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Title

**Investigating the Effectiveness of Assessing EFL Learners' Achievement
throughout Blended Learning Approach during COVID-19 Pandemic :**

Perceptions and Challenges

The Case Study of EFL Students at Mohamed Khider University of Biskra

Dissertation Submitted to the Department of Foreign Languages as Partial Fulfillment of
the Requirements for the Degree of Master in Sciences of Language

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Declaration

I **Raiane MESSAIBI** do hereby declare that this submitted work is my original work and has not previously been submitted for any institution or university for a degree. I also declare that a list of references is provided forward indicating all the sources of the cited and quoted information. This work was certified and completed at Mohammed KHEIDER University of Biskra.

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Dedication

I dedicate this dissertation

To the memory of my aunt Seghirate Nadjette

To my father Lamine for his support, patience and love

To my mother Samira, my best teacher and inspiration in life

Thank you for your countless blessings, knowledge, guidance and support to accomplish this work

To my brothers Bachir and Islem

To my sister Amina and her husband Nabil

To my niece and princess Yasmine

To my cousin Abir

To my grandmother

To my second mom Karima

To all my aunts and uncles

To my precious friends Abla and Rania

Thank you for your encouragement, love and support

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Abstract

The integral shift to blended learning during the COVID-19 crisis makes it necessary to revise assessment methods and identify new types of assessment appropriate for virtual setting. This current study seeks to explore the effectiveness of assessing EFL students' achievement in the light of integrating a blended learning approach. It also aims at investigating EFL teachers' and learners' perceptions and challenges. To achieve this goal, an exploratory qualitative research design was used in an attempt to answer the research questions. In this respect, the researcher used two data gathering tools. A semi-structured students' questionnaire was administered through Google Form to 55 EFL learners at the Department of English and Literature at Biskra University. The second tool was a semi-structured teachers' interview. It was conducted with 12 teachers from the same department. Both data gathering tools were analyzed thematically. The findings revealed that both teachers and students were in favour of blended learning and online assessment despite the challenges they encountered. Slow internet connectivity, lack of ICT training, and academic integrity violations were the major obstacles that hinder the effective implementation of blended learning and online assessment. Moreover, these challenges affected negatively some learners' achievement. Finally, it is recommended for university stakeholders to invest in and implement long-term ongoing training for both teachers and students to promote blended learning and online assessment at higher education.

Key words: blended learning, learners' achievement, online assessment, perspectives and challenges

List of Abbreviations and Acronyms

B-Learning: Blended Learning

F2F: Face-to-Face

ICT: Information and Communications Technology

COVID-19: Coronavirus Disease of 2019

E-Assessment: Electronic Assessment

EFL: English as a Foreign Language

E-Learning: Electronic Learning

LMS: Learning Management System

MOODLE: Modular Object-Oriented Dynamic Learning Environment

OA: Online Assessment

List of Tables

Table 1.1 Blended Learning Models in K-12 Practice	16
Table 1.2 Blended Learning Models in Higher Education Practice.....	20
Table 1.3 Live Media vs. Self-Study Media	24
Table 1.4 Comparing Traditional and Online Learning Roles of Teachers	31
Table 1.5 Similarities and Differences between Traditional Learning, E-Learning, and Blended Learning	43
Table 1.6 Conceptual Framework of Study	54
Table 2.1 Purposes and Uses of Assessments with Examples.....	62
Table 2.2 Summative and Formative Assessment and Evaluation	64
Table 2.3 Assessment Terms and Definitions	69
Table 3.1 The Description of the Students' Questionnaire	106
Table 3.2 The Description of the Teachers' Interview.....	109
Table 3.3 Students' Gender Distribution.....	112
Table 3.4 Students' Age Distribution.....	113
Table 3.5 Students' ICT Literacy.....	115
Table 3.6 Students' Location	115
Table 3.7 Students' Access to Technology.....	116
Table 3.8 Students' Familiarity with Blended Learning	117
Table 3.9 Students' Types of Training on the Moodle Platform	118
Table 3.10 Downloaded Files from Moodle Platform	119
Table 3.11 Students' Attitudes towards Downloaded Files for Blended Learning ...	120
Table 3.12 Reasons for the Uselessness of the Downloaded Files	120
Table 3.13 Students' Attitudes towards the Difficulties with Enrollment on the Moodle Platform	122
Table 3.14 Students' Difficulties with Enrollment on the Moodle Platform	122
Table 3.15 Instructional Means Used in Blended Learning	124
Table 3.16 Students' Choices between Face-to-Face and Blended Learning	125
Table 3.17 Reasons for Choosing Face-to-Face or Blended Learning	126
Table 3.18 Types of Assessment.....	129
Table 3.19 Students' Attitudes towards Online Assessment	130
Table 3.20 Students' Experience in Online Assessment	130
Table 3.21 Teachers Assessment Methods.....	131

Table 3.22 Students' Perceptions towards Blended Learning and Online Assessment	132
Table 3.23 Online Assessment Challenges.....	134
Table 3.24 Students' Assessment Preferences.....	137
Table 3.25 Teachers' Teaching Experience and Academic Position.....	139
Table 3.26 Teachers' ICT Literacy and Modules Taught through Blended Learning	140
Table 3.27 Samples of Teachers' Responses on Blended Learning Benefits.....	143
Table 3.28 Samples of Teachers' Responses on Blended Learning Problems.....	146
Table 3.29 Samples on Teachers' Responses on Online Assessment Challenges.....	150
Table 3.30 Samples of Teachers' Suggestions to overcome Obstacles and Difficulties in Blended Learning and Online Assessment.....	153

List of Figures

Figure 1.1 Blended-Learning Taxonomy	19
Figure 1.2 Stages of the Blended Learning Design and Development Process.....	25
Figure 1.3 Subsets of Distance Learning	47
Figure 1.4 Didactics – Lecture Three : The Language Learner on UMKB Moodle Platform	51
Figure 2.1 The Assessment Cycle	78
Figure 2.2 Different Types of Questions Offered by Google Forms	87
Figure 2.3 E-Assessment Cycle	90
Figure 2.4 Online Assessment Challenges	99
Figure 3.1 Students’ Current Level of Study at University	114
Figure 3.2 Students' Enrollment in Blended Learning	117
Figure 3.3 Students’ Achievement through Blended Learning	136

Table of Contents

Declaration.....	I
Dedication.....	II
Acknowledgements	III
Abstract.....	IV
List of Abbreviations and Acronyms	V
List of Tables	VI
List of Figures	VIII
General Introduction	1
1. Statement of the Problem	1
2. Research Questions.....	2
3. Research Aims	3
4. Research Methodology.....	3
4.1 Research Approach and Design.....	3
4.2 Population and Sampling Techniques	4
4.3. Data Collection Tools	4
5. Significance of the Study	5
6. Limitations of the Study.....	6
7. Structure of the Dissertation.....	6
8. Glossary.....	7

Chapter One: Blended Learning Approach

Introduction.....	11
1.1 Blended Learning Origins	11
1.2 Blended Learning Definitions	12
1.3 Hybrid Learning vs. Blended Learning.....	13
1.4 Approaches to Blended Learning	14
1.4.1 The Program Flow Model Approach	14
1.4.2 The Core-and-Spoke Model Approach	15
1.5 Models of Blended Learning	15
1.5.1 The Station-Rotation Model	17
1.5.2 The Lab-Rotation Model.....	18
1.5.3 The Flipped-Classroom Model.....	18
1.5.4 The Individual-Rotation Model	18

1.5.5 The Enriched-Virtual Model	19
1.6 Blended Learning Instructional Tools.....	21
1.6.1 Instructor-Led Training (ILT)	21
1.6.2 Webinars (Live e-Learning)	22
1.6.3 Courseware (Web-Based).....	22
1.6.4 Simulations (Application, Business, Process)	22
1.6.5 CD-ROM-Based Courseware	22
1.6.6 Rapid e-Learning Courseware (Power Point-Based).....	22
1.6.7 Internet-Delivered Video.....	23
1.6.8 EPSS (Electronic Performance Support Systems).....	23
1.7 Planning and Designing Blended Learning Programmes	24
1.7.1 Needs Analysis in Blended Learning	25
1.7.2 Design of Blended Learning.....	25
1.7.3 Development of Blended Learning	26
1.7.4 Delivery in Blended Learning	27
1.7.5 Evaluation of Blended Learning	27
1.8 Features of an Effective Blended Learning Design	28
1.9 Comparing Traditional and Online Learning Roles of Teachers	28
1.10 Benefits of Blended Learning	31
1.11 Teachers' and Students' Perceptions of Blended Learning.....	33
1.12 Teachers' and Students' Challenges in Blended Learning.....	37
1.13 Online Learning during COVID-19	42
1.14 Traditional Learning vs. E-Learning and Blended Learning.....	42
1.15 Technology and Learning Theories	44
1.15.1 Behaviourist Learning Technology.....	44
1.15.2 Cognitivist Learning Technology	45
1.15.3 Constructivist Learning Technology.....	45
1.15.4 Connectivist Learning Technology	45
1.15.5 Collaborativist Learning Technology	46
1.16 Subsets of Distance Learning	46
1.16.1 Distance Learning (DL)	46
1.16.2 E-Learning.....	46
1.16.3 Online Learning (OL)	47

1.16.4 Computer-Based Learning (CBL).....	47
1.17 Learning Management Systems (LMS)	48
1.17.1 Web Conferencing	48
1.17.2 Digital Textbooks.....	48
1.17.3 Blogs, Wikis and E-mails	49
1.17.4 Social Bookmarking, Mashups and Digital Storytelling.....	49
1.17.5 Simulations, Serious Games and Virtual Worlds	50
1.17.6 E-Portfolios.....	50
1.17.7 Modular Object-Oriented Dynamic Learning Environment (Moodle)....	50
1.17.8 Interactive Whiteboard (IWB).....	51
1.17.9 Social Networking Sites	52
1.18 Teachers’ ICT Literacy	52
1.19 Bloom’s Digital Taxonomy (BDT).....	53
1.19.1 Original Bloom’s Taxonomy.....	53
1.19.2 Revised Bloom’s Taxonomy	53
1.19.3 Digital Update of Bloom’s Taxonomy.....	53
1.20 Assessing Students’ Achievement in Blended Learning.....	55
Conclusion	58

Chapter Two: Assessment in Blended Learning

Introduction.....	59
2.1 Assessment Definitions	59
2.2 Assessment Purposes	60
2.2.1 Assessment for Learning (AFL)	61
2.2.2 Assessment of Learning (AOL).....	61
2.2.3 Assessment as Learning (AAL).....	61
2.3 Formative vs. Summative Assessment.....	63
2.4 Theoretical Key Concepts in Assessment	64
2.4.1 Assessment vs. Testing, Evaluation and Measurement	64
2.4.2 Standardized vs. Non-standardized Assessments	66
2.4.3 Grading Standards.....	66
2.5 Characteristics of Effective Assessment	67
2.5.1 Alignment	67
2.5.2 Validity.....	67

2.5.3 Reliability	67
2.5.4 Fairness.....	67
2.5.5 Practicality.....	68
2.5.6 Objectivity	68
2.5.7 Washback/Backwash	68
2.5.8 Authenticity	68
2.6 Traditional Assessments.....	70
2.6.1 Selected-Response Assessments.....	71
2.6.1.1 Multiple-Choice Items.....	71
2.6.1.2 Matching Items.	71
2.6.1.3 True-False Items.	71
2.6.2 Constructed-Response Assessments	71
2.6.2.1 Short-Answer Items.	71
2.6.2.2. Essay Items.	72
2.6.2.3 Completion Items.....	72
2.6.2.4 Problems-Solving Items.	72
2.7 Effectiveness of Traditional Assessment	72
2.8 Alternative Assessments	74
2.8.1 Portfolio Assessments	75
2.8.2 Performance Assessments	75
2.8.3 Students Exhibitions and Journals	75
2.8.4 Creating Effective Alternative Assessments	76
2.9 Understanding the Assessment Cycle	78
2.9.1 Planning the Assessment.....	78
2.9.2 Administering the Assessment	79
2.9.3 Evaluating and Revising Learners' Outcomes	79
2.9.4 Communicating the Assessment Results.....	80
2.10 Feedback in Assessment.....	80
2.10.1 Feedback Definition	80
2.10.2 Importance of Feedback	80
2.11 Online Assessment during COVID-19.....	82
2.12 Online Assessment Emergence.....	82
2.13 Online Assessment Definitions.....	83

2.14 Online Assessment Methods	83
2.14.1 Online Quizzes.....	85
2.14.2 Open-ended/ Essay Questions	85
2.14.3 Drag-and-Drop Activities.....	85
2.14.4 Game-Type Activities	85
2.15 Principles of Effective Online Assessment	86
2.16 Online Assessment Platforms.....	86
1.16.1 Google Forms	87
2.16.2 Quizlet	87
2.16.3 Scorative.....	88
2.16.4 iSpring Suite	88
2.16.5 Qorrect.....	88
2.17 Features of Online Assessment Tasks.....	88
2.18 Online Assessment Process	89
2.19 Differences between Traditional Assessment and Online Assessment.....	90
2.20 Online Assessment Benefits	92
2.21 Teachers' and Students' Perceptions of Online Assessment.....	94
2.22 Teachers' and Students' Challenges in Online Assessment.....	96
Conclusion	99

Chapter Three: Fieldwork and Data Analysis

Introduction.....	101
3.1 Research Methodology: Choices and Rationale	101
3.1.1 Research Paradigms	101
3.1.2 Research Approach	102
3.1.3 Research Design	102
3.1.4 Population and Sampling Techniques.....	103
3.1.5 Data Collection Methods.....	105
3.1.5.1 Students' Questionnaire.	105
3.1.5.1.1 Aim and Structure.	105
3.1.5.1.2 Piloting and Validation.....	107
3.1.5.1.3 Administration.	108
3.1.5.2 Teachers' Interview.....	108
3.1.5.2.1 Aim and Structure.	108

3.1.5.2.2 Piloting and Validation.....	109
3.1.5.2.3 Administration.....	111
3.1.6 Data Analysis Procedures.....	111
3.2 Data Analysis and Results Interpretation.....	112
3.2.1 Students' Questionnaire Results and Interpretation.....	112
3.2.2 Teachers' Interview Results and Interpretation.....	137
Conclusion.....	153
General Conclusion.....	155
Pedagogical Implications and Recommendations.....	157
References.....	160
Appendices.....	167
ملخص.....	179

General Introduction

General Introduction

Shortly, after the declaration made by the World Health Organization (WHO) in 2020 that Coronavirus (COVID-19) was a pandemic; all aspects of life have significantly changed, especially in the educational context. As a result, all schools and universities were obliged to close till further notice. As regards the educational system in Algeria, stakeholders took nearly the same measures to reduce the risk of infection.

In such circumstances, blended learning (B-Learning) has quickly become an integral aspect of instruction and assessment in higher education (HE). Numerous educational institutions all through the world collaborated to benefit from the available online learning tools. Ministries of Education (MOE) have spent considerable amount of money on more appropriate online programmes and platforms to integrate the various educational systems. For both teachers and learners, reshaping education by combining face-to-face (F2F) with online learning was a challenging task mainly for institutions were only F2F learning was adopted and no online assessment programmes were implemented. This was the case of the Algerian universities.

1. Statement of the Problem

To ensure an educational continuity during the outbreak COVID-19 pandemic, the Algerian educational stakeholders diverted towards blended learning. This new paradigm of learning was considered as one of the most challenging contemporary educational methods in higher education since it is based on ICT. B-Learning is also a combination of the traditional way of learning that is F2F and the use of ICT tools.

In the same context, teachers at Biskra University were introduced to this kind of learning throughout different in-service training programmes .They have been trained how to post lectures on Moodle platform and teach using Google Meet and Zoom applications.

Despite some difficulties, most teachers were able to post lectures, videos, articles and even books on Moodle platform. Moreover, many Google Meet and Zoom sessions, video conferences and virtual classrooms were performed with students at most Biskra University Departments and more specifically with students at the Department of English. Nevertheless, nothing concrete was implemented to shed light on how to assess and evaluate learners online. Consequently, when teachers started looking for procedures to e-assess learners, they found difficulties and confronted various challenges.

Likewise, the facilitation and clarification of online assessment processes still need further research as there are many factors involved such as students' and teachers' attitudes towards B-Learning and online assessment, internet availability and accessibility, reliability and validity of technology. Therefore, considering the aforementioned research findings and context specificities, this research sought to investigate the effectiveness of assessing EFL learners' performance in the light of integrating BL approach. Besides, it casted light on both teachers' and students' perceptions and challenges in the current new educational system.

2. Research Questions

This research attempted to answer the following research questions:

RQ1: What are the teachers' and learners' perceptions of blended learning and online assessment?

RQ2: What are the teachers' and students' challenges in blended learning and online assessment?

RQ3: How can assessment in blended learning affect learners' achievement in higher education?

3. Research Aims

The general aim of this study is to investigate the challenges and difficulties that both EFL teachers and students at Biskra University have encountered when using blended learning approach. More specifically this paper aims at :

1. Identifying the teachers' and students' perceptions of blended learning approach.
2. Raising awareness of the importance of using blended learning approach to foster learners' self-reliance and self-efficacy.
3. Enhancing technology integration in education at higher education.
4. Understanding the instructional and assessment strategies that are most effective in the online learning environment.

4. Research Methodology

This section is devoted to the methodological choices adopted to conduct the current research. Namely, research approach and design, population and sampling techniques, and data collection tools.

4.1 Research Approach and Design

Due to the limited research investigating learning assessment in blended learning courses, an exploratory research design was used to explore EFL students' and teachers' perceptions and challenges of the application of blended learning and online assessment. In this respect, "*Exploratory research studies are also termed as formulative research studies... The major emphasis in such studies is on the discovery of ideas and insights*" (Kothari, 2004, p.35-36). Under the umbrella of this research, the case study design adopted a qualitative research approach in line with the purpose of the study. In the light of this issue, the present study served an inquiry towards developing an in-depth analysis of a case of a

particular B-Learning approach during the COVID-19. Moreover, this investigation was conducted during the second semester of the academic year 2021-2022 at the Department of English and Literature, University of Biskra to provide a more complete understanding of the research problem.

4.2 Population and Sampling Techniques

The respondents of the study were teachers and students of the academic year 2021-2022, from the Sciences of the Language at the Department of English, Biskra University, to obtain more data about the studied phenomenon. To follow up this study, EFL students comprised the population of this research. Due to the large number of students, time constraints, and Covid-19 health issues, only 55 participants took part in this research through random sampling technique.

To better tackle the issue raised above, a sample of 12 EFL teachers from the same Department were purposively and carefully selected from a population of more than 60 teachers for the sake of collecting data about their attitudes and perceptions towards the use of assessment in B-Learning during COVID-19. They were selected for their BL relevant experience and professional performance in online courses and assessments. Furthermore, the instructors often combine online learning and face-to-face training by incorporating new technological techniques

4.3. Data Collection Tools

The methodology of the current study relied on a variety of data collection methods. Based on the nature of the study, the research questions, and objectives, two main instruments were used in this research, namely a semi-structured questionnaire for EFL students and a semi-structured interview for EFL teachers. To achieve the research goals, this study aimed at exploring EFL students' and teachers' perceptions and challenges

towards implementing online assessment in BL during the Covid-19. Initially, a semi-structured Google Form questionnaire was posted on EFL students official Facebook groups. Also, a semi-structured online interview was emailed to EFL teachers who represented different academic position, and teaching experience. On the other hand, both data collection instruments were utilized to gather in-depth information, get adequate and valid data, and cover different points of view. The semi-structured questionnaire and semi-structured interview were analysed thematically.

5. Significance of the Study

This study is significant when taking into consideration the global health crisis of the Covid-19 pandemic, and its effect to enhance social distancing. The closure of universities over a long period has raised the question of the future of education in Algeria. Therefore, implementing BL, which is a mixture of online and traditional F2F learning, was the ideal compromise to keep students academically engaged and minimize their physical attendance. This approach to teaching and learning needed effective techniques to assess students' learning. Moreover, in the new arena of online learning, the assessment challenges have become greater. Teachers and learners were not well-equipped with the necessary knowledge about B-Learning and online assessment techniques. Given this background, the findings of this study would be significant to academic institutions, stakeholders , teachers and students in Algeria in general and more specifically at Biskra University, Department of English and Literature. Besides, this study may offer new prospects on how B-Learning and technology can be combined to make students more autonomous and guarantee better achievements.

6. Limitations of the Study

This research was conducted at Biskra University, Department of English and Literature. The sample was not considerable and the researcher did not have enough time to collect responses from many participants and from different universities because of time constraints and health issues. Therefore, the outcomes of this study can not be overgeneralized to all Algerian universities. Further research is needed to gather data from other educational departments throughout Algeria.

7. Structure of the Dissertation

There are three key chapters in this dissertation. The related literature was respectively reviewed in the first and second chapters. The practical aspect of the study was addressed in the third chapter.

Initially, **Chapter One** included the main issues related to the implementation of blended learning in EFL context in detail. It covered a brief history of this approach, its definitions, its models, and instructional tools, and benefits. This chapter also investigated EFL teachers' and students' perceptions and challenges in blended learning. Lastly, chapter one concluded with a brief description of Bloom's digital taxonomy and the impacts of blended learning on students' achievements.

Subsequently, **the second chapter** of this dissertation was conducted on the study of assessment. It provided a better understanding of the term assessment based on different perspectives. It also described its types, purposes and portrayed the difference between some theoretical concepts in assessment. Besides, more attention was paid to how teachers assess EFL students within BL approach, and how feedback was involved. Furthermore, it dealt with online assessment, its definitions, emergence, principles, methods and benefits. Finally,

this chapter explored teachers' and students' perceptions and challenges on online assessment..

Eventually, **the last chapter** depicted the methodological features of academic research, from philosophical foundations to merely practical procedures, as well as its implementation in the current study. Besides, it offered a rationale and comprehensive description for the selection of the research design, and data collection instruments. On the other hand, this chapter dealt with the detailed analysis and interpretation of the results of both the students' questionnaire and the teachers' interview. Moreover, piloting and validating data gathering tools were taken into account in this research. In the end, a synthesis and a conclusion will be drawn from the collected and interpreted data in an attempt to answer the research questions. Also, several pedagogical recommendations for further researches and future implications were suggested for EFL teachers and students in accordance with the research topic at hand.

8. Glossary

This part attempts to provide understanding of some technical terms for the contents that have been used during the research process.

Asynchronous. *“media and program types where the learners work on their own time, unsynchronized with any instructor. This is also called “self-study” training”* (Bursin, 2004, p.279).

Benchmarks. *“More specific statements of the type of behaviors or products that students can produce to meet the standards”* (Moreno, 2010, p.474).

Beneficial Washback. *“if the teaching is poor and inappropriate and the testing is good; that is, the test administered is a valid test, based on the real communicative needs of*

the students and includes tasks very similar to those that they have to perform in real life” (Sarosdy et al., 2006, p.136).

Distracters. *“as a list of answer choices in a multiple-choice question that are used to divert the student from the correct answer” (Moreno, 2010, p.460).*

Drill-and-Practice Programs. *“A computer-based method in which a set of problems or questions are answered at one’s own pace while receiving immediate feedback” (Lever-Duffy, McDonald, & Mizell, 2003, as cited in Moreno, 2010, p.547).*

Formal Assessments. *“assessments that are typically created in advance to establish what students have learned, and their implementation involves a disruption in teaching (a mid-term exam, for example)” (Moreno, 2010, p.453).*

Harmful Wackback *“if the content and the testing techniques are very far from the objectives of the course, if the teaching is good and appropriate, testing is not” (Sarosdy et al., 2006, p. 136).*

Informal Assessments. *“spontaneous methods of gathering information about students’ knowledge and skills. Informal assessment typically happens during the course of instruction” (Moreno, 2010, p.453).*

Interactivity. *“A term used in e-learning for a technology or activity that requires the learner to practice something or interact with the content. There are many types of interactivities (fill in the blanks, match boxes, slide a slider bar, and so forth) used to illustrate a concept. They also are used to practice an application rollout” (Bursin, 2004, p.281).*

Inventories. *“they are effective tools for diagnosing students’ prior knowledge, interests, and learning preferences. They help students understand themselves as learners and provide teachers with information for planning instruction and grouping”* (Arends & Kilcher, 2010, p.142).

K-12. *“a term used in education and educational technology in the United States, Canada, and possibly other countries. It is a short form for the publicly-supported school grades prior to college. These grades are kindergarten (K) and the 1st through the 12th grade (1-12)”* (K-12, 2005, para. 1).

Operant Conditioning. *“operant conditioning is learning in which behavior changes in frequency or duration as the result of a consequence (i.e., reinforcer, punishment)”* (Skinner, 1953, as cited in Moreno, 2010, p.547).

Peer Assessment. *“is the practice of reciprocal scoring of papers, projects, or other assessments by learners in the same course or program and is often coupled with self-assessment activities to encourage reflection and metacognition”* (Simonson et al., 2015, p. 250).

Process-folio. *“the initial brainstorming ideas, drafts, sketches, and first critiques; collections of works by others that inspired students’ products; self-critiques and critiques of peers, teachers; and self-reflections on how the student might build on the project in the future”* (Moreno, 2010, p.469).

Programmed instruction. *“A computer-based methods that uses operant conditioning principles, such as using reinforcement to shape students’ learning”* (Moreno, 2010, p.547).

Self-assessment. *“involves helping students set their own learning goals, monitor progress toward achieving these goals, and make adjustments in learning strategies as required ” (Arends & Kilcher, 2010, p.145).*

Standards. *“Broad statements of what should be taught at each grade level and for each content area” (Moreno, 2010, p.474).*

Synchronous. *“media and program types where the learner interacts in real time with the instructor. The people are “synchronized” together. Classroom training, conference calls, webcasts, and chat sessions are all synchronous” (Bursin, 2004, p.283).*

The Norm Group. *“A representative sample of the population that is tested and whose scores have been previously compiled for the purpose of making comparisons ” (Moreno, 2010, p. 505).*

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Introduction.....	11
1.1 Blended Learning Origins	11
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1.4 Approaches to Blended Learning	14
1.4.1 The Program Flow Model Approach	14
1.4.2 The Core-and-Spoke Model Approach	15
1.5 Models of Blended Learning	15
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1.5.3 The Flipped-Classroom Model.....	18
1.5.4 The Individual-Rotation Model	18
1.5.5 The Enriched-Virtual Model	19
1.6 Blended Learning Instructional Tools.....	21
1.6.1 Instructor-Led Training (ILT)	21
1.6.2 Webinars (Live e-Learning)	22
1.6.3 Courseware (Web-Based).....	22
1.6.4 Simulations (Application, Business, Process)	22
1.6.5 CD-ROM-Based Courseware	22
1.6.6 Rapid e-Learning Courseware (Power Point-Based).....	22
1.6.7 Internet-Delivered Video.....	23
1.6.8 EPSS (Electronic Performance Support Systems).....	23
1.7 Planning and Designing Blended Learning Programmes	24
1.7.1 Needs Analysis in Blended Learning.....	25
1.7.2 Design of Blended Learning.....	25
1.7.3 Development of Blended Learning.....	26
1.7.4 Delivery in Blended Learning	27
1.7.5 Evaluation of Blended Learning	27
1.8 Features of an Effective Blended Learning Design	28
1.9 Comparing Traditional and Online Learning Roles of Teachers	28
1.10 Benefits of Blended Learning.....	31
1.11 Teachers' and Students' Perceptions of Blended Learning.....	33

1.12 Teachers’ and Students’ Challenges in Blended Learning.....	37
1.13 Online Learning during COVID-19.....	42
1.14 Traditional Learning vs. E-Learning and Blended Learning.....	42
1.15 Technology and Learning Theories	44
1.15.1 Behaviourist Learning Technology.....	44
1.15.2 Cognitivist Learning Technology	45
1.15.3 Constructivist Learning Technology.....	45
1.15.4 Connectivist Learning Technology.....	45
1.15.5 Collaborativist Learning Technology	46
1.16 Subsets of Distance Learning	46
1.16.1 Distance Learning (DL)	46
1.16.2 E-Learning.....	46
1.16.3 Online Learning (OL)	47
1.16.4 Computer-Based Learning (CBL).....	47
1.17 Learning Management Systems (LMS)	48
1.17.1 Web Conferencing	48
1.17.2 Digital Textbooks.....	48
1.17.3 Blogs, Wikis and E-mails.....	49
1.17.4 Social Bookmarking, Mashups and Digital Storytelling.....	49
1.17.5 Simulations, Serious Games and Virtual Worlds	50
1.17.6 E-Portfolios.....	50
1.17.7 Modular Object-Oriented Dynamic Learning Environment (Moodle)....	50
1.17.8 Interactive Whiteboard (IWB).....	51
1.17.9 Social Networking Sites	52
1.18 Teachers’ ICT Literacy	52
1.19 Bloom’s Digital Taxonomy (BDT).....	53
1.19.1 Original Bloom’s Taxonomy.....	53
1.19.2 Revised Bloom’s Taxonomy	53
1.19.3 Digital Update of Bloom’s Taxonomy.....	53
1.20 Assessing Students’ Achievement in Blended Learning.....	55
Conclusion.....	58

Introduction

The COVID-19 outbreak forced higher education institutions to look for other alternatives to ensure access to learning and safety of all teachers and students. Blended learning was the most appropriate alternative to guarantee the continuity of pedagogical practices either synchronously or asynchronously. This chapter includes the main issues related to blended learning in EFL context. It also covers a brief history of this approach, its definitions, models, instructional tools, design, and benefits. More importantly, this chapter explores teachers' and students' perceptions and challenges on blended learning. It also sheds light on online learning, technology and learning theories, and learning management systems. Finally, it concludes with a brief description of Bloom's taxonomy and the impact of blended learning on students' achievement.

1.1 Blended Learning Origins

In a context of international competitiveness, the rise of e-commerce and e-business was one of the many developments brought about by the advent of digital technology at the end of the 20th century. Large multinational corporations recognized that e-learning could :

- provide training to a globally dispersed workforce ;
- People can be trained without having to leave their jobs ;
- Assure that training programmes and implementation are consistent

(Jordan et al., 2008)

Jordan et al. (2008) stated that e-learning began in the field of training and swiftly extended to other fields of education. Moreover, teachers quickly realised that it may be a way to meet the needs of a diverse group of students, particularly those who would consider traditional classroom learning difficult or inaccessible. Also, conventional correspondence

classes and the Open University systems demonstrated that educational programmes may be delivered to learners at distance. However, the design of materials that could be efficient without the assistance of a teacher was exceptionally difficult and extremely costly. Even if this issue could be resolved, the absence of embodiment and the instructor remained a limitation.

