obtained t with the critical value.

## Appendix G :

### *Master 1 Writing Techniques* canvas of Ibn Badis University of 2016-2017

**Intitulé du Master :** Didactique et langues appliquées

**Semestre :** 1

**Intitulé de l'UE :** Méthodologie

**Intitulé de la matière :** Writing Techniques

**Crédits :** 4

**Coefficients :** 2

**Objectifs de l'enseignement** (*Décrire ce que l'étudiant est censé avoir acquis comme compétences après le succès à cette matière – maximum 3 lignes*).

**Après le succès à cette matière l'étudiant aura acquis :**

Les étudiants apprendront à reconnaître et à se servir d'un ensemble de modes d'écriture les plus courants dans la rédaction d'un travail universitaire.

**Connaissances préalables recommandées** (*descriptif succinct des connaissances requises pour pouvoir suivre cet enseignement – Maximum 2 lignes*).

Ce cours doit compléter et enrichir les connaissances méthodologiques déjà acquises eu cours des six semestres.

**Contenu de la matière :**

- Ecrire un essai en s'appuyant sur la description, la présentation d'exemples.
- Explication d'un processus étape par étape.
- La comparaison et le contraste.
- Recherche des causes et/ou d'effets.
- Choix des arguments solides et convaincants.
- Défendre une position sur un sujet en fonction de son public.
- Reconnaître les erreurs types et les repérer dans les rédactions.
- Autocorrection.
- La question du plagiat.

**Mode d'évaluation :** Examen final 50% Control continu 50%

**Références** (*Livres et photocopiés, sites internet, etc*).

- Hermans, T (1985) *The Manipulation of Literature*, Studies in Literary Translation. Cambridge
- Hatim, B. & Munday, J. (2004) *Translation: a resource book*. London: Routledge
- Munday, J. (2001) *Introducing Translation Studies*, London: Routledge.
- Kiraly, D. (1995) *Pathways to Translation, Pedagogy and Process*. London: Longman.

## Summary

EFL education is in a constant progress, following the premises of science and technology advances in the domain of the digital media. Due to the proliferation of SMNs among students, educators have currently taken the implementation of technology one-step further. This study investigates master one students of Ibn Badis University in Mostaganem use of SMNs embedded in digital tools for learning purposes. The present research aims to reveal SMNs effects on students' formal learning outcome beyond the classroom. It also surveys how they bridge face-to-face with online learning through administering questionnaires, an experiment and an interview. The findings revealed positive perception of SMNs from both populations of students and their teachers for they scored high rates of use but with low frequency levels. Nonetheless, a significant improvement in their writing productions is computed. As such, they are recommended to overcome challenges related to facilities, ICT training, work commitment outside university in order to engage more effectively in online complementary learning environment.

**Keywords:** EFL education, ICTs and SMNs, digital learning tools, face-to-face and online learning, technology training, Commitment.

## Résumé

Etant l'enseignement de l'Anglais -comme langue étrangère- en progression constante, il suit le développement scientifique et technologique offert par des médias digitaux. En raison de la prolifération des SMN parmi les étudiants, les éducateurs ont actuellement poussé la mise en œuvre de la technologie un peu plus loin. Cette étude examine l'utilisation des réseaux sociaux par des étudiants en Master 1 de l'Université Ibn Badis de Mostaganem pour des fins d'apprentissage. En employant des questionnaires, une expérience et un entretien, la présente recherche révèle les effets des réseaux sur l'amélioration des performances pédagogique au-delà de la classe, notamment comment lier l'apprentissage en face à face et l'apprentissage en ligne. Les résultats ont révélé une perception positive des réseaux sociaux de la part des populations d'étudiants et de leurs enseignants ayant obtenu des taux d'utilisation élevés mais la fréquence d'utilisation est faible. Néanmoins, on note une amélioration considérable dans leurs productions d'écrites. En tant que tels, il leur est recommandé de surmonter les défis liés aux manque d'infrastructure, la formation aux TIC, à l'engagement en dehors de l'université afin d'accentuer le rendement dans un environnement d'apprentissage complémentaire en ligne.

**Les mots clés :** Langue anglaise en tant que langue étrangère, médias digitaux et réseaux sociaux, apprentissage complémentaire au-delà de classe, performances pédagogique, la formation aux TIC, l'engagement en dehors de l'université.

## ملخص

يشهد تعليم اللغة الإنجليزية كلغة أجنبية تقدماً مستمراً، بعد تقدم العلوم والتكنولوجيا في مجال الوسائط الرقمية. نظراً لانتشار شبكات التواصل الاجتماعي بين الطلاب، اتخذ المعلمون حالياً تنفيذ التكنولوجيا خطوة مهمة إلى الأمام. تبحث هذه الدراسة في إتقان استخدام طلاب جامعة ابن باديس في مستغانم لشبكات لتواصل الاجتماعي المدمجة في الأدوات الرقمية لأغراض التعلم. يهدف البحث الحالي إلى الكشف عن تأثيرات لتواصل الاجتماعي على نتائج التعلم الرسمية للطلاب خارج الفصل الدراسي. كما يستقصي الربط بين التعلم الحضوري والتعلم عبر الإنترنت من خلال إدارة الاستبيانات والتجربة والمقابلة. كشفت النتائج عن تصور إيجابي لشبكات لتواصل الاجتماعي من كل من مجموعتي الطلاب واساتذتهم إذ سجلوا معدلات استخدام عالية ولكن باستمرار منخفضة. ومع ذلك، تم حساب تحسن كبير في إنتاجهم الكتابي. على هذا النحو، يوصى بالتغلب على التحديات المتعلقة بالمرافق، والتدريب على تكنولوجيا المعلومات والاتصالات، والالتزام بالعمل خارج الجامعة من أجل المشاركة بشكل أكثر فعالية في بيئة التعلم التكميلية عبر الإنترنت.

**الكلمات المفتاحية:** الوسائط الرقمية، تأثيرات شبكات التواصل الاجتماعي، التعلم الحضوري والتعلم عبر الإنترنت، التدريب على الالتزام بالعمل خارج الجامعة، تكنولوجيا المعلومات والاتصالات.