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*Investigating EFL students' perceptions towards E-learning strategies during Covid- 19
pandemic*

The Case of Master Two Students

A Dissertation Submitted in Partial Fulfillment of the Requirements for the Degree of Master in
Language and Culture

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Dedication

(1)

I dedicate this work to my family for being my source of motivation.

A special feeling of gratitude to my loving parents, my sisters' words of encouragement and love, My Brothers who have supported me throughout the process.

I will always appreciate having you as a family.

I also dedicate this work to my dear nephews jadou, badi, hamada and to the real person that I ever knew Rahma.

To my beautiful partner amel for her great collaboration.

RAFAI Chayma

Dedication**(2)**

I dedicate my dissertation work to my family and many friends. A special thanks to my loving parents, whose words of encouragement and push for tenacity still ring in my ears. I also dedicate this dissertation to my friends who have helped me throughout the process. I will always be grateful for everything they have done.

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Abstract

Educational institutes across the world have closed due to the COVID-19 pandemic, that jeopardized the academic calendars. Thus shifting to online learning platforms to keep the academic activities going. However, in this study we focused on investigating EFL students' perception towards e-learning during covid 19 pandemic, at Abbes Laghrour University. The research problem addressed the challenges and obstacles, preparedness, designing and effectiveness of e-learning that EFL students faced, while using e-learning and e-learning strategies. In addition to the existing literature a mixed-methods case study design was conducted, utilizing multiple sources of information including a questionnaire, and a semi-structured interviews. The target population was Master one EFL students at Abbes Laghrour University (N=144), during the academic year 2021-2022. The results obtained from the analyzed data revealed that the majority of master one EFL students have a passive perceptions in connection with the e-learning strategies, because of the use of the only available strategy which is the electronic lectures strategy, that limited students' understanding for some lectures, in addition to the various challenges starting with the problem of first use of learning through this new method, their struggle concerning the absence of interaction with teachers and classmates, internet and the online courses access, also students declared that they are not ready to learn by themselves because of the total dependence on teachers. Despite these findings, the opportunity for the adoption of e-learning was identified, Having these results as the first step to work on a strong educational system in every Algerian university that need a shift from the traditional learning to the electronic learning.

Keywords

E-learning strategies, challenges, EFL students, covid 19 pandemic, educational system, university

List of Abbreviations

EFL: English as a Foreign Language

ICTs: Information and Communication Technologies

IT: Information technology

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General Introduction

Introduction

Education program is going through a significant amendment with the expansion of innovative technologies and speedy expansion of the Internet. This technology supported education is broadly known as e-learning. It is also known as Web-based education, or virtual education. The features of online education are flexible instructions and learning that boost independent and self-governed education. The students may decide about the site and time of their education, thereby defeat the physical blockades

On March 11, 2020 World Health Organization (WHO) declared COVID-19 a global pandemic. The Sudden outbreak of COVID-19 pandemic created panic, anxiety among the population worldwide. The education sector was among many which had taken a strong blow due to pandemic. In the wake of institute shut down, this was a challenging time for professional education which was combated through introduction of e-learning through online classes so as to ensure continuation of teaching-learning process for the medical students

Algerian universities as Khenchela university have had to equip e-learning as it represents the best solution to proceed the educational objectives through distant instruction. this transformation to electronic learning needs to be based on the authentic investigation of students' perceptions towards e-learning strategies during covid 19 pandemic.

The potential of applying e-learning in education to help students in improving their learning performance is determined by this study in which we investigate EFL students' perceptions towards e-learning strategies during this pandemic, and to achieve this objective the following research questions are addressed:

- What are EFL students' perceptions about e-learning strategies during Corona virus pandemic?
- What are the challenges and obstacles that EFL students faced using e-learning strategies during Corona Virus pandemic?

1- Background of the Study

Since most governments around the world including Algeria have temporarily closed, educational institutions in an attempt to contain the spread of the COVID-19 pandemic, that is a new approach has been developed to provide educational content and facilitate interaction between the learner and the teacher during this period using the computer network known as E-learning.

2- E-learning

defined "as the process of learning online, especially through the Internet and email". (Webster's New Millennium™ Dictionary of English). Also as "an e-learning method where a student can learn at any time or location over the internet". (Shabha, 2004). E-Learning involves more than information transfer between the instructor and participant, in which selected readings and lectures are submitted to participants who then respond with homework or an examination (Benbunan-Fich, 2003). E-learning, online learning, and distance learning are sometimes used interchangeably, Garry (2007) wrote "Online learning or e-learning is a field of education that focuses on dissemination of academic knowledge and information to different geographical locations" (p.2).

There are two main types of e-learning which are Asynchronous and synchronous e-learning: Asynchronous e-learning allows the student to participate based on time and schedule,

without face-to-face interaction with the teacher, while Synchronous e-learning involves interacting with the teacher via the Web in real time (Mehlenbacher B et al 2000). E-learning method is cost effective, learner-centered, time and location flexibility, which makes it feasible students (Nunamaker et al, 2004). One advantage of E-learning is the flexibility for students to schedule their studies at their convenience and the faculty which can reuse prepared course materials (Neumann 1998). Nunamaker et al, (2004), states that e-learning method increases the preparation time for teachers and lacks the need for immediate feedback in asynchronous method.

E-learning strategies are plans of how teachers prepare to proceed with building the learning, as it includes the specific resources, devices... (Andrew, 2017).

During the e-learning process learners are often uncomfortable with the design delivery method which often make them puzzled and frustrated. Since information is delivered electronically, learners need to identify what section of the material is considered relevant. There is need to study the learners' characteristics, program requirement and reorganize the design procedure to obtain an increased effect on learners' overall performance (Munro 2005).

3-Perceptions

Refers to someone's feelings of likes or dislikes, favorable or unfavorable, towards something. It includes also the positive, negative, and neutral points of view and attitudes toward something, an object (Allen, L., 1983). Dooley & Murphy (2001) define the Faculty Perceptions of E-Learning as "The opinions, attitudes and beliefs held and exhibited by faculty members in relation to the regular use of e-learning resources." Previous studies indicated that perceptions about e-learning depend on the following factors: (a) Technical competence, (b) awareness of the benefits of e-learning, and (c) the educational background of teachers. (Paravantis; 2010; p56).

4- Statement of the problem

The covid-19 pandemic has globally led the universities towards a paradigm-shift. As well as the instant development of ICT has restructured the content and the context of education particularly teaching and learning. This global health issue forced the Algerian institutions of higher education to adopt e-learning as it represents the best solution. This e-learning process represents a new challenge for students that was imposed on them, thus different perceptions about e-learning strategies were found. We believe that the study conducted about EFL students' perceptions about e-learning strategies during covid 19 pandemic will provide enough data for the research problem. This study also highlights the challenges and obstacles that EFL students were facing.

5-Aim and Objectives of the Study

The main aim of this study is to investigate EFL students' perceptions (Master 1) towards e-learning strategies during Corona virus pandemic at Abbes Laghrour University.

-To measure EFL students' perceptions about e-learning strategies during Corona virus pandemic.

-To highlight challenges and obstacles that EFL students faced using e-learning strategies during Corona Virus pandemic.

6- Research Questions

The research questions for the conducted study are:

- What are EFL students' perceptions about e-learning strategies during Corona virus pandemic?

- What are the challenges and obstacles that EFL students faced using e-learning strategies during Corona Virus pandemic?

7-Research Methodology

7-1-Research Paradigm, Approach, and Design

To start with, Burns (2000) described research as systematic investigation. For Creswell (2008), research is “a process of steps used to collect and analyze information to increase our understanding of a topic or issue” (p 3).

The use of mixed methods design in research is important in that it may help researchers to improve the robustness of data collection as well as the study findings. Mixed method designs can be divided into three designs: exploratory sequential; explanatory sequential, convergent parallel. In consideration of the research questions, we have used a convergent parallel design. According to Creswell (2014):

A Convergent parallel mixed method is a form of mixed methods design in which the researcher converges or merges quantitative and qualitative data in order to provide a comprehensive analysis of the research problem. In this design, the investigator typically collects both forms of data at roughly the same time and then integrates the information in the interpretation of the overall results. Contradictions or incongruent findings are explained or further probed in this design (P269).

Also, in consideration of our aim and objectives we opted for a mixed methods case study as well, Creswell and Plano Clark (2018) states that, “a mixed methods case study design is a type of mixed methods study in which the quantitative and qualitative data collection, results and integration are used to provide in-depth evidence for a case(s)...” (p116)

7-2-Sampling Methods

➤ Sample Frame

- **Case study**

Master one students at Abbas Laghrour University. We choose Master one students because of the availability and they represent a reliable source of knowledge, also they have already experienced e-learning (Google classroom...).

- **Population size: N=144**

➤ Sampling strategy

- For the quantitative part we will use simple random sampling. According to Cohen, L. & Manion, L. & Morrison, K. (2000). Research methods in education (5th ed.). box4.1. (p93) in simple random sampling each member has an equal chance of being selected”.

- *Sample size:* for Cohen, L. & Manion, L. & Morrison, K. (2000). Research methods in education (5th ed.). box4.1. (p93), the sample size for questionnaire is:

S=103

- For the qualitative part we will opt for non – probability sampling, convenience sampling. According to (Cohen and Holliday, 1979, 1982, 1996; Schofield, 1996). (p119), convenience sampling includes selecting the nearest population. For example, using friends or family as part of sample is easier than targeting unknown individuals” (Taherdoost, 2020).

- *Sample size:* as recommended by (Cohen and Holliday, 1979, 1982, 1996; Schofield, 1996). (p119), convenience sampling includes a sample of 12 interviews can be sufficient.

7-3-Data Gathering Tools

- For the quantitative part (the first question) a questionnaire along with a Likert Scale will be used to gather numerical data from the sample.
- As for the qualitative part (the second question) interviews with students will be used to gain in-depth information from the participants and to complement the results of the quantitative part.

8-Research Instruments and Procedures

To attain the aims, this study opts for two chief research tools: a questionnaire along with a Likert scale that is basically designed to account for and derive on the students' attitudes and to gather the numerical data, and an interview for the in-depth information.

9-Structure of the Study

The present dissertation consists of two main parts; the theoretical part and the practical part. On the one hand, the theoretical part which constitutes of the literature review of the study including one chapter with two sections. The first section is devoted to and I write-learning definition, asynchronous vs synchronous e-learning, e-learning vs traditional learning, similarities and the differences between e-learning and the traditional learning, the use of technologies and platforms, devices and platforms used in e-learning, also the benefits and the drawbacks of e-learning, However, the second section is concerned with, e-pedagogy, learning

styles, students' engagement in e-learning and e-learning strategies. Chapter two of the, is devoted to the data analysis of the learners' questionnaires and interviews, research design, data gathering tools, population, results constructd from the questionnaire and the interview, the thematic analysis and the chapter conclusion.