Blended learning is a compromise that combines face-to-face instruction with computer-based distant learning in which the teacher and student engage interactively (Wilson & Smilanich 2005, as cited in Jordan et al., 2008). Furthermore, the computer is no longer used as a teaching device but rather as a communication medium. This arrangement meets the difficulties of material and implementation. The interaction eliminates the need for whole and highly prescriptive resources, and the face-to-face element gives embodiment (Jordan, 2008).

1.2 Blended Learning Definitions

Blended, mixed, and interactive learning are all words describing a trend that has been widely adopted but is always evolving. It has become such a "buzzword" to come up with a single definition for blended learning.

Cucciare et al. ; Rossett and Frazee (2008 ; 2006, as cited in Hew & Cheung, 2014) defined blended learning as *“the integration of almost all multiple learning methods or techniques such as the combination of laboratory sessions, face-to-face lectures, assigned readings, formal coursework, self-paced, collaborative online format, as well as supervised hands on practice”* (p.3)

On the other hand, other scholars disagree with such a wide term, preferring a more particular or narrower definition such as Tucker (2012) who stated, "*Blended learning refers to the spectrum of teaching modes that combine traditional face-to-face instruction with an online component*" (p.11).

Moreover, the amount of instruction in each mode is included in some definitions. For instance, the Online Learning Consortium (n.d., as cited in Chapelle & Sauro, 2017) described blended learning as "*a course where 30 percent to 70 percent of the instruction is delivered online*" (pp.149-150).

In the same vein, Picciano (2009, as cited in Chapelle & Sauro, 2017) depicted blended classes as "*those where face-to-face and online activities are integrated in a planned, pedagogically valuable manner and where online activities replace a portion of face-to-face time*" (p.149).

Among other scholars, Bersin (2004) stated that:

Blended learning is the combination of different training "media" (technologies, activities, and types of events) to create an optimum training program for a specific audience. The term "blended" means that traditional instructor-led training is being supplemented with other electronic formats. (p.xv)

In other words, there is a common feature between the four definitions. All of them insist on the combination of online learning with face-to-face educational methods.

1.3 Hybrid Learning vs. Blended Learning

As with many terminologies used in e-learning, blended and hybrid are not synonymous terms. Steele (2022) defined hybrid learning as "*an educational approach where some individuals participate in person and some participate online. Instructors and*

facilitators teach remote and in-person learners at the same time using technology like video conferencing” (para.5). In hybrid learning, the in-person and online learners are distinct persons. Whereas, “*with blended learning, instructors and facilitators combine in-person instruction with online learning activities. Learners complete some components online and do others in person*” (Steele, 2022, para. 6). Blended learning involves the same individuals acquiring knowledge in-person and online. Both modes of learning involve a combination of face-to-face and online instruction, but the participants in each scenario are different

1.4 Approaches to Blended Learning

Driscoll (1998, as cited in Jordan, 2008) indicated four different approaches to blended learning. In the Self-Regulated approach, students use a variety of technologies to attain a specific learning objective, including web-based audio or video clips, simulations, and virtual learning environments. Then, in the Pedagogical approach, the teacher chooses appropriate pedagogical approaches that may or may not include instructional technology in order to accomplish a specific learning objective. Next, in the Mixed approach, face-to-face training is adaptable paired with any instructional technology. Finally, in the Learning Outcome-Based approach, the learning outcomes determine the types of delivery, which technology and methodology connect.

Furthermore, Bersin (2004) affirmed that blended learning programmes employ a variety of e-learning methods, which may be supplemented with instructor-led training as well as other live forms. This scholar introduced two different approaches to blended learning, which are the program flow model and the core-and-spoke model.

1.4.1 The Program Flow Model Approach

First, using the program flow model, one develops a curriculum that combines different media into a sequential program or syllabus. It is similar to enrolling in a high

school or college class. The programme has a rigid structure and requires students to progress through the material in a sequential manner. A final phase usually entails an exercise or exam to evaluate overall learning (Bursin, 2004).

1.4.2 The Core-and-Spoke Model Approach

Moreover, in core-and-spoke, the designer produces one primary training strategy (usually onsite classroom training or web-based courseware) and then provides other materials, interactivities, tools, and assessments as "supporting materials," which may be optional or required. This model may contain exercises or connections to numerous media, but they are not organised in a linear manner (Bursin, 2004).

Every blended learning programme is actually a mixture of the two, but for simplicity's sake, it is convenient to start with the two terms (Bursin, 2004). That is to say, each author mentions different approaches to blended learning but still they have the same purpose, which is to implement blended learning programmes efficiently in teaching and learning processes.

1.5 Models of Blended Learning

Several scholars have tried to explain the different blended learning models that are now used. Table 1.1 shows that there are six different types of blended learning models for K–12. First, in the Face-to-Face model, teachers primarily provide face-to-face instruction, which is supplemented or improved by online instruction. Second, in the Rotation model, students switch between personalized, self-paced online study and traditional face-to-face instruction based on a schedule that has already been set. Also, in a rotation model setting, a component of online learning may take place remotely or on-campus. Typically, the in-person instructor controls the online task. Third, in the Flex model, the majority of the content is delivered through an online medium. Students also have one-on-one and small-

group tutoring sessions to help them learn and get support right where they are. Next, the Online Lab model delivers the full course via an online platform, but in a traditional lab setting course content-related questions are addressed by online instructors. Then, in the Self-Blend model, students enhance their educational curriculum with online classes in a remote context. Finally, in the Online Driver model, the teacher uses an online platform to present all the curriculum while the majority of students work from home. Furthermore, face-to-face verification are sometimes mandatory and sometimes optional. Some programmes allow for participation in in-person extracurricular activities (Staker, 2011, as cited in Hew & Cheung, 2014).

Table 1.1

Blended Learning Models in K-12 Practice (Hew & Cheung, 2014, p.9)

Model	Description
<i>Face-to-face</i>	<ul style="list-style-type: none"> • Teachers deliver most of the content face-to-face
<i>Driver</i>	<ul style="list-style-type: none"> • Teachers use online learning on a case-by-case basis to supplement or remediate learning
<i>Rotation</i>	<ul style="list-style-type: none"> • Students rotate on a fixed schedule between learning online in an individualized, self-paced environment and a traditional face-to-face classroom • Online learning component can be remote or onsite in school • The face-to-face teacher usually oversees the online work
<i>Flex</i>	<ul style="list-style-type: none"> • Features on an online platform that delivers most of the content • Teachers provide on-site support on a flexible and as-needed basis through in-person tutoring sessions and small group sessions

- Online Lab***
- Uses an online platform to deliver the entire course but in a brick-and-mortar lab environment
 - Online teachers are provided to address students' questions about course content
 - Paraprofessionals supervise, but offer little content expertise
- Self-Blend***
- Students take online courses to supplement their school curricula
 - The online courses are always remote
- Online Driver***
- Uses an online platform and the teacher delivers all curricula
 - Students work remotely for the most part
 - Face-to-face check-ins are sometimes optional and other times required
 - Some programs offer participation in face-to-face extracurricular activities
-

Additionally, Figure 1.1 from Staker and Horn (2012) shows four models of blended learning that can be used to classify most of the blended learning programmes that are being developed today in the K–12 sector. The rotation, self-blend, and flex blended learning models were described previously. The rotation-model is divided into four sub-models of blended learning. The following is a description of each one.

1.5.1 The Station-Rotation Model

It is a rotation-model application in which at least one station for online learning is included in the rotation. Other stations may consist of small-group or whole-class instruction, group projects, individual tutoring, and paper-and-pencil homework. The station-rotation model distinguishes from the individual-rotation model in that learners rotate between all stations, not only those on their personalised schedules (Staker & Horn, 2012).

1.5.2 The Lab-Rotation Model

It is a rotation-model application in which learners cycle among physical sites within a particular course or subject (e.g., math) on a predetermined schedule or at the teacher's decision. At least one of these classrooms is a learning lab for mostly online learning, while the remaining classroom(s) accommodate various learning modalities. The lab-rotation model differs from the station-rotation model in that learners cycle between campus locations for the integrated course or subject, rather than remaining in a single classroom (Staker & Horn, 2012).

1.5.3 The Flipped-Classroom Model

It is a rotation-model implementation in which, for a given course or subject (e.g., math), students rotate on a regular schedule between face-to-face teacher-guided training (or projects) on campus during the typical school day and online delivery of content and teaching of the same subject from a remote place (typically home) after school. The major delivery of content and instruction is online, which distinguishes a flipped classroom from students who simply complete online homework practice at night. The flipped-classroom model is consistent with the notion that blended learning incorporates learner control over time, place, path, and/or pace (Staker & Horn, 2012).

1.5.4 The Individual-Rotation Model

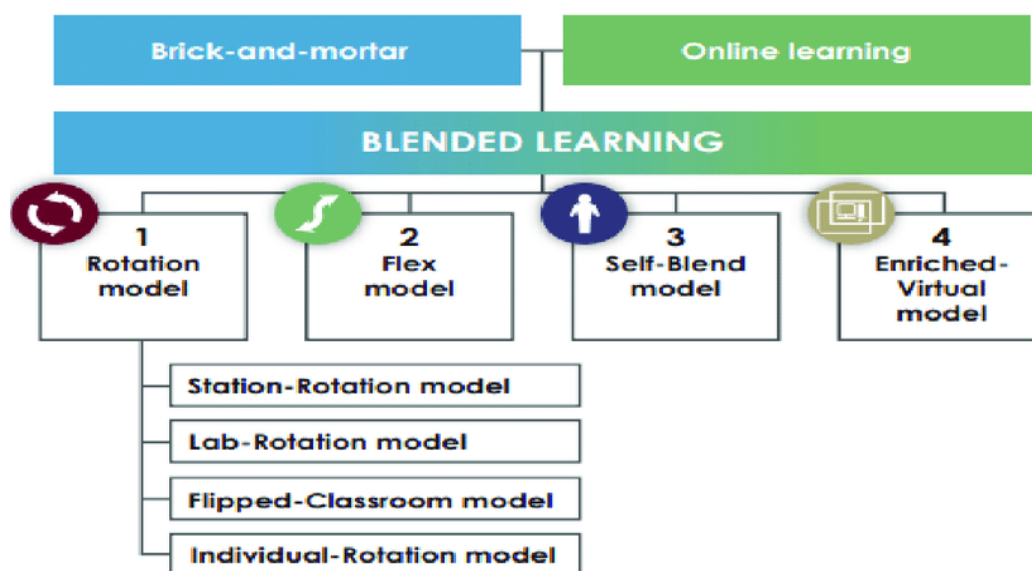
It is a rotation-model implementation in which, within a specific course or subject (e.g., mathematics), learners rotate on an individually-tailored, predetermined schedule between at least one online learning modality and other learning modalities. An algorithm or teacher(s) determines the schedules of individual students. Individual Rotation varies from previous rotation models in that students are not required to attend each possible station or modality (Staker & Horn, 2012).

1.5.5 The Enriched-Virtual Model

It is a whole-school experience in which, for each course (e.g., math), learners divide their time between on-campus study and remote learning via online delivery of content and instruction. Many enriched-virtual programmes started as full-time online schools and later established blended programmes to give learners experience of traditional schools (Staker & Horn, 2012).

Figure 1.1

Blended-Learning Taxonomy (Staker & Horn, 2012, p.2)



The aforementioned models are used in K-12 (Kindergarten 12 grades). While Table 1.2 identified five blended learning approaches utilised in higher education, including the Supplemental model which maintains the fundamental framework of the conventional course, involving the number of in-person class meetings. Furthermore, it complements lectures and textbooks with numerous online activities. Whereas, in the Replacement model, less time is spent in classroom sessions. It replaces face-to-face meetings with online learning activities for students, rather than supplementing them. However, the Emporium model removes all regular meetings and substitutes them with a learning resource centre that offers online resources and individualised support on-demand. Also, it gives students the

chance to learn at their own pace and in a way that fits their needs. Regarding the Fully Online model, all learning activities take place online and are scored automatically by software, with students receiving instant feedback. The last one, the Buffet model, gives students a variety of ways to learn, such as lectures, individual and group discovery labs (face-to-face and virtual), and videos (Twigg, 2003, as cited in Hew & Cheung, 2014).

Although the previously mentioned models provide educators and other academics with some insight into what blended learning may look like in practice, they tend to emphasise extremely general high-level pedagogical techniques and the physical characteristics of learning settings (Graham, 2013, as cited in Hew & Cheung, 2014). As a result, instructors seeking a more detailed description of the instructional tactics used may find them unhelpful (Hew & Cheung, 2014).

Table 1.2

Blended Learning Models in Higher Education Practice (Hew & Cheung, 2014, p.9)

Model	Description
<i>Supplemental</i>	<ul style="list-style-type: none"> • Retains basic structure of traditional course, especially number of face-to face class meetings • Supplements lectures and textbooks with a variety of online activities (e.g., online quiz)
<i>Replacement</i>	<ul style="list-style-type: none"> • Reduction in class-meetings time • Replaces, rather than supplements face-to-face time with online learning activities for students

- Emporium***
- Eliminates all class meetings
 - Replaces class meetings with a learning resource center that provides online materials and on-demand personalized assistance
 - Allows students to learn at own pace and need (e.g., choose when access course materials, what types of learning materials to use depending on their needs, and how quickly to work through the materials)
- Fully online***
- All learning activities are online
 - Uses automated software graded assignments that provide immediate feedback to students
- Buffet***
- Offers students an assortment of learning choices or paths including lectures, individual discovery laboratories (in-class and online), group discovery laboratories, individual and group review (both live and online), small-group study sessions, videos, etc.
-

1.6 Blended Learning Instructional Tools

In blended learning, Bursin (2004) asserted that it can be hard to figure out what kind of media to use. Each of these forms of media has its own distinct advantages and disadvantages. This scholar presented 16 types of blended learning media, including: instructor-led training, webinars, courseware, simulations, CD-ROM-based courseware, rapid e-learning courseware, internet-delivered video, and EPSS.

1.6.1 Instructor-Led Training (ILT)

It is a live classroom instruction delivered by an instructor, professor, or teacher. The most engaging and conventional way, but also the most costly, time-consuming, and resource-constrained for large audiences. Within the framework of the other media, it should be utilised selectively for unique issues (Bursin, 2004).

1.6.2 Webinars (Live e-Learning)

It is a live Internet-based education delivered through a web browser and instructed by a teacher or subject matter expert. This medium is ideal for special topics, online demonstrations, guest lectures, and shorter-than-two-hour training programmes that are less interactive (Bursin, 2004).

1.6.3 Courseware (Web-Based)

It is an internet-based courseware consisting primarily of graphics, text, some audio, as well as interactive exercises and assessments. It is self-paced and accessible via a PC or other web browsers. Courseware is the most conventional kind of e-learning, and it has traditionally been constructed with varying degrees of interactivity (Bursin, 2004).

1.6.4 Simulations (Application, Business, Process)

Generally run on a PC or via the Internet, scenario-based courseware provides the learner with a simulation of the actual world. The objective of simulations is to provide students with a method of self-study in which they can immediately apply the material and experience its effects (Bursin, 2004).

1.6.5 CD-ROM-Based Courseware

CD-ROM-based courseware is significantly distinct from web-based courseware. It accomplishes many of the same objectives, but it is typically designed to take advantage of video and other local capabilities on users' computers. It operates "offline" anytime the user desires, without internet connectivity (Bursin, 2004).

1.6.6 Rapid e-Learning Courseware (Power Point-Based)

This is a specific type of PowerPoint-based courseware. This media converts PowerPoint-based content, including slides, animations, and typically audio, into a web-based version that can be distributed via the Internet (Bursin, 2004).

1.6.7 Internet-Delivered Video

This refers to internet-delivered video replays, which use Real Player or Windows Media Player. This media has a large bandwidth and gains popularity, but implementation efficiencies frequently limit its deployment (Bursin, 2004).

1.6.8 EPSS (Electronic Performance Support Systems)

Electronic Performance Support Systems are a type of technology that known as "online help." These systems intend to facilitate the completion of a particular task by providing electronic performance support. They are extremely expensive to create, but they offer enormous rewards for large audiences (Bursin, 2004).

Furthermore, Bursin (2004) introduced other instructional tools such as the Offline video, which is still commonly employed and suitable for a variety of applications. Usually, these are recordings of actual lessons, with the instructor's face, the Blackboard, and frequently additional items captured on camera. Another tool is the Video Conferencing, which remains one of the best ways to expand the classroom experience in many enterprises. Next, the Collaboration Systems, which typically include chat rooms, discussion forums, and message platforms. They are commonly utilised in higher education to facilitate interaction between students and teaching assistants. Finally, the Conference Calls that serve as a training tool. Carefully designed, they are affordable to set up, distribute, and provide rapid response (Bursin, 2004).

Table 1.3*Live Media vs. Self-Study Media* (Bursin, 2004, p.149)

Live (Synchronous)	Self-Study (Asynchronous)
Instructor-Led Training	Simulations
Webinars	WET or CD-ROM Courseware
EPSS	Rapid e-Learning
Video Conferencing	Offline Video
Collaboration Systems	Job Aids
Conference Calls	Workbooks
On-the-Job Exercises	Books

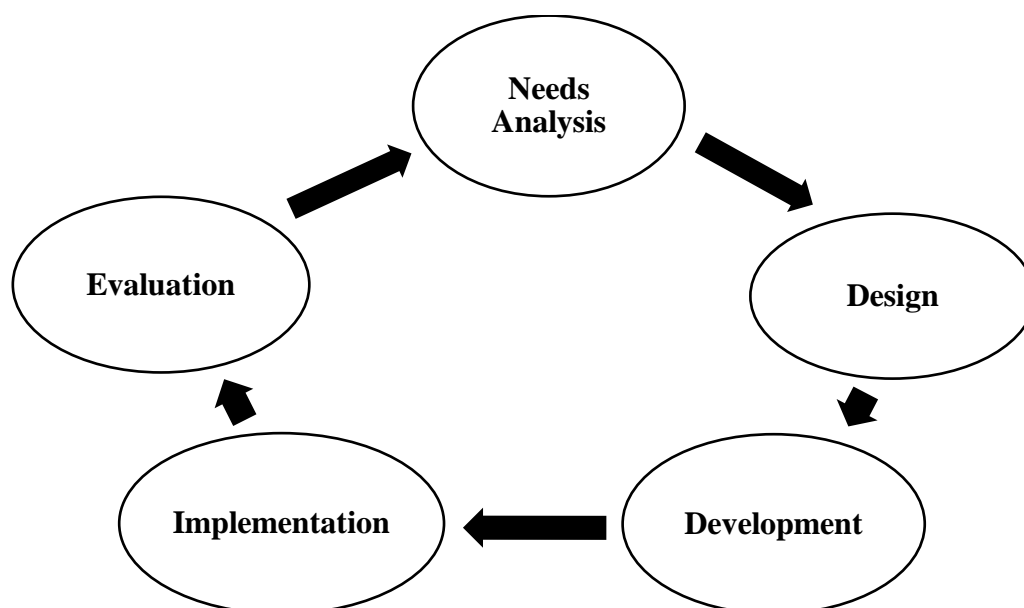
To conclude, these instructional tools are used either in face-to-face or in online learning as illustrated in Table 1.3. However, some of these tools are very expensive to build especially with universities that have a lack of materials and slow internet connectivity. Such tools need a high quality of infrastructure that is not available in all countries.

1.7 Planning and Designing Blended Learning Programmes

By devoting time to the design and development cycle, professionals can concentrate on creating a blended learning experience that is sensitive to the learners' demands. It allows students to investigate and develop a blended learning programme that incorporates the best elements of each. According to Allan (2007), the design and development process for a blended learning programme is cyclical and contains five stages : needs analysis, design, development, implementation, and evaluation. Each of these stages is extensively discussed further below in Figure 1.2.

Figure 1.2

Stages of the Blended Learning Design and Development Process (Allan, 2007, p.72)



1.7.1 Needs Analysis in Blended Learning

The initial step in the design process is to investigate the program's need, which is likely to generate useful data. It is also important to think about the practical issues of establishing the blended learning programme at this point. This stage explores the needs of a wide spectrum of people, including senior managers, middle managers, supervisors, team leaders, coworkers, customers, and intended participants. It is recommended that designers devote time to creating a concise specification or programme outline once they have completed their preliminary study. Clarifying the goals and expected learning outcomes is the first step in determining the scope of any blended learning programme. Indicative learning outcomes indicate what information and skills someone will receive as a result of participation in the programme (Allan, 2007).

1.7.2 Design of Blended Learning

The detailed design process begins with the programme summary and progresses to the details. This entails thinking about :

- The program's goals and learning outcomes.

- The topics or themes.
- The use of various delivery methods and technologies
- The nature of the programme and its content.
- The assessment technique.

How to create a programme that is integrated and deliver an adequate balance of various types of learning experiences is an important subject to consider during the design phase (Allan, 2007).

Allan (2002, as cited in Allan, 2007) outlined some key design concepts for blended programmes, including :

- Maximising possibilities for social engagement.
- Providing participants with options.
- Balancing theory and practice.
- Planning for accessibility, and offering feedback.

Allan (2007) added that the design of a blended learning experience includes the usage of learning objects such as PowerPoint slides or digital images and extensive documentation ; technological issues ; copyright and other intellectual property issues.

1.7.3 Development of Blended Learning

This entails developing all relevant learning activities, learning tools, and documentation, as well as providing management and administrative support for the planned programme. In most cases, blended learning necessitates putting a specific emphasis on creating a specialist website or virtual learning environment, as well as putting in place the appropriate technical support mechanisms. Piloting the blended learning programme with a small number of students will aid in identifying any programme flaws as well as allowing for the detection and correction of any errors or problems. The developers can also get a

sense of the learning experience and whether it is practical by doing a test run on exercises and activities in terms of time, materials, and activity type. In some circumstances, piloting blended learning programmes is not possible, thus using feedback from non-participating colleagues can help to improve the programme (Allan, 2007).

1.7.4 Delivery in Blended Learning

Introducing a new blended learning programme may be both exciting and difficult. Once the programme begins, the programme leader or e-tutor will likely engage in a variety of activities, including :

- Managing the virtual learning environment, as well as the activity of learners and tutors.
- Managing the utilisation of support systems, such as technical support.
- Keeping the programme team up to date on developments.
- Connecting with key ILS members, such as senior managers, to keep them informed about the programme. (Allan, 2007)

1.7.5 Evaluation of Blended Learning

Allan (2007) evaluated the blended learning programme to determine that it has accomplished its stated objectives and learning outcomes, as well as the evolving information and library service requirements. Evaluating a blended learning programme entails collecting data about the programme and analysing this data to determine the program's worth.

As a summary, the design cycle contains needs analysis, as well as design, development, delivery, and evaluation. For building effective blended learning programmes, there is no single solution or prescription. The ability to research and respond to the needs of parent organisations as well as individual students is critical to success. This should be

carried up by creating realistic goals and learning outcomes, as well as deciding on the best mix of face-to-face and e-learning activities for the blended learning programme. It also entails implementing essential design ideas into the programme, deciding on the best technology to use, and making sure the programme is accessible (Allan, 2007).

1.8 Features of an Effective Blended Learning Design

Blended learning encompasses more than just the use of technology in the classroom. According to Beams et al. (2017, as cited in Cleveland-Innes & Wilton, 2018), integrating technology for the sake of technology is ineffective. They recommend a specific procedure, which comprises the following steps :

- Concentrate on the pedagogy and determine the advantages of blended learning design and implementation in a specific context.
- Select the technology carefully to make sure that all of the non-in-person learning activities fit the subject and the needs of the students.
- Keep in mind the program's curriculum, as well as the course's outcomes. Flexibility, student choice, and opportunity to learn about learning should all be incorporated into all blended learning approaches.
- Create a complete syllabus that includes learning objectives, technology device details, delivery methods, explicit engagement opportunities, and assignments that are connected with learning objectives.

1.9 Comparing Traditional and Online Learning Roles of Teachers

Teachers' roles have to shift from face-to-face learning to online teaching (Major, 2010, as cited in Burgos et al., 2021), and specific teaching duties are required in the online teaching context (Carril et al. 2013, as cited in Burgos et al., 2021). According to Burgos et al. (2021), in face-to-face training, the teacher typically assumes the role of an instructor and

becomes the master of the learning environment. However, during online instruction, the teacher acts as a "guide on the side" (Ananga and Biney, 2017, as cited in Burgos et al., 2021) and has less influence on the students' learning process. As “designers and facilitators of learning” (Hlynka and Jacobsen, 2009, as cited in Burgos et al., 2021) or coaches in their students' learning process, teachers utilise a method that is more supportive (Alvarez et al. 2009, as cited in Burgos et al., 2021).

Berge (1995, as cited in Burgos et al., 2021) claimed that for online educators to be successful, they must play four primary roles: managerial, pedagogical, technological, and social. Other researchers (e.g. Carril et al., 2013 ; Goodyear et al., 2001; Sanmamed et al., 2014, as cited in Burgos et al., 2021) have defined additional roles of online teachers, such as “*technologist, social role, manager or administrator, personal role, process facilitator, interpersonal communicator, adviser or counsellor, assessor, leader, and researcher, and so on*” (p.136).

Ni She et al. (2019, as cited in Burgos et al., 2021) noted that one of the most important things an educator does is to design useful online learning activities. While teachers construct their lesson plans or alter some lesson plans to achieve curricular objectives in the classroom, they may not need a great deal of adaptive knowledge to perform the lesson. In online classes, the instructor is challenged with a variety of situations that can influence student learning. First, technology assistance and connectivity allow the efficient operation of remote teaching, followed by the motivation and involvement of students who are not physically there with their teachers. Therefore, online learning presents both opportunities and requirements for transforming teachers from content deliverers to learning designers (Burgos et al., 2021).

Besides, Burgos et al. (2021) argued that teachers must take into account numerous factors while designing online instruction, such as lesson organisation, content presentation, cooperation and engagement, timely feedback, motivation, relationships, and mental health. Also, due to the fact that the efficacy of online instruction is dependant on instructors' skills and experience, it is necessary to implement professional development programmes that enhance teachers' online instructing skills.

In the same vein, Walker and White (2013) indicated that teachers have more serious worries about how technology is changing their roles in the classroom. In the technosphere, teachers appear to be referred to by a variety of terms, including “instructor,” “emoderator,” and “tutor,” which adds to their uncertainty regarding their position or potential role. Besides, instructors are no longer the only 'experts' that students have access to, therefore the “tutor” function played by computers may be perceived as particularly threatening.

As shown in Table 1.4, Harmer (2007, as cited in Walker & White, 2013) categorised the different functions that teachers play in typical classrooms as follows : controller, prompter, participant, resource, and tutor. Dias (1998, as cited in Walker & White, 2013) provided a list of tutor roles for distant learning. Some of these positions are the same, even if they have distinct names or are associated with different tasks. The online learning roles of teachers are as follows : integrator, salesperson, negotiator, news reporter, confident, nervous parent, teaches teaching, trouble- shooter, and human being.

Table 1.4

Comparing Traditional and Online Learning Roles of Teachers (Walker & White, 2013, Teachers' Roles section)

Online Learner Teacher Roles	Traditional Teacher Roles
Integrator – setting goals	Controller
Saleperson – motivating others, capturing their interest	Prompter
Negotiator – getting people together	Tutor/ Prompter
News reporter – informing students about developments or problems	Controller/ Resource
Confident – showing students what happens behind the scenes	Tutor
Nervous parent – worrying about security of students engaged in CMC, making sure they follow the rules of 'netiquette', etc.	
Teachers teaching – showing students how to give feedback to each other	
Trouble-shooter – providing technical advice	Resource
Human being – acknowledging mistakes	Participant
Student – teachers themselves learning something they did not know before the activity took place	

1.10 Benefits of Blended Learning

The combination of both online and traditional learning has many benefits for both teachers and learners. First, the success of blended learning is essentially tied to the quality of the learning experience within the university's interests about how students perceive,

engage, and impact their learning opportunities. In the same way, the blended learning approach is flexible for both teachers and learners. Instructors can create lessons that combine the best aspects of traditional learning with the advantages of online learning. In other words, lessons might start in class and progress online, or vice versa (Wend, 2006, as cited in Alebaiken & Troudi, 2010).

Moreover, according to Tucker (2012), students who are worried about speaking in front of others can profit from asynchronous online conversations, activities, and group work, which provide a hybrid learning environment that encourages collaboration. In the same context, Dziuban et al. ; and Wingard (2004 ; 2004, as cited in Hew & Cheung ,2014) claimed that through computer-mediated communication tools including asynchronous and synchronous communication technologies, blended learning can also improve communication with students. It provides for increased engagement between students and teachers, easier access to course materials, and more control over the discussion (Jones et al., 2006 ; Salmon, 2004, as cited in Hew & Cheung ,2014).

Another reason for implementing blended learning is that many teachers may feel less anxious and dissatisfied with the teaching process. Besides, because of time limits and a general lack of student focus in regular classes, the online constituents of a blended learning approach can prioritize the role of the student that is typically disregarded in traditional classrooms. Also, the advancement and mastery of technology by both students and instructors contribute to the effectiveness of blended learning in education (Tucker, 2012).

For most educational institutions, the blended learning method is more appealing for a myriad of purposes. As stated by Hew and Cheung (2014), the assumption that blended learning can meet students' educational needs is driving the expansion of hybrid learning. For example, a lack of contact with the instructor might lead to online estrangement, with

students rarely getting to meet their professors in person. In accordance with McCray et al. ; Strambi and Bouvet ; Wingard (2000 ; 2003 ; 2004, as cited in Hew & Cheung ,2014), blended learning can help students and instructors solve this issue by allowing time for face-to-face student and teacher engagement as well as online learning that allows students to work on course assignments at their own time and pace.