Chapter one

Section one

Electronic Learning (E-Learning)

Introduction

Education facilities all over the world have moved from conventional methods of learning to education by online means since the outbreak of the COVID-19 virus. Faculty members were urged to work with e-learning platforms and to provide study materials in the form of PPT, PDF, or Word form, and to upload videos so students carry on the process of learning, using the different devices and platforms of e-learning, thus abandoning the traditional way of learning that they used to deal with.

Based on earlier research, this chapter includes knowledge cited and quoted from a variety of sources, like e-learning and traditional learning, the differences, similarities, drawbacks, the devices and the platforms used.

1-E-learning

E-learning is defined as 'online learning, in particular via the web and via e-mail.' (New Millennium™ English Dictionary). The main topic is the intentional use in teaching and learning of networked information and communication technology. There are also other terms used to define this teaching and learning method, includes; online, virtual, distance, network- and web-based learning. The alphabet "e" is used as an abbreviation for electronics, which would include all educational activities by people and groups working online or offline, or by networked computers or standalone computer and other electronic devices, either synchronously or

asynchronously. The prefix "e" is therefore currently used in other areas, such as e-health, e-business, e-government, etc.

2- Asynchronous e-learning vs. Synchronous e-learning

E-learning includes both asynchronous and synchronous communication methods (Hrastinski, 2008; Anderson, 2008; Kirkwood & Price, 2012). The asynchronous mode refers to the situations of online learning in which students interact over a while of time with tools like discussion forums, emails, and boardrooms (Oye, Salleh & Iahad, 2012). Hrastinski (2007) argued, “Asynchronous communication better supports cognitive participation because of increased reflection and ability to exchange complex information” (p. 102).

Table 1: Table when, Why and How to Use Asynchronous vs. Synchronous E-learning

	Asynchronous E-Learning	Synchronous E-Learning
When ?	<ul style="list-style-type: none"> • Reflecting on complex issues <p>When synchronous meeting cannot be scheduled because of work, family and other commitments</p>	<ul style="list-style-type: none"> • Discussing less complex issues • Getting acquainted • Planning tasks
Why?	<ul style="list-style-type: none"> • Students have more time to reflect because the sender does not expect an immediate answer. 	<ul style="list-style-type: none"> • Students become more committed and motivated because a quick response is expected.

How ?	<ul style="list-style-type: none"> • Use asynchronous means such as email, discussion boards, and blogs. 	<ul style="list-style-type: none"> • Use synchronous means such as videoconferencing, instant messaging and chat, and complement with face-to-face meetings.
Examples	<ul style="list-style-type: none"> • Students expected to reflect individually on course topics may be asked to maintain a blog. Students expected to share reflections regarding course topics and critically assess their peers' ideas may be asked to participate in online discussions on a discussion board 	<ul style="list-style-type: none"> • Students expected to work in groups may be advised to use instant messaging as support for getting to know each other, exchanging ideas, and planning tasks. A teacher who wants to present concepts from the literature in a simplified way might give an online lecture by videoconferencing.

Source: Hrastinski (2008)

3- E-Learning vs. Traditional Learning

Traditional learning is conducted in a classroom. There is an instructor/ teacher who moderates and regulates information flow. The teacher then expects the students to deepen their knowledge in their own homes by writing exercises. Technology is now increasingly integrated

into the classroom. But the principal source of information remains the teacher in face-to-face instruction scenarios.

- **Similarities between e-learning and traditional learning environments**

- E-learning, as well as traditional learning requires an outstanding amount of work.
- In both environments, it is essential to provide and receive feedback.
- Assignments are an important part of the learning experience.
- In both environments, the demanding situations and rewards are the same.
- Both require students to wisely manipulate their time.

- **Differences between e-learning and traditional learning environments**

- E-learning encompasses synchronous and asynchronous learning.
- E-learning requires more autonomy and discipline to finish the learning on time.
- Electronic feedback can be slower than in the traditional classroom than face-to-face feedback.
- In an e-learning environment, all students stand equally in favor of those who are in a traditional learning setting.
- Each student is equal in an e-learning environment because face-to-face interactions are not present, which could give other more vocal students the advantage.
- In a traditional classroom, teachers, and books are the only source of information.
- Sometimes, the traditional system of teaching can make learning a boring activity, which makes learning tiresome and seems like a burden.
- Students make no effort themselves to learn new things.

- Learners have various learning abilities that cannot be addressed in the class by a single teacher. Even though traditional and e-learning are similar and variable, it depends on the student and the way he or she opts for learning. It may also be very beneficial if the student is aware of all the elements that e-learning involves and is willing to try to take courses online

Although there are both similarities and variations when it comes to traditional and e-learning it depends upon the student and the way they opt to learn. If the student is aware about all of the components that come with e-learning and are willing to put forth the attempt to take online courses, then it could be very beneficial.

Table 2: Teachers' Traditional role and Newer Roles

Traditional Roles	Newer Roles with ICT
• Teacher-transmission to passive learners who obey and receive	• Process-based curricula with learners who question and analyze
• Teacher oriented	• Learner oriented
• Teacher as task setters for individual learning	• Teachers as managers of collaborative learning
• An organizer of learning activities	• An enabler of quality learning experiences
• Dictating the learning	• Creating enabling structures for learning
• Technology as a tutor	• Technology to support creativity
• Didactic teaching	• Active learning
• Low order retention and recall	• High order thinking

• Teachers as providers of information and experts in all knowledge	• Teachers as advisors, managers and facilitators of learning
• Teachers as suppliers of knowledge	• Teachers as developers of skills
• Teacher as a distant authority	• Developed student–teacher relationships
• Teacher control of learning – its timing, pacing and contents	• Teachers standing back to let learning happen and children to solve problems
• Prescriptions for what, when and how students will be taught	• Responsiveness to students' cognitive needs and development
• Teacher in narrow and unchanging range of roles	• Teacher in many roles as required: designer, director–actor, facilitator, manager

Source: Cohen, Manion and Morrison (2004).

4-Use of Technologies and Platforms

Language teaching is an area that has been driven by the use of technology. While technology plays an important role in promoting and improving language learning, the effectiveness of any technology device depends on the knowledge and expertise of the professor who administers and facilitates the environment of language learning.

According to Christian Louis Lange "technology is a useful servant but a dangerous master," effective use of technology in education will make a positive impact and provide more education opportunities. Teachers and students can benefit from different educational technologies, teachers can learn how technology can be integrated into classrooms and students

are more interested in learning technology. The use of technology in education contributed to removing barriers to education. We must ensure, however, that teachers use the technology only to make the learning process easier and not to replace teachers

5-Devices and Platforms used in E-learning

5-1-Devices

1-Desktops and laptops: desktop or laptop computer is probably the most comfortable device to use for education. In addition, desktops far outweigh any mobile device in terms of sheer screen size. If learners want to study complex blueprints or detailed paragraphs, they'll appreciate the largest screen they are able to get.

2-Tablets: are excellent for learning. The big touch screen is practically begging for gesture-based interplay and engaging content.

3-Smartphones: are perfect delivery devices for overall performance guide and just-in-time learning and provides access to different resources in real time anytime anywhere.

4-Phablets (phone + tablet): According to Verizon Wireless, phablets are “essentially Smartphone-tablet hybrids. They’re feature-rich devices with screen sizes between 5 and 6 inches that offer the portability and functionality of a Smartphone crossed with the dynamic, big-screen experience of a tablet, stylus sometimes included.” There’s no one-size-fits-all method when it comes to e-Learning. Learners just need to consider their preferences

5-2-Platforms

1-E-mails: in an online e-learning environment, communicating through email is an essential part of getting things done. For many students, emailing instructors may be intimidating, at least at first.

2-Google Classroom: allows teachers to create an online classroom area wherein they are able to manage all the files that their students need. Documents are saved on Google Drive and can be edited in Drive's apps, including Google Docs, Sheets, and so on. But what separates Google Classroom from the ordinary Google Drive experience is the teacher/student interface, which Google designed for the way teachers and students think and work.

6-Benefits and Drawbacks of E-learning

6-1-Benefits

- It is flexible when considering time and place issues. Every student has the luxury of choosing the right place and time.
- E-learning improves the effectiveness and ease of access to vast amounts of information for knowledge and qualifications.
- The use of forums for discussion can provide opportunities for relationships between students. This helps to eliminate barriers, including the fear of talking to other students that can hinder participation. E-learning encourages students to interact and exchange views, as well as respect them.
- E-learning simplifies communication and improves the relationship that sustains learning... The cost-effectiveness of e-learning is that there is no travel need

for the students or the students. It is also cost-effective in that it offers learning opportunities for the greatest number of students who do not need many buildings.

- E-learning always takes into account individual learners' differences. For instance, some students prefer to focus on some parts of the course, while others are ready to review the whole course.
- The use of e-learning enables self-adjustment. The asynchronous method, for example, enables each student to study slowly or quickly at their own pace and speed.
- Less of environmental impact as e-learning is an undocumented way of learning and in large measure protects the environment. According to a study carried out on eLearning courses, distance learning programs, in comparison with conventional on the campus, consumed about 90% less power and generated 85% less CO2 emissions. With eLearning, you don't have to cut paper trees. E-Learning is therefore a highly environmentally friendly way to learn.
- Scalability E-Learning helps create new education, policies, concepts, and ideas and communicate them. E-learning is a very quick way to learn whether it is for formal education or entertainment.
- Consistency E-learning allows educators to communicate their message in a consistent way to the target audience with a higher degree of coverage. All students are taught in this learning mode in the same way.

6-2-Drawbacks

- E-learning as an educational approach causes the pupils to be contemplated, distant, and lacking in interaction or relationships. It thus requires very strong inspiration and time management skills to minimize these effects.

- The method of e-learning may be less effective than the traditional method of learning in terms of clarifications, explanations, and interpretations. With a face-to-face meeting with teachers, the learning process is much easier to use.
- E-learning as a method could have a negative effect if it comes to improving the communication skills of learners. Although students may have excellent academic knowledge, they may not have the skills they need to provide their knowledge to others.
- Since tests are possibly performed with the proxy, it will be difficult to control or regulate bad activities such as cheating, if not impossible. Further, piracy and plagiarism, predisposed by the insufficient selection, as well as copying and pasting ease can also be misled in e-learning.
- Furthermore, e-learning can also damage the role of socializing institutions and also the role of teachers as leaders of the educational process.
- E-Learning techniques cannot be used in all fields or disciplines. E-learning cannot properly study the purely scientific fields which include practical studies. Researchers have argued that in social science and humanities, e-learning is more appropriate than in medical studies and pharmacy, where practical skills are to be developed.
- A lack of self-discipline: If this is missing from an individual, they won't be encouraged to study delay. This is where traditional classroom learning is practical; if you fall behind in your studies you are tracked.
- Health problems this normally occurs when an individual is always on their computer or tablet; it brings about straining problems, poor vision and the like. It is,

however, advisable to relax for at least 10 minutes an hour, walk around and even do some wrist exercises to prevent pains

Conclusion

E-learning one example of digitalization supports the widespread use of education and training. This symbol of informatization has various advantages over the traditional techniques of learning. E-learning with its communication methods asynchronous or synchronous is to some point more convenient to pursue the educational process, in contrast with the traditional learning that most students are habitual to.

Chapter one

Section two: challenges and strategies

of e-learning

Introduction

The efficiency of e-learning, the only available solution that could replace the traditional learning during this pandemic, depends on the extent of e-pedagogy development, the different learning styles of students that may affect this new procedure, also the learners' acceptance and engagement in the process, in addition to the challenges that they may face while using the various available e-learning strategies.

1-E-pedagogy

1-1-Rationale for e-pedagogy

Initially, pedagogy was defined as the theory and practice of learning and education and a scientific branch which studied the unity of theory and practice. In this understanding of pedagogy, methods and learning resources are viewed as pedagogical technologies which are used consistently and systematically for the fulfillment of educational tasks. Pedagogical technology is connected with accurate problem formulations, the recognition of interconnections, the selection of suitable resources, and their successive practical application according to a pattern developed. Since the 1990-is, digital technologies such as cell phones, the Internet, communications software have started to develop very rapidly, the communication methods and their social behavior, in general, have changed dramatically. In the 21st century, a new generation, which is the digital generation, needs to be considered which depends heavily on digital technologies' opportunities. Given the digital generation's needs, pedagogy needs to be responsive and develop a new sub-discipline of science – e-pedagogy.

1-2- Conceptual framework of e-pedagogy

E-pedagogy is only at the beginning of its development as a branch of educational science. While digital technology already plays an important role in educational processes, e-pedagogy is not yet clearly defined conceptually. E-pedagogy is empirically understood in pedagogical practice as a branch of education that studies and develops learning technology and promotes teaching approaches to an efficient application of technology. It also means that alongside e-pedagogy and modern pedagogical practice – e-didactics – a new set of theories have been developed. Different definitions of e-pedagogy were recommended in pedagogical practice:

- A teaching approach that utilizes digital ICT resources and addresses digital generation learning preferences (Wee Hin, & Subramaniam, 2008);
- the internet teaching study or online teaching study (Swartz, Cole & Shelley, 2009);
- Online and/or blending teaching and learning strategies (Salmons, Wilson, 2009); -;
- E-pedagogy is pedagogy of e-learning (Mehanna, 2004).

In recent years, some other synonyms for the term 'e-pedagogy,' like digital and online pedagogy, have been used for pedagogy and pedagogical research and practice. Conceptually, however, they examine problems referred to in the previous e-pedagogy definition. Currently, the analysis of the term e-pedagogy as used in pedagogical practice enables it to be concluded that this pedagogy sector aims to investigate existing methods, learning forms, and resources for an e-learning process and to promote the full range of new learning methods. Consequently, the scope of e-pedagogy is limited and the second purpose of pedagogy is disregarded: e-education research and development of theory and practice. Therefore, the most important guidelines for content to be included in the theoretic and practical be are extremely important

2-Learning styles

2-1-Introduction to learning styles

Learning styles are based on the research results of cognitive psychology about processing information, active learning and the structure of information. The learners prefer intuitively some forms of information and a specific way of action over others when reaching quality learning. The division of learning styles is based on that. (Vainionpää 2006)

Learning styles are not strict and do not outline each other. It means that a person might prefer some learning style over others but also use aspects of other styles. The learners possess several learning styles and can mix them together to obtain the most suitable combination for each learning event.

One important aspect is how students recognize their learning style and what impact it has on learning. As Coffield (2004) says the knowledge of learning styles can be used to increase students' self-awareness and metacognition of their strengths and weaknesses as learners. Merrill (2000) argues that most of the students are unaware of their learning styles and if they are left alone with learning style questionnaires, they are most unlikely to start learning in new ways. Coffield points out that for those students who lack the confidence about their learning it can be motivating to find out new ways to describe and explore their behavior as learners. The quality of motivation depends on how experienced the students are to use the learning style instruments and of the feedback of the instrument.

2-2-VAK learning style model

There are many different kinds of learning style models based on different aspects. One model concentrates on human observation channels; vision, hearing and feeling. It is called the Visual-Auditory-Kinesthetic (VAK) model.

The observation channel model or in other words the Visual-Auditory-Kinesthetic (VAK) model bases on the basic observation channels of human. The learning styles are divided into four categories; visual (verbal), visual (non-verbal), auditory and kinesthetic. Sometimes the word tactile is connected to the kinesthetic category changing the model name into Visual-Auditory-Kinesthetic-Tactile.

Learners with visual learning style learn best using their eye sight. Seeing and reading are described to be important for visual learners. For example, pictures, Tables, demonstrations, handouts, and mind maps are very useful for them. Especially lecture notes, textbooks and other written text is the most useful way of learning. It is easy to add those things in the learning environment and therefore it is easy to visually learning students to use and study in virtual environment. Thematic entities are important to this kind of learners.

The students who learn best through hearing (aurally) can find virtual learning useful if there are video clips, virtual lectures, and video conferences because listening and speaking are important for auditory learners. The clips can also be easily added to the environment. The learners with auditory learning style like to hear detailed directions. They learn things one at a time. Auditory learners benefit from listening to lectures and participating in discussions.

Kinesthetic learners learn best through feeling and experimenting. They prefer laboratory sessions or field trips over classroom lectures. These learners like to be involved with physical experiences; touching, feeling, holding, doing, and practical hands-on experiences.

TABLE 3. VAK learning styles in e-learning (Filppula 2006).

Learning style	Prefers in learning	Recommended e-learning activity
Visual, verbal	Text	E-books, lecture notes, articles.
Visual, non-verbal	Graphics, Tables	Figures, charts, Tables, maps, videos, animations.
Auditory	Sound	Group works, virtual lectures, sound samples, video conferences.
Kinesthetic	Practical related things	3D-models, hands-on tests with specific programs.

Table 3. shows how the VAK learning styles are to taken in to account in e-learning. For visual learners with verbal aspect Filppula (2006) suggests e-books, lecture notes and articles. Figures, charts, Tables, maps, videos and animations are recommended for the visual learners with non-verbal aspect in learning. The auditory learners prefer hearing in learning and therefore group work, virtual lectures, sound samples and conferences are helpful to them in the e-learning environment. For the kinesthetic learners e-learning gives the greatest amount of challenges

compared to other styles because there are no practical ways to perform things in VLE. Anyway some e-learning activities are recommended for them such as 3-D-models and hands-on tests with specific programs.

2-3- Learning Styles in e-Learning

Many researchers and scientists have dealt with the role and impact of cognitive and/or learning styles during the training process, but few focus on ICT-supported learning. The approach of Ross and Schulz (Mares, 2004) and the concepts of Gregory (2004) in the Czech education context were used to reflect the preferences of e-learning styles in the learning process. Mares was mainly looking into this field. He suggested that the World Wide Web needs to be adjusted to different styles of learning, such as sensory, social, and cognitive preferences and design (Mares, 2004):

- Visual website with static texts, images, graphs, animations, graphics, etc.
- Additive Web of lecture, music, conversation recordings,
- The kinesthetic Web, with practical activities and examples,
- Web adaptation reflected in independence, pair, and teamwork, to meet social preferences.

3-Students' engagement

E-learning is based on the autonomy of the learner and interactive learning activities (Liaw, Huang, & Cheng, 2007). The interaction between teachers and students results in student satisfaction and learning results (Moore, 2002). From this point of view, the development of a high level of e-learning commitment depends on interaction.

Michael Moore presented a simple yet influential taxonomy of the types of interactions in e-learning that can usefully characterize different types of student participation in online environments in an editorial for the American Journal of Distance Education in 1989:

- Learner-instructor interaction – 'the interaction between the learner and the expert who produced the learning material or a specialist who acts as a teacher (p. 2)
- Learner-Learner Interaction: "the interaction between a student and other students, alone or in a group, with or without an educator in real-time" (p. 3).
- Interaction between learner-content: This interaction between student and a certain text or artifact, or often didactical, is often, but not exclusively, didactic, (an article, documents, slides, audio recording, etc.)

A leading work of Diana Laurillard (2013), *Rethinking University Teaching*, in the past two decades in the field of pedagogical technology, presents the conversational framework which proposes that the dialogue of interaction and feedback among learners and teachers (i.e. the interaction between the teacher and the learner above) are central for education and learning. Generally speaking, productive learning happens when a teacher designs and offers the suitable material or activity to students who then engage in action and reflection. Learners react to material or activity, often directly to the teacher, based on their existing understanding. The teacher can then think about this and act on it before a new cycle or loop starts. The teacher may reintroduce the material or activity, fix the problem, or give students feedback. When it comes to student interaction and interaction, you can think of peer learning, group work, and so on.

3-1-Types of engagement in e-learning

Behavioral engagement in e-learning environments leads to interface manipulation through actions like clicking, browsing, sending, and scrolling. Cognitive engagement in e-learning environments leads students to consider and work on the learning material more profoundly.

Educational researchers argued that these types of commitment are not inherently or necessarily connected. In other words, by clicking on the subject site and reviewing the material (behavioral engagement), the student may engage with the subject online, but not deeply deal with it (cognitive engagement). Whilst these two types do not necessarily coexist, teachers can encourage and support behavioral and cognitive engagement through the design of their online learning environment and the activities that take place there. For example, if a student builds a concept map with an online tool (behavioral engagement), the student will be assumed to engage more closely at the level of cognition (for example through learning or cognitive 'organization' strategy). However, many topics are taught online, and they do not involve the 'learning' tasks of this kind. Many topics taught online need only be behavioral and relatively superficial. Some of the websites of the online course are certainly designed to ask students to access the material, to watch several videos, and to download articles offline. This is a minimalist way of e-learning that asks for "correspondence" and does not truly reflect a course site that provides students with a very interesting e-learning experience. This activity, which academic personnel and faculty do every day, is a process of design and is a development process: curricular design, student design, and evaluation tasks. The process is called curriculum design, education design, and learning design in educational settings.

The way teachers design and create student e-learning programs are based - implicitly or explicitly - on the concept, theory, or context of how students learn. The way educational theorists and researchers have changed in the second half of the twentieth century their thinking about how students learn. In practice, so-called "constructivist" or "student-centered" learning models were supported and adopted. This change is often marked by the fatigued aphorism that teachers need to shift their way from being a sage. The changes are often marked by the tired Aphorism about teachers having to move from being "a sage on the stage" to being "a leader on the side."