Furthermore, Adas and Bakir (2013) mentioned that blended learning has a number of advantages, including cost-effectiveness for both students and institutions, as well as the ability to make an online course open to students from different countries. Moreover, an e-learning course can prepare learners for their final exam by identifying problems and abilities previously through testing (Hajek et al., 2016).

Additionally, blended learning has been shown to improve student achievement in some research investigations. According to New York Times (2013, as cited in cited in Hew & Cheung ,2014), the Community College Research Center at Columbia University (CCRC) discovered that students in blended courses succeeded academically as well as those in traditional classes. Finally, blended learning entails maximising educational and training opportunities. Better training for course participants and more effective scheduling can be achieved by combining theoretical instruction through e-learning with practical training in the work place (Hew & Cheung ,2014).

To conclude, blended learning has become more attractive for most educational institutions for its features. Learning how to use it is an important step for improving educational services.

1.11 Teachers' and Students' Perceptions of Blended Learning

A number of research studies have investigated teachers' and learners' perceptions on blended learning. For example, Tshabalala et al. (2014, as cited in Alvarez, 2020)

investigated the attitudes of blended learning shared by faculty members and identified the many obstacles encountered while utilising a mixed-based approach. Some respondents believed that blended-based instruction has the ability to increase teaching and learning flexibility and encourages learning freedom, networked learning opportunities, and teacher and student accessibility. However, they had little or lack of comprehension of blended learning notions. Respondents also perceived blended learning to be difficult to implement in the classroom due to the absence of institutional policies regarding its use, a lack of ICT training/knowledge, a lack of confidence to engage in a blended learning approach, and restricted access to computer laboratories.

Moreover, according to Qasem and Viswanathappa's research (2016, as cited in Alvarez, 2020), teachers have a favourable view of ICT integration through blended learning. With the increasing growth of technology-based education delivery, it can be claimed that the study's findings demonstrated instructors' satisfaction with professional development training through a blended learning strategy. In the setting of a virtual classroom, students have access to instructional resources regardless of time or location. Therefore, the literature explores how ICT is mediating between teachers and students through the concept of blended-based instruction.

Similarly, Holmes and Prieto-Rodriguez (2018, as cited in Alvarez, 2020) examined the perspectives of students and faculty members on various Learning Management System (LMS) in terms of usefulness in teaching and learning, and the attributes it can provide using a mixed method. Accessibility to course materials, recording face-to-face lectures, course blogs or wikis, and online conversation were discovered to be the most efficient aspects of LMS for teachers' course learning. Moreover, both professors and students emphasised that the adoption of LMS is crucial since it facilitates mobile usability and information transfer (Koole, 2009, as cited in Alvarez, 2020). This indicates that technical or authoring tools such

as Canvas, Moodle, and Blackboard bridge the gap between teaching and learning. The adaptability of the learning area enables the connection of borderless classrooms via a learning platform (Alvarez, 2020).

In addition, Alvarez (2020) underlined that the use of e-quizzes enables an immediate evaluation of their learning process and any deficiencies that need to be addressed. Online feedback promotes instructional presence and reduces social distance (Costello & Crane, 2013, as cited in Alvarez, 2020). It is asserted that the usage of ICT as a learning platform within the context of blended learning offers effective teaching and learning support. In contrast, students are less likely to participate in online discussion forums if they are not required to (Alvarez, 2020). This result was also disclosed by Jeffrey et al. (2014, as cited in Alvarez, 2020), who emphasised that social presence in virtual classrooms is mainly underdeveloped, making it harder for professors to encourage online interaction among students.

Saboowala and Manghirmalani-Mishra (2020) reported another study on in-service teachers' readiness for a blended learning approach as a learning pedagogy post COVID-19. The results of this study indicate that in-service teachers who have a favourable attitude toward online learning, study management, online engagement, and learning flexibility are more likely to adopt blended learning. Any change in these elements would have an impact on their attitude regarding BL. The more positive the teachers' perspective, the more adaptive they will be and the better prepared they will be to use a blended learning method for their professional development in the post-pandemic age.

In addition, according to this study, teachers who have attended or conducted webinars and workshops did not exhibit any differences in their readiness for blended learning. It is likely that some teachers who were unable to attend will be willing to adapt to

this method since they are already familiar with the available online platforms or software that may be used for learning as a result of their social media awareness or prior knowledge. Although Blended Learning has become one of the most popular learning approaches, a high degree of familiarity with technology has made adopting it a non-issue for teachers and students alike (Saboowala & Manghirmalani-Mishra, 2020).

In the same context, Norazlina et al. (2020) conducted a research to discover the various aspects that influence students' willingness to implement blended learning. Except for technical usage self-efficacy, the study indicated a strong and favourable association between technology availability, online communication, online media, and attitudes toward readiness. Similarly, the amount of readiness will not be altered by an increase or decrease in technical usage self-efficacy. The analysis also revealed that online media should be the most influential factor in increasing readiness, followed by online communication, self-efficacy, attitude, and, finally, technology access factors. In contrast, they discovered a weak and insignificant link between computer application familiarity and competency. Students who know how to utilise computers and the internet are more prepared for blended learning.

Similarly, Zhou and Chen (2021) delivered a survey on assessing students' perceptions of blended learning during the COVID-19 pandemic. Despite varied ratings of students' blended learning experiences in Spring 2020, the great majority of students in the study chose blended learning over online or face-to-face delivery for a number of reasons. First, students appreciated the flexibility and convenience of learning at their own speed. They were able to keep their part-time work due to the decrease of commuting. However, some students found it more difficult to stay motivated, connected, and engaged online.

Nevertheless, students were grouped on whether or not they would attend blended courses in the future. Students in this study thought that pure online delivery was the least

appealing choice, but that online homework assignments, quizzes, and videos were effective tools for improving the mixed course's online component. Many students would like to keep the face-to-face component since they are visual learners and like to do things with their hands. In person, they thought group work was considerably easier. Furthermore, instant communication with peers and instructors in the classroom aided students' understanding of course materials and completion of course assignments (Zhou & Chen, 2021).

To conclude, blended learning as an approach was accepted by some teachers and students because of its flexibility and convenience. However, others found it more difficult to stay motivated and engaged online because of the lack of ICT training, knowledge, and confidence.

1.12 Teachers' and Students' Challenges in Blended Learning

Adopting blended learning in Algerian higher education needs a detailed investigation of successful blended learning implementation in order to examine the problems that have been faced, and to pinpoint specific context-related challenges. To start with, one of the main studies that has conducted the obstacles and challenges encountered when introducing blended learning is at Saudi universities. These constraints can be divided into three categories : Culture and blended learning environments ; finding the right design, and time constraints.

1.12.1 Culture and Blended Learning Environments

The integration of this component in the traditional university culture is one of the primary challenges to be addressed in the deployment of blended learning in Saudi universities. The challenges that were likely to occur included : societal norms and values (Alebaiken & Troudi, 2010) ; students' attentiveness and students' resistance to the use of educational technologies (Graham et al., 2003, as cited in Alebaiken & Troudi, 2010).

1.12.1.1 Societal Norms and Values. First, some teachers were opposed to new advanced technologies as a substitution for face-to-face learning. Sait et al. (2003, as cited in Alebaiken & Troudi, 2010) highlighted a sort of instructor rejection that should be regarded. Also, Al-Kahtani et al. (2006, as cited Alebaiken & Troudi, 2010) explored Saudi female faculty perspectives of the internet's potential utility, and discovered an interesting contradiction of the factors based on age and academic field. Because of its immoral content, conservative segments of society considered the internet as a threat to society's standards, whereas science faculty saw it as a valuable instrument for work advancement.

1.12.1.2 Students' Attentiveness. Moreover, various commercial learning management systems including Blackboard, WebCT, and Tadarus were quite restricted in Saudi universities because they did not offer adequate sessions for online learning systems (Alebaiken & Troudi, 2010). Blended learning, unlike traditional methods, necessitates an elevated level of student accountability and attention. As shown in a study of first-year students, some of them did not take online training seriously because other professors and students at university did not use it (Al-Tarf, 2005, as cited in Alebaiken & Troudi, 2010).

1.12.1.3 Students' Resistance to the Use of Educational Technologies. In addition, implementing blended learning might be difficult due to the technological skill level of students and teachers. Many Saudi students resisted to acquire the necessary skills to perform well in a blended learning setting because they have never encountered online learning (Alebaiken & Troudi, 2010). Sait et al (2003, as cited in Alebaiken & Troudi, 2010) also found that teachers with weak online abilities were anxious to use any technology in their classes.

1.12.2 Finding the Right Design

Blended learning's adaptability met a set of design needs, which was both an advantage and a challenge. It necessitated a deliberate approach to instructional design for a

programme to be blended in design, not merely delivery. Also, It would be much easier to adopt blended learning if there were proven design frameworks that could be utilized as guides. Another problem that teachers in blended courses faced was creating efficient and interactive digital content (Alebaiken & Troudi, 2010).

Moreover, the impact of the course on the learner was determined by the decisions made during the design phase. Selecting the appropriate combination of technologies was a difficult task for many educators, especially with such wide range of digital mediums. In addition, teachers who wanted to introduce blended courses might not have enough experience on how to make them successful, and there was no universal instructional design model (Huang & Zhou, 2006, as cited in Alebaiken & Troudi, 2010).

1.12.3 Time Constraints

Because of the necessity of redesigning the course, converting traditional courses into blended courses would take more time from the teacher than producing traditional courses. Moreover, in blended learning environments, teachers and students often spent more time learning new techniques and proficiencies, as well as communicating with one another (Graham et al., 2003, as cited in Alebaiken & Troudi, 2010).

Another study conducted by DigitalChalk (2014, as cited in Cleveland-Innes & Wilton, 2018) provided other challenges such technological requirements, information technology, knowledge and skill, and lack of self-pacing and self-directed.

1.12.4 Technological Requirements

Hardware, software, and Internet access with adequate bandwidth are among the technological necessities. This can result in a systematic lack of access. Internet-based learning must be supported by readily accessible, user-friendly, dependable, and up-to-date technology solutions (DigitalChalk, 2014, as cited in Cleveland-Innes & Wilton, 2018).

1.12.5 Information Technology (IT), Knowledge and Skill

Preparation for using technical instruments, often known as IT literacy, is necessary. This lack of knowledge and skill is a substantial barrier to initial entry and subsequent quality learning experiences. Access to technical help is a demand that is closely tied and significant (DigitalChalk, 2014, as cited in Cleveland-Innes & Wilton, 2018).

1.12.6 Lack of Self-Pacing and Self-Directed

Online education demands and promotes learner autonomy and management. Students enter online learning with various levels of learning competency ; fostering such learning self-management should be an integral aspect of all online learning experiences (DigitalChalk, 2014, as cited in Cleveland-Innes & Wilton, 2018).

1.12.7 Academic Dishonesty

New techniques of cheating have emerged as a result of technological advancements, such as utilising a cell phone to send or receive answers during an exam. Although unrealistic, one extreme measure to prevent this type of cheating would be to magnetically shield the classroom, preventing wireless gadgets from functioning (Yaqoob, 2006, as cited in Dunn et al., 2011).

The Victorian Department of Education and Early Childhood Development (2012) undertook a study to find out how well blended learning works in Victorian governmental schools. This study found that teachers and students face a number of problems when they try to use blended learning strategies. First, for some, teaching with a blended approach might be difficult since it may necessitate learning new teaching skills, re-designing the curriculum, and incorporating new teaching and learning opportunities. Another challenge that Victorian schools must address is managing learning content both in and out of the classroom, as well as preparing students to work in blended modalities. In addition, trial feedback revealed that teachers' ability to incorporate new technology into teaching and

learning programmes may be limited in the absence of an increased time commitment, improved support from IT professionals, and further professional development.

Besides, for some educators, access to technical assistance and ICT training opportunities is still a problem. In the same vein, Chinese Language Learning With Web 2.0 ; Floating Worlds ; Ping (2009 ; 2009-2010 ; 2009, as cited in DEECD, 2012) reported that these initiatives indicated a variety of technological difficulties that needed to be addressed, including a shortage of bandwidth and IT support, programme delivery issues caused by web proxies and internet filters, and the expense of student internet access. Furthermore, support is required for the shift to a blended learning environment by more than just teachers. In addition, students require training and assistance for the transition to become more autonomous students and self-managers (DEECD, 2012).

In another study conducted by Alam and Agarwal (2020), some challenges were discovered in adopting a blended learning design. The first main problem of a blended learning strategy is that students believe traditional classrooms are more successful and knowledgeable than online combinations with technology due to their traditional behaviour. Another difficulty associated with accurately documenting the online student's assessment report. After completing an online course, students are frequently unable to comprehend concepts. In addition, blended learning developers are more concerned with the deployment of technology than with the physical implementation of learning content.

Additionally, the absence of assessment criteria for blended learning activities made it challenging to evaluate the student outputs (Alvarez, 2020). Mahyoob's recent study (2020) found that students had trouble getting to online lectures, downloading materials, and giving online tests. Other students were unable to access online examinations on their mobile devices due to an invalid file format or extension.

1.13 Online Learning during COVID-19

Saihi (2020) stated that the use of technology to learn and teach English has become an important part of higher education. Owing to the Coronavirus epidemic, all educational schools and universities used E-learning platforms as a substitute for traditional learning methods in order to preserve education and research (Boubekeur, 2022). Similar to other countries, Algeria has witnessed an increase in e-learning, wherein higher education instruction is conducted on digital platforms (Kaid Slimane, 2021). According to Lederman (2020, as cited in Kaid Slimane, 2021), due to the COVID-19 issue, both teachers and students feel driven to adopt the digital academic experience as the primary objective of the online teaching-learning process. Sun and Chen (2016, as cited in Chelghoum & Chelghoum, 2020) asserted that online education and blended learning play a crucial role in enhancing learners' abilities and expanding their imagination, creativity, and self-awareness. Also, Jena (2020, as cited in Chelghoum & Chelghoum, 2020) claimed that instructors are able to create and deliver classes using platforms such as Zoom, Facebook, YouTube, and Skype. Learners can be introduced to the four communication skills and practice them with the assistance of their virtual peers by utilising the wide range of ICT technologies (Saihi, 2020). Nonetheless, there are still obstacles to overcome, since many teachers and students still struggle to participate in digital teaching and learning (Kaid Slimane, 2021).

1.14 Traditional Learning vs. E-Learning and Blended Learning

As stated by Titthasiri (2013), the teacher delivers the lesson in accordance with the curriculum and study programme. Traditional learning consists of a blackboard, books, a teacher, and pupils in a classroom. Typically, the instructor speaks more than the pupils, and students learn "what" but not "how." All assignments for students are the responsibility of the instructor. Titthasiri (2013) define traditional learning as “ *the learning under the scope of classroom, viewed as teacher-center and static. The learning is conducted with the whole*

class participating, taking place with in classroom and the school” (p.69). In other words, the teacher determines the lesson's format and time allocation.

Table 1.5 illustrates similarities and differences between traditional learning, e-learning, and blended learning. Traditional learning is different from e-learning in terms of place, communication with students, time, materials and resources, participation in classes, and feedback. Traditional learning focuses on face-to-face teaching however e-learning relies on online meetings. Both modes of learning are combined in blended learning.

Table 1.5

Similarities and Differences between Traditional Learning, E-Learning, and Blended Learning (Olejarczuk, 2014, p.60)

	Traditional Learning	E-Learning	Blended Learning
<i>Place</i>	Classroom	E-learning platform, Web 2.00 tools	Classroom, e-learning platform, Web 2.0 tools
<i>Communicating with students</i>	Direct and limited by time	Not limited	Indirect, direct, not limited
<i>Time</i>	Limited by the timetable of classroom meetings	Unlimited online meetings	Limited classroom meetings and unlimited online meetings
<i>Materials and Resources</i>	Traditional coursebook	E-learning resources	Traditional coursebook and e-learning resources
<i>Participation in Classes</i>	Face-to-face	Online	Face-to-face and online
<i>Feedback</i>	Direct, oral, immediate, real time	Written, real time, or delayed	Direct, oral, immediate, real time, written, delayed

1.15 Technology and Learning Theories

When utilised properly, technology can aid in the development of a crucial skill set for learners' future academic and daily life. Before deciding to implement technology in the classroom, it is essential to consider whether and how it will assist users achieve their learning objectives. The response to this question will depend on analysing the role of technological instruments in light of learning theories (Moreno, 2010). Another feature of blended learning is its pedagogical theory approach. Blended learning appears to be a method employed within various pedagogical methods rather than belonging to one learning theory (B-Learn, 2007).

1.15.1 Behaviourist Learning Technology

The majority of existing instructional software is founded on behaviourist principles, particularly those deriving from operant conditioning (Jonassen, 2000, as cited in Moreno, 2010). Skinner (1968, as cited in Moreno, 2010) thought that teachers could help students learn a wide range of advanced academic skills and behaviours over time by "shaping," which is the process of reinforcing small steps toward the desired behaviour.

Moreover, Skinner (1968, as cited in Moreno, 2010) stated that programmed instruction is more successful than classroom education because teachers cannot simultaneously reinforce and mould the behaviour of a large number of learners with varying skill levels. The goal of programmed education is that each student will be able to study at their own speed and level of difficulty, with prompt reinforcement for accurate responses. Besides, the initial implementations of programmed instruction took the shape of books or small teaching machines. In the same vein, existing technology that is based on behaviourist principles includes drill-and-practice programmes, which aim to reinforce students' existing abilities.

1.15.2 Cognitivist Learning Technology

Educational technology came up during the behaviourist era and obtained increased value and importance for cognitive researchers and instructional designers. “*Computers were the key technology for cognitivist learning theorists*” (Harasim, 2017, p. 55). Key examples involve Intelligent Tutoring Systems (ITS) and Artificial Intelligence (AI). However, ITS technologies were isolated from classroom abilities, they were never used for classroom applications (Harasim, 2017).

1.15.3 Constructivist Learning Technology

Computer software was considered as the optimum medium for applying constructivist principles to educational practice. Computer software can support a variety of strategies and approaches more easily and efficiently than other media. Constructivism stimulated the development of various technologies and their applications such as learning management system (LMS), Virtual Learning Environments (VLE) and computer – supported collaborative learning software. Nonetheless, the lack of educational frameworks and guidelines made some instructors incapable to comprehend the underlying pedagogies and employing them in their classroom or online courses (Harasim, 2017).

1.15.4 Connectivist Learning Technology

Connectivism is a new learning theory which was proposed by George Siemens in 2004. This theory is associated with online learning networks. Downes (2012, as cited in Herlo, 2017) defined connectivism as “*the thesis that knowledge is distributed across network of connections*” (p.332). Connectivism fostered the concept of network-organised online courses, in which the role of the instructor would be substituted by network intelligence that would determine the pathway and connections needed by a learner (Harasim, 2017).

1.15.5 Collaborativist Learning Technology

Collaborativism refers to educational applications that focus on collaborative discourse and knowledge work moderated by the internet. Learners work together online to identify and promote issues of understanding. They generally apply this new understanding to solve problems, construct plans or develop explanations. Online discourse, asynchronous, group learning, internet-mediated discourse, video-based lectures and computer assessment are types of Online Collaborative Learning (OCL) (Harasim, 2017).

1.16 Subsets of Distance Learning

Different concepts have been introduced in distance learning. Therefore, a more precise definition for each term would help to understand these terms and differentiate between them. Urdan and Weggen (2000) have provided the following definitions for distance learning, e-learning and online learning as illustrated in Figure 1.3.

1.16.1 Distance Learning (DL)

Distant learning is the broadest term if compared with e-learning and online learning. It is defined as *“Educational situation in which the instructor and students are separated by time, location, or both. Education or training courses are delivered to remote locations via synchronous or asynchronous means of instruction”* (Urdan & Weggen, 2000, p.88). This educational situation does not exclude traditional classroom usage.

1.16.2 E-Learning

Whereas, e-learning is defined more narrowly and it is often used reciprocally with technology-based learning. Urdan and Weggen (2000) argued that *“The term e-learning covers a wide set of applications and processes, including computer-based learning, Web-based learning, virtual classrooms, and digital collaboration”* (p.8).

1.16.3 Online Learning (OL)

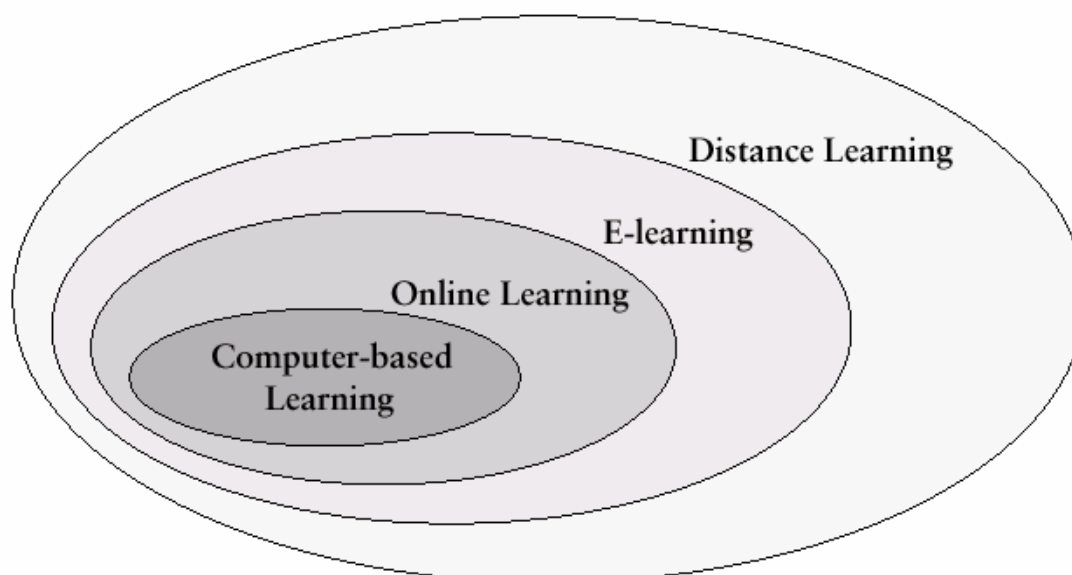
On the other hand, online learning describes learning throughout internet, intranet, and extranet only. Urdan and Weggen (2000) stated that online learning “*constitutes just one part of technology-based learning and describes learning via Internet, intranet, and extranet*” (p.8).

1.16.4 Computer-Based Learning (CBL)

This kind of learning is different from the previous subsets. It is mainly based on some educational materials displayed on a computer. Urdan and Weggen (2000) defined it as “*Course or educational material presented on a computer, primarily via CD-ROM or floppy disk. Unlike Web-based training, computer-based training does not require a computer connected to a network*” (p.87).

Figure 1.3

Subsets of Distance Learning (Urdan & Weggen, 2000, p.9)



1.17 Learning Management Systems (LMS)

The technology foundation of a blended learning environment is often a learning management system, or LMS. An LMS is a software tool that allows users to offer information and resources over the internet, create interactive or collaborative workspaces, and handle all aspects of student, course, and programme administration, such as registration, assessment, and analytics. Examples of LMS are web conferencing, digital textbooks, blogs and wikis, social bookmarking, mashups and digital storytelling, simulations, serious games and virtual worlds, and e-portfolios. Cleveland-Innes and Wilton (2018) provided a detailed description for each device.

1.17.1 Web Conferencing

Web conferencing can be used as an online supplement to classroom-based tutorials, seminars, or any other synchronous (real-time) learning activity, such as collaborative, project-based work in blended learning. Simultaneous video, sound, text chat, whiteboard comments, and screen sharing are common features of web conferencing software. Adobe Connect, Blackboard Collaborate, Zoom, Skype, and BigBlueButton are among the more effective web conferencing technologies. Accessibility, complexity, and capacity are the most common criticisms of online conferencing in blended learning. Nevertheless, web-conferencing remain effective tools for developing creative and flexible forms of learning (Cleveland-Innes & Wilton, 2018). One example of web conferencing is Google Meet that Wikipedia (2022) described as “*a video-communication service developed by Google. It is one of two apps that constitute the replacement for Google Hangouts, the other being Google Chat*” (para.1).

1.17.2 Digital Textbooks

In online and mixed learning, digital textbooks are becoming a crucial educational tool. They are frequently seen as vital elements of educational reform. E-textbooks, often

known as digital textbooks, provide a number of advantages over printed textbooks. First, they enhance accessibility, flexibility, and customisation (including localised material). They also provide lower initial and updating costs; multimedia content and incorporated assessments. If students are required to bring their own laptops or tablets, digital textbooks may place an additional load on them (Cleveland-Innes & Wilton, 2018).

1.17.3 Blogs, Wikis and E-mails

Blogs are typically used for personal, introspective writing in blended learning, although wikis can be quite useful for collaborative research and writing. Individual learners can write introspectively about their own learning and receive comments from their peers through a blog, which can be shared across the class or with the wider public. Wikis are online collaborative writing spaces made up of interconnected webpages. They are extremely adaptable, allowing for a variety of unique and new learning methods (Cleveland-Innes & Wilton, 2018). Besides, e-mails are a popular and convenient way to communicate. Information professionals utilise e-mail for official and informal learning and teaching activities on a regular basis. In blended learning programmes, e-mail can be used to distribute learning materials and diagnostic tools in a number of ways (Allan, 2007).

1.17.4 Social Bookmarking, Mashups and Digital Storytelling

The relatively simple action of gathering, labelling, and sharing internet resources such as articles, news stories, or images is known as social bookmarking. Social bookmarking activities can be used as the foundation for critical in-class or online conversations in blended learning. Mashups are a type of social bookmarking that allows students to collect, integrate, and remix internet resources and data in more organised ways to create new meaning or interpretations. They can be effective tools for improving students' research abilities. Digital storytelling, on the other hand, can be viewed as an extension or "fulfilment" of the concept of mashups and can provide an extremely rich and meaningful

learning experience. Digital storytelling exercises can be used with in-person lectures to create a successful blended learning experience (Cleveland-Innes & Wilton, 2018).

1.17.5 Simulations, Serious Games and Virtual Worlds

Simulations, serious games, and virtual worlds are increasingly advanced kinds of educational technology. When a game is played with an educational aim in mind, it is deemed "serious" (though preferably still "fun"). When learners can interact with other learners in a three-dimensional space, they have fully grasped the concept of a virtual world (Cleveland-Innes & Wilton, 2018).

1.17.6 E-Portfolios

Electronic portfolios, also known as e-portfolios, are personal collections of writing papers, and other artefacts kept by students to demonstrate their learning during a course or programme. They are usually viewed in terms of assessment. Learners can use e-portfolios to reflect on and objectively evaluate their work, which can be beneficial for their development. These devices can often be incorporated into blended learning as open educational technologies, however, they can be very demanding in terms of equipment, resources and learner support (Cleveland-Innes & Wilton, 2018).

1.17.7 Modular Object-Oriented Dynamic Learning Environment (Moodle)

Moodle is an acronym that refers to Modular Object-Oriented Dynamic Learning Environment (Berbar, 2020). Zhang and Zhong (2018) define it as “*a course management system developed by Australian Martin Dougiamas based on the education theory of social constructivism, which is a free open source software, as well as a network course development platform and information learning management system*” (p.1).

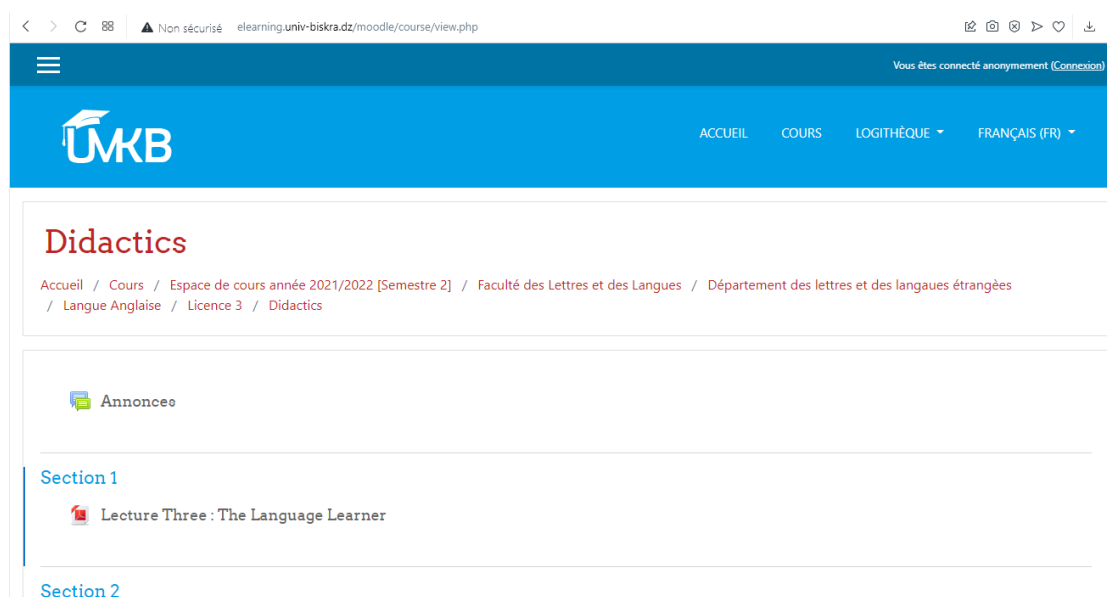
Modules are elements created by Moodle to facilitate interaction between students and instructors for content manipulation and transformation (Blin & Munro, 2008, as cited

in Costa et al., 2012). Multiple modules, including database, lessons, assignments, workshops, chats, forums, news, glossary, wikis, choice, quiz, survey, feedback, SCORM, and external tools, are available on the Moodle platform (Moodle, 2012, as cited in Costa et al., 2012).

Due to COVID-19 pandemic lockdown, Moodle platform was integrated in various universities in Algeria. During the academic year 2019-2020, the University of Biskra adopted this way of learning to facilitate and continue both the teaching and learning process. Figure 1.4 shows an example of the implementation of the Moodle platform at the Department of English in UMKB.

Figure 1.4

Didactics – Lecture Three : The Language Learner on UMKB Moodle Platform (Bousbaa, 2022)



1.17.8 Interactive Whiteboard (IWB)

The word "interactive whiteboard" refers to electronic presentation equipment that enables direct manipulation and interaction with visuals displayed on the surface of an IWB.

IWBs can be freestanding or wall-mounted, with the most typical placement being at the front of a classroom, replacing the traditional whiteboard or chalkboard (Dunn et al., 2011).

1.17.9 Social Networking Sites

People can develop and sustain social ties over large distances using social networking sites like Facebook, MySpace, and Friendster. Individuals can often publish personal information, text, photographs, and videos to engage in multimedia conversation with one another on these sites. Instructors can use YouTube videos to introduce essential studies to their students while using a medium that they are already familiar with. Integrating new technology into current teaching methods might assist keep students more motivated and engaged, hence perhaps enhancing the learning experience (Dunn et al., 2011).

1.18 Teachers' ICT Literacy

The integration of Information Communication Technology (ICT) in higher education settings is crucial for EFL teachers. Blended learning as a teaching and learning approach requires more training on ICT for teachers to increase students' achievement. *"Teachers must equip themselves with ICT skills and update to technology applications to cope with the 21st century teaching"* (Hafifah & Sulisty, 2020, p. 195). Thus, digital technology plays a vital role which teachers should master. Teachers who do not use technology run the risk to be replaced by it. Therefore, it is primordial for teachers to take part in ongoing training in ICT. Continuous exposure to ICTs enables them to evaluate and select carefully the most appropriate online sources. *"Classroom education is increasingly moving away from lecturing at students to a more collaborative project based model"* (Why teachers need to improve their ICT skills, n.d., para. 22). In short, there is no doubt that ICT has become an integral part of higher education in the light of blended learning and online assessment emergence.

1.19 Bloom's Digital Taxonomy (BDT)

1.19.1 Original Bloom's Taxonomy

It was created in 1956 by the educational psychologist Benjamin Bloom in order to promote higher forms of thinking. This taxonomy divided learning into three domains: cognitive, affective, and psychomotor. The focus was on the cognitive domain because of its possible application in primary, secondary and tertiary education. The six levels of this domain are knowledge, comprehension, application, analysis, synthesis and evaluation (Amin & Mirza, 2020).

1.19.2 Revised Bloom's Taxonomy


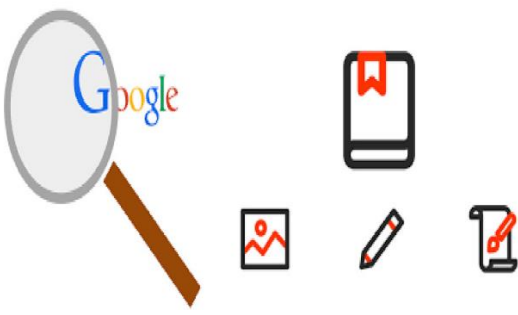

Bloom's former student Anderson along with his fellow researcher (Anderson & Krathuohl, 2001) changed the original taxonomy in terms of terminology, structure and emphasis. The six levels of the revised taxonomy are remembering, understanding, applying, analyzing, evaluating and creating. Both taxonomies represented a hierarchy with each level linked to the previous as a prerequisite (Amin & Mirza, 2020).


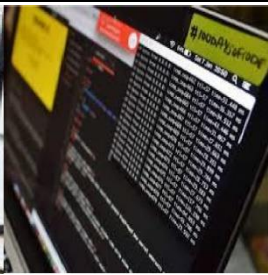





1.19.3 Digital Update of Bloom's Taxonomy

Churches (2009, Amin & Mirza, 2020) promoted "Bloom's digital taxonomy" and explained that the digital taxonomy is not limited to the cognitive domain only. He retained the levels of the revised taxonomy and identified the digital tools and verbs associated with each level. BDT aims at facilitating learning and enhancing the order of thinking skills using technology and digital tools. Table 1.6 illustrates which digital verbs and digital tools are used with each level (Amin & Mirza, 2020).

Table 1.6

Conceptual Framework of Study (Amin & Mirza, 2020, p.227)

	Bloom's	Bloom's	Digital Tools
	Digital	Digital	
	Taxonomy	Verbs	
	(BDT) Levels		
	Remembering	Bookmarking, social & bookmarking favouriting	
Lower	Understanding	Googling & Advance searching, Blog Journaling	
Order			
Thinking	Applying	Content Authoring & wiki editing, collaborating though e-tools, Skyping, Interactive whiteboard	

	Analyzing	Data processing through computers	 
Higher Order Thinking	Evaluating	Validating information Referencing	 p.34 (2018) 
	Creating	Podcasting, Recording videos & Digital Publishing	  

Amin and Mirza (2020) conducted a study to find out what students and teachers know about and how they use digital verbs and tools to help them understand concepts in both virtual and traditional learning environments. According to the study, Bloom's digital taxonomy should be used in teaching and learning. The data demonstrated that digital-age students were already well familiar with digital tools. Besides, according to Amin and Mirza (2020), adopting digital technologies and employing them sensibly in an educational setting can provide learners with a variety of benefits.

1.20 Assessing Students' Achievement in Blended Learning

Different attempts were made to explore the effectiveness of blended learning on students' learning achievements. For instance, Wei et al. (2017) conducted a quasi-experimental study on 104 sophomores at a university in central China for three months. This study aims at investigating the effects of blended learning and traditional learning on

students' achievement and academic stress. The findings demonstrated that blended learning had considerably higher learning outcomes compared to their traditional ones. In addition, a substantial positive correlation was shown between students' academic results and academic stress. In other words, learners with better academic stress had a higher rate of learning success.

Students' achievement success in blended learning compared to conventional ones was due to the following reasons : First, blended learning allows students to better absorb and apply what they have learned (Conner, 2010, as cited in Wei, 2017). Furthermore, according to Jordan and Rovai (2004, as cited in Wei, 2017), B-Learning fosters a better sense of community among learners than either traditional or entirely online courses. Before the experiment, the instructor in this research was trained to use the Star C platform effectively to execute blended learning. Another important reason could be the instructional design which the experienced instructor used to give students effective learning activities and support (Wei, 2017).

Findings from a similar study carried out by Hoic-Bozic (2009, as cited in Wei, 2017) used a learning management system to investigate the effects of blended learning at a university on teaching methods in an information science course, and discovered that students' academic accomplishments were better than expected. Nevertheless, in an Arabian university, a comparable study found no statistically significant changes in student performance between the experimental and control groups (López-Pérez et al., 2011, as cited in Wei, 2017).

In another study, Gomez et al. (2007, as cited in Alseweed, 2013) looked into the effects of instructional methods on learning English for specific purposes. They discovered that, while mixed learning helped students more, there was no significant difference in final

accomplishment test scores between blended learning and traditional learning. Similarly, Al-Saai et al. (2011, as cited in Alseweed, 2013) investigated achievement tests and perceptions regarding mixed and traditional learning among 43 Qatari university female students. Although there was no significant difference in students' accomplishment test scores, there was a substantial change in their perspectives about blended learning as a teaching method.

Besides, in an experiment conducted by Utami (2018) with 63 senior high school students to examine the effect of the blended learning approach on the achievement of senior high school students. Utami (2018) found that learners who participated in blended learning courses had higher achievement scores than those who participated in traditional teaching. Moreover, blended learning led to a considerable improvement in the learning outcomes of students in disciplines involving information and communication technologies. In addition, B-Learning can be utilised by teachers as an alternate learning approach to improve student achievement. In this study, content was provided in multiple formats, including text and video. As a kind of evaluation, a quiz was administered for each learning topic. Finally, discussion forums were also provided as a means of communication and exchange between teachers and students, as well as amongst students themselves. This can improve the motivation of students and provide them with new learning experiences.

In short, the effectiveness of B-Learning on students' learning achievement varied from one study to another. In one hand, some studies reported that the results showed significant higher outcomes. These effective findings were due to both the efficient implementation of B-Learning design and teachers IT literacy. Both factors helped considerably to improve students' accomplishments. On the other hand, other studies asserted that there was no statistically remarkable changes in students' performance.

Conclusion

Throughout this chapter, the researcher can deduce that shifting to blended learning was the suitable choice to carry on with pedagogical instruction and ensure the continuity of the teaching and learning process during the Coronavirus pandemic. Blended learning as an approach provided new insights as regards the integration of technology and digital tools to promote online learning and increase teaching and learning flexibility. However, both teachers and learners were encountered with various challenges such as the unfamiliarity with online learning and lack of appropriate training.

Chapter Two: Assessment in Blended Learning

Chapter Two : Assessment in Blended Learning

Introduction.....	59
2.1 Assessment Definitions	59
2.2 Assessment Purposes.....	60
2.2.1 Assessment for Learning (AFL)	61
2.2.2 Assessment of Learning (AOL).....	61
2.2.3 Assessment as Learning (AAL).....	61
2.3 Formative vs. Summative Assessment	63
2.4 Theoretical Key Concepts in Assessment.....	64
2.4.1 Assessment vs. Testing, Evaluation and Measurement	64
2.4.2 Standardized vs. Non-standardized Assessments	66
2.4.3 Grading Standards.....	66
2.5 Characteristics of Effective Assessment.....	67
2.5.1 Alignment	67
2.5.2 Validity.....	67
2.5.3 Reliability	67
2.5.4 Fairness.....	67
2.5.5 Practicality	68
2.5.6 Objectivity	68
2.5.7 Washback/Backwash	68
2.5.8 Authenticity	68
2.6 Traditional Assessments	70
2.6.1 Selected-Response Assessments.....	70
2.6.1.1 Multiple-Choice Items.....	71
2.6.1.2 Matching Items.	71
2.6.1.3 True-False Items.	71
2.6.2 Constructed-Response Assessments	71
2.6.2.1 Short-Answer Items.	71
2.6.2.2. Essay Items.	71
2.6.2.3 Completion Items.....	72
2.6.2.4 Problems-Solving Items.	72
2.7 Effectiveness of Traditional Assessment.....	72
2.8 Alternative Assessments	74
2.8.1 Portfolio Assessments	74
2.8.2 Performance Assessments	75
2.8.3 Students Exhibitions and Journals	75

2.8.4 Creating Effective Alternative Assessments	76
2.9 Understanding the Assessment Cycle	77
2.9.1 Planning the Assessment	78
2.9.2 Administering the Assessment	79
2.9.3 Evaluating and Revising Learners' Outcomes	79
2.9.4 Communicating the Assessment Results.....	79
2.10 Feedback in Assessment	80
2.10.1 Feedback Definition	80
2.10.2 Importance of Feedback	80
2.11 Online Assessment during COVID-19	82
2.12 Online Assessment Emergence	82
2.13 Online Assessment Definitions	83
2.14 Online Assessment Methods	83
2.14.1 Online Quizzes.....	84
2.14.2 Open-ended/ Essay Questions	85
2.14.3 Drag-and-Drop Activities.....	85
2.14.4 Game-Type Activities	85
2.15 Principles of Effective Online Assessment.....	85
2.16 Online Assessment Platforms	86
1.16.1 Google Forms	87
2.16.2 Quizlet	87
2.16.3 Scorative	87
2.16.4 iSpring Suite	88
2.16.5 Qorrect.....	88
2.17 Features of Online Assessment Tasks	88
2.18 Online Assessment Process.....	89
2.19 Differences between Traditional Assessment and Online Assessment	90
2.20 Online Assessment Benefits.....	91
2.21 Teachers' and Students' Perceptions of Online Assessment	93
2.22 Teachers' and Students' Challenges in Online Assessment	95
Conclusion	99

Introduction

Along with the adoption of blended learning in higher education, the usage of online assessment has become an essential component for effective blended learning. The pandemic radically changed the educational environment, which was based on face-to-face learning and offline assessment. This chapter provides some concepts that are related to assessment, its definitions, purposes, and types. It also demonstrates the difference between some theoretical concepts in assessment and gives more insight about some traditional assessments and their effectiveness. Additionally, this chapter deals with online assessment during COVID-19, its definitions, emergence, methods, principles, platforms, and benefits. It also explores teachers' and students' perceptions and challenges in online assessment.

2.1 Assessment Definitions

Classroom assessment has been of great interest over the years because of its importance to both teaching and learning. To better understand this concept, many researchers have tried to define it in different ways, but they have all agreed on one meaning.

According to The Quality Assurance Agency for Higher Education (2000, as cited in Pritchard, 2008), assessment is defined as *“a generic term for a set of processes measure students' learning, skills and understanding”* (p.109). Correspondingly, Wrench et al. (2009) refer to classroom assessment as *“an umbrella term that refers to the entire process of collecting information and making judgments about instructional outcomes”* (p.90). Another definition that is given by Ebert II and Culyer III (2011) describes assessment as *“the means by which information is gathered to make a variety of decisions ranging from what and how to teach a topic to determining what your students have learned”* (p.221). Furthermore, other scholars have presented this term as *“an ongoing process that encompasses a much wider domain. Whenever a student responds to a question, offers a*

comment, or tries out a new word or structure, the teacher subconsciously makes an assessment of the student's performance” (Brown & Lee, 2015, p.489).

In brief, although assessment has different connotations from a wide range of academicians, it still revolves around one idea, which is an umbrella term that concerns the evaluation of the students by their teacher, the teacher himself, the course content and the instructional materials in general.

2.2 Assessment Purposes

According to Jarvis (2006), assessment occurs for a variety of reasons and for a wide range of audiences. The following is a summary of these :

- Assessment is both required and motivating for students.
- It gives a performance indicator for students (eg., degree clarification) and for courses, faculty, and institutions.
- It gives the learners the opportunity to get feedback on their study and improve their grades.
- It serves as the foundation for determining whether or not a learner is prepared to move forward.
- It makes certain that the learning objectives for various awards and programmes are accomplished.

Also, Westwood (2008) listed the major purposes of assessment as follows :

- To allow a teacher to assess the efficacy of an education curriculum and adjust to the delivery mechanism, instructional activities, or materials.
- To detect any students who are struggling with the course material and require more assistance.

- To give data about a learner who wanted to be shifted to another school or to be referred for special education.
- To hold parents responsible by presenting evidence of their child's learning.
- To provide concrete proof of academic achievement in a school to governmental authorities.

Moreover, as illustrated in Table 2.1 by Arends and Kilcher (2010), assessment purposes include assessment for learning, assessment of learning, and assessment as learning.

2.2.1 Assessment for Learning (AFL)

Also known as formative assessment, it is meant to give instructors diagnostic information about their students' previous knowledge as well as formative data about the impacts of their teaching on learner development. Furthermore, this type of assessment gives students valuable data about their learning and the success of their strategies (Arends & Kilcher, 2010).

2.2.2 Assessment of Learning (AOL)

In addition, students engage in continual self-assessment as part of assessment as learning, which is designed to help them become more autonomous. Peer assessment, with peer interaction and feedback, is another form of it (Arends & Kilcher, 2010).

2.2.3 Assessment as Learning (AAL)

Finally, assessment of learning, or summative assessment, is used to determine responsibility, class rank, graduation, and placement or promotion. End-of-course exams are a good example of summative assessment. To sum up, identifying and employing the appropriate assessment tools for the appropriate reasons aids in teaching planning, improves

learners' learning, and makes it easier to communicate student progress to their parents (Arends & Kilcher, 2010).

Regardless of what different scholars have said, assessment has a vital role in both teaching and learning. Assessment is an effective way to learn for a myriad of reasons. It can be used to measure students' learning outcomes, the effectiveness of the teaching program, and the learning strategies that are used by teachers either continuously or summatively.

Table 2.1

Purposes and Uses of Assessments with Examples (Arends & Kilcher, 2010, p.136)

Purpose	Uses of assessment information	Examples
Assessment for learning	<i>Diagnostic assessment</i> To assess prior knowledge, interests, preferences, and misconceptions	<ul style="list-style-type: none"> • Inventories • surveys • observations • interviews
	<i>Formative assessment</i> To monitor learning, provide feedback to students, and guide teacher planning	<ul style="list-style-type: none"> • questioning • teacher-made tests • summarization strategies
Assessment as learning	<i>Self-assessment</i> To facilitate student self-direction and self-monitoring	<ul style="list-style-type: none"> • traffic lights • learning journals • peer review • two stars and a wish
	<i>Peer assessment</i> To facilitate students learning from and with one another	<ul style="list-style-type: none"> • rubrics • pre-flight checklist • summarization strategies

Assessment of learning	Summative assessment To make judgments and report on student learning and progress	<ul style="list-style-type: none"> • unit exams • mid-term exams • end-of-course exams • performance assessments • standardized tests
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2.3 Formative vs. Summative Assessment

The Center for Innovative Teaching and Learning (CITL) (2015) distinguishes between summative and formative assessment in terms of grading, purpose, focus, and effort. To put it in another way, as illustrated in Table 2.2, formative assessment is a continuous assessment used during the instructional process inside the classroom to improve students' skills. However, summative assessment is a mid-term assessment used after the teaching and learning process. Instructors use this type of assessment to judge and measure students' progress and performance.

Table 2.2

Summative and Formative Assessment and Evaluation (CITL, 2015, Summative and Formative Assessment section)

	Formative Assessment	Summative Assessment
Grading	Usually not graded	Usually graded
Purpose	Improvement : to give feedback to instructor and learners about how well learners understand specific material	Judgment : to derive a grade, and to allow learners to work intensively with course material
Focus	Very focused on whether learners have acquired specific skills or information	Less focused on specific skills or information ; instead, allows learners to demonstrate a range of skills and knowledge
Effort	Requires little time from instructors learners ; simple ; done in class	Requires more time from instructors and learners ; complex ; done outside of class

2.4 Theoretical Key Concepts in Assessment

Different concepts concerning classroom assessment will be introduced in this part. Each concept will discuss a theoretical principle of assessment.

2.4.1 Assessment vs. Testing, Evaluation and Measurement

Instructors frequently use the words “assessment”, “testing”, “evaluation”, and “measurement” interchangeably. In spite of their common importance, objectives, and relevance, there are differences between them. According to Cameron (2001), assessment “*is concerned with the pupils’ learning or performance, and thus provides one type of information that might be used in evaluation*” (p.222). In addition, the way of collecting data

on students' comprehension and abilities, both formal and informal, are known as assessment (Arends & Kilcher, 2010). Another term that has to be distinguished is testing. Miller et al. (2009, as cited in Orlich et al., 2010) defined testing as “*a particular type of assessment, usually a set questions that all students must answer in a fixed period of time and under similar conditions to demonstrate learning*” (p.321).

Sarosdy et al. (2006) reported that tests can be differentiated based on the purposes for which they are conducted. For instance, proficiency tests assess overall language skills regardless of any language courses the candidates may have taken. Achievement tests evaluate the learners' performance in a completed academic programme. Progress tests determine how well learners have mastered the previously taught content. Diagnostic tests assess the learners' language knowledge and application strengths and limitations in order to determine what they do and do not know. Placement tests assist in the placement of learners by determining the stage or portion of a teaching programme that corresponds most closely with their competency level and aptitude tests determine who is capable of learning languages by identifying their general abilities.

On the other hand, Nunan (2004) determines that “*evaluation can take place at any time, and any aspect of the curriculum can be evaluated*” (p.139). Evaluation is defined as the act of making decisions about students' performance. It also aims at giving more responsibility, advancement, and certification to students (Arends & Kilcher, 2010). Moreover, Miller et al. (2009, as cited in Orlich et al., 2010) define measurement as “*a process that assigns numbers to assessment results, such as the number of correct answers or points on a project. Measurement, as a concept, is typically associated with large-scale achievement tests*” (p.321). In short, assessment encompasses testing, which is then encompassed by evaluation (Nunan, 2004). Additionally, measurement is a quantitative study that deals with the students' outcomes.

2.4.2 Standardized vs. Non-standardized Assessments

Russell and Airasian (2012) stated the data that instructors gather and use in their classroom teaching come from standardized or non-standardized assessment processes. Standardized tests are supposed to be delivered, graded, and analysed in a similar manner, regardless of when or where they are handled. These requirements are important since one of the key goals of standardized assessments is to make consistent judgments about learners across classrooms. However, non-standardized assessments are usually teacher-made assessments for a small group of students in a particular classroom. To put it differently, there are two types of assessments which are used by teachers : standardized and non-standardized assessments. Each one has different characteristics, but they share the same goal, which is assessing students' performance.

2.4.3 Grading Standards

In Table 2.3, Arends and Kilcher (2010) illustrated two kinds of grading. Criterion-referenced grading which is the measurement of a student's performance based on predetermined criteria. Norm-referenced grading that is the comparison between a student achievement to other students who are treated as the norming group. In addition to that, percentiles and grade equivalent scores can be used to present norm-referenced grades (Shermis & Di Vesta, 2011). Arends and Kilcher (2010) describe percentiles as a statistical tool that shows the percentage of students in the norming group who scored the same or lower. Besides, to determine students' level of achievement, grade equivalent scores are calculated using a measure based on grade levels and months. To put it simply, grading is a valid method for describing students' accomplishments in the subject matter. What makes it valid is the use of different types of grading.

2.5 Characteristics of Effective Assessment

According to Cheng and Fox (2017), high-quality assessments produce outcomes that confirm student learning. A number of key features of high-quality exercises must be considered.

2.5.1 Alignment

Cheng and Fox (2017) described alignment as “*the degree of agreement among curriculum, instruction, standards and assessments (tests)*” (p.11). In other words, curriculum, teaching, standards, and assessments should all be connected to a certain extent.

2.5.2 Validity

Arends and Kilcher (2010) defined validity as the extent to which a test measures what it is supposed to measure. There are three kinds of validity, which are content, predictive, and construct validity (Moreno, 2010).

2.5.3 Reliability

The extent to which an assessment will regularly give predictable outcomes is referred to as reliability (Arends & Kilcher, 2010). For instance, reliability is a measure of how many errors teachers make when grading students' work and how constant they are (Cheng & Fox, 2017).

2.5.4 Fairness

Arends and Kilcher (2010) presented fairness as the possibility of a judgement being biased or discriminatory toward a specific person or entity. Also, Fairness necessitates visibility, in which all students are aware of the learning objectives, success standards, and the performance measures by which they will be assessed (Cheng & Fox, 2017).

2.5.5 Practicality

Classroom assessments are practical when they are relatively simple to administer. Employing assessments (such as a short quiz) that do not take a long time to create and deliver, are inexpensive, and provide quick results. Practical concerns should not take priority over more serious concerns (Moreno, 2010).

2.5.6 Objectivity

Anderson (2003) stated that objectivity is “*the scores assigned by different people to students' responses to items included on a quiz, test, homework assignment, and so on are identical or, at the very least, highly similar.*” (p.14). To put it in another way, the term “objectivity” refers to the marks offered by several people to students' answers that are almost identical. These items can be a quiz, a test, or homework.

2.5.7 Washback/Backwash

Sarosdy et al. (2006) defined it as when a test is likely to have an impact on instruction. It should have a positive impact. Washback can be beneficial or harmful.

2.5.8 Authenticity

Bachman and Palmer (1996, as cited in Brown & Lee, 2015) described authenticity as the degree to which the qualities of a specific language test task correspond to the characteristics of the target language task.

Table 2.3*Assessment Terms and Definitions* (Arends & Kilcher, 2010, p.134)

Terms	Definitions
<i>Assessment</i>	the process of gathering information, both formally and informally, about students' understandings and skills
<i>Authentic assessment</i>	demonstration or application of a skill or ability within a real-life context
<i>Criterion referenced</i>	<p>criterion-referenced tests measure student performance against a set of standards with determined levels</p> <p>(advanced, proficient, basic)</p>
<i>Diagnostic assessment</i>	information collected <i>before</i> learning that is used to assess prior knowledge and identify misconceptions
<i>Evaluation</i>	the process of making judgments about the level of students' achievement for accountability, promotion, and certification
<i>Fairness</i>	addresses the issue of possible bias or discrimination of an assessment toward any individual or group (race, gender, ethnicity)
<i>Formative assessment</i>	information collected <i>during</i> learning that is used to make instructional decisions
<i>Grade equivalent</i>	uses a scale based on grade levels and months to establish students' level of performance
<i>Norm referenced</i>	norm-referenced tests compare student performance to a national population of students who served as the "norming" group

<i>Performance assessment</i>	students demonstrate that they can perform or demonstrate specific behaviors and abilities
<i>Percentile</i>	a statistical device that shows how a student compares with students in the “norming” group who had the same or a lower score
<i>Portfolio</i>	a collection of student work with reflections
<i>Reliability</i>	the degree to which an assessment will produce dependable results consistently and over time
<i>Rubrics</i>	a scoring strategy that defines criteria and describes levels of quality (basic, developing, proficient, exemplary)
<i>Standardized tests</i>	standardized, summative assessments designed to provide information on the performance of schools and districts
<i>Summative assessment</i>	information collected <i>after</i> instruction that is used to summarize student performance and determine grades
<i>Validity</i>	the degree to which an assessment measures what it claims to measure

2.6 Traditional Assessments

In the majority of classrooms, traditional paper-and-pencil assessments are used to evaluate students' knowledge and abilities. Traditional assessments can be done formatively or summatively, formally or informally, and by a teacher or any professional institutions. Traditional assessments can be categorised either as constructed-responses or as selected-responses (Moreno, 2010).

2.6.1 Selected-Response Assessments

This type of conventional assessment requires learners to choose or recognize the correct response from a set of options. Multiple-choice, matching, and true-false items comprise selected-response assessments (Moreno, 2010).

2.6.1.1 Multiple-Choice Items. Multiple-choice questions are the most prevalent type of selected-response assessment and the standard format for standardised tests. (Moreno, 2010) claims that multiple-choice items start with a question, or "stem," and then give a list of possible answers, called "foils" or "distracters," of which only one is right.

2.6.1.2 Matching Items. This form of assessment involves providing students with two columns of words, phrases, or data. It is possible to solve the problem or answer the question by matching each item in the first column to one item in the second column. This format is ideal for assessing factual knowledge (Moreno, 2010).

2.6.1.3 True-False Items. True–false items are statements or assertions that students must determine whether they are true or false. Since students have a high chance (50 percent) of speculating the correct answer, this format should be used properly (Linn & Miller, 2005, as cited in Moreno, 2010).

2.6.2 Constructed-Response Assessments

In contrast to selected-response tests, constructed-response tests require students to produce an answer as opposed to selecting one from a list. Teachers can assess students using a variety of constructed-response items, including short-answer, essay, completion, and problem-solving items (Moreno, 2010).

2.6.2.1 Short-Answer Items. It is defined as a form of assessment consisting mainly of questions that can be answered in one or two sentences to one or two paragraphs (Moreno, 2010).

2.6.2.2. Essay Items. Essay questions demand longer responses than short-answer questions, ranging from one to multiple pages. Essays enable learners to show their comprehension of the content, higher-order thinking, information organisation skills, and writing abilities. A further consideration when writing essay questions is that they demand multiple skills (such as recall, organisation, argumentation, grammar, and spelling) that the teacher may choose to evaluate independently (Moreno, 2010).

2.6.2.3 Completion Items. Students should be able to put the right words, numbers, or symbols into a sentence. When constructing completion items, it is advised to utilise a single blank (Moreno, 2010).

2.6.2.4 Problems-Solving Items. Learners are assessed using problem-solving items when they must select relevant data from a question, arrange the data, and use a set of methods or procedures in order to create a response. As with essays, evaluating problem-solving items entails evaluating several skills, such as comprehension of the problem, representation of the problem, application of an effective technique to solve the problem, and presentation of a reasonable solution to the problem (Moreno, 2010).

2.7 Effectiveness of Traditional Assessment

When appropriately designed, selected-response assessments can be assessed rapidly and give a reliable measure of students' knowledge or comprehension of discrete informational items. In the majority of cases, the scoring of selected-response assessments entails calculating the number of right responses. Although some instructors penalise guessing by withholding points for incorrect responses, assessment professionals do not encourage this method (Sax, 1997, as cited in Moreno, 2010). Moreover, selected-response assessments are highly efficient since teachers may evaluate the understanding of diverse subjects in a short amount of time (Moreno, 2010).

Learners can sometimes predict the correct answer; but, the more distractions there are, the less likely it is that a student will guess correctly. Additionally, students cannot demonstrate their creativity or imagination because they must choose from a number of options. In addition, when students are provided with erroneous material, such as distracters on multiple-choice tests, they may recall it as accurate rather than incorrect (Brown et al., 1999; Voss, 1974, as cited in Moreno, 2010).

The main benefit of constructed-response assessments is that they are simple to create. In particular, they allow instructors to evaluate not only how much data learners possess, but also how well they arrange and express that information. Therefore, constructed-response exams can tap into Bloom's higher-level cognitive objectives, such as application, analysis, synthesis, evaluation, and creativity, when they are created with attention (Moreno, 2010).

Grading time is the primary downside of constructed-response assessments. Another downside is that they contain less information than selected response assessments. Correspondingly, experts suggest putting together a few essay questions that are used to test more sophisticated learning outcomes with a number of multiple-choice questions that test a wider range of course information (Gronlund, 2003, as cited in Moreno, 2010). Additionally, constructed-response elements are more likely to be untrustworthy due to the subjectivity of their grading. Unconsciously, instructors may be influenced by their personal beliefs, norms, and expectations while scoring open-ended items, so rendering the evaluation inaccurate and unequal (Moreno, 2010).

To improve the dependability of assessing open-ended tasks such as essays and problems, teachers have to develop a grading rubric beforehand. Rubrics are scoring scales that indicate the grading standards (Stiggins, 2005, as cited in Moreno, 2010). A standard

grading rubric contains a list of criteria on the left side of the matrix and a list of clearly defined performance levels on the right side of the matrix (Huba & Freed, 2000, as cited in Moreno, 2010). Studies indicate that providing rubrics in advance might direct students' attention and improve their performance (Arter & McTighe, 2001; Saddler & Andarde, 2004, as cited in Moreno, 2010).

In general, traditional assessments have been criticised for their emphasis on low-level knowledge and abilities and for measuring only learning results as opposed to the learning process itself (Bandalos, 2004; Popham, 2005, as cited in Moreno, 2010). However, studies do not support the idea that alternative assessments evaluate higher-level thinking more accurately than traditional assessments (Terwilliger, 1997, as cited in Moreno, 2010); rather, it demonstrates that alternative assessments face severe dependability and practical issues (Moreno, 2010).