4- Challenges of E-Learning

While technological evolution now permits much that has not been thought possible to us, transition to e-learning is not as smooth as we wish, in particular, if it occurs suddenly unprepared as it occurred during the Covid 19 pandemic. Faced with digital learning pitfalls, teachers and students alike can be discouraging and frustrating.

4-1- Challenges of e-learning and the possible ways of addressing them

1. Time conflict makes group work difficult to schedule.
2. Networking is not supported and discussion groups and forums lack participation, which creates a barrier to the building of links with teachers and classmates. To create more contacts in groups more collaboration and flexibility in commitment are needed.
3. Expectations of the course are unclear and more resources and tools need structure and support.
4. The availability of an instructor is a barrier, as are slow answers and feedback.
5. There is too much reading in the course; forums are slow, and navigation takes a lot of time; lessons are repetitive; the course is difficult to navigate, poorly organized, and without a clear template; and the tools are not well informed.
6. Not suitable for all learning requirements.
7. Unclear grading.
8. Self-learning, organization, motivation, commitment, desire, and interest could constitute obstacles. Students often encounter problems with time management and study discipline.
9. Gadgets shortage and crash systems; not every student and teacher has an online learning gadget to use. Many of them should share computers and laptops with parents, brothers, and sisters.

10. Connectivity: The high rate of uses of online learning systems, video streaming software, and other digital tools makes millions of people around the world experience technical difficulties. The platforms overload: poor video and audio quality, problems with the internet. The Internet connection is unstable, or the current data plan is insufficient to meet the progressive e-learning requirements. The "Homework Gap" is a challenge for students in urban and rural areas alike.

11. Computer literacy: It is difficult for teachers, students, and parents, and no additional training is needed, to start using a learning management system or any other digital device. They could be overwhelmed by the amount of information they deal with and by the frustration of the unknown.

12. Privacy of data: From the start of the shutdown, teachers and students have been linked to each other through various digital tools with little regard for the amount or the nature of the personal information they collect. We had to ignore our privacy to achieve the main objective of a rapid transition to online learning, especially when large e-learning software providers offer temporary and free subscription plans.

13. Security: Covid-19 is a productive outbreak for cybercriminals as well as any other crises that unleash a wave of cyber-attacks. Keeping sensitive data out of robbery is a top priority for e-learning digital tools.

14. Isolation: This psychological factor still greatly affects the motivation and progress of the students. Students in the classroom used to instantly communicate with each other, allowing them to react together, to share the experience, to joke, to make non-verbal contact, and to strengthen their social competencies. A school was a kind of sanctuary for many students now taken away. Most feel isolated, afraid of the pandemic, job loss of parents, friend disconnection. It is not a surprise.

5- Quality of instruction and recourses

Online learning can be more challenging than discussions in individual classes. This increases the focus on the quality of education and resources. However, there is no consensus on how courses are designed online and guide quality education (Crouse, Rice, and Mellard 2018). This adds to the need for quality training and online learning resources. The rural and remote students reported isolating feelings arising from education quality as well as problems such as the lack of time-consuming and appropriate issues. Another effect on the system is the attrition to online courses leading to less trust and more isolation.

6-E-Learning Strategies

E-learning contributes to university development and development; it can provide online content for education programs, events, and courses. E-learning Strategies vary according to learners' skills, goals diversity, and decision-making. E-learning, i.e. how the learners are delivered, defines the strategies used. E-learning includes designing different learning strategies which achieve the targets, including various procedures; providing e-learning content that supports learners with high levels of skill and professionalism in achieving their educational goals.

Increasing the efficiency of education is linked to the ability of universities to use e-learning to better teaching and research. Scientific research has shown that the application of e-learning strategies can effectively help the education process to develop and improve communication between the parts of the education process and the research process.

As Resenbeg (2007) noted, we must realize when talking about electronic learning strategies that they originally resulted from general teaching strategies and that e-learning strategies are one of the most effective teaching forms. Online learning strategies are one of the best forms of education that greatly influence an educational facility's performance and effectiveness. It is a

model or plans to integrate the main goals of Internet teaching through a mentor in the organization of e-learning to access digital content.

6-1-The concept of e-learning strategies can be summarized as follows

A. The concept of e-learning strategies is not an e-learning term, but rather an integrated approach that improves teaching and research.

B. The application of the concept of e-learning strategies and programs, which contribute to the achievement of the goals and goals of dealers, is linked to universities' vision and missions.

C. The application of strategic programs and methods leads to satisfaction, which helps to enhance the capacity and performance willingness in universities.

D. Is the attraction and recruitment source for students who believe that the process of education is fun and easy for them, and helps them to innovate?

6-2-The objectives of e-learning strategies are

A. Helping faculty members and their employees prepare materials for students, make up for the lack of experiences, and offer them advanced skills.

B. Addresses, through virtually different classrooms, the lack of academic and training framework in certain fields and enables complete contact with the teacher and learner.

C. several tools are used. The new education system presupposes the different tendencies, attitudes, preparations, and desires of the learner and thus offers different ways to obtain information and tools in a variety that corresponds to the qualities of the learner.

D. Helps to achieve equal opportunities for learners to overcome time and distance barriers if the distance is provided by internet-based training such as e-learning.

E. Helps students to search for information through communication, online databases, and social media searching.

6-3- Types of e-learning strategies

There are several types of e-learning strategies:

- The e-learning lecture strategy offers facts and information in which the teacher is continuously working to develop educational content to meet the needs of the students and through multimedia e-learning such as the following: audio file or video file.

- E-learning (interactive private education strategies: the content of the courses is divided into several small modules that are linked with each other. The learner interacts with and is relying on them.

- Working groups (collaborative learning): Students work together to achieve an educational aim, like writing a research document, a research paper, or a web-based research concept. It is also designed to connect students with other teachers, educators, researchers, and scientists for suitable reasons.

- Electronic discussion: this is one of the most important teachings and communication tools for learning, allowing many of the goals through which students achieve the highest standards of knowledge, especially analysis, installation, and evaluation and students add to each other their personal experiences.

- E-Problem solving: To help students understand basic knowledge concepts to solve the educational problems they face, help them to guide their behaviors and skills, and use them in research.

- Electronic simulation of real reality, such as the depiction of a conciliator or a set of real situations that are difficult to study, discover, identify their outcomes because of their costs, achieve security, and eliminates danger.

- The process by which a computer-based, network, and multimedia-based interactive environment are created, and the apprentice can achieve the process objectives. It is a digital technique that is conducted solely through the dialogue between the teacher and the learner without

the involvement of other students, via bilateral Internet or e-mail discussions, the teacher presents problems and the teacher helps the student.

- Electronic project strategy: The possibility of using and utilizing web-based electronic tools for collaboration, participation in the completion of these projects, and use of all electronic resources is one of the most suitable strategies for preparing students.

- Electronic deployment strategy: the use of innovative hardware and systems, creativity, page preparation, and production of sample pages.

- E-learning Strategy: a teaching strategy or format which depends on the responsibility of the student with the teacher to take into account the forms and models of learning and decision-making this formula is discussed with the teacher's help until the student decides to learn.

- E-learning Collaborative Strategies: an interactive learning method that enables students to communicate with each other and partner with them, either in synchronous or asynchronous meetings, to consolidate their learning from e-planning. It has been classified by some e-learning specialists as strategies as follows:
 1. Electronic dumping
 2. Multimedia strategy and
 3. Scientific e-declaration
 4. Scientific e-experimentation
 5. Cooperative education
 6. E-Learning
 7. Self-education.

Conclusion

This chapter was devoted to check out the adaptation with e-learning which is determined by students' different learning styles that makes this operation easy for some and difficult for others, plus to their interaction that is seen in the learning results, which may differ, first because of the total reliance on teachers, or by the different obstacles, like the quality of the provided lectures, the unsupported networking, the absences of instructors' availability, and the existing e-learning strategies.

Chapter Two

Field work

methodology

The Methodology

Introduction

As mentioned earlier this mixed-methods study, aims to investigate EFL students' perception towards e-learning strategies during covid 19 pandemic. Therefore, learners' points of view are of great importance in providing data about this research. The following chapter presents the collected data about this research problem.

To achieve the aims of this study, we provided details in the methodology section about the research design, the rationale, and the methodology. In addition to the population description, the sampling strategy, data collection, and data analysis.

1-Research design

To begin with, Burns (2000) described the research as a systematic investigation. For Creswell (2008), research is “a process of steps used to collect and analyze information to increase our understanding of a topic or issue” (p 3). According to Mertens (2005) “The definition of research is influenced by the researcher's theoretical framework” (p2).

Taking into consideration our research aim and objectives, we opted for a mixed methods research. This methodology includes both quantitative and qualitative data within a single study (Classen et al., 2007). The quantitative research method deals with numbers and what is measurable in a systematic way of investigation of phenomena and their relationships. It is used to answer questions on relationships within measurable variables to explain, predict and control phenomena (Leedey, 1993). While Qualitative research according to Corbin and Strauss (2008), “allow

researchers to get at the inner experience of the participants, to determine how meanings are formed through and in culture, and to discover rather than test variables” (p. 12).

Mixed methods research focuses on collecting, analyzing, and mixing both data to provide a better understanding of research problems than either approach alone (Bian, n.d) because one data resource may not be enough, a second method is needed to enhance a primary method and initial results need to be further explained. It also provides a viable means for exploring the values and principles of a population, in conjunction with an analysis of determinants that occurs on the community or public level. According to (Creswell, 2013), there are three primary major designs in mixed-method research which are convergent parallel design mixed methods, explanatory sequential mixed methods, and exploratory sequential mixed methods. In consideration of the research questions, we have used a convergent parallel design.

2- Research approach

According to Creswell (2014):

A Convergent parallel mixed method is a form of mixed methods design in which the researcher converges or merges quantitative and qualitative data to provide a comprehensive analysis of the research problem. In this design, the investigator typically collects both forms of data at roughly the same time and then integrates the information in the interpretation of the overall results. Contradictions or incongruent findings are explained or further probed in this design (P.269).

Also, in consideration of the study aim and objectives we opted for a mixed-methods case study as well, Creswell and Plano Clark (2018) states that” a mixed-methods case study design is a type of mixed methods study in which the quantitative and qualitative data collection, results and integration are used to provide in-depth evidence for a case (p.116).

The case study will help us explore, investigate, discuss, and gain a better understanding of the problem.

3-Data Gathering tools

Tools used for gathering data are questionnaires and interviews since it's a mixed-method study. Before administration of the study, validation was done by our Supervisor. The questionnaire and interviews were self-designed, and approved by our supervisor.