2.8 Alternative Assessments

Opponents of traditional assessments have proposed alternative assessments, which are attracting increasing interest among instructors (Lester et al., 1997; Paris & Paris, 2001, as cited in Moreno, 2010). Even though there is no specific definition of alternative assessments, their primary purpose is to collect evidence regarding how students approach, process, and complete real-world tasks in a particular area (Huerta-Macias, 1995, as cited in Moreno, 2010). Thus, alternative evaluations can be characterised as formative or summative informal teacher-created assessments. Alternative classroom assessments are also known as authentic assessments since they measure students' achievement on activities that are relevant to real-world situations (Popham, 2005, as cited in Moreno, 2010). Moreno (2010) said that what makes an alternative or authentic assessment different is not how it is set up but what kind of work learners are asked to do during the assessment.

2.8.1 Portfolio Assessments

Popham (2005, as cited in Moreno, 2010) defined portfolios as organised compilations of a student's work over a prolonged period, which generally include self-reflections on the learning process. Depending on the subject, portfolios can include written work, artwork, visual representations, videotapes, science reports, computer printouts, journal entries, and any other work the teacher thinks shows the student's understanding, skills, or accomplishments (Knotek, 2005, as cited in Moreno, 2010). The benefits of portfolio assessments are that they can be shown to parents as strong evidence of their children's learning, that they help students improve their metacognitive skills by having them self-evaluate their learning, and that they help students feel more like themselves than other types of assessments (Ezell & Klein, 2003; Juniewicz, 2003, as cited in Moreno, 2010).

2.8.2 Performance Assessments

Performance assessment necessitates the application of knowledge and abilities to perform a task or create a product in more or less realistic settings (Nitko, 2004, as cited in Moreno, 2010). In disciplines including science, athletics, and the performing arts, performance assessments are widespread (Moreno, 2010). When contextualised as a school task instead of a real-world task, a performance assessment is still regarded as traditional assessment, such as a historical event. When learners achieve the ultimate level of realism in their performance, the performance assessment is considered as authentic one (Baker et al., 1993; Meyer, 1992, as cited in Moreno, 2010).

2.8.3 Students Exhibitions and Journals

An exhibition is a less prevalent form of alternative evaluation that requires students to show their learning outcomes to an audience. The assumption is that through preparing for these performances, students will expand their abilities beyond what they have exhibited in class projects and other more conventional assessments. Exhibitions that are evaluated by

a trained panel of peers and adults (e.g., teachers, parents, community members) can help students understand the attributes of good work and how they appear in their own work (Guskey & Bailey, 2001, as cited in Moreno, 2010). Moreover, the exhibition is often the climax of a student's academic career; therefore, it is expected that the presented work will demonstrate the skills and information acquired over a lengthy period. In addition, the purpose of exhibitions is to determine whether students can work autonomously toward their aims outside of the classroom. Typically, exhibitions include an oral presentation and a process portfolio (Moreno, 2010)

Dunlap (2006, as cited in Moreno, 2010) revealed that student journals can be effective alternative assessments when instructors need to obtain a better grasp of students' cognitive processes and ideas. Journals, like portfolios, offer students the chance to build reflective and metacognitive skills by fostering awareness of their learning processes and accomplishments (Bound, 2001, as cited in Moreno, 2010).

2.8.4 Creating Effective Alternative Assessments

Developing portfolio assessments requires considerable time and effort, making them less feasible than other assessment methods. More problematic is the absence of concrete evidence of their dependability. Much of the research demonstrates that there is a lack of inter-rater reliability: various raters (different instructors, for instance) provide significantly varied scores while grading the same portfolio (Cheung, 1995; Herman & Winters, 1994; Koretz et al., 1993, as cited in Moreno, 2010). Therefore, it is advisable to construct and employ portfolio rubrics to enhance their reliability, and to utilise them in conjunction with other more conventional assessments (Moreno, 2010).

Similar to portfolios, performance assessments have not been shown to be an accurate way to measure how much students have learned (Shavelson et al., 1992, as cited

in Moreno, 2010). Educational Testing Service ; Linn ; Supovitz & Brennan (1995 ; 1994 ; 1997, as cited in Moreno, 2010) said that varied performance assessments are found to generate different results, and scores appear to be connected more to students' aptitudes than to what they were instructed. Additionally, performance assessments need much more time to develop, administer, and score than objective tests. In contrast, studies indicate that performance assessments are more motivating than conventional paper-and-pencil assessments (Khattri & Sweet, 1996 ; Paris & Paris, 2001 ; Resnick & Resnick, 1996, as cited in Moreno ,2010).

To address these difficulties, performance assessments should precisely describe the sort of performance that will be evaluated and the criteria for scoring. Utilizing a scoring rubric to score performance evaluations improves their reliability and validity (Stiggins, 2005, as cited in Moreno, 2010) and raises student accomplishment (Schafer et al., 2001, as cited in Moreno, 2010). Furthermore, performance rubrics specify the criteria used to evaluate performance, including the range in quality of the performance, a description of how each quality level is distinguished from another, and a score for each quality level (Meir et al., 2006, as cited in Moreno, 2010).

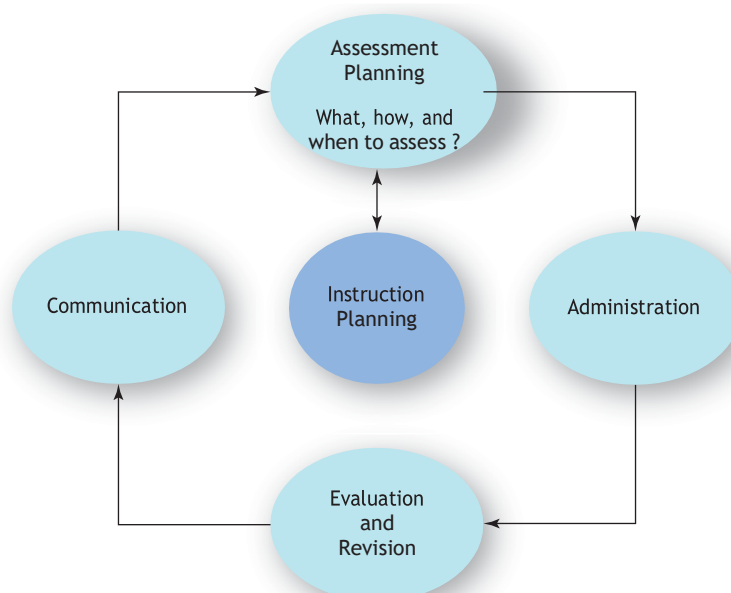
Other performance grading methods include generating checklists of required tasks that instructors can check as students complete them, or defining criteria for various performance levels (i.e., using a rating scale). In conclusion, exhibitions provide the same issues as portfolios and performance evaluations. If scorers are not experienced and scoring rubrics are not well written and linked to learning goals, they will not be fair, reliable, or valid because they depend on a teacher or panel's opinion (Moreno, 2010).

2.9 Understanding the Assessment Cycle

As a visual aid, Moreno (2010) illustrates Figure 2.1 as a classroom assessment cycle composed of 4 phases: planning; administering; evaluating and revising; and communicating assessment findings to the respective team, such as learners, parents, and managers. There is a close link between assessment and instructional planning. Once assessment data is gathered and analyzed, it can be used to improve education and make new assessments (Moreno, 2010).

Figure 2.1

The Assessment Cycle (Moreno, 2010, p.473)



2.9.1 Planning the Assessment

Within this phase, a teacher should know what, how, and when to assess learners. Once teachers are familiar with the curriculum's standards and benchmarks, they can plan learning objectives and classroom assessments that indicate accomplishment of those goals. Standards and benchmarks may also be called competencies, objectives or goals (Moreno, 2010).

After defining the standards and benchmarks, teachers move to the following step in planning which is about determining how to assess students' learning. At this level, they have to consider the learning objectives and choose the best method for each objective whether alternative or traditional assessments (Shapard, 2000, as cited in Moreno, 2010). Finally, learners should be assessed frequently to be able to review, practice, and get feedback on what is instructed. Knowing when to assess learners, may reduce learning anxiety and motivate learners to study regularly (Moreno, 2010).

2.9.2 Administering the Assessment

The second part of the assessment cycle is to give examinations so that the results accurately reflect students' knowledge and skills. In this regard, professionals suggest the following practices:

- Make a relaxing and well-organized environment.
- Maintain the assessment atmosphere as similar to the learning environment as possible.
- Observe students during the assessment process.
- Provide clear instructions prior to and during assessments (Moreno, 2010)

2.9.3 Evaluating and Revising Learners' Outcomes

Teachers evaluate students' learning using answer keys, rubrics, or checklists to score standardised tests. The findings of this evaluation can assist teachers in determining whether a specific student or the entire class needs to review particular concepts. Instruction that is inadequate, insufficient, or inappropriate is the source of poor performance. Another factor may be a question's confusing wording, which might render an assessment invalid and unreliable. Consequently, some assessment experts have proposed the use of an "item difficulty index" or an "item discrimination" to calculate and compare students' results.

Using such calculations, teachers may identify any probable weaknesses to be revised in future assessments (Moreno, 2010).

2.9.4 Communicating the Assessment Results

Moreno (2010) argues that it is important to think carefully about how to communicate students' performance to ensure an informative and constructive feedback. An objective, specific and positive feedback that is well communicated to students can promote learning and motivate them to learn and do better in the future by correcting their mistakes.

Finally, knowing how to put the assessment cycle into practice using the four stages effectively, may increase the validity and reliability of classroom assessments and improve students' outcomes.

2.10 Feedback in Assessment

2.10.1 Feedback Definition

Feedback implies giving data to the students taking an assessment based on their accomplishments. According to McMillan (2018), feedback means "*providing information to the student following an assessment about his or her achievement.*" (pp.130-132).

2.10.2 Importance of Feedback

Formative assessment mainly relies on feedback (Burke, 2010). Bloom et al. (1971, as cited in Burke, 2010) discussed the advantages of providing students with continuous feedback on their work in the classroom via formative assessments. According to Guskey (2007/2008, as cited in Burke, 2010), formative assessments identify which concepts and abilities have been taught properly and which learning challenges still exist for both students and teachers. Teachers will partake in a continuous way of providing students with specific feedback and suggestions and work toward the educational aim only if the assessment is formative. Additionally, the feedback is designed to allow students think on their own

learning and adapt their tactics as needed to reach or achieve the requirements and gain a better comprehension of the key concepts (Burke, 2010).

Hattie and Timperley (2007, as cited in Burke, 2010) reported that students who received guidance on how to complete a task more efficiently benefited the most from it. Moreover, teachers need to use feedback effectively to create a classroom environment that supports complex decisions and deep grasp of subject and issues. They also talked about how difficult it is to deliver comments with perfect timing before dissatisfaction sets in. Burke (2010) stated that successful teachers established a stability between saving a student by providing too much criticism too early and leaving the students "sink or swim" on their way.

Furthermore, some instructors advised against giving learners feedback and a mark on their work at the same time. They assumed that most learners will disregard criticism in favour of focusing on their mark (Burke, 2010). Vatterott (2009, as cited in Burke, 2010) revealed that effective oral and written homework critique necessitated a discussion between the learners and the instructors. Critique without marks, on the other hand, is a new approach shared by many teachers. In the same way, learners have never attended school without receiving grades, and for many of them grades are the only method to receive feedback.

Besides, according to O'Connor (2009, as cited in Burke, 2010), instructors must be able to distinguish between feedback and guidance. This scholar added that feedback tells you what the learner did, whereas guidance tells you what you should do to progress. In addition, both are necessary for students, but the order in which they are given is crucial. Teachers and parents are more likely to give assistance than feedback. Also, O'Connor (2009) noted that the difficulty with delivering instruction immediately is that the learner

may respond defensively and not actually hear the input. However, if we deliver descriptive feedback initially, the learner will be more willing to respond.

Finally, students should be able to progress beyond instructor direction and know how to lead themselves to make essential refinements once they have learnt to receive feedback and reflect metacognitively on their work (O'Conner, 2009, as cited in Burke, 2010). To conclude, feedback is a vital part of assessing students formatively. Teachers should differentiate between feedback and guidance in order to deal with students' needs. As well, students require both, but the order in which they are used is important.

2.11 Online Assessment during COVID-19

In education and higher education institutions in particular, the usage of online examinations has become popular (Gheraibia, 2022). With the advent of COVID-19, a vast, rapid, and compelled transition from in-person classes and assessments to virtual classes and assessments has become the norm (Rizwana et al., 2021). Covid-19 Pandemic has necessitated online assessments in Algerian universities. Boulkroun et al. (2021) reported that even before the epidemic, there was a significant need for e-learning techniques and technology, but this demand is currently growing noticeably. Moreover, new assessment procedures and tactics have been developed. However, assessing EFL students in an unprepared online context poses significant challenges for both teachers and students (Hadi, 2022).

2.12 Online Assessment Emergence

This practice, according to Al-Smadi and Guetl (2008, as cited in Ghouali et al., 2020), is not as new as it may appear. Specifically, it goes back to the early 1960s and 1970s, when the first computer programmes were created. Later, in the 1980s, the microcomputer was introduced for teaching and producing online exams. However, the World Wide Web

(WWW) was the most notable invention that revolutionised computer-based evaluation in the 1990s. Since then, advanced web-based assessment systems for both the automatic grading of fixed responses (predictable responses with a pre-determined set of choices, such as multiple-choice questions and matching activities) and the evaluation of free responses have emerged (nonpredictable and non-predetermined answers, as in essay writing).

2.13 Online Assessment Definitions

Unlike offline assessment, online assessment is mainly based on the use of technology. However, the concept of assessment remains the same whether offline or online. Forsyth and Aleksieva (2021) defined e-assessment as *“the use of digital technologies in the process of construction, delivery, storage, or reporting of student assessment tasks”* (p.1). As many other authors, Jamil et al. (2012, as cited in Ghouali et al., 2020) stated that online assessment *“is an evaluation in which the computer plays an essential component of the assessment as it is the means upon which assessment-related tasks are being achieved”* (p.55). Moreover, MeritTrac (2022) described this term as *“an evaluation of a person’s abilities, behaviours and/or characteristics. This test is conducted over the Internet by using available web technologies”* (para. 1).

2.14 Online Assessment Methods

An assessment method is meant to gather and present information about a person, team, or organisation. Some of the methods additionally include a report on the results, as well as criticism or ideas for improvement. It can be printed or accessed electronically (Wilson & Smilanich, 2005). Crisp (2011, as cited in Ghouali et al., 2020) identifies the following as part of the technologies that enable the design, administration, gathering, and correction of such activities:

- Closed-ended questions in the form of filling in the gaps, answering multiple-choice questions (MCQs), selecting one answer from a list, ordering answers which are automatically graded or writing a short or extended answer.
- E-portfolio (a collection of students' works online in a digital format).
- Wikis (online project work).
- Discussions in a forum within a group of participants.
- Social media sites
- Self or peer assessment through which each person assesses individually one's work or another person's work.
- Blogs where students reflect on a given task and make decisions.
- Simulation via interactive applications.
- Virtual world scenario where individuals are immersed in a 3D environment in which they create avatars, and start role-playing a given character and are engaged in problem-solving situations.
- Learning Management Systems (LMS) like Blackboard, Sakai, and Moodle (p.56)

To put it differently, Crisp (2011) indicated different types of online assessment, which are closed-ended questions, e-portfolios, Wikis, discussions in a forum, social networking sites, self or peer assessment, blogs, simulations, virtual world scenarios, and LMS.

According to Colman (2021), online assessment methods are used to aid training, engage the audience, and give teachers deeper understanding into their students' learning processes. The optimal method to adopt will differ depending on the learning needs and objectives. Colman (2021) presented four online assessment methods, which are online quizzes, open-ended questions, drag-and-drop activities, and game-type activities.

2.14.1 Online Quizzes

Quizzes are a common form of traditional assessment. They are also an effective approach to engage students' learning when combined with technology. Multiple-choice, fill-in-the-blanks, and hotspot questions are examples of quiz questions (Colman, 2021). Usually, online quizzing has entailed delivering a number of quizzes based on mandatory reading utilising a Web-based testing application or a course-delivery platform such as Blackboard (Dunn et al., 2011).

2.14.2 Open-ended/ Essay Questions

One of the most common qualitative assessment strategies is open-ended or essay-type questions. They encourage students to examine their feelings, thoughts, and opinions while also assessing their overall grasp of a subject. This kind of question encourages students to think critically and is best used to test knowledge at a higher level (Colman, 2021).

2.14.3 Drag-and-Drop Activities

According to Colman (2021), it is a type of assessment that demonstrates a learner's capacity to solve a practical problem. A drag-and-drop activity can include both graphics and text, giving it a realistic sense that is both challenging and interesting.

2.14.4 Game-Type Activities

Activities that resemble games make a game out of a sequence of test questions. They are a good predictor of genuine talents and knowledge in most cases. They also improve learning by encouraging the development of non-cognitive qualities like discipline, risk-taking, cooperation, and problem-solving (Colman, 2021).

2.15 Principles of Effective Online Assessment

Angelo and Cross (1993, as cited in Palloff & Pratt, 2009) argued that for assessment to be effective, it must be integrated and matched with course design. Effective classroom assessment is described as being learner-centered, teacher-directed, mutually beneficial, formative, context-specific, ongoing, and firmly founded in best practices. Although they are addressing assessment techniques for face-to-face classrooms, the same principles may be used well to the online classroom. The following principles should be followed when assessing students in an online course:

- Design learner - centered assessments that include self - reflection.
- Design and include grading rubrics for the assessment of contributions to the discussion as well as for assignments, projects, and collaboration itself.
- Include collaborative assessments through public posting of papers, along with comments from student to student.
- Encourage students to develop skills in providing feedback by providing guidelines to good feedback and by modeling what is expected.
- Use assessment techniques that fit the context and align with learning objectives.
- Design assessments that are clear, easy to understand, and likely to work in the online environment.
- Ask for and incorporate student input into how assessment should be conducted.

(Palloff & Pratt, 2003, as cited in Palloff & Pratt, 2009, p.30)

2.16 Online Assessment Platforms

Online assessment platforms include all the resources required to run the examination, measure talent, assess domain-specific abilities, create complete test reports, and more (Merittrac, 2022). Multiple platforms, including Moodle and Google Forms, are

utilised to assess students online (Benghalem & Melouk, 2021). Also, teachers use other online assessment tools to make their assessment more interesting and engaged such as Quizlet, Scorative, iSpring Suite, and Qorrect.

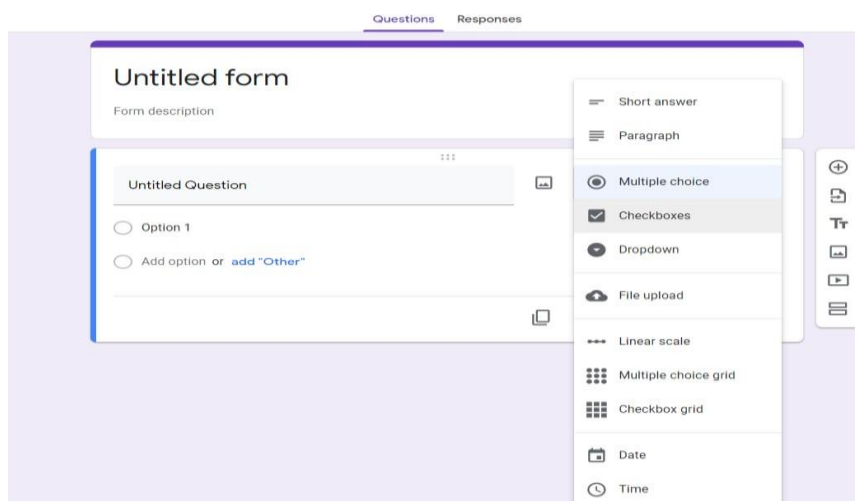
1.16.1 Google Forms

Benghalem and Melouk (2021) define it as “one of the free web-based used to make online surveys and quizzes. The form can be sent through a link via email, or embed it into Facebook and Twitter. Data gathered using the form is stored in a spreadsheet” (p.261).

Google Forms supports both open-and closed-ended question types. As illustrated in Figure 2.2, Google Forms use various question formats, including short answer, paragraph, multiple-choice, checkboxes, dropdown, file upload, linear scale, multiple-choice grid, checkbox grid, and date/time (Benghalem & Melouk, 2021).

Figure 2.2

Different Types of Questions Offered by Google Forms (Benghalem & Melouk, 2021, p.262)



2.16.2 Quizlet

It is one of the most popular online assessment platforms for learners. It is an interactive learning application that just collaborated with TikTok to make students' learning experiences more engaging (Nasr, 2021).

2.16.3 Scorative

Nasr (2021) defined it as a game-based technology that aids teachers in managing student evaluations and monitoring their development. A programme for creating quizzes allows users to include multiple-choice, true/false, and short answer questions. Exit tickets enabling students to provide feedback on the lesson and a fun Space Race game where students "race" to the finish line are among the other noteworthy elements (Colman, 2021).

2.16.4 iSpring Suite

It is an all-in-one e-learning authoring package. It also lets teachers make PowerPoint-based courses, video lessons, interactions, and flipbooks, as well as interactive quizzes, surveys, and dialogue simulations for student assessment. (Colman, 2021). Moreover, teachers, trainers, and educational institutions can use this free online exam programme to train and test the learners (Nasr, 2021).

2.16.5 Qorrect

It is an essential tool for any organisation looking to provide efficient assessments for its students or employees. A group of educators and software professionals collaborated to develop the assessment management system.

2.17 Features of Online Assessment Tasks

Kendle and Northcote (n.d., as cited in Barbosa & Garcia, 2005) developed the following criteria to guide the design and development of effective online qualitative assessment tasks:

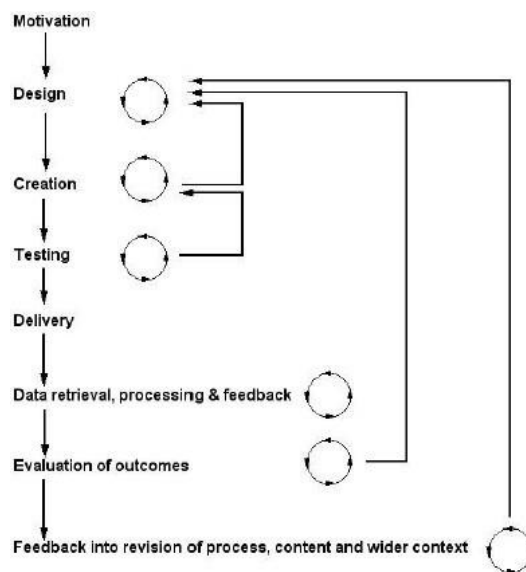
- Variety: including both quantitative and qualitative methods.
- Authenticity: using open-ended tasks that simulate workplace tasks, as well as appropriate quantitative tasks.

- Collaboration: allowing for interaction between learners and others, and using appropriate communication technologies.
- Feedback: ensuring appropriate feedback mechanisms are possible using peer feedback and peer tutoring.
- Online resources: making full use of available quantitative packages as well as other internet resources.
- Learner responsibility: providing options and opportunities for accountability within assessment task. (p.3)

To put it simply, there are different characteristics of an efficient online assessment, which include variety, authenticity, collaboration, feedback, online resources, and learner responsibility.

2.18 Online Assessment Process

As seen in Figure 2.3, Whitelock et al. (2006, as cited in Ghouali et al., 2020) developed a cycle to represent the e-assessment process. According to them, the initial stage of an e-assessment activity is motivation. The design and creation of the assessment come next. The testing of students and delivery of the assessment then follow. The subsequent steps consist of data processing and feedback delivery. The cycle concludes when students evaluate the outcomes and consider the feedback.

Figure 2.3*E-Assessment Cycle* (Ghouali et al., 2020, p.56)

The e-assessment procedure closely matches a traditional assessment (Ghouali et al., 2020). Some people see e-assessment as a mirror image of paper-and-pencil assessment (Al-Smadi & Guetl, 2008, as cited in Ghouali et al., 2020), because the types of activities and procedures are similar (James, 2016, as cited in Ghouali et al., 2020).

2.19 Differences between Traditional Assessment and Online Assessment

Alruwais et al. ; Cazan and Indreica ; Jordan ; Kuzmina; and Timmis (2018; 2014; 2013; 2010; 2016, as cited in Ghouali, Benmoussat, & Ruiz-Cecilia, 2020) agreed that using specific e-assessment tools, such as software, virtual games, web-based tools, or audio-visual aids, has the potential to generate novel forms of learning that may not take place in a traditional context. This aspect supports JISC's claim (2007, as cited in Ghouali et al., 2020) that e-assessment has the capacity to evaluate previously unimaginable learning domains. In addition, Alruwais et al. (2018, as cited in Ghouali et al., 2020) highlight the adaptive feature of online examinations, which is absent from the conventional assessment.

In contrast to a traditional paper-and-pencil assessment, which is labor-intensive (Usener et al., 2012, as cited in Ghouali et al., 2020) that takes a long time to grade and return the scores, a computer-based assessment is much easier to use (Alruwais et al., 2018, as cited in Ghouali et al., 2020). In addition, it has a limitless capacity to manage vast amounts of data, in contrast to the human, whose capacity is somewhat limited (Kuzmina, 2010, as cited in Ghouali et al., 2020).

Moreover, the results of the computer-based evaluation are more accurate and reliable than those of the traditional evaluation (Al-Qdah & Ababneh, 2017; Jamil et al., 2012; James, 2016, as cited in Ghouali et al., 2020). The inadequacies of old evaluation systems, such as insufficient direct feedback and student participation have limited students to the work at hand (Crisp, 2011; Jordan, 2013, as cited in Ghouali et al., 2020)

Additionally, the time of the test in a computer-based environment is not as rigid as it is in a traditional setting. There is neither the pressure of time, which can be surpassed at the discretion of the student, nor the pressure of teachers who monitor and force the student to return the copy (Simin & Heidari, 2013, as cited in Ghouali et al., 2020).

According to Al-Smadi and Guetl (2008, as cited in Ghouali et al., 2020), there are two practical and pedagogical reasons for its use over the conventional evaluation. It is practical in the sense that it is an efficient response to the rising number of students and the extended time allocated for their evaluation. However, from a pedagogical aspect, it is considered to uphold appropriately the principles that drive an assessment activity in terms of validity, reliability, efficiency, and diagnostic value. Likewise, it should be noted that the majority of institutions are not prepared to use an online platform; therefore, it cannot be ensured that online learning objectives are equal to those of face-to-face courses (Behforouz, 2022).

Finally, Pearse-Romera and Ruiz-Cecilia ; and Timmis et al. (2019; 2016, as cited in Ghouali et al., 2020) discussed the inadequacy of traditional techniques, their overemphasis on grades and evaluation procedures, and their lack of innovation, hence diminishing students' self-confidence and motivation. However, the authors do not reject their potential; rather, they suggest that the combination of technology and evaluation has resulted in the emergence of new skills in society, based on online collaboration, exchange, interaction, and peer assessment.

2.20 Online Assessment Benefits

Online assessment is a valuable tool that provides many advantages among organisational and instructional institutions. Crisp (2011, as cited in Ghouali et al., 2020) asserts that online assessment offers unlimited capacities for advancement as it depends on a wide range of skills that stimulate learning in its different angles and in a deeper and more authentic way. Online assessment also provides objective and fair grading (Al-Samdi & Guetl's, 2008 ; Whitelock & Watt, 2008, as cited in Ghouali et al., 2020), as well as a reliable and valid assessment that promotes social skills and higher order cognitive abilities such as reflection and thinking (Alruwais et al., 2018 ; Al-Samdi & Guetl's, 2008 ; Buzzetto-More & Alade, 2006 ; Jordan, 2013, as cited in Ghouali et al., 2020).

According to Alruwais et al. (2018, as cited in Ghouali et al., 2020) the adaptability and flexibility of online assessment occur, for example, by changing the degree of difficulty based on students' responses, i.e., as the number of accurate responses increases, so does the degree of difficulty and vice versa. As said by Appiah and Tonder (2018, as cited in Ghouali et al., 2020), they are solely the responsibility of teachers. This evaluation, according to the authors, affords them the opportunity to either assess basic and simple aspects in the form of closed-ended questions, which frequently lead to a simple retrieval of information, or to utilise a variety of online assessment tools such as wikis, blogs, simulation, self and peer

review, and role-play in order to assess higher order cognitive skills that require analysis and evaluation (Appiah & Tonder, 2018 as cited in Ghouali et al., 2020).

Furthermore, online assessment makes the administration, gathering, and marking of the assessment, as well as the communication of the results, much simpler and faster (Koneru, 2017 ; Simin & Heidari, 2013, as cited in Ghouali et al., 2020), saving teachers' time and eliminating the need for hard copies (Koneru, 2017 ; Simin & Heidari, 2013, as cited in Ghouali et al., 2020), especially in classrooms with a large number of students (Jordan, 2013, as cited in Ghouali et al., 2020).

In addition, online assessment permits the preservation of student responses and grades (Crisp, 2011, as cited in Ghouali et al., 2020), which will be utilised by the teaching staff to monitor the students' progress, who in turn will evaluate their own learning development (Simin & Heidari, 2013, as cited in Ghouali et al., 2020). Moreover, it allows their teachers to provide immediate (Kuzmina, 2010, as cited in Ghouali et al., 2020), insightful, and detailed feedback on their responses (Crisp, 2011, as cited in Ghouali et al., 2020) that exposes distinctions between individuals (Alruwais et al., 2018, as cited in Ghouali et al., 2020).

Online assessment permits students to retake the exam at their convenience and provides convenient access to the resources (Crisp, 2011, as cited in Ghouali et al., 2020). On a similar thought, Timmis et al.(2016, as cited in Ghouali et al., 2020) noted that the various online assessment tools enhance learners' decision-making, thereby preparing them to manage challenges they may experience in the future in their social lives.

Besides, online assessment is preferable for students with disabilities for whom a paper-and-pencil examination would be problematic (JISC, 2007 ; Kuzmina, 2010, as cited in Ghouali et al., 2020). Additionally, it is cost-effective in the long term in relation to the

design (James, 2016 ; Ridgway et al., 2004, as cited in Ghouali et al., 2020). Prakash and Saini (2012, as cited in Ghouali et al., 2020) conclude that online assessment is a flexible and learner-centered tool that facilitates the accessibility of materials, allows learners to compare their achievement with that of their peers, promotes interaction and communication, and actively engages them in the learning process.

2.21 Teachers' and Students' Perceptions of Online Assessment

Since students are no longer in a traditional classroom, they may erroneously believe that they do not need to exert as much effort to complete tests and master course materials in online settings (Kebritchi et al., 2017, as cited in Behforouz, 2022). Observations by a number of studies confirmed that during online learning and instruction, students feel less accountable. In assessment and testing, matters such as Internet problems, lack of importance of class attendance, and housework commitments may be regarded as potential excuses for a student's reduced commitment throughout the online course (Gikandi Morrow & Davis, 2011, as cited in Behforouz, 2022).

Moreover, the application and design of assessments have a substantial impact on student achievement. In numerous studies, there was no change in student grades or success between well-designed virtual and face-to-face class assessments (Hewson, 2012 ; Page & Cherry, 2018 ; Spivey & McMillan, 2014 ; Tsai, 2016, as cited in Behforouz, 2022). Besides, Behforouz (2022) indicated that stress, time management, exam readiness, the availability of a faster internet connection, and the location where students are gathered to review the materials are all crucial when assigning online tests.

During COVID-19, Boualem and Melouk (2021) conducted research with 39 Master One Didactic and Applied Languages students at Belhadj Bouchaib Ain Temouchent University to determine how the students felt about online assessments. The results showed

that the students had negative attitudes towards online testing for many reasons. This was supported by their instructors, who said that despite their efforts, their learners were not interested in instructional technologies. Moreover, the findings of the study indicated that teachers agreed with the notion that students taking an online exam at home are less stressed.

This unfavourable attitude might also be attributed to instructors' lack of confidence in the dependability of online assessments, as all teachers said that cheating was considerably simpler and impossible to manage. Teachers argued that the inadequate quality of the internet could be a cause of this negative attitude. Nevertheless, an instructor asserted that students utilised the quality of the internet as an excuse to avoid schoolwork, despite the fact that student responses were objective (Boualem & Melouk, 2021).

Furthermore, Beleulmi (2022) carried out a study on Study Skills teachers during the COVID-19 outbreak to explore their perspectives and challenges in measuring students' learning in an online environment. Because of the epidemic, teachers claimed that online assessment was the only way to check students' progress in Study Skills classes. Moreover, before the Covid-19 Pandemic, all of the teachers had previously taught online. Most of them turned to online teaching and assessment via Moodle platform and other tools like Google Classroom because they had already been taught to use online learning. According to the findings, teachers agree that online assessment is vital and beneficial especially during the pandemic lockdown. The majority of teachers reported an interest in continuing to use online assessment, but they must be committed.

In addition, most teachers demonstrated that using Google Classroom was easier and more convenient than using Moodle. In one area, the teacher may form classes, assign tasks, grade them, and send feedback. Besides, when compared to paper testing, all teachers agree that online testing saves time and effort. Additionally, all of the respondents discussed

the value of group work in Study Skills instruction and how they maintained a spirit of cooperation and collaboration among students. Face-to-face interaction and group work are preferred by some teachers because they are easier to monitor and assess. According to the results, Study Skills teachers favoured online assessment. When asked whether they preferred traditional assessment or online assessment, most teachers stated a preference for traditional assessment, with a few stating a preference for a combination of both (Beleulmi, 2022).

2.22 Teachers' and Students' Challenges in Online Assessment

Despite the advantages that online assessment offers, it has been criticised for its various difficulties and challenges. According to Simin and Heidari (2013, as cited in Ghouali et al., 2020), teachers frequently utilise closed-ended questions in online assessment-related assignments, which tend to lower students' motivation.

Another disadvantage is time-consuming which is linked to the implementation and design of activities that measure higher-order skills (Cazan & Indreica, 2014, as cited in Ghouali et al., 2020). Simin and Heidari (2013, as cited in Ghouali et al., 2020) related this to the complexity of its use, particularly for students in non-technical subjects and teachers who need specific ICT skills. They also agreed that it costs money to implement e-tests at the institution level, especially with more advanced hardware and software tools, with a focus on Multiple Choice Questions (MCQs).

In the same vein, according to Stodberg (2011, as cited in Ghouali et al., 2020), online assessment requires a considerable amount of work and exploitation on the part of authorities in order to be broadly distributed. These authors, along with James (2016, as cited in Ghouali et al., 2020), raised questions regarding the integrity and credibility of such an assessment. They asserted that it increases cheating and plagiarism during examinations,

particularly when students are unsupervised. They also highlighted security threats and the challenge of confirming the identities of learners.

In the same context, due to a lack of time and opportunity to engage with real-world topics and situations, it is impossible to ensure the authenticity of content on an online platform. Also, during online testing and evaluation, validity, reliability, and transparency cannot be explicitly demonstrated and achieved completely. Almost all universities have defined and implemented academic achievement to be attained by conventional teaching, learning, and assessment (Behforouz, 2022).

In addition, there is a lack of student concentration during the assignment (Ghouali et al., 2020). Regarding the social contacts established by online-assessment tools, Timmis et al. (2016, as cited in Ghouali et al., 2020) confirmed that they might occasionally result in social exclusion or isolation within web-based tools and social media sites. Also, connectedness and communication amongst students appear to be difficult to achieve on online platforms due to the fact that students willingly join in debates, leaving inactive students silent (Behforouz, 2022). Also, Cazan and Indreica ; and James (2014; 2016, as cited in Ghouali et al., 2020) asserted that it induces computer anxiety in students and teachers who lack computer proficiency, which is manifested as hesitation and resistance to its use.

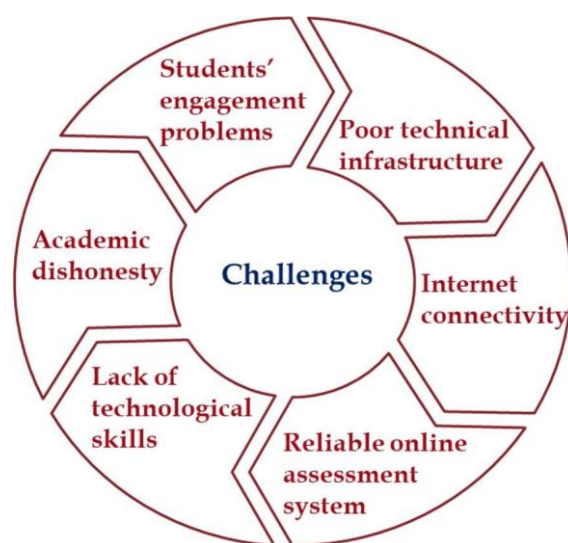
Another challenging issue is the responsibilities of instructors in online courses imply that they must commit a significant deal of time and effort at the beginning of the process (Amelung Krieger & Rosner, 2011, as cited in Behforouz, 2022). All course tools must to be ready beforehand. The LMS should be well-ordered, and the acts for interacting with students should precede their access (Beebe et al., 2010, as cited in Behforouz, 2022)

Furthermore, during the COVID-19 epidemic, Beleulmi (2022) conducted a study on Study Skills teachers to learn about their perceptions and challenges of measuring students' learning in an online context. Data show that all Study Skills teachers have a number of obstacles when it comes to online assessment, as expressed by them all. Despite their training in online education, this is their first time working in an online context. As a result, many found it difficult to adjust to this trend, as moving from a traditional classroom to a virtual classroom alters the entire teaching and learning process. Moreover, the majority of the difficulties faced by both teachers and students were related to technical issues and the lack of technological resources.

Besides, it is difficult to come up with appropriate strategies for students' involvement in an online setting because the latter does not guarantee student contact or collaborative learning. In addition, students, in fact, are computer illiterate. Teachers should not be the only ones involved in training programmes ; students should also be included. Another challenge is online cheating and plagiarism, which are two of the most significant issues in online assessment and may be due to a lack of trust in the system. The reliability and integrity of online education are challenged due to impersonation and plagiarism. Also, teachers also expressed their dissatisfaction with the lack of an effective assessment system that tracks students' progress in the Study Skills course. They raised concern about how students should be assessed formatively in an online context and how effective feedback should be provided (Beleulmi, 2022).

Figure 2.4

Online Assessment Challenges (Beleulmi, 2022, p.53)



Finally, Figure 2.4 summarizes the major online assessment challenges that were described previously. Both teachers and students are faced with nearly the same challenges. For instance, lack of technological skills which obstruct the efficiency of online assessment in terms of design, administration and feedback communication. Another major challenge is academic dishonesty. Most learners refer to cheating and plagiarism to take an online test or exam. It is becoming difficult for teachers to control such unethical behaviours. Moreover, challenges such as students engagement, poor technical infrastructure and internet connectivity hinder the implementation of online assessment in blended learning.

Conclusion

This chapter has provided a detailed overview on language assessment literacy. Assessment remains the same whether in face-to-face or online environments. The only difference is the online option and the use of technology. Additionally, online assessment afforded a myriad of benefits such as saving teachers' time and eliminating the need for hard copies. However, being assessed in the blended learning context revealed a variety of challenges that both teachers and students have encountered such as academic integrity violations, slow internet connectivity, lack of ICT literacy, time constraints, and teachers' and students' unfamiliarity with online assessment.

Chapter Three:
Fieldwork and Data
Analysis

Chapter Three : Fieldwork and Data Analysis

Introduction.....	101
3.1 Research Methodology : Choices and Rationale	101
3.1.1 Research Paradigms	101
3.1.2 Research Approach	102
3.1.3 Research Design	102
3.1.4 Population and Sampling Techniques.....	103
3.1.5 Data Collection Methods.....	105
3.1.5.1 Students' Questionnaire.	105
3.1.5.1.1 Aim and Structure.	105
3.1.5.1.2 Piloting and Validation.....	107
3.1.5.1.3 Administration.	108
3.1.5.2 Teachers' Interview.....	108
3.1.5.2.1 Aim and Structure.	108
3.1.5.2.2 Piloting and Validation.....	109
3.1.5.2.3 Administration.	111
3.1.6 Data Analysis Procedures.....	111
3.2 Data Analysis and Results Interpretation	112
3.2.1 Students' Questionnaire Results and Interpretation.....	112
3.2.2 Teachers' Interview Results and Interpretation.....	137
Conclusion	153

Introduction

The two previous chapters addressed the theoretical part of the study at hand which aims at exploring the effectiveness of assessing EFL students' achievement in the light of integrating a blended learning approach. Then, identifying teachers and students perspectives and challenges towards assessment in the blended learning approach. This chapter is devoted to the full description of the research methodology, the data gathering tools, the administration of the students' questionnaire and the teachers' interview. It also provides a deep analysis, discussion, and interpretation of the obtained results.

3.1 Research Methodology: Choices and Rationale

Research is an ongoing process that begins with the study's philosophical foundation and ends with the data collection and analysis stages. It is worth noting that selecting certain methodologies depends on the research paradigm at first. The following section continues the explanation of the methodological choices made in the current study. They start from the research paradigm, continue with the research approach, the research design, and tools for gathering data, and end with procedures for analysing the data.

3.1.1 Research Paradigms

A paradigm is a fundamental belief system and philosophical underpinning that contains assumptions regarding ontology, epistemology, methodology, and methods (Rehman & Alharthi, 2016). Research paradigm is defined by Patton (2002, as cited in Chilisa & Kawulich, 2012) as *“a way of describing a world view that is informed by philosophical assumptions about the nature of social reality (known as ontology...), ways of knowing (known as epistemology...), and ethics and value systems (known as axiology...)”* (p.1). In other words, the term "research paradigm" refers to a worldview that is shaped by

philosophical assumptions about the nature of truth, knowledge, values, and shared beliefs about a certain topic of study.

Despite the ongoing discussion over what worldviews or beliefs scientists bring to their study, four research paradigms have been widely discussed: postpositivism, constructivism, transformational, and pragmatism (Creswell & Creswell, 2018). Some of these paradigms go hand in hand with qualitative research, or quantitative research, or mixed methods research. For instance, the constructivist paradigm (interpretivist) is well-suited to the issue under inquiry, in which the goal is to understand a phenomenon as observed and interpreted by the participants themselves, and the researcher works with the reality as it is constructed by the participants (Creswell & Plano Clark, 2011, as cited in Cohen et al., 2018).

3.1.2 Research Approach

To explore EFL students' and teachers' perspectives and challenges of assessment in blended learning during the COVID-19 pandemic, a qualitative research approach is required to the needs and purposes of this current study. Brown and Coombe (2015) defined qualitative research as “*primarily concerned with representing in textual (and sometimes visual) form an analysis of people’s lived experiences in specific contexts as these are represented through their behaviour and discourse*” (p.61). To put it differently, qualitative research is an interpretive approach to the world that involves describing and understanding a small group of people's experiences, opinions, and behaviours either in a verbal or narrative format.

3.1.3 Research Design

In the light of what has been mentioned, qualitative research has an exploratory nature. Eisenhardt (1989, as cited in Dörnyei, 2007) reported that “*Qualitative research has*

traditionally been seen as an effective way of exploring new, uncharted areas” (p.39). This scholar also added that when there is little information about a phenomenon, a detailed analysis of a few cases is particularly useful because it does not depend on past literature or empirical data (Eisenhardt 1989, as cited in Dörnyei, 2007). Thus, the current study comes under exploratory research design that is compatible with the chosen approach. Exploratory studies have two main stages. Typically, the first step is to investigate a new or understudied phenomenon before moving on to select a case study. In-depth interviews, documents, questionnaires, test results, and archival records are all possible sources of case study data (Christensen et al., 2014). Addressing the concerns in this part, the major goal of this present study is to discover how EFL students and teachers think about assessment through blended learning in the COVID-19 age, as well as their perspectives and challenges.

3.1.4 Population and Sampling Techniques

The actual study was conducted with a population of EFL learners from all levels (L2 = 267, L3 = 276, M1 = 330, and M2 = 243), and 12 EFL teachers from the Department of English and Literature at Biskra University during the academic year 2021–2022. This was done to get a full picture of the online assessment situation in higher education. Due to the nature of qualitative research, time constraints, and COVID-19 health issues, the study was carried out randomly with a small sample of participants from each level (L2, L3, M1, M2), but L1 students were not included in the sample because they did not have enough experience with blended learning. However, the total number of EFL participants who took part in this study was 55 participants, 11 males and 44 females. Cohen et al. (2018) explained simple random sampling technique as *“each member of the population under study has an equal chance of being selected and the probability of a member of the population being selected is unaffected by the selection of other members of the population, i.e. each selection*

is entirely independent of the next" (p.215). Taking a sample from EFL students at Biskra University was suitable for the following reasons:

To begin with, in terms of accessibility, the representative sample was extremely manageable, which raises data attainability. In addition, EFL learners were mature enough to take charge to learn by themselves. Another reason behind opting for this sample is that they have had a longer experience with the potential utility of e-learning integrated with traditional face-to-face learning based on Moodle platform during the outbreak of Coronavirus epidemic. Thus, the respondents in this sample were chosen according to their awareness of the usefulness of both virtual and real classrooms in assessing their outcomes. Also, they were appropriate for this investigation because of their exposure to classroom assessment techniques, blended learning, and language teaching methods. Furthermore, these respondents can give valuable sources of information to enrich the findings of the research at hand.

To better address the issue stated above, a sample of 12 EFL teachers from the same context were chosen purposefully from a population of more than 60 teachers during COVID-19. The main purpose behind this is to gather data on their attitudes and challenges towards the use of assessment in BL. Patten and Newhart (2018) revealed that "*When researchers use this method, they use their knowledge of the population to select individuals who they believe will be good sources of information*" (p.100). As the name suggests, the purposive sampling technique (judgment sampling) fits the qualitative research for this study.

In the same vein, EFL teachers were selected for their BL relevant experience and professional performance in online courses and ways of assessment. Furthermore, the instructors have often combined online learning and face-to-face teaching by incorporating

new technological processes. Likewise, the teaching staff have used online assessment for the Discovery and Transversal Units, which involved Social Sciences and Humanities, Statistics, Theme and Version, ICT and French. EFL students were chosen regardless of their age, gender, educational background, and learning experience. They serve as key sources for the data they will provide.

3.1.5 Data Collection Methods

At this stage, the data collection tools need to be well-designed and implemented for more reliable and valid data results. It differs from qualitative to quantitative research. In accordance with the study's research design, questions, and objectives, it was suitable to apply a variety of qualitative data collection methods. Accordingly, the two main data-gathering tools delivered to investigate students' and teachers' perceptions and challenges in online assessment and blended learning during the lockdown period were a semi-structured questionnaire for students and a semi-structured interview for teachers.

3.1.5.1 Students' Questionnaire. Conducting the students' questionnaire needed to be well-shaped in terms of form and content, with clear aims before moving into piloting and validating stages and administering it.

3.1.5.1.1 Aim and Structure. A semi-structured questionnaire was conducted to gather relevant and sufficient data about EFL students' perceptions and challenges towards implementing assessment in blended learning during COVID-19 at Biskra University. Regarding the layout of this questionnaire, it was in a booklet format and started with a polite introduction, which was used to request the students to complete the questionnaire following the instructions. Besides, each section had a title, an objective, and a list of items, which were ordered according to their importance, as illustrated in Table 3.1. Brief definitions were used to give a clear insight into the questions provided. In addition, the questionnaire

included three sorts of data, which were expressed in the factual, behavioural, and attitudinal questions.

Moreover, the types of questions on a questionnaire depend on the research questions that are being answered (Mackey & Gass, 2022). For instance, the combination of open-ended and closed-ended questions frames a semi-structured questionnaire. Mackey and Gass (2022) defined them as “A *closed item question* is one in which the researcher determines the possible answers, whereas an *open-ended question* allows respondents to answer in any manner they see fit” (p. 126). Dichotomous question (Yes/No), multiple-choice questions, and Likert scales were some of the examples of closed-ended questions that were utilized in this questionnaire. At the end of the questionnaire, there was an open-ended question that asked for any other comments or ideas about the research at hand.

Table 3.1

The Description of the Students' Questionnaire

Sections	Items	Content	Objectives
Section One	1-6	Background Information	To attain a better understanding of the EFL students' personal profiles regarding their gender, age, current level of study, ICT literacy, their locations, and ways of accessing technology.
Section Two	7-14	Blended Learning Approach	To examine EFL students' familiarity with blended learning, their perceptions of the Moodle platform, its utilities, and

difficulties, concluding with their choice between face-to-face and blended learning.

Section Three 15-22 **Assessment in Blended Learning**

To determine whether EFL students are acquainted with online assessment, their perceptions and challenges in online assessment, ways of assessment in blended learning, and finally, to recognize their achievement after being assessed with this approach.

3.1.5.1.2 Piloting and Validation. Piloting is a vital step in designing the questionnaire to check its feasibility, credibility, practicality and increase research quality. Dörnyei (2003) pointed out that “*Piloting can also indicate problems or potential pitfalls concerning: the administration of the questionnaire; the scoring and processing of the answers*” (p.64). Moreover, one of the characteristics of qualitative research is validity, which is focused on establishing whether the findings are accurate from the perspective of the researcher, the respondent, or the readers of an account (Creswell & Miller, 2000, as cited in Creswell, 2014).

As a first step, the supervisor tested and approved the instrument in terms of form, content, and language use; provided informative feedback; and recommended making the piloting stage online. Furthermore, the supervisor suggested taking L1 students out of the intended sample since they did not have enough experience with blended learning and omitting the part concerning providing the respondents with their emails because it was needless. In the same way, a Google Form was sent to four students from the same population to revise and review the questionnaire. They were also asked to refine the questionnaire in terms of ambiguity, repetition, length, grammar, spelling, relevance, and layout and give

their further comments and feedback. The participants mentioned that the instructions were sufficiently comprehensive, well-managed and straightforward. However, one of the students stated that the answers to question 14 needed to be reworded to be more clear. Another participant reported that the word choice of "accede" was confusing. A third respondent claimed that some questions, like questions 10, 11, and 12, needed to be reordered. These remarks and suggestions were taken into consideration to finalise the questionnaire, and some modifications were made accordingly.

3.1.1.5.3 Administration. Cohen et al. (2018) argued that the environment in which the questionnaire is performed can also affect the outcomes. After the questionnaire had been piloted and validated, the link to it was posted on EFL students' official Facebook group using Google Forms survey software. This tool was effective for storing and organizing students' responses automatically, especially because of the pandemic (Omicron), time constraints and full schedule. It took the researcher three weeks to design the questionnaire and then another two months to collect the desired number of responses. The questionnaire was posted twice to gather enough responses since the sample did not respond to it immediately.

3.1.5.2 Teachers' Interview. Setting the goals, designing the interview, piloting and verifying it, and lastly administering it are all procedures that must be taken before conducting the teachers' interview.

3.1.5.2.1 Aim and Structure. A semi-structured interview was carried out to achieve a better understanding and collect meaningful data about the perceptions and challenges of EFL teachers in adopting assessment in blended learning during COVID-19 at Biskra University. Mackey and Gass (2022) define semi-structured interview as "*Less rigid are semi-structured interviews, ... in which the researcher often uses a predetermined set of*

questions as a guide, while retaining the freedom to digress and probe for more information and even follow the interviewee's lead where appropriate" (p.312). Similarly to the students' questionnaire, the teachers' interview had a specific format that was composed of an opening greeting section to invite the teachers to participate in the interview and share their ideas under the investigated title. After introducing the topic, specific instructions were provided to the interviewees under a set of items in three entitled sections to guide them through the study, as shown in Table 3.2. Besides, this interview had a mixture of close-ended and open-ended questions to fit the qualitative research and cover different aspects with this variation.

Table 3.2

The Description of the Teachers' Interview

Sections	Items	Content	Objectives
Section One	1-4	Background Information	To learn more about EFL teachers' personal profiles, including their university teaching experience, academic position, blended learning taught modules, and ICT literacy.
Section Two	5-11	Teachers' Perceptions and Challenges in Blended Learning	To investigate EFL teachers' acquaintance with blended learning, its models and benefits, as well as their perceptions and obstacles in implementing the blended learning approach, and to continue with their recommendations for other ICT literacy training options other than the Moodle platform.

Section Three	12-15	Teachers' Perceptions and Challenges in Online Assessment	To find out whether EFL teachers have used online assessment, what difficulties they have had with it, what methods they used to assess their students, and come up with solutions to the problems they have encountered.
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3.1.5.2.2 Piloting and Validation. Piloting for interviews is an important part of the qualitative research process since it exposes the major study's improvisation, its feasibility and consistency, and ensures the interview's success. Another aspect to consider when implementing interviews is validity. Winter (2000, as cited in Cohen et al., 2007) characterized qualitative data validity as “...*the honesty, depth, richness and scope of the data achieved, the participants approached, the extent of triangulation and the disinterestedness or objectivity of the researcher*” (p.133). Thus, validity is needed to address what should be measured in this study.

To begin, three experts from the same population were emailed a Word format to review the instrument and give it their approval in terms of structure, content, and language usage. One of the experts was the supervisor, who stated that the interview questions were well-designed, which helped to collect the needed information and did not need any modifications. Another teacher suggested adding another question to the first section, which was ICT literacy. The latter helps to figure out the level of teachers in using ICT as one of the conditions of blended learning implementation at the Department of English and Literature, Biskra University. The third teacher recommended reformulating question 8 to be clearer and more comprehensive to provide the most achievable data results. This

feedback and the experts' suggestions were taken into account when finalising the interview, and some changes were made as a result.

3.1.5.2.3 Administration. The last step is the administration of the interview to teachers. Similar to the students' questionnaire, the teachers' interview was planned to conduct face-to-face, but due to Omicron, time constraints, and full schedule, it was changed into a Word format to be sent to EFL teachers' emails for completion and data collection. The interview took one week to be designed and another month to collect the required number of responses. Only 12 instructors answered the interview, even though it was sent to 28 teachers.

3.1.6 Data Analysis Procedures

Concerning the students' questionnaire, the results were displayed in the Google form sheets using pie charts, bar graphs and histograms. However, the researcher transformed them into tables and pie charts because the research is qualitative and some data needed tables and pie charts to be presented accurately. Pie charts were done throughout the Excel software and the tables were calculated manually (frequencies and percentages). As regards the teachers' interview, the responses were sent via the researcher's email in a Word format. The coding phase was done manually without using any applications.

The semi-structured questionnaire and semi-structured interview were analysed thematically. Braun and Clarke (2006) define thematic analysis as "*a method for identifying, analysing, and reporting patterns (themes) within data*" (p.6). In order to conduct a thematic analysis of the qualitative data, the raw data were reviewed, filtered, and divided into segments. This is called open coding. Next, the labelled segments were organised into categories with initial codes and relationships were drawn between them, which is known as axial coding. Then, the data was coded using highlighters, numbers, and textual codes that

were written in the margin to ease the description and subsequent interpretation of the qualitative data. Selective coding was the fourth step, and it entailed a closer examination of the text in order to spot recurring themes and explanations. Finally, after analyzing and coding the data and constructing the core themes of this study, the themes were reported with details relating the analysis to existent literature (Braun & Clarke, 2006).

3.2 Data Analysis and Results Interpretation

The analysis of the data collected will be presented and interpreted starting with students' questionnaire and ending with teachers' interview.

3.2.1 Students' Questionnaire Results and Interpretation

EFL students were asked to respond to the following questions by ticking the appropriate answer(s) and to provide a complete statement whenever possible. The three sections were applied to report the results as follows :

Section One : Background Information

Item 1. Students' Gender Distribution

Table 3.3

Students' Gender Distribution

Options	Frequencies	Percentages (%)
Male	11	20%
Female	44	80%
Total	55	100%

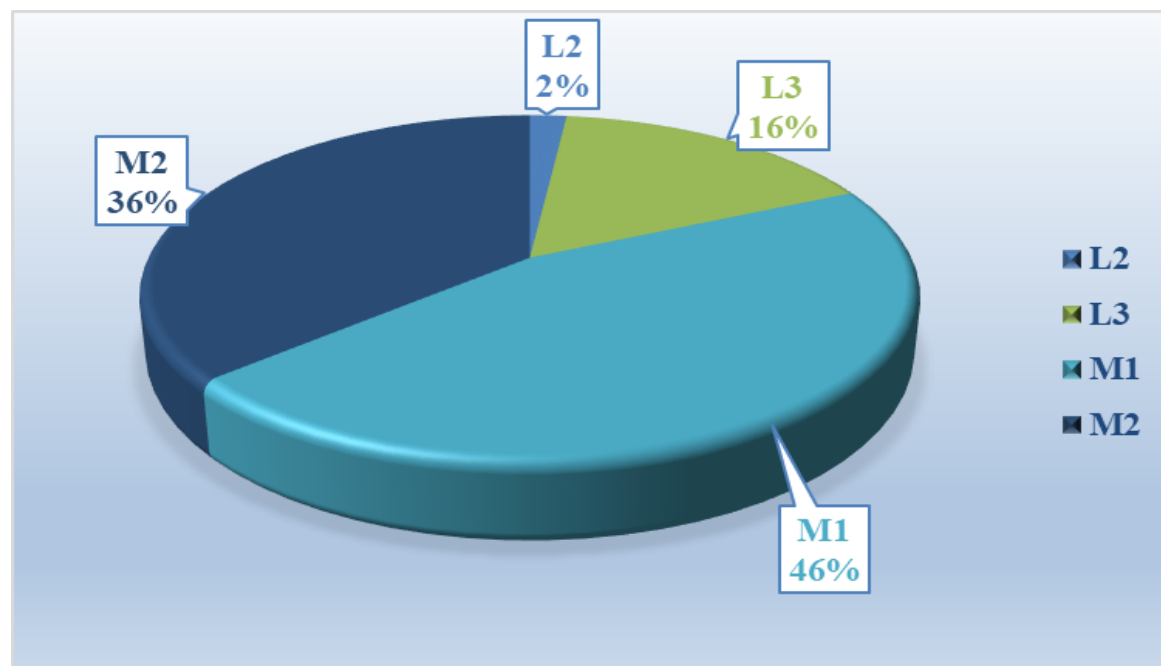
According to Table 3.3, the target sample is made up of 55 participants, 11 males and 44 females. Based on the responses, the highest percentage (80%) is associated with the female box, but only 20% of the participants are male. In other words, it is typically for foreign language classrooms to be female-targeted fields. However, gender has no effect on the findings of this study.

Item 2. Students' Age Distribution**Table 3.4***Students' Age Distribution*

Options	Frequencies	Percentages (%)
20	3	5.45%
21	14	25.45%
22	12	21.82%
23	17	30.91%
25	5	9.09%
32	2	3.64%
35	2	3.64%
Total	55	100%

A quick glance at Table 3.4 reveals that this sample has seven distinct age groups. Students' ages are between 20 and 35 years old. The age of 23 is the highest (30.91%) among participants. Variety in age is due to variety in level. Samples are taken from different levels (L2, L3, M1, M2). Therefore, those respondents do not have the same age and it is a logical variation for the selected sample.

Item 3. Students' Current Level of Study at University

Figure 3.1*Students' Current Level of Study at University*

According to Figure 3.1, the supremacy of students' level is M1 (46%). Moreover, L3, M1, and M2 students respond to the questionnaire better than L2 students since they are more familiar with blended learning. Also, L2 did not answer the questionnaire for the following reasons. Firstly, they experienced blended learning only for 2 years. Secondly, they are not familiar with research procedures such as answering a questionnaire. As a remark, due to the lack of experience in blended learning, L1 students were not involved in this sample.

Item 4. Students' ICT Literacy

Table 3.5*Students' ICT Literacy*

Options	Frequencies	Percentages (%)
Beginner	11	20%
Intermediate	37	67.27%
Advanced	7	12.73%
Total	55	100%

The aim of this question is to find out students' ICT literacy level. 20% of the respondents consider themselves beginners and 12.73% advanced. Apparently, the majority of the participants have an intermediate level (67.27%) of ICT literacy. This can reflect students' readiness and familiarity with the use of technological devices during COVID-19. However, these results are not enough. Learners need to be more than intermediate in IT literacy to be effective in the blended learning environment.

Item 5. Students' Location**Table 3.6***Students' Location*

Options	Frequencies	Percentages (%)
Inside the campus	13	23.64%
At home	42	76.36%
Total	55	100%

As illustrated in Table 3.6, 76.36% of students live at home, whereas 23.64% live on campus. Those living at home have less difficulties as regards internet accessibility when compared to those living on campus.