3-1- Questionnaire

Some researchers use the questionnaire method to collect the required data which provides a way of gathering structured and unstructured data from respondents in a standardized way. Often, data collected are numerical (a measurement) or can be represented numerically (ranked in order of preference for example) and can thus be analyzed using statistical techniques. Self-completion questionnaires are also a cost-effective way of collecting data from a large number of widely dispersed participants, particularly if postage costs can be avoided by, for example asking individuals, such as teachers or employers to supervise the completion of questionnaires by groups that is applied by this study.

According to Wilson, (2010), the advantages of using a questionnaire are as follows:

- They allow obtaining accurate information
- They provide a cost-effective and reliable means of gathering feedback that can be qualitative as well as quantitative
- A survey questionnaire can provide accurate and relevant data through thoughtful design, testing, and detailed administration (McClelland, 1994).

A well-produced questionnaire is capable of generating effective and accurate data. To facilitate the collection of accurate information, the researcher needs to take into account two key issues. First, an appropriate set of questions needs to be included within the main body of the questionnaire. Second, the questionnaire must be aimed at the right target audience. A poorly selected sample can lead not only to a set of biased results but also to a high non-response rate. Ultimately, this will have implications for research analysis. Questionnaires often have a combination of question types and collect data on facts, attitudes, and beliefs. Questions can be direct or indirect. Attention must be given to the wording of the questions themselves to maximize reliability.

After survey development, a pilot survey (testing it via a test for a limited number of individuals who are similar to the sample) might be carried out:

- To determine the required sample size for the actual survey
- To improve the questionnaire through detecting errors and limitation of the questionnaire before the conduct of the actual survey.

The main purpose of the pilot study is to verify whether respondents can understand and answer all the questions. After revision and correcting the errors, an actual survey can be conducted to collect the data.

The questionnaire consists of 10 close-ended questions along with a Likert scale consisting of 10 statements was based on: 1-Strongly agree, 2-Agree, 3-Disagree, 4-Strongly disagree.

3-2- Interviews

As for the interview, it consisted of 7 open-ended questions to deepen the understanding of about students' perceptions towards E-learning strategies during Covid-19.

This qualitative method was designed to help the researchers to understand the students' perceptions towards e-learning strategies during the covid 19 pandemic, which is kind of difficult

to explain in quantitative terms. The qualitative method is the best way to explore more thoroughly the participants' experiences, attitudes, and beliefs, as it does not regard facts as objective, but as a subjective reality related to differences in each individual (Creswell 2014). Moreover, it is a helpful method to achieve the research objectives smoothly, as highlighted by (Creswell 2014). One of the advantages of the qualitative method in this study is to explore information from participants to generate the said case study rather than just list numeric data. Therefore, this approach allowed the researchers to connect with students and faculty members who are currently dealing with the eLearning systems in Algerian universities, specifically abbes Laghrour university of Khencchela. Furthermore, the qualitative approach further allowed the researchers to a deeper understanding of the main factors that affect the e-learning system adoption in Jordanian universities, along with the major challenges that e-learning adoption faces. Thus, this could also yield enough information to answer the research questions.

This study applied a structured interview method to collect the data. The semi-structured interview consisted of more specific questions emerging from the main research questions. During the structured interview, the researchers did not follow a formalized list of questions, but instead, they had a list of general topics called an interview guide. Furthermore, the semi-structured interview was conducted in two-way communication by exchanging questions between both the interviewer and interviewees during the interview session. Thus, this method allowed the researchers for more conversational interaction, permitting them for a greater amount of data to be gathered.

The qualitative data obtained during the interview was analyzed using the thematic analysis technique. The main purpose of this method is to capture something important from the data collected concerning the research question. It can be used to generate better insights and findings

(Denscombe 2010). Once data from the interview have been collected, the next stage involves analyzing them.

The target population for this study was Master one EFL students of Abbes Laghrour university- Khenchela. The population was chosen because of its availability and its representation of a reliable source of knowledge, also they had any experience with e-learning (Google classroom...) and finished 2 semesters using it.

The population size was $N=144$, and The sample as a result to the quarantine period imposed successive to covid-19, which coincided squarely with the practical fieldwork time span, the sample of this study was selected as follows according to cohen (2000), the sample size for the questionnaire was determined :103 Student, while for interview was specified as 12 students according to Clarck (2015).

4-Aims of the Questionnaire and interview

This questionnaire mainly is designed to gather the numerical data and to investigate students' perceptions towards e-learning during covid 19 pandemic, while the interview was for the in-depth information about the research problem.

5-Data Analysis

questionnaires and interviews were conducted, and a pilot study was run on 10 students for the questionnaire), and 3 students (for the interview), to check reliability. The data from students' closed-ended questionnaire was statistically computed to find out the percentage of each question/statement and then was interpreted descriptively. Interview data were all transcribed and analyzed for repeating key features which were related to the use of e-learning during Covid-19 using thematic analysis.

The reappearing of a particular perception can be assumed as the participants' concern towards the issue. The data from the questionnaire and interview were used to provide a description

of students' perception of the use of e-learning strategies during the pandemic and the challenges faced or felt by students in the English teaching and learning process (EFL), knowing that total of 95 students (for the questionnaire), and 12 students (interviews) participated in the study.

6-Results Obtained from The Questionnaire

Question 1:

Table 4: Percentages of student's self-motivation and ability to learn independently.

Options	Yes	No
Parentages	45%	55%

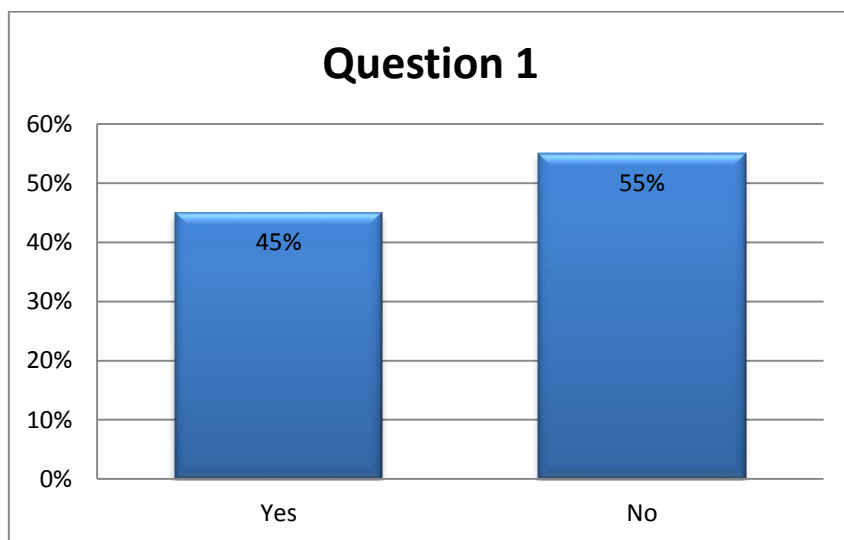


Figure 1: Percentages of student's self-motivation and ability to learn independently.

Figure 1 show clearly that 55% of students are not able and self-motivated to learn independently. While 45% of students claimed that they are self-motivated and able to learn by independently.

Question 2:

Table 5: Percentages of how students feel overall about e-learning (electronic learning, distance learning...).

options	Good	Average	Poor
Percentages	11%	26%	60%

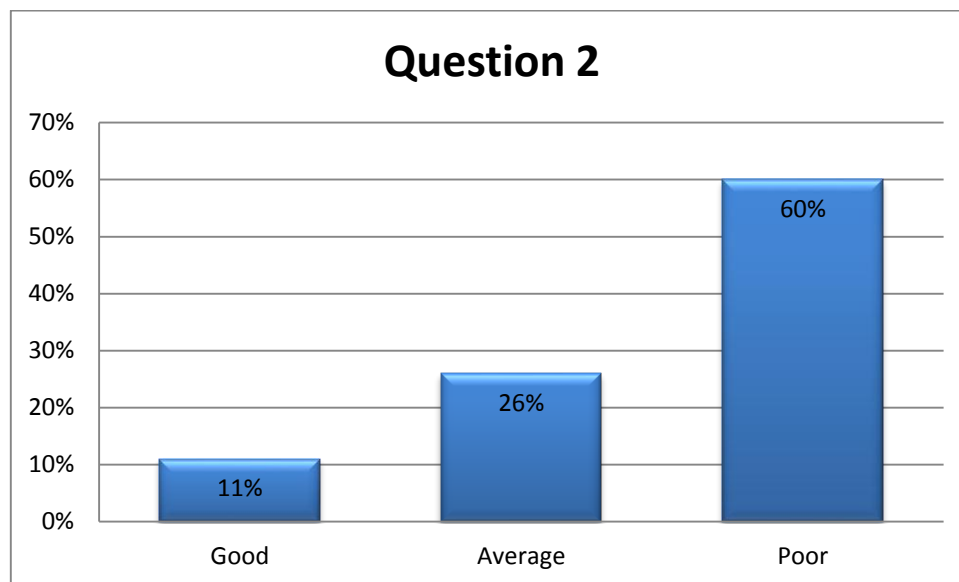


Figure 2: Percentages of how students feel overall about e-learning (electronic learning, distance learning...).

Ultimately, figure 2 illustrates how students feel overall about e-learning. As many as 62% of students claimed that e-learning was poor, 26% claimed it was average, while 11% only said it was good.

Question 3:

Table 6: Percentages of students' familiarity with using platforms like; Google Classroom, E-mail...

Options	Yes	No
Percentages	88%	12%

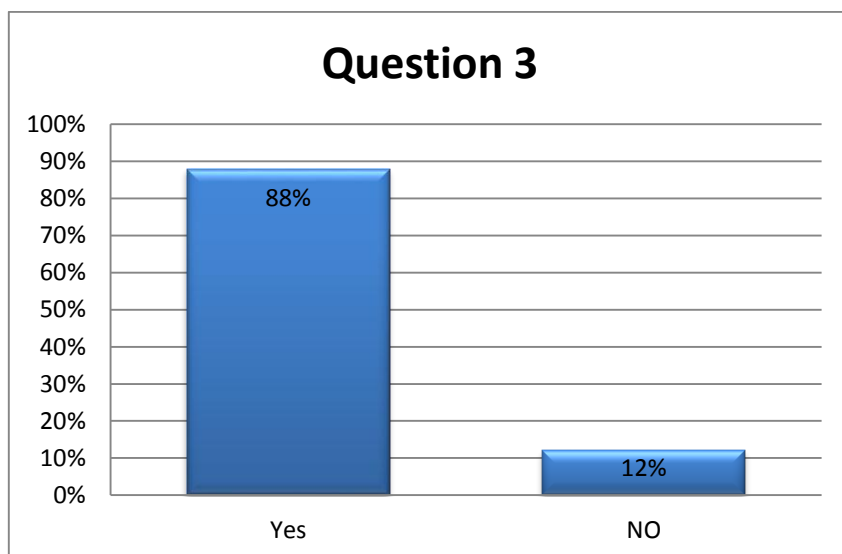


Figure 3: Percentages of students' familiarity with using platforms like; Google Classroom, E-mail...

In terms of learning platforms used in e- learning, Figure 3 clearly shows that 88% of students are familiar with using platforms like; Google Classroom, and E-mail, while 12% claimed that they aren't familiar with using these platforms.

Question 4:

Table 7: Percentages concerning having high speed Internet at home.

Options	Yes	No
Percentages	10%	90%

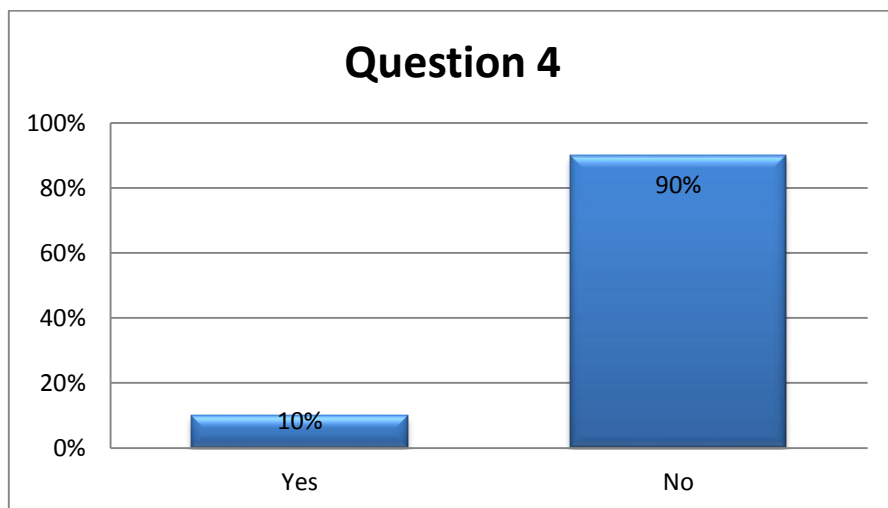


Figure 4: Percentages concerning having high speed Internet at home.

As of the speed of the internet connection gained by the students are shown in figure 4. Overall, it seems that the internet wasn't stable and reliable enough for most of the students for e-learning. More than a half of the sample, 90% precisely, said that they had poor internet connection for online learning, while 10% only said that they have high speed Internet at home.

Question 5:

Table 8: percentages of having access to a device for e-learning.

Options	Yes	No
Percentages	89%	11%

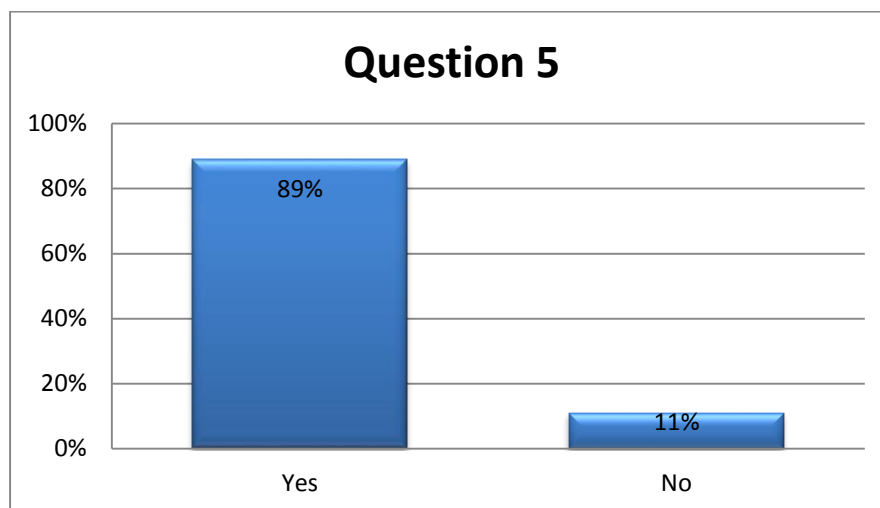


Figure 5: percentages of having access to a device for e-learning.

Although 89% claimed that students have access to a device of e-learning, few students (11%) don't have devices supporting for online learning such as laptops, desktops, Smartphone...

Question 5-a:

Table 9: Percentages of what device students use.

Options	Smartphone	Laptop	Tablet	Desktop
Percentages	47%	30%	8%	3%

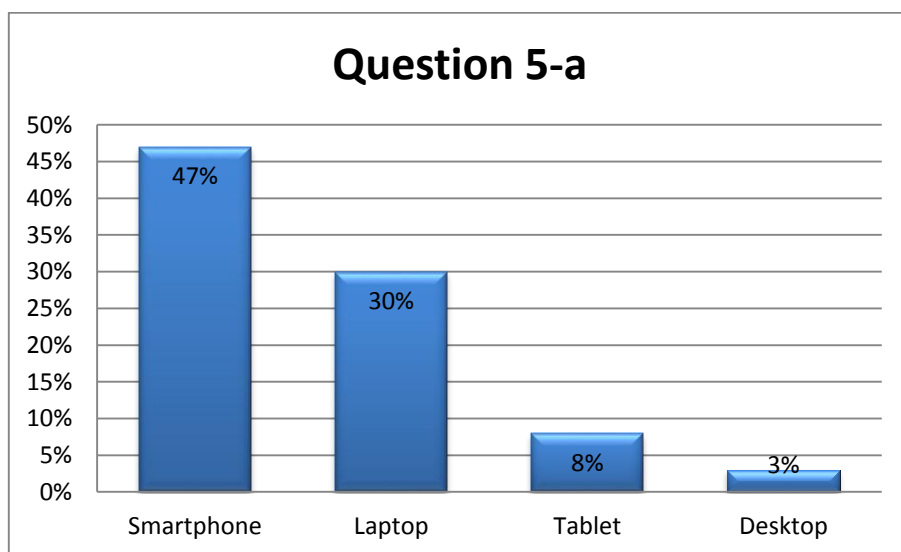


Figure5-a: Percentages of what device students use.

As figure 5-a show, 47% of students use Smartphone for e-learning, 30% uses Laptop, while 8% of them use Tablet, and Only 3% of them use Desktop.

Question 6:

Table 10: Percentages of how much time students spend each day on average on e-learning.

Options	1-3 Hours	3-5 Hours	5-7 Hours	+7 Hours
Percentages	68%	10%	4%	3%

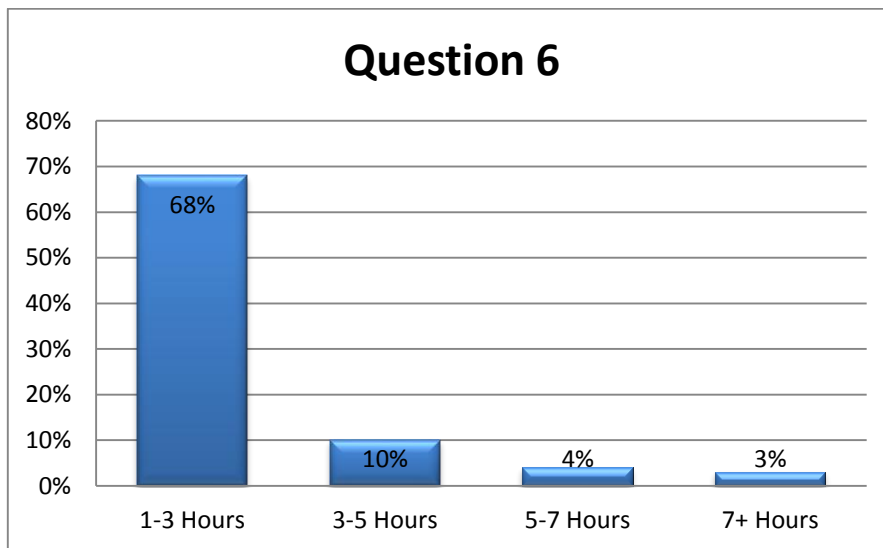


Figure 6: Percentages of how much time students spend each day on average on e-learning.

As the results show in figure 6, a percentage of 68% of students claimed that they spent 1-3 hours on average on e-learning, while 10% of them said they spent 3-5 hours, others (4%) said they spent 5-7 hours, and only 3% of the students claimed that they spent +7 hours.

Question 7:

Table 11: Percentages of how effective has e-learning for students during covid-19 pandemic.

Options	Very effective	Moderately effective	Slightly effective	Not effective
Percentages	6%	9%	21%	63%

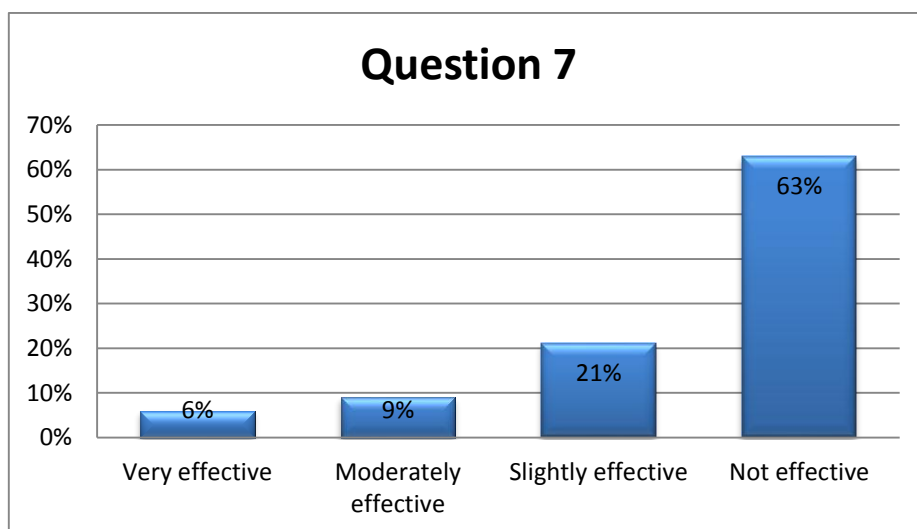


Figure 7: Percentages of how effective was e-learning for students during covid-19 pandemic.

The implementation of e-learning amid COVID-19 did not result in a positive outcome in terms of effectiveness. Figure 7 reveals that more than a half of the sample (64%) said e-learning wasn't effective, as many as 21% said it was slightly effective, and as a matter of fact the rests (9%) stated it was moderately effective, while only 6% claimed it was effective.

Question 8

Table 12: Percentages of how helpful students' Department and Teachers have been while studying (e-learning).

Options	Very helpful	Slightly helpful	Moderately helpful	Not helpful
Percentages	5%	21%	10%	63%

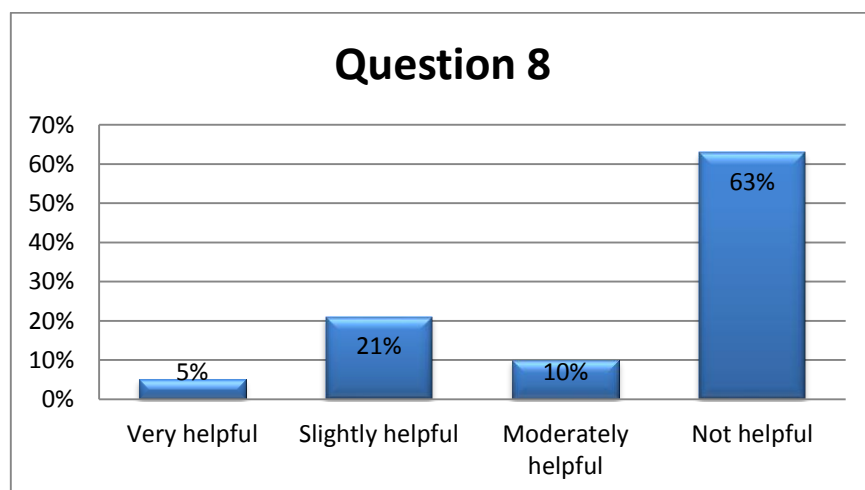


Figure 8: Percentages of how helpful students' Department and Teachers have been while studying (e-learning).

As Figure 8 shows below, 5% of students claimed that their department and teachers weren't helpful, while 10% said they were moderately helpful, 21% said they were slightly helpful, but 63% of students claimed *that* their departments and teachers were not helpful.

Question 9:

Table 13: Percentages concerning lack of Customization/Adaptability of course content according to students' requirements during Covid-19 pandemic.

Options	Yes	No
Percentages	94%	6%

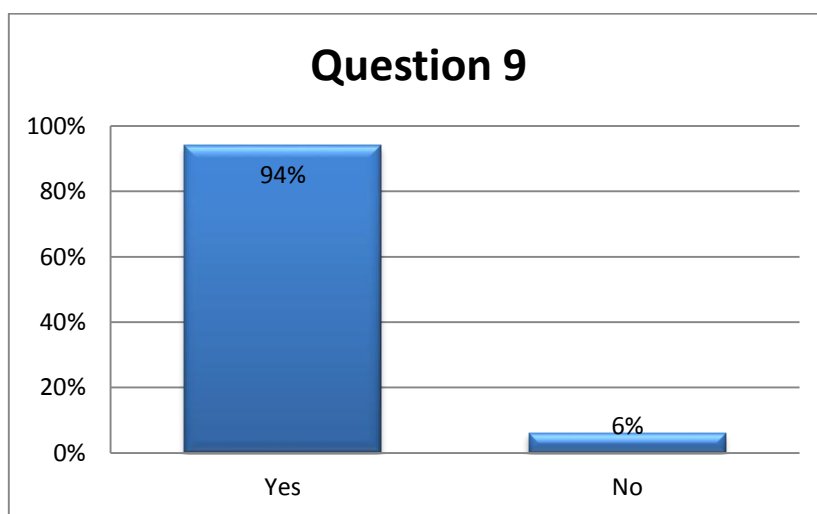


Figure9: Percentages concerning lack of Customization/Adaptability of course content according to students' requirements during Covid-19 pandemic.

To tackle some of the problems concerning e-learning strategies, students were asked were there a lack of Customization/Adaptability of course content according to students' requirements during Covid-19 pandemic. The results in Figure 9 show clearly that 94% of student agreed that there was a lack of adaptability of course content, while only 6% claimed there wasn't.

Likert scale

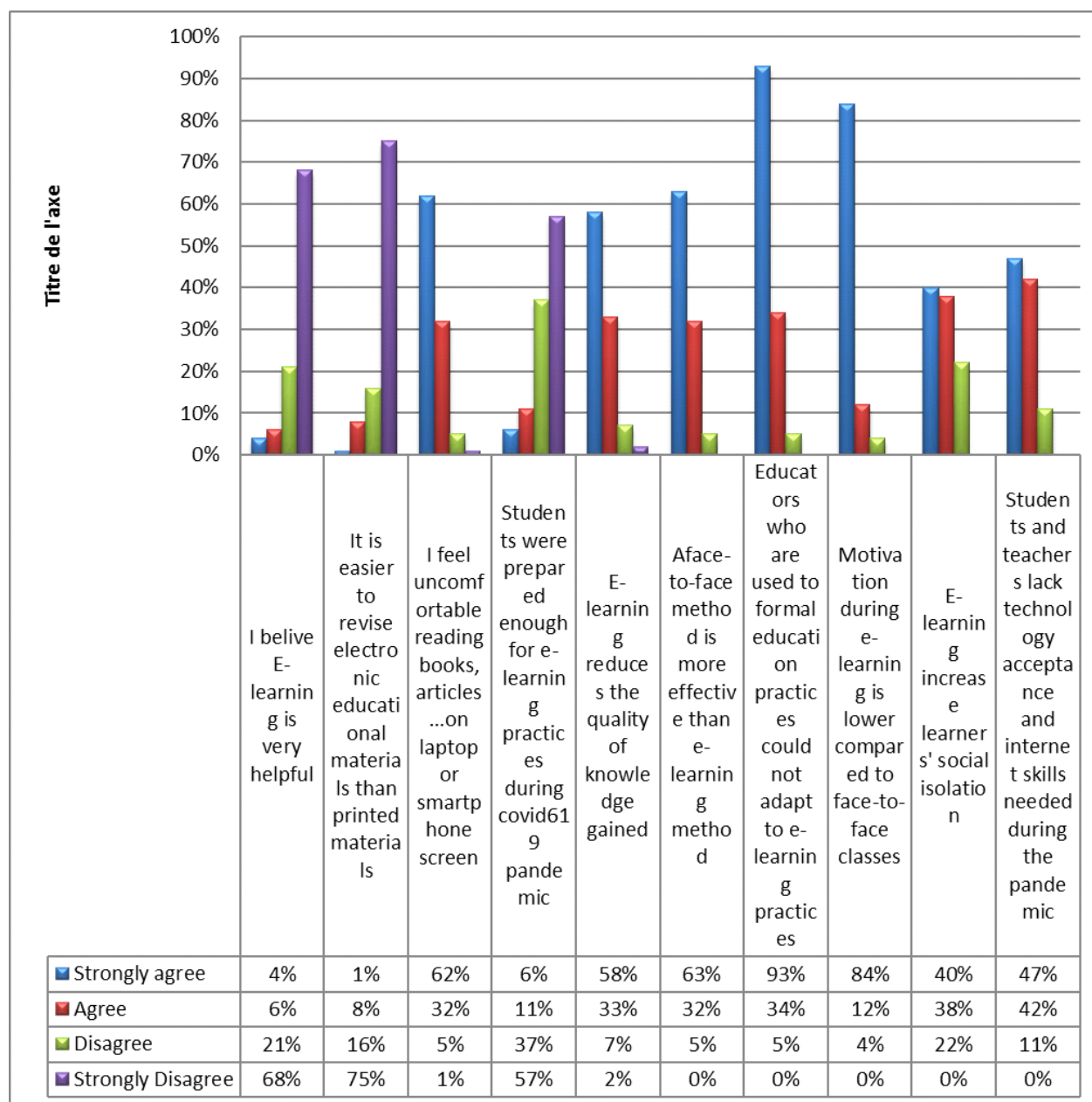


Figure 10: Likert scale analysis

Statement 1:

As figure 10 shows, it can be seen that only 4% of the students strongly agreed that e-learning is very helpful, 6% choose agree, on the other hand 21% choose disagree, while 68% of

the students strongly disagreed. As a result, it can be said that most students believe that e-learning wasn't helpful.

Statement 2:

From figure 10, it can be seen that only 1% of students strongly agreed that it is easier to revise electronic educational materials than printed materials, 8% of them just agreed, 16% of the students choose disagree, while more than half of them (75%) choose strongly disagree. It can be concluded that revising electronic educational materials isn't that easy for all students, which make them prefer printed materials.

Statement 3:

As for reading books, articles...on Laptop or Smartphone screen, 62% of students strongly agreed that it's uncomfortable, 32% of the students agreed, while 5% disagreed, and only 1% of them strongly disagreed. As a final thought, it can be concluded that the majority of the students feel uncomfortable reading from online books, articles, using Laptop, Smartphone screen.

Statement 4:

It can be seen in figure 10 that only 6% of students strongly agreed that students were prepared enough for e-learning practices during Covid-19 pandemic, 11% agreed, unlike 37% of them who disagreed, while 57% strongly disagreed that students were prepared enough. As the results show, the majority of the students see that students weren't prepared enough for e-learning practices during Covid-19.

Statement 5:

Figure 10 shows that 58% of students strongly agreed that e-learning reduces the quality of knowledge gained, 33% agreed, while 7% disagreed, and only 2% of students strongly disagreed. Based on the results it can be said that most of the students agree that e-learning reduces knowledge gained.

Statement 6:

According to the results shown in figure 6, a percentage of 63% of students strongly agree that face-to-face method is more effective than e-learning method, while about 32% of them choose agree, and only 7% disagreed. By looking to the results it can be concluded that most of the students find face-to-face method more effective than e-learning method.

Statement 7:

From figure 7 it can be seen that 52% of students strongly agreed that educators who are used to formal education practices could not adapt to e-learning (teaching/learning) practices. About 32% choose agree, and only 5% of them disagreed. As a conclusion, it can be said that educators faced some obstacles dealing with e-learning practices.

Statement 8:

as can be seen in figure 10, about 84% of the students strongly agreed that motivation during e-learning is lower compared to face-to-face, while 12% just choose agree, and only 4 % students disagreed. As a result, it can be concluded that motivation during e-learning is lower compared to face-to-face classes.

Statement 9:

According to figure 10, 40% of students strongly agreed that e-learning increase learner's social isolation, while 39% choose agree, and about 22% disagreed. It can be concluded that e-learning effects and increases student's social isolation.

Statement 10:

The last statement states that students and teachers lack technology acceptance and internet skills needed during the pandemic. Students answered as the following; 47% of them choose strongly agree, 42% of them choose agree, and only 11% choose disagree.

7-Results constructed from the Interviews

In this part, a qualitative research is conducted, based on semi- structured interviews. The popularly used interview technique employed in qualitative interviewing is the semi-structured interview, where a schedule is prepared but it is sufficiently open-ended to enable the contents to be re-ordered, digressions and expansions made, new avenues to be included, and further probing to be undertaken. Carspecken (1996:159–60) describes how such interviews can range from the interviewer giving bland encouragements, 'non-leading' leads, active listening and low-inference paraphrasing to medium- and high-inference paraphrasing. In interviews the researcher might wish to explore further some matters arising from the observations. In naturalistic research the canons of validity in interviews include: honesty, depth of response, richness of response, and commitment of the interviewee (Oppenheim, 1992). Lincoln and Guba (1985:268–70) propose several purposes for interviewing, including: *present constructions* of events, feelings, persons, organizations, activities, motivations, concerns, claims, etc.; *reconstructions* of past experiences; *projections* into the future; *verifying, amending and extending data*. Further, Silverman (1993:92–3) adds that interviews in qualitative research are useful for: (a) gathering facts; (b) accessing beliefs about

facts; (c) identifying feelings and motives; (d) commenting on the standards of actions (what could be done about situations); (e) present or previous behavior; (f) eliciting reasons and explanations.

The qualitative interview tends to move away from the pre-structured, standardized form and toward the open-ended or semi-structured interview (see Chapter 15), as this enables respondents to project their own ways of defining the world. It permits flexibility rather than fixity of sequence of discussions, and it also enables participants to raise and pursue issues and matters that might not have been included in a pre-devised schedule (Denzin, 1970; Silverman, 1993). (Cohen, Manion and Morrison 2000)

In this study we conducted a face to face interview with 12 master (1) EFL students who have dealt directly with the e-learning experience during the covid 19 pandemic. This qualitative method was designed to help the researchers to understand the students' perceptions towards e-learning strategies during covid 19 pandemic, which is kind of difficult to explain in quantitative terms (Myers and Avison 2002). Qualitative method is the best way to explore more thoroughly the participants' experiences, attitudes and belief, as it does not regard facts as objective, but as a subjective reality related to differences in each individual (Creswell 2014). Moreover, it is a helpful method to achieve the research objectives in a smooth way, as highlighted by (Creswell 2014).

One of the advantages of the qualitative method in this study is to explore information from participants in order to generate the said case study rather than just list numeric data. Therefore, this approach allowed the researchers to connect with students and faculty members who are currently dealing with the eLearning systems in Algerian universities, specifically abbes Laghour university of Khencchela. Furthermore, the qualitative approach further allowed the researchers to deeper understanding about the main factors that affect the e-learning system adoption in Jordanian

universities, along with the major challenges that the e-learning adoption faces. Thus, this could also yield enough information to answer the research questions.

This study applied semi-structured interview method to collect the data. The semi-structured interview of this study consisted of more specific questions emerging from the main research questions and continue in the same pattern with the selected participants. During the structured interview, the researchers did not follow a formalized list of questions, but instead, they had a list of general topics called an interview guide. Furthermore, the semi-structured interview was conducted in two-way communication by exchanging questions between both the interviewer and interviewees during the interview session. Thus, this method allowed the researchers for a more conversational interaction, permitting them for a greater amount of data to be gathered.

The qualitative data obtained during the interview was analyzed using the thematic analysis technique. The main purpose of this method is to capture something important from the data collected in relation to the research question. It can be used to generate better insights and findings (Denscombe 2010). Once data from the interview have been collected, the next stage involves analyzing them.

8-What is a Thematic Analysis?

Thematic Analysis is a type of qualitative analysis. It is used to analyze classifications and present themes (patterns) that relate to the data. It illustrates the data in great detail and deals with diverse subjects via interpretations (Boyatzis 1998). Thematic Analysis is considered the most appropriate for any study that seeks to discover recurrent patterns using interpretations. It provides a systematic element to data analysis. It allows the researcher to associate analysis of the frequency

of a theme with one of the whole content. This will confer accuracy and intricacy and enhance the research's whole meaning.

The thematic analysis allows the researcher to determine precisely the relationships between concepts and compare them with the replicated data. By using, thematic analysis there is the possibility to link the various concepts and opinions of the learners and compare these with the data that has been gathered in a different situation at different times during the project. All possibilities for interpretation are possible.

8-1-A six-phase approach to thematic analysis

The six phases in our approach to TA (Braun & Clarke, 2006) are outlined and illustrated using worked examples throughout.

Phase 1: Familiarizing yourself with the data

Common to all forms of qualitative analysis, this phase involves *immersing* yourself in the data by reading and re-reading textual data (e.g., transcripts of interviews, responses to qualitative surveys), and listening to audio recordings or watching video data. Use whatever format works for you (e.g., annotating transcripts, writing comments in a notebook or electronic file, underlining portions of data) to highlight items potentially of interest. Note-making helps you start to read the data *as* data. Reading data as data means not simply absorbing the surface meaning of the words on the page, as you might read a trashy novel or magazine, but reading the words actively, analytically, and critically, and starting to think about *what the data mean*.

Phase 2: Generating initial codes

Phase 2 begins the systematic analysis of the data, through coding. Codes are the building blocks of analysis: if your analysis is a brick-built house with a tile roof, your themes are the walls and roof and your codes are the individual bricks and tiles. Codes identify and provide a label for a feature of the data that is potentially relevant to the research question). Coding can be done at the

semantic or the latent level of meaning. Codes can provide a pithy summary of a portion of data, or describe the content of the data – such descriptive or semantic codes typically stay very close to the content of the data, to the participants’ meanings. Codes can also go beyond the participants’ meanings and provide an *interpretation* of the data content. Such interpretative or latent codes identify meanings that lie beneath the semantic surface of the data.

Phase 3: Searching for themes

In this phase, your analysis starts to take shape as you shift from codes to themes. A theme “captures something important about the data in relation to the research question, and represents some level of *patterned* response or meaning within the data set” (Braun & Clarke, 2006, p. 82). Some qualitative researchers refer to ‘themes emerging from the data,’ as if their dataset was a pile of crocodile eggs, and analysis involved watching the eggs until each baby crocodile (theme) emerged, perfectly formed, from within. If only it were so easy. Searching for themes is an *active* process, meaning we generate or construct themes rather than discovering them. Although we call this phase ‘searching for themes’, it’s not like archaeologists digging around, searching for the themes that lie hidden within the data, pre-existing the process of analysis. Rather, analysts are like sculptors, making choices about how to shape and craft their piece of stone (the ‘raw data’) into a work of art (the analysis). Like a piece of stone, the dataset provides the material base for analysis and limits the possible end-product, but many different variations could be created when analyzing the data.

This phase involves reviewing the coded data to identify areas of similarity and overlap between codes: identify any broad topics or issues around which codes cluster? The basic process of generating themes and subthemes, which are the subcomponents of a theme, involves collapsing or clustering codes that seem to share some unifying feature so that they reflect and describe a coherent and meaningful pattern in the data.

Phase 4: Reviewing potential themes

This phase involves a recursive process whereby the developing themes are reviewed in relation to the coded data and the entire dataset. Essentially about quality-checking, it is particularly important for novice researchers, and for working with very large datasets, where it is simply not possible to ‘hold’ your entire dataset in your head. The first step is to check your themes against the collated extracts of data and explore whether the theme ‘works’ in relation to the data. If it doesn’t, you might need to discard some codes or relocate them under another theme; alternatively, you may redraw the boundaries of the theme, so that it more meaningfully captures the relevant data.

Once you have a distinctive and coherent set of themes that work in relation to the coded data extracts, you should undertake the second stage in the review process – reviewing the themes in relation to the entire dataset. This involves one final re-read of all your data to determine whether your themes meaningfully capture the entire dataset, or an aspect thereof. What you’re aiming for is a set of themes that capture the most important and relevant elements of the data, and the overall tone of the data, *concerning your research question*. If your thematic map/set of themes provides this, good. You can move to the next phase

Phase 5: Defining and naming themes

In defining your themes, you need to be able to clearly state what is unique and specific about each theme – whether you can sum up the essence of each theme in a few sentences is a good test of this.

Phase 6: Producing the report

While the final phase of analysis *is* the production of a report such as a journal article or a dissertation, it’s not a phase that only begins at the end. Unlike in quantitative research, we don’t complete our analysis of the data and *then* write it up. Writing and analysis are thoroughly

interwoven in qualitative research – from informal writing of notes and memos to the more formal processes of analysis and report-writing. The purpose of your report is to provide a compelling ‘story’ about your data, based on your analysis. The story should be convincing and clear, yet complex and embedded in a scholarly field.

8-2-Thematic findings

- **This section includes the thematic findings that lead to the identification of the students’ perception towards e-learning strategies during covid 19 pandemic**

1- One e-learning strategy that has been used

As noted by the interviewees, the interviewees agreed that the only e-learning strategy that has been used during this pandemic was the electronic lectures which are away is a way to provide facts and information where the teacher through this strategy to work continuously on the development of educational content to suit the needs of students and can be provided through multimedia e-learning such as audio files, or video files ... etc.

Their feedbacks concerning this strategy were negative because it was not enough for them to understand all the lessons, they needed as an example Working groups (collaborative learning) strategy and teacher-student interaction like in the zoom app.

2-The first e-learning experience

All interviewees confirmed that this covid 19 pandemic e-learning use was their first experience (last year and this year), they pointed out that they did not like this experience, and that it was not easy as they expected, because they could not interact with teachers, also they have not the ability to understand their lessons by themselves.

3- Access to e-learning courses

All respondents agreed that: “The current e-learning systems are experiencing some potential hurdles regarding accessibility, availability, and usability, especially for those who have

less knowledge of the internet.” and shared the same perceptions of this factor and advised the universities to look into it seriously, as it could create an obstacle in its implementation and adoption by many students.

Interviewees agreed that the online courses were not adequate, they needed to go for further researches to understand the course, also they declared that they faced e-learning system technical issues because they were not prepared before with the electronic skills they may use in e-learning during this pandemic, in addition to the instructors' who were not welcoming students comments and questions all the time this what left the students confused.

4- The e-learning challenges during this pandemic

All interviewees agreed that they have faced obstacles and challenges during this pandemic usage of e-learning, concerning the problems of the device, not all the students had a device to study online, like computers and smartphones...etc., some students also had the electronic devices but they had no internet.

Conclusion

This chapter is concerned with the main results obtained from students' questionnaire, and interview, the finding proved that the master one EFL students' had passive perceptions towards e-learning strategies during covid 19, and this was because of several issues, as such as:

- Students and teachers lack of technology acceptance
- Students use to work with the traditional way of learning which is preferable to them
- Students prefer the printed educational materials
- The unavailability of all e-learning strategies, the electronic devices and internet.

General Conclusion

General Conclusion

Although it is too early to judge how reactions to COVID-19 will affect education systems around the world, there are signs suggesting that it could have a lasting impact on the trajectory of learning innovation and digitization.

The present study is conducted to find out master one EFL students' perceptions toward e-learning strategy during covid 19 pandemic and to provide specific recommendations and best practice for future application of online distance learning. Since Khenchela and Algerian universities decided to integrate online distant learning for the present covid circumstance.

The findings of this study are meant to answer the research questions, and to figure out the challenges and obstacles