Item 6. Students' Access to Technology**Table 3.7***Students' Access to Technology*

Options	Frequencies	Percentages (%)
a) Laptop computers	4	7.27%
b) Desktop computers	0	0%
c) Tablets	0	0%
d) Smart phones	19	34.55%
e) Cybercafe	0	0%
a + b	1	1.82%
a + d	21	38.18%
b + d	3	5.45%
c + d	1	1.82%
More than two choices	6	10.91%
Total	55	100%

As shown in Table 3.7, the respondents use different ICT tools. The most commonly used ICT among students are laptop computers and smart phones (38.18%). Smart phones (34.55%) alone come in the second place, and then the least percentages refer to laptop computers (7.27%), and desktop computers and smart phones (5.45%). Devices such as desktop computers and tablets are not used by the participants. Similarly, no one has opted for the cybercafe because most of them have access to internet either through their smart phones or at home when using their laptops. In short, each participant owns one electronic device which may facilitate the blended learning process.

Section Two : Blended Learning Approach

Item 7. Are you familiar with blended learning ?

Table 3.8

Students' Familiarity with Blended Learning

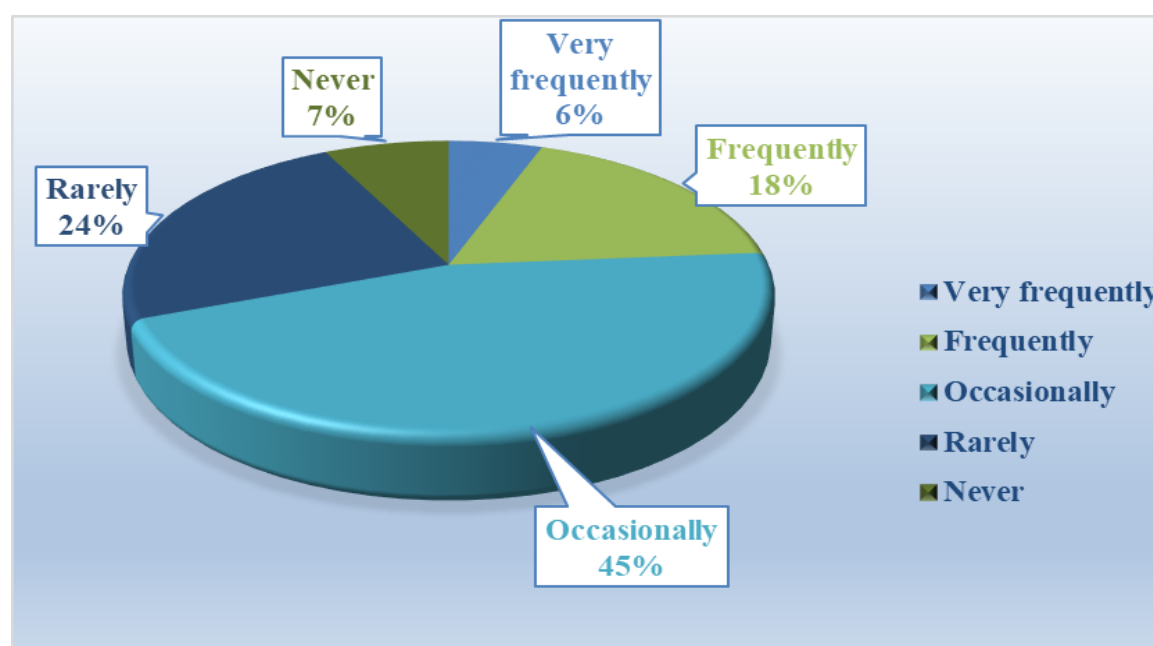
Options	Frequencies	Percentages (%)
Yes	42	76.36%
No	13	23.64%
Total	55	100%

According to the results in Table 3.8, the majority of students are familiar with blended learning (76.36%). However, only 23.64% are not acquainted with this concept. In conclusion, students' experiences with COVID-19 give them the chance to be more knowledgeable about the blended learning approach.

Item 8. How often do you enroll in the Moodle platform ?

Figure 3.2

Students' Enrollment in Blended Learning



This question is intended to determine students' Moodle platform enrollment frequencies. The obtained data from Figure 3.2 revealed that the respondents occasionally enroll in the Moodle platform (45%). Also, it is noteworthy to indicate that 7% of students have never enrolled in this platform. Despite the importance of the Moodle platform, which is used by teachers to post lessons and lectures, not all students enroll in this platform as it should be. To sum up, students use the Moodle platform irregularly. This will make the usage of blended learning less effective.

Item 9. Did you have any training on how to enroll in this platform ?

Table 3.9

Students' Types of Training on the Moodle Platform

Options	Frequencies	Percentages (%)
No training	17	30.91%
Self-training	36	65.45%
Administrative training	2	3.64%
Total	55	100%

The aim of this question is to explore students' types of training on the Moodle platform during COVID-19. 65.45% of students have self-directed training, whereas 30.91% have no training. 3.64% of the other respondents have received administrative training. These findings demonstrate that most students are obliged to have training on how to use the Moodle platform individually during COVID-19. This reflects their passion and motivation to shift from traditional learning to a blended learning environment.

Item 10. What kind of files (documents) do you download from this platform ? (You can tick more than one option).

Table 3.10*Downloaded Files from Moodle Platform*

Options	Frequencies	Percentages (%)
a) Lectures and lessons	12	21.82%
b) Take-home activities and practice	0	0%
c) Quizzes, tests and exams	0	0%
d) YouTube videos	0	0%
e) Audio files	0	0%
f) Books and articles	0	0%
g) Power Point Presentations	0	0%
h) Websites links	0	0%
a + b	6	10.91%
a + c	3	5.45%
a + e	1	1.82%
a + g	4	7.27%
More than two choices	28	50.91%
All of them	1	1.82%
Total	55	100%

Table 3.10 reveals that 21.82% of the respondents download only lectures and lessons from Moodle platform. Other participants (10.91%) have chosen two options such as lectures and lessons, and take-home activities and practice. However, 50.91% of them use this platform for different purposes. They download lectures and lessons, take-home activities, quizzes and exams, YouTube videos, audio files, books and articles, Power Point presentations, and Websites links. These results show learners acquaintance with Moodle

platform. Despite some difficulties, most participants utilize this platform to get in touch with their instructors and carry on with blended learning.

Item 11. Are the downloaded files useful for a blended learning approach ? If No, they are not useful because : (You ca tick more than one option).

Table 3.11

Students' Attitudes towards Downloaded Files for Blended Learning

Options	Frequencies	Percentages (%)
Yes	31	56.36%
No	24	43.64%
Total	55	100%

Table 3.11 shows that 56.36% of respondents consider the downloaded files useful for a blended learning approach. Whereas, 43.64% responded negatively opting for a variety of reasons.

Table 3.12

Reasons for the Uselessness of the Downloaded Files

Options	Frequencies	Percentages (%)
a) They are not used in the classroom by the teacher	0	0%
b) They are too difficult to be read and understood	1	4.16%
c) I do not have enough time to consult all of them	0	0%
d) Teachers send too many documents	1	4.16%
e) These documents have nothing to do with classroom and online assessment	0	0%

f) Take-home activities are not followed by any form of feedback	1	4.16%
g) Lectures are not posted in time	0	0%
a + d	1	4.16%
a + g	1	4.16%
b + c	1	4.16%
b + d	2	8.33%
d + g	2	8.33%
f + g	2	8.33%
More than two choices	12	50%
Total	24	100%

Table 3.12 displays the reasons for which 44% of the participants did not find the online files useful. Most of them find that the downloaded files are not used in the classroom by the teacher. Another reason is that teachers send too many documents which are sometimes too difficult to be read and understood. Besides, these respondents affirm that these online files have nothing to do with classroom activities and online assessment since no informative feedback is provided by teachers.

Item 12. Did you have any difficulty to enroll in the Moodle platform ? If Yes, what kind of difficulty did you face ? (You can tick more than one option).

Table 3.13*Students' Attitudes towards the Difficulties with Enrollment on the Moodle Platform*

Options	Frequencies	Percentages (%)
Yes	23	41.82%
No	32	58.18%
Total	55	100%

This part investigated students' difficulties with enrollment on the Moodle platform. As illustrated in Table 3.13, the results for this question are nearly the same, with some justifications provided by the participants. 58.18% of students respond with "No," which means they have no difficulties while using the Moodle platform. Nonetheless, 41.82% of students answered "Yes." That is to say, those respondents have encountered difficulties with this platform. Therefore, Table 3.14 will display the difficulties chosen by students with other additional justifications provided by them.

Table 3.14*Students' Difficulties with Enrollment on the Moodle Platform*

Options	Frequencies	Percentages (%)
a) Files do not open	7	30.44%
b) I do not have a personal account	0	0%
c) I do not know how to enroll in this platform	1	4.35%
d) I do not know how to download files	0	0%
e) Internet accessibility is too slow both at home or at the campus	2	8.70%
All of them	1	4.35%
a + c	1	4.35%

a + d	1	4.35%
a + e	4	17.39%
c + d	1	4.35%
c + e	2	8.70%
a + b + e	2	8.70%
Others		
Some teachers face difficulties themselves such as locking a file so we can not access it	1	4.35%
Total	23	100%

Table 3.14 indicates that 30.44% of the impeding factors represent unlocked files on the platform, whereas 8.69% account for unlocked files with those who do not have a personal account and internet accessibility. Students' inability to enroll on the platform accounts for 4.35% of the difficulties. Moreover, 17.39% represent respondents who have impeding factors with unlocked files and internet access. Also, 4.35% of participants stated that they are unable to sign up on the Moodle platform and are unfamiliar with downloading files from the Moodle platform. Only one student chose all of them. Some students give additional justifications for the choices provided to them. As a remark, three justifications have been deleted because they were not relevant to the displayed question.

Item 13. In addition to Moodle platform, what other means of instruction do your teachers use within the blended learning approach ? (You can tick more than one option).

Table 3.15*Instructional Means Used in Blended Learning*

Options	Frequencies	Percentages (%)
a) Classroom chalkboard	2	3.63%
b) Social media (Facebook, YouTube, Chatrooms)	1	1.81%
c) Video conferencing (Google Meet, Zoom)	2	3.63%
d) Teachers' blogs and emails	6	10.90%
e) Interactive digital whiteboards	0	0%
f) Audio recorded files	0	0%
g) ICT tools (Tablet, laptop, smart phone, data show)	0	0%
a + b	2	3.63%
a + d	3	5.45%
a + f	1	1.81%
b + c	4	7.27%
b + d	5	9.09%
b + g	1	1.81%
c + d	1	1.81%
c + f	2	3.63%
d + g	1	1.81%

More than two choices	24	43.62%
Total	55	100%

Table 3.15 reveals that 56.38% participants use one or two instructional means to interact with their teachers. However, 43.62% of them use all instructional means such as classroom chalkboard, social media, video conferencing, teachers' blogs and emails, audio recorded files, and ICT tools. These results indicate learners' motivation, awareness and readiness to shift from traditional learning to blended learning. They are no longer satisfied with one educational tool. This attitude shows their positive perceptions towards blended learning and their willingness to interact and collaborate to enhance their academic achievement. Finally, one respondent opted for the interactive digital whiteboard which is not used in the Department of English. The respondent's choice was about the classroom whiteboard. This result reveals that some learners do not make the difference between electronic tools and conventional tools.

Item 14. Do you want to go back to face-to-face learning or carry on with blended learning ?

Say why for both answers ?

Table 3.16

Students' Choices between Face-to-Face and Blended Learning

Options	Frequencies	Percentages (%)
Yes, I want to go back to face-to-face learning	21	38.18%
No, I want to carry on with blended learning	34	61.82%
Total	55	100%

The overwhelming majority of respondents (61.82%) shows their positive attitude towards blended learning. However, 38.18% respondents wanted to go back to face-to-face learning. Both categories presented a variety of reasons for their choices as indicated in the Table 3.17

Table 3.17

Reasons for Choosing Face-to-Face or Blended Learning

Face-to-Face Learning (38.18%)	Blended Learning (61.82%)
- It is more useful, beneficial and significant	- B-Learning encourages both introvert and extrovert learners to interact in the classroom
- Teachers and learners are not enough literate in using technology devices	- B-Learning provides a better educational experience through classroom interaction and technology usage
- Being present in the classroom gives more opportunity to grasp every detail in the session successfully	- B-Learning facilitates the teaching and learning processes
- F2F learning fits learners' styles	- It promotes learners' autonomy and motivation
- Algerian educational institutions should have a better accessibility to internet and technological tools	- It develops more online assessment tools and enhances learners to be researchers
- Moodle platform is not well-used by Teachers	- It is a more comfortable learning environment especially for those who live far from universities

- F2F learning is more practical in terms of gathering informative feedback
- Learners can interact collectively in the classroom because being present is obligatory
- Learners are not well-equipped with educational online tools (Laptop, tablet, smart phone)
- Teachers' facial expressions help learners remember and recall information
- Easily
- F2F learning is more effective when it comes to ethical issues
- B-Learning encourages cheating, plagiarism and other unethical issues such as dishonesty and nepotism
- It is more convenient for learners with other occupations
- Learners can construct knowledge in advance be effective in classroom interactions
- Learners may make better achievements provided that higher education stakeholder provide the right implementation of B-Learning and make internet and technological tools available

Table 3.17 displays reasons for blended learning and F2F learning. Participants in both categories made valid justifications which should be considered by universities stakeholders. In one hand, less than half of the participants (38.18%) have chosen to go back to face-to-face learning. According to them, F2F learning is more useful, beneficial and significant. Such mode of learning provides opportunities for learners to grasp successfully every detail in the classroom. They can even remember and recall knowledge easily just because of some teachers' facial expressions. Moreover, some participants declared that they

have more chances to interact collectively since attendance is compulsory and it is more practical when providing informative feedback.

Besides, other participants assumed that F2F learning fits all learning styles. Whether being visual, auditory or kinesthetic, a foreign language learner can have better results. Another reason to opt for F2F learning is that both teachers and learners lack digital literacy and how to use Moodle platform. Even learners do not have the necessary online tools (laptops or tablets). This fact may hinder the implementation of blended learning and make the teaching and learning process less efficient.

In addition, obstacles with internet accessibility is another reason for having the wish to go back to face-to-face learning. According to these respondents, blended learning can not be successful if higher educational institutions in Algeria are not well-equipped in terms of internet and technological devices availability. Finally, most participants claimed that F2F learning is more effective in relation to ethical issues. It does not spread cheating, plagiarism, dishonesty and nepotism among FLL.

On the other hand, more than half of the participants (61.82%) were for blended learning. As stated by them, B-Learning encourages both introvert and extrovert learners to interact and collaborate when learning online. They also declared that the combination of F2F with online learning provides a better educational experience through classroom interaction and technology usage. In addition to facilitating the teaching and learning process, blended learning develops more assessment tools and encourages learners to be researchers. Other respondents argued that blended learning promotes learners' autonomy and motivation. Learners feel more self-reliant when studying online. They become motivated and willing to be successful.

Furthermore, blended learning provides a comfortable learning environment especially for those who live far from university or have other occupations that go hand in hand with their studies. Finally, most participants affirmed that having lectures online gives them an opportunity to know in advance what the lectures are about and be effective in classroom interactions. However, all participants (61.82%) insisted on the effective implementation of blended learning at university and the availability of internet and technological materials ; otherwise, learners' educational achievements will not be effective.

Section Three : Assessment in Blended Learning

Item 15. Which types of assessment do your teachers use ?

Table 3.18

Types of Assessment

Options	Frequencies	Percentages (%)
Formative assessment	7	12.73%
Summative assessment	9	16.36%
Both	39	70.91%
Total	55	100%

Table 3.18 is about the types of assessment teachers use in the classroom. The results show that 70.91% of respondents confirmed that teachers use both formative and summative assessments. Both types are part of the teaching and learning process. Teachers need to assess and evaluate their learners' progress. Therefore, both types of assessment are significant in higher education.

Item 16. Have you ever experienced online assessment ? If Yes, how did you find it ?

Table 3.19*Students' Attitudes towards Online Assessment*

Options	Frequencies	Percentages (%)
Yes	51	92.73%
No	4	7.27%
Total	55	100%

Table 3.19 reveals that 92.73% of participants have experienced online assessment. This procedure was introduced due to the COVID-19 pandemic. It was the only solution to carry on with the teaching and learning process at higher education.

Table 3.20*Students' Experience in Online Assessment*

Options	Frequencies	Percentages (%)
Very difficult	0	0%
Difficult	8	14.55%
Neutral	30	54.55%
Easy	17	30.90%
Very easy	0	0%
Total	55	100%

The results in Table 3.20 reveal that online assessment was neither very difficult nor very easy. 54.55% of informants were neutral ; however 30.90% declared that online assessment was easy and only 14.55% stated that it was difficult. Indeed, these findings reflect learners' attitudes towards online assessment. OA gave a chance to foreign language learners to be autonomous learners and achieve better results. It provides many facilities which increases the easiness of assessment for both learners and teachers.

Item 17. Your teachers assess you using : (You can tick more than one option).

Table 3.21

Teachers Assessment Methods

Options	Frequencies	Percentages (%)
a) Paper-pencil tests (Class tests)	1	1.82%
b) Group projects	0	0%
c) Research papers	0	0%
d) Oral presentations	0	0%
e) Online discussions	0	0%
f) Google forms quizzes	0	0%
g) Formal paragraphs and essays	0	0%
h) Portfolios	0	0%
i) Role plays	0	0%
j) Analyzing chapters and novels	0	0%
a + c	2	3.63%
a + g	1	1.82%
c + f	1	1.82%
c + g	1	1.82%
More than two choices	48	87.27%
Others		
Direct oral questions each session	1	1.82%
Total	55	100%

Table 3.21 indicates that 87.27% of respondents state that their teachers use more than one tool to assess and evaluate their achievement. Paper-pencil tests, group projects, research papers, oral presentations, online discussions, Google Form quizzes, formal

paragraphs and essays, role plays, chapters and novels analysis are the options suggested by the researcher which most participants opted for except portfolios. Both teachers and learners are not familiar with the use of portfolios or e-portfolios. These results show that within B-Learning teachers are using a myriad of traditional and online tools to assess learners.

Item 18. To what extent do you agree or disagree with the following statements ?

Table 3.22

Students' Perceptions towards Blended Learning and Online Assessment

Statements	Options					Total
	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree	
Frequencies and Percentages (%)						
1	3(5.45%)	11(20%)	18(32.73%)	16(29.09%)	7(12.73%)	55(100%)
2	2(3.64%)	13(23.64%)	19(34.54%)	17(30.91%)	4(7.27%)	55(100%)
3	8(14.55%)	7(12.73%)	15(27.27%)	16(29.09%)	9(16.36%)	55(100%)
4	8(14.55%)	1(1.81%)	11(20%)	18(32.73%)	17(30.91%)	55(100%)
5	5(9.09%)	5(9.09%)	20(36.36%)	19(34.55%)	6(10.91%)	55(100%)
6	8(14.55%)	6(10.91%)	7(12.73%)	16(29.09%)	18(32.72%)	55(100%)
7	6(10.91%)	6(10.91%)	10(18.18%)	16(29.09%)	17(30.91%)	55(100%)
8	6(10.91%)	3(5.45%)	7(12.73%)	21(38.18%)	18(32.73%)	55(100%)
9	4(7.27%)	3(5.45%)	12(21.83%)	20(36.36%)	16(29.09%)	55(100%)

Statement 01 : Blended learning enhances learners' motivation and autonomy.

Statement 02 : It supports collaboration and interaction in the classroom.

Statement 03 : It creates a student-centered learning environment.

Statement 04 : It fosters the use of ICT tools.

Statement 05 : It improves learners' knowledge and achievement.

The statements above refer to some benefits of blended learning. According to the results, more than half of the participants (36.36%) were neutral. These participants need more time and involvement in B-Learning to identify its benefits. However, half of the participants (29.09%) either agree or strongly agree with these statements. These respondents are aware of the various advantages that B-Learning may offer to its learners. Only a minority (14.55%) disagree or strongly disagree with these statements. These participants lack familiarity with the benefits of B-Learning. They need a longer experience within this combination of learning.

Statement 06 : Online assessment may cause plagiarism and credibility problems.

Statement 07 : Virtual feedback is not effective as teachers' face-to-face feedback.

Statement 08 : Online exams do not fit all modules.

Statement 09 : Paper-based exams are fairer than online exams.

These statements deal with the disadvantages of blended learning. Most participants (70,91%) either agree or strongly agree with these statements. Only a minority is neutral (18,18%), disagree or strongly disagree (10,91%). Despite its efficiency in promoting learners' motivation, autonomy, interaction and achievement, B-Learning needs more adjustment in its implementation to fit learners and teachers' expectations.

Item 19. Which challenges did you encounter when being assessed online ? (You can tick more than one option).

Table 3.23*Online Assessment Challenges*

Options	Frequencies	Percentages (%)
a) Lack of technology required for home access	0	0%
b) No internet connection	0	0%
c) Slow internet connection	4	7.26%
d) Difficulty of tasks	1	1.82%
e) Insufficient time to finish the assigned tasks	2	3.64%
f) Absence of informative feedback	0	0%
g) Inappropriate time for taking a test (Being ill or working)	2	3.64%
a + c	1	1.82%
b + f	1	1.82%
c + d	1	1.82%
c + e	1	1.82%
c + f	6	10.90%
c + g	2	3.64%
d + f	1	1.82%
e + g	2	3.64%
f + g	3	5.45%
More than two choices	26	47.27%
All of them	1	1.82%
Others		
Ambiguity and broadness of instructions	1	1.82%

Total	55	100%
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Table 3.23 is about the challenges that learners have encountered when being assessed online. The results revealed that 47.27% of participants opted for more than two choices. These findings indicate that most participants are challenged by different factors, which may hinder the efficacy of online assessment. Being challenged may also impact learners' self-achievement and willingness to engage in blended learning. Besides, slow internet connectivity was one of the challenges that most participants have chosen. Online assessment relies more on the high accessibility of internet which either obstructs or promotes learners evaluation. Another challenge with online assessment is the absence of informative feedback. The purpose of feedback in the assessment and learning process is redirect or refocus learners' performance to achieve better results. Thus, providing continuous feedback is a significant means to improve learners' achievement in learning English as a foreign language. Furthermore, being challenged with difficult tasks may impede learners' online assessment. Assessing learners is a crucial aspect which determines the level of learners' accomplishment.

Item 20. How would you evaluate your achievement in English after being taught and assessed through the blended learning approach ?

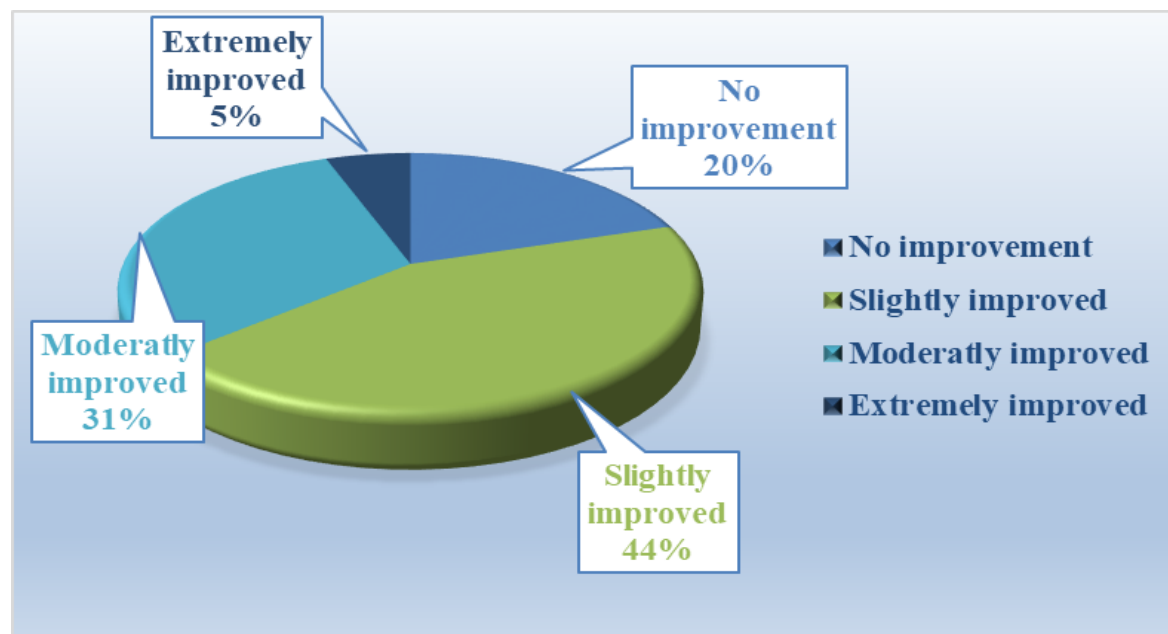
Figure 3.3*Students' Achievement through Blended Learning*

Figure 3.3 displays the respondents' attitudes towards their achievement in blended learning. Only 5% of participants stated that they extremely improved. 31% declared that they have moderatly improved. 44% is the highest percentage of participant who affirmed their slight improvement after being taught and assessed through the blended learning approach. However, 20% of participants declared having no improvement. As any new idea, BLearning in the Algerian higher education needs more time to be implemented efficiently. A great number of challenges and obstacles hinder its complete implementation. Therefore, these results may reflect the real situation of BLearning in some higher educational institutions.

Item 21. Which form of assessment do you prefer ?

Table 3.24*Students' Assessment Preferences*

Options	Frequencies	Percentages (%)
Face-to-face	25	45.45%
Online assessment	1	1.82%
Both	29	52.73%
Total	55	100%

Table 3.24 reveals that half of the participants (45.45%) prefer face-to-face assessment. The shift from F2F assessment to online assessment is not an easy one. It is hard to get rid of some habits which lasted for a long time. The introduction of technology to assess foreign language learners in higher education is a new experience that has to be fostered by teachers to guarantee a complete engagement and involvement of learners. Nonetheless, 52.73% of participants expresses their readiness and awareness to be assessed using both types. These participants are aware of the importance of blended learning.

Item 22. Feel free to make any additional comments on both blended learning approach and assessment within this approach.

To end with the students' questionnaire, participants were asked to make any additional comments on both blended learning approach and online assessment. Only 22 participants responded to this question. Similar to teachers, students were not satisfied with blended learning and online assessment procedures. Most of them declared that blended learning can not be successful if it is not well-designed and well-implemented. Blended learning can be effective only if the appropriate conditions and materials are provided.

Also, they argued that blended learning can work better with good language learners because they have the necessary learning strategies that enable them to cope with

any new learning situation. Obstacles such as internet connectivity, students' lack of motivation and anxiety can impede blended learning implementation. Because of these reasons, most participants asked for more training to get familiar with blended learning and online assessment. According to them, blended learning and online assessment require well-established infrastructure setup, software and hardware, both on the teacher and student side.

Moreover, some participants noted that some instructors send online assessments which are very difficult, sometimes impossible and unachievable. They chose such tasks to avoid cheating and plagiarism forgetting that such unworkable tasks make the online assessment unreliable and invalid. Teachers have to create awareness among students on academic integrity issues instead of posting unmanageable tests and exams.

3.2.2 Teachers' Interview Results and Interpretation

EFL teachers were requested to tick the right response to the following questions, and provide a detailed statement whenever possible. To report the findings, the following three sections were used :

Section One : Background Information

Item 1. Teaching experience at university.

Item 2. Teachers' academic position

Table 3.25*Teachers' Teaching Experience and Academic Position*

Interviewees	Teaching experience (years)	Teachers' academic position
T1	15 years	Professor
T2	14 years	
T3	10 years	Associate Professor A
T4	6 years	
T5	4 years	
T6	9 years	Associate Professor B
T7	18 years	
T8	5 years	
T9	8 years	Assistant Professor A
T10	10 years	
T11	6 months	
T12	6 months	PhD Candidate

In Table 3.25, answers to questions 1 and 2 revealed that these teachers were intentionally chosen with regard to their teaching experience and academic position. This would assist the researcher in determining whether or not these elements will have an impact on the implementation of blended learning at Biskra University. Therefore, these teachers were valuable sources of information to answer the research questions of this study. The interviewees had taught at the Department of English and Literature at Biskra University.

They were all in charge of all levels (L1, L2, L3, M1, M2). Their teaching experience started from 6 months to 18 years. Thus, they have all experienced blended learning. As regards their academic position, 1 teacher is a Professor, 3 teachers are Associate Professor A, 3 teachers are Associate Professor B, 3 teachers are Assistant Professor A, and 2 teachers are PhD Candidates. This variety in experience and position may enrich the findings of the study at hand.

Item 3. Modules taught through Blended Learning.

Item 4. Teachers' ICT literacy

Table 3.26

Teachers' ICT Literacy and Modules Taught through Blended Learning

Interviewees	Module taught through Blended Learning	ICT literacy level
T1	Phonetics – Statistics – Research Methodology – Oral Expression	
T2	Written Expression – Mastery of Language	
T3	Ethics	
T4	ESP	
T5	Phonetics – Statistics – Oral Expression	Intermediate
T6	Written Expression – Literary Texts	
T8	Study Skills – Comparative Literature	
T11	Oral Expression	
T12	Oral Expression	

T7	Psycholinguistics – Linguistics	
T9	Grammar – Research Methodology	Beginner
T10	Didactics – Academic Writing	

Table 3.26 displays the modules taught by the interviewees in blended learning and their ICT literacy. The results show that various modules are performed through blended learning such as Research Methodology, Didactics and Academic Writing. The outbreak of the pandemic made BLearning the only solution to continue the teaching and learning process. All these teachers are using face-to-face teaching and online learning by posting lectures and lessons on Moodle platform, personal blogs and emails, social media, or using classroom chalkboard and handouts, video conferencing and audio recorded files. As regards ICT literacy level, 9 teachers declared that they are intermediate, 3 beginners and no one of the participants is advanced. One of the conditions in the implementation of BLearning is the advanced ICT literacy ; however, most teachers are only intermediate. This situation may challenge BLearning efficiency.

Section Two : Teachers' Perceptions and Challenges in Blended Learning

Item 5. Are you familiar with blended learning ? If Yes, would you please provide a brief definition for this concept ?

This question aims at investigating perspectives towards blended learning. The 12 interviewees (100%) declared that they got familiar with this approach during the COVID-19 lockdown period. Online learning was the only alternative to guarantee the continuity of the teaching and learning process since physical presence was impossible at that moment. Later on, blended learning was introduced at university with some strict measures to avoid the spread of the COVID-19. Teachers were asked to post lectures and lessons through Moodle platform and at the same time ensure the teaching in the classroom. For some

modules, online teaching was the only teaching and learning procedure. The 12 interviewees were aware of these measures and became familiar with the concept of blended learning. Some of them defined blended learning as the combination of new technologies with traditional teaching methods. Others defined it as the fusion of face-to-face classes with online learning.

Item 6. Do you know any models of blended learning ? If Yes, would you please give some examples ?

This question deals with teachers' familiarity with models of blended learning. Three interviewees declared having no idea and presented no model. Despite their long experience, they did not know that they were using some blended learning models without knowing their names such as Face-to-Face and Flipped models. The other 9 interviewees presented one to three models. They gave as examples the Flipped model, Flex model, A La Carte model (Self-blend), Rotation and Face-to-Face models. The Flipped model was the most common one. The results reveal that these teachers were familiar with some blended learning models and were using them before the COVID-19 pandemic.

Item 7. How often do you use blended learning with your learners ?

This question reveals that despite its necessity, blended learning as an approach was not used by all teachers. 3 teachers stated that the nature of the modules they are teaching need only face-to-face teaching. Whereas 2 teachers stated that they rarely use it. 6 teachers affirmed that they frequently use blended learning and only 1 teacher claimed that he sometimes used it. These findings assert that most teachers are aware of the importance of combining face-to-face teaching with online teaching. They feel responsible for such mode of teaching and learning because they have to cope with this new educational situation otherwise no accomplishments can be reached.

Item 8. What benefits would you expect by adopting blended learning approach ?

The objective of this question is to find out how teachers respond to the benefits of blended learning, as shown in Table 3.27.

Table 3.27

Samples of Teachers' Responses on Blended Learning Benefits

Interviewees	Blended Learning Benefits
T1	<ul style="list-style-type: none"> - It enhances students learning outcomes and motivation - It leads the students to become autonomous
T2	<ul style="list-style-type: none"> - It promotes teachers' ICT literacy - It develops better indendency and responsibility
T3	<ul style="list-style-type: none"> - It saves money and time
T4	<ul style="list-style-type: none"> - It develops teachers' professional competencies - It makes the learning experience more comfortable
T5	<ul style="list-style-type: none"> - Technology increases students' exposure to the target language
T6	<ul style="list-style-type: none"> - It reinforces students' understanding in the classroom - It intensifies practice - It saves money and time
T7	<ul style="list-style-type: none"> - It promotes learners' autonomy - It develops learners' motivation - It ensures the delivery of much more content
T8	<ul style="list-style-type: none"> - No answer
T9	<ul style="list-style-type: none"> - It facilitates the teaching and learning process

- T10**
- It develops learners' autonomy and motivation
 - It promotes learners' interaction in the classroom
 - It facilitates the teaching and learning process through the use of technology
- T11**
- It augments the rate of flexibility and individualisation that account for students' learning experiences
 - It allows teachers to extend the time that they usually spend as facilitators of learning
- T12**
- It increases learners' autonomy and responsibility for their learning
-

Even though the answers are different, they can be put into 3 main frequent themes.

The latter are learners' autonomy, learners' motivation, and learners' achievement.

8.1 Learners' Autonomy

Most interviewees insisted on the development of learners' autonomy in blended learning. Learners become more self-reliant and independent to study and work alone. This feature is enhanced throughout face-to-face interaction in the classroom and online learning at home. Learners' autonomy provides learners with more opportunities for English communication inside and outside the classroom. According to Candy (as cited in Benson, 2001), autonomous learners become "*persistent, responsible, flexible and self-sufficient*" (p.85). Thus, becoming autonomous leads to other positive features that foster learners' engagement in the process of learning a foreign language.

8.2 Learners' Motivation

Similarly with learners' autonomy, most interviewees maintained the idea of the improvement of learners' motivation throughout blended learning. William and Burden (1997) define motivation as "*a state of cognitive and emotional arousal that leads to conscious decision to act*" (p.120). The act of being motivated is significantly increased

throughout the use of technology. Learners get more motivated when using digital tools to interact both inside and outside the classroom. They can also gain a sense of competency and make successful achievements when learning.

8.3 Learners' Achievement

Evaluating the effectiveness of blended learning on the performance of students was the common purpose of most interviewees. The use of technology through blended learning enhanced students' learning outcomes and achievements. As noted by Habib (2018), "*The ongoing infused web-based technologies into the learning and teaching process has highlighted the potential of blended learning*" (p.370). Therefore, most teachers were using this educational alternative aiming at promoting learners' results.

Item 9. What problems have you had in teaching a blended learning course ?

This question seeks to determine the difficulties that teachers have encountered in a blended learning course, as illustrated in Table 3.28.

Table 3.28

Samples of Teachers' Responses on Blended Learning Problems

Interviewees	Blended Learning problems
T1	- Internet speed
T2	- Unfamiliarity with blended learning platforms and their technical complexities - Students' modest knowledge of the internet applications - Bad internet accessibility - Google Meet and Zoom sessions often fail to be organized and accomplished

- T3** - Limitation of time
- Poor internet connection
- T4** - Learners' engagement
- T5** - Technical issue (accessing internet, unreliable hardware)
- T6** - Students inconsistency
- T7** - Web access
- Lack of training
- Material problems for most students
- T8** - Internet accessibility
- T9** - The wrong usage of blended learning by teachers and students
- T10** - Internet connection
- Lack of training in using electronic devices and applications for both teachers and learners
- T11** - No answer
- T12** - Lack of digital literacy for both teachers and students
- Slow internet connectivity
-

Although the responses are diverse, they can be grouped under three common themes : internet accessibility, lack of digital literacy, and teachers' misconceptions.

9.1 Internet Accessibility

One of the major challenges of blended learning is the internet accessibility or connectivity. Most interviewees referred to it as a barrier that hinders both teachers and students from carrying out online tasks without being interrupted. Enrollment for online courses has grown in faster rate in higher education. However, this enrollment can not be

efficient without providing sufficient internet connectivity. Even students whether at home or on campus are confronted with slow internet connectivity. This challenge affects negatively both the teaching and learning process in blended learning.

9.2 Lack of Digital Literacy

The first online university course was designed and taught by Dr. Linda Harasim and Dr. Dorothy Smith in January 1986 at the University of Toronto through the graduate school of education. The topic was “Women and Computers in Education” (Harasim, 2017). Despite the fact that the idea of online courses started many decades ago, there are still some teachers at the University of Biskra, Department of English and Literature, who lack literacy and see themselves as beginners or intermediate. This lack of digital literacy is another challenge, which obstructs blended learning from being a successful teaching and learning approach. As reported by teacher (2), this lack is due to *“teachers’ unfamiliarity with blended learning platforms and their technical complexities.”* Another teacher (10) stated that this challenge is related to *“the lack of training in using electronic devices and applications for both teachers and learners.”*

9.3 Teachers’ Misconceptions on Blended Learning

At first, the interview was sent via teachers’ emails. They were 28 teachers but only 13 teachers responded to the interview. 12 responses were taken into consideration and one was omitted. The interviewee number 13 declared, *“I have not taught online before, during, or after Covid-19. During the Covid-19, I just put the lessons on the platform, but lessons were taught face-to-face in the classroom...”* This interviewee wrote this remark and did not answer the interview. This example illustrates the theme of teachers’ misconceptions on blended learning. In fact, this teacher is using the blended learning approach, which involves face-to-face interaction in the classroom with the lessons posted on Moodle platform. This

teacher has a wrong opinion on how blended learning is conducted. Such misconception and misunderstanding impact negatively the efficiency of blended learning.

Another misconception is that teachers who are in charge of Transversal and Discovery Units (modules) believe that posting an entire course on Moodle platform is sufficient for learners to work alone. No face-to-face classroom interaction is performed. In fact, blended learning does not equal distance learning. Both teachers and learners have to interact physically from time to time because blended learning is delivering some content online and some offline.

Moreover, some teachers think that blended learning develops a learner-centered environment where the learner takes charge of his own learning alone using technology. This is a wrong belief because blended learning does not exclude the teachers' role. This role is vital in orchestrating the teaching and learning process. Therefore, using technology alone is not enough because technology does not replace the teacher. Thus, an overuse of technology may affect learners' creativity and critical thinking opportunities.

Item 10. Have you received any formal training on the use of Moodle platform?

This question is about teachers' formal training on the use of Moodle platform. 10 interviewees noted that they have been trained on how to post lessons and lectures only. Most of them estimated that the training was theoretical and lacked practical sessions. However, 2 interviewees did not have any prior training on how to use Moodle platform. The findings revealed that blended learning at the University of Biskra is related to Moodle platform only. This platform is used just to post lessons and lectures whereas in other countries Moodle has other uses such as "*providing a wiki for the students, creating online forum for discussion, uploading documents, and providing quizzes and tests*" (Saihi, 2020, p. 19).

Item 11. What other kind of training would you like to have to improve your digital competencies?

Although some interviewees are faced with many challenges on how to be effective in the blended learning environment, they are still motivated and want to improve their digital competencies. One interviewee asked for more workshops and training sessions in the use of Moodle platform. Four interviewees asked for more practice to manage time through online learning sessions. Others wanted to know more about online continuous assessment and how to manage virtual classrooms such as Google Meet and Zoom. The other interviewees suggested training on online course design and synchronous classroom activities. From these teachers' requests, we deduce that most interviewees want to be involved in blended learning as long as they are well-trained and prepared to perform the teaching process effectively.

Section Three : Teachers' Perceptions and Challenges in Online Assessment

Item 12. Did you have any prior experience with online assessment before COVID-19 ?

This question deals with teachers' prior experience with online assessment. Five interviewees declared having no previous experience with online assessment. Two other interviewees stated that they were using their personal blogs or emails. Learners used to send their essays or research papers to be evaluated and sent back as part of the classroom assessment. Teacher (5) claimed that *"During my teaching experience abroad, some exams had to be delivered online using a virtual learning environment VLE (a similar platform to Moodle)."* Two other interviewees affirmed that they have been trained on how to use online assessment in 2016 during an in-service training for novice teachers at the University of Biskra. The other interviewees were using students' Facebook pages to announce the testing schedule. The findings revealed that online assessment was not a new concept. Most teachers

had a previous idea about it. They need to have more training to go hand in hand with blended learning.

Item 13. What assessment methods are you using to assess learners' online ?

This question is about the assessment methods used by teachers to assess learners online. Four teachers claimed that they do not use online assessment. They are satisfied with face-to-face assessment. However, some interviewees use a variety of techniques such as Google Form tests, tests via Moodle platform, video-based composition writing, multiple choice and short response questions. One teacher stated using interactive video activities using the H5P. Others posted exams online to be sent back via the teacher's email. Another teacher asked learners to write essays and research papers to be sent through the teacher email. These productions were part of the classroom formative assessment. These results revealed that most interviewees are cooperative and ready to engage in using online assessment. They are gradually involved and want to integrate this new mode of assessing learners.

Item 14. What challenges have you encountered when assessing learners online ?

This question aims to find out what challenges teachers have encountered with online assessment, as shown in Table 3.29.

Table 3.29

Samples on Teachers' Responses on Online Assessment Challenges

Interviewees	Blended Learning challenges
T1	- Internet accessibility and connection
T2	- Students' unfamiliarity with online assessment - Late response submission
T3	- Assessing a large population

- T4** - Learners' unfamiliarity with assessment techniques
- T5** - Online assessment lack fairness
- Cheating
- T6** - Delay in submitting online tests
- T7** - Academic integrity issues (cheating)
- Unrealistic evaluation
- T8** - Internet constraints
- Poor infrastructure
- T9** - Deadlines are not respected by learners
- Learners are not well-trained in e-assessment
- T10** - Violation of academic integrity
- Plagiarism
- T11** - Lack of training
- Poor internet connection
- Overcrowded classes
- Students' engagement problems
- Poor time management
- Academic integrity violations
- T12** - Cheating
- Plagiarism

Despite the diversity of responses, four consistent themes emerged : academic integrity violations, poor internet connectivity, students' unfamiliarity with online assessment, and lack of training.

14.1 Academic Integrity Violations

Most interviewees declared that academic integrity violations is one of the challenges that impacts online assessment negatively. Issues such as unfairness, dishonesty, cheating, and plagiarism made the implementation of online assessment in higher education a challenging task. Most instructors are complaining about learners' unethical behaviour when assessed online. Most learners tend to cheat or plagiarise to get good scores forgetting that unfairness and dishonesty are unethical behaviours which can harm their integrity and probity as learners.

14.2 Poor Internet Connectivity

Similarly with blended learning implementation, poor internet connectivity is challenging online assessment too. Most interviewees relate this challenge to the poor infrastructure of blended learning. Having poor internet connection affects badly the validity and reliability of online assessment. Most interviewees shifted to face-to-face assessment to guarantee its occurrence and final results.

14.3 Students' Unfamiliarity with Online Assessment

Being taught and assessed following the traditional procedure made students unfamiliar with online assessment. The integration of online assessment was difficult for both learners and teachers because old habits are hard to change. This challenge results in other challenges such as poor time management, students' engagement, and delay in submitting online tests.

14.4 Lack of Training

To be effectively involved in blended learning and assessing learners online needs more training and guidance for both learners and teachers. Most instructors feel reluctant to use online assessment because they do not have enough knowledge about how to build online

tests and exams. Therefore, more training will benefit both teachers and learners and provide accurate and fair online assessment.

Item 15. What solutions do you suggest to overcome these obstacles and difficulties ? Feel free to make any further suggestions.

Table 3.30

Samples of Teachers' Suggestions to overcome Obstacles and Difficulties in Blended Learning and Online Assessment

Interviewees	Blended Learning and Online Assessment teachers' suggestions
T1	<ul style="list-style-type: none"> - Training both teachers and learners in the use of online teaching - Increasing the internet speed - Increasing students' awareness to use blended learning
T2	<ul style="list-style-type: none"> - Organizing workshops for online learning - Providing technical facilities
T3	<ul style="list-style-type: none"> - Avoiding overcrowded classes - More training sessions
T4	<ul style="list-style-type: none"> - Provide free software and platforms
T5	<ul style="list-style-type: none"> - Provide equal access to computer devices and internet connection for all students - Continuous training on online learning technologies
T6	<ul style="list-style-type: none"> - Providing ICT tools
T7	<ul style="list-style-type: none"> - Continuous training programs - A better implementation of blended learning
T8	<ul style="list-style-type: none"> - Stakeholders have to provide language labs
T9	<ul style="list-style-type: none"> - More training on online assessment

- T10** - More training
- Making learners aware of the importance of ethical issues
- T11** - Strengthen teachers and learners digital literacy skills
- Combine diverse assessment techniques
- Maximize students' online involvement
- T12** - More training is needed to carry on with blended learning and online assessment
-

This question deals with teachers' suggestions to overcome obstacles and difficulties in blended learning and online assessment as shown in Table 3.30. All of them focused on more training sessions to get familiar with blended learning and succeed online assessment. Providing continuous training can "*Strengthen teachers and learners digital literacy skills.*" as stated by teacher (11). The same teacher reported that it can also "*Maximize students' online involvement.*" Another major suggestion was the appropriate implementation of blended learning by providing the necessary infrastructure that may increase students' commitment to attend online classes and submit assessments in time.

Conclusion

This chapter dealt with the analysis and the interpretation of the findings. In this respect, the results revealed that both teachers and students are in favour of blended learning provided it is well-designed and well implemented. Besides, both of them have a positive attitude towards online assessment, which they find more useful and comfortable. However, both of them insisted on the necessity of having ongoing training sessions to get rid of the various challenges they encountered during the teaching, learning and assessment processes.

General Conclusion

General Conclusion

During the COVID-19 lockdown period, blended learning was the only alternative to ensure the continuity of pedagogical practices in higher education. Blended learning is the combination of traditional face-to-face learning with online learning. The general aim of the current study is to explore the effectiveness of assessing EFL learners' achievement through blended learning. Another aim is to investigate teachers' and students' perceptions and challenges in blended learning and online assessment.

The related literature was respectively reviewed in the first and second chapters. Chapter one was devoted to the implementation of blended learning in EFL context. It covered a brief history of this approach, its definitions, models, instructional tools, and benefits. It also explored EFL teachers' and students' perceptions and challenges in blended learning. Chapter two dealt with language learning assessment. It provided a better understanding of the term assessment based on different perspectives. It also described its types, purposes and identified the difference between some theoretical concepts in assessment. Besides, more attention was paid to how teachers assess EFL students within blended learning. Furthermore, this chapter focused on online assessment, its definitions, principles, methods, and benefits. Later, it investigated teachers' and students' perceptions and challenges in online assessment. Chapter three was concerned with the full description of the research methodology, the data gathering tools, the administration of the students' questionnaire and the teachers' interview. Finally, this chapter provided a deep analysis, discussion and interpretation of the findings.

An exploratory qualitative research design was used to answer the research questions. In this respect, two data gathering tools were used. A semi-structured students' questionnaire that was administered to EFL learners at the Department of English and

Literature at Biskra University. The sample involved L2, L3, M1, M2 learners. L1 learners were not included because they did not experience blended learning for a long time. The second tool was a semi-structured teachers' interview that was conducted with 12 teachers from the same department. Both data collection tools were piloted and validated.

The findings revealed that blended learning as an approach allowed higher education institutions to carry out the teaching and learning processes and ensured teachers and students safety. Moreover, blended learning encouraged both extrovert and introvert learners to interact and collaborate in a virtual setting. The combination of face-to-face learning with online learning provided a better educational experience through classroom interaction and technology usage. Additionally, B-Learning developed more assessment tools and encouraged learners to become future researchers. It also promoted learners autonomy and motivation. Learners feel self-reliant when studying online.

As regards the research questions, the findings revealed that both teachers and students had some misconceptions on blended learning and online assessment. They both believe that blended learning focuses on online learning forgetting that face-to-face is a model of blended learning. Besides, the results showed that some students lack engagement in online assessment. They generally submit their online tasks and exams late. Furthermore, the result indicated that 44% of students affirmed their slight improvement after being taught and assessed through the blended learning approach. As it was confirmed in the literature review in the study that was carried by Gomez et al. (2007, as cited in Alseweed, 2013) which affirmed no significant difference in final accomplishments test scores between blended learning and traditional learning. The ineffectiveness of B-Learning on students' achievement was due to a lack of teachers' IT literacy and the wrong implementation of B-Learning design. As any new concept, blended learning in the Algerian higher education needs more time to be implemented efficiently. Additionally, a great number of challenges

hindered its implementation. Slow internet connectivity, lack of ICT training, academic integrity violations and unfamiliarity with online assessment literacy were the major challenges that both teachers and students encountered.

To increase students' achievement, teachers should equip themselves with the necessary ICT skills and update to the technology to cope with the new technologies used in higher education. The mastery of digital technology has become an urgent requirement that both teachers and students must acquire. Furthermore, blended learning and online assessment require well-established infrastructure set up, software and hardware both on the teacher and student side.

Finally, blended learning as an approach provided new insights as regards the integration of technology and digital tools to promote online assessment and increase teaching efficacy and learners' outcomes. To cope with the 21st century teaching approaches, stakeholders have to provide the appropriate infrastructure to get rid of the various challenges that hinder blended learning effective implementation.

Pedagogical Implications and Recommendations

The results obtained from the students' questionnaire and the teachers' interview offered rich and in-depth insights about the importance of integrating blended learning in the Algerian educational institutions. It is necessary to raise awareness of EFL practitioners on the effectiveness of this approach to cope with the 21st century teaching. The present study suggests the following implications and recommendations :

Implications

- The success of blended learning depends on its design and implementation.
- Universities in Algeria do not have the necessary infrastructure to implement blended learning.
- Students' achievement slightly improved because of a lack of training in blended learning.
- Not all teachers use online assessment.
- Learners do not attend online learning sessions.
- Learners do not submit their online assessment on time, which obstructs the efficiency of such mode of assessment.
- Slow internet connectivity hinders blended learning and online assessment at university.
- Students are not accustomed to the new type of online learning and online assessment.
- Internet and ICT tools are not available for all students.
- Most students rely on cheating and plagiarism to present their online assessment.

Recommendations

- Creating awareness among students on academic integrity issues at Higher education institutions.
- Developing ethical behaviours among students through the teaching process.
- Investing in and implementing long-term training on ICT literacy and technology usage at universities.
- Updating to technology applications and using other multimedia in addition to Moodle platform.
- Providing the necessary infrastructure to implement blended learning in higher education.
- Supplying enough internet connectivity for teachers and students.
- Avoiding misconceptions and trying to know more about blended learning and online assessment.
- Being well-equipped with digital tools to achieve effective online learning and assessment for both teachers and students.
- Using oral online presentations to reduce some unethical issues among students.
- Providing teachers with effective training programs to meet their students' needs.
- Promoting the development of online assessment in higher education.
- Supporting the use of ICT tools by both teachers and students.
- Using F2F learning equally with online learning.
- Using more technological software at university.
- Exchanging online learning experiences with other universities inside or outside Algeria.

- Making both teachers and students aware of the importance of blended learning and online assessment through study days at university.
- Providing continuous online feedback to answer students' needs and clarifications.

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Appendices

Appendix 01
Students' Questionnaire

Dear students,

This questionnaire is one of the data collection tools designed for a Master dissertation entitled “**Investigating the Effectiveness of Assessing EFL Learners’ Achievement throughout Blended Learning Approach during COVID-19 : Perceptions and Challenges**”. Your participation will be immensely appreciated and will be of great help in the fulfillment of the study at hand. Be sure your responses will be anonymous and treated confidentially. You are kindly requested to answer the following questions by ticking the appropriate answer (s), and providing full statement whenever it is necessary.

Thank you for your time and cooperation

Section One : Background Information

Q1. Gender

Male

Female

Q2. Age :

Q3. Current level of study at university

L2

L3

M1

M2

Q4. ICT literacy

- Beginner
- Intermediate
- Advanced

Q5. Students' location

- Inside the campus
- At home

Q6. Access to technology via :

- Laptop computers
- Desktop computers
- Tablets
- Smart phones
- Cybercafe
- Others :

Section Two : Blended Learning Approach**Blended Learning Definition**

“
**Blended classrooms include face-
to-face instruction techniques...
while also using technology to
provide in-class online learning
that
students can do at home...**

- Alfonso Gonzalez
in Education Week Teacher

Q7. Are you familiar with Blended Learning ?

Yes

No

Q8. How often do you enroll in the Moodle platform ?

Very frequently

Frequently

Occasionally

Rarely

Never

Q9. Did you have any training on how to enroll in this platform ?

No training

Self-training

Administrative training

Others :

Q10. What kind of files (documents) do you download from this platform ? (You can

tick more than one open).

Lectures and lessons

Take-home activities and practice

Quizzes, tests and exams

YouTube videos

Audio files

Books and articles

Power Point presentations

Websites links

Q11. Are the downloaded files useful for a Blended Learning approach ?

Yes

No

If No, they are not useful because : (You can tick more than one option).

They are not used in the classroom by the teacher

They are too difficult to be read and understood

I do not have enough time to consult all of them

Teachers send too many documents

These documents have nothing to do with classroom and online assessment

Take-home activities are not followed by any form of feedback

Lectures are not posted in time

Others :

Q12. Did you have any difficulty to enroll in the Moodle platform ?

Yes

No

If Yes, what kind of difficulty did you face ? (You can tick more than one option).

Files do not open

I do not have a personal account

I do not know how to enroll in this platform

I do not know how to download files

Internet accessibility is too slow both at home or at the campus

Others :

Q13. In addition to Moodle platform, what other means of instruction do your teachers use within the blended learning approach ? (You can tick more than one option).

Classroom chalkboard

Social media (Facebook, YouTube, Chat rooms)

- Video conferencing (Google Meet, Zoom)
- Teachers' blogs and e-mails
- Interactive Digital Whiteboards
- Audio recorded files
- ICT tools (Tablet, laptop, smart phone, data show)
- Others :

Q14. Do you want to go back to face-to-face learning or carry on with blended learning ?

- Yes, I want to go back to face-to-face learning
- No, I want to carry on with Blended Learning

Say why for both answers ?

.....

Section Three : Assessment in Blended Learning

Formative Assessment : is the evaluation of learners while the learning is still taking place.

Summative Assessment : is the evaluation of learners that takes place at the end of the learning process.

Q15. Which type of assessment do your teachers use ?

- Formative assessment
- Summative assessment
- Both

Q16. Have you ever experienced online assessment ?

- Yes
- No

If Yes, how did find it ?

- Very difficult
- Difficult
- Neutral
- Easy
- Very easy

Q17. Your teachers assess you using : (You can tick more than one option).

- Paper-pencil tests (Class tests)
- Group projects
- Research papers
- Oral presentations
- Online discussions
- Google Form quizzes
- Formal paragraphs and essays
- Portfolios
- Role plays
- Analyzing chapters and novels
- Others :

Q18. To what extent do you agree or disagree with the following statements ?

SD : Strongly disagree **D** : Disagree **N** : Neutral **A** : Agree **SD** : Strongly disagree

N°	Statements	SD	D	N	A	SA
1	Blended learning enhances learners' motivation and autonomy					
2	It supports collaboration and interaction in the classroom.					
3	It creates a student-centered learning environment.					
4	It fosters the use of ICT tools.					
5	It improves learners' knowledge and achievement.					
6	Online assessment may cause plagiarism and credibility problem					
7	Virtual feedback is not effective as teachers' face-to-face feedback					
8	Online exams do not fit all modules.					
9	Paper-based exams are fairer than online exams.					

Q19. Which challenges did you encounter when being assessed online ? (You can tick more than one option).

- Lack of technology required for home access
- No internet connection
- Slow internet connection
- Difficulty of tasks
- Insufficient time to finish the assigned tasks
- Absence of informative feedback
- Inappropriate time for taking a test (Being ill or working)
- Others :

Q20. How would you evaluate your achievement in English after being taught and assessed through the Blended Learning approach ?

- No improvement
- Slightly improved
- Moderatly improved
- Extremely improved

Q21. Which form of assessment do you prefer ?

- Face-to-face assessment
- Online assessment
- Both

Q22. Feel free to make any additional comments on both Blended Learning approach and assessment within this approach.

.....

Thank you for time, effort, and collaboration

Appendix 2

Teachers' Interview

Dear teachers,

You are kindly invited to respond to this interview. Your responses will contribute to gather data for a master's dissertation entitled "**Investigating the Effectiveness of Assessing EFL Learners' Achievement throughout Blended Learning Approach during COVID-19 : Perceptions and Challenges**". Your participation will be immensely appreciated and will be of great help in the accomplishment of the study at hand. Be sure your responses will be anonymous and treated confidentially.

Thank you for your collaboration

MESSAIBI Raiane

Supervised by **Mr. CHENINI Abdelhak**

Section One : Background Information

Q1. Teaching experience at university.

.....

Q2. Teachers' academic position.

.....

Q3. Modules taught through Blended Learning.

.....

Q4. ICT literacy (Would you please delete the unnecessary options ?)

- Beginner.
- Intermediate.
- Advanced.

Section Two : Teachers' Perceptions and Challenges in Blended Learning

Q5. Are you familiar with Blended Learning ? If yes, would you please provide a brief definition for this concept ?

.....
.....

Q6. Do you know any Models of Blended Learning ? If yes, would you please give some examples ?

.....
.....

Q7. How often do you use Blended Learning with your learners ?

.....

Q8. What benefits would you expect by adopting Blended Learning approach ?

.....
.....
.....

Q9. What problems have you had in teaching a blended course ?

.....
.....
.....

Q10. Have you received any formal training on the use of Moodle platform ?

.....

Q11. What other kind of training would you like to have to improve your digital competencies ?

.....
.....

Section Three : Teachers' Perceptions and Challenges in Online Assessment

Q12. Did you have any prior experience with online assessment before COVID-19 ?

.....
.....

Q13. What assessment methods are you using to assess learners online ?

.....
.....
.....
.....

Q14. What challenges have you encountered when assessing learners online ?

.....
.....
.....

Q15. What solutions do you suggest to overcome these obstacles and difficulties ? Feel free to make any further suggestions.

.....
.....
.....

Thank you for your precious time and effort

ملخص

لقد أدت جائحة كورونا إلى عدة تحولات وتغيرات تتناسب مع الوضع الصحي العالمي الجديد حيث شملت هذه التحولات كل المجالات بما فيها المجال التربوي والتعليمي. خوفا من انتشار عدوى الوباء وحماية لصحة الطلبة والأساتذة والمحافظة على سيرورة التعلم والتعليم والتقويم، اعتمدت كل الجامعات في العالم فكرة التعلم المدمج بما فيها الجامعة الجزائرية. يعتمد التعلم المدمج على دمج التعلم التقليدي المباشر مع التعلم عن بعد وذلك باستعمال التكنولوجيا أثناء عملية التعلم والتعليم، حيث تمت مراجعة طرق التقويم وتحديد طرق جديدة مناسبة للوضع الافتراضي. وبالتالي تهدف هذه الدراسة إلى استكشاف مدى نجاح عملية التقويم في ضل التعلم المدمج، كما تسعى لمعرفة آراء الأساتذة والطلبة والتحديات التي واجهتهم أثناء اعتماد طريقة التعلم المدمج للتدريس والتعلم والتقويم. من هذا المنطلق، تم استخدام المنهج الإستكشافي النوعي كما أجري استبيان عبر الإنترنت لفائدة طلبة قسم اللغة الإنجليزية بجامعة محمد خيضر بسكرة، حيث شارك 55 طالب في الدراسة وأجريت مقابلات مع 12 أستاذ من نفس القسم باستعمال البريد الإلكتروني لكل أستاذ وذلك من أجل جمع المعلومات ذات الصلة بهذا البحث. وقد أثبتت هذه الدراسة أن بعض الطلبة والأساتذة تقبلوا طريقة التعلم المدمج بالرغم من كل التحديات التي أثرت على نتائج بعض الطلبة. في الأخير تم اقتراح بعض التوصيات البيداغوجية مثل التدريب المستمر لكل من الطلبة والأساتذة على استعمال التعلم المدمج والتقويم عن بعد في التعليم العالي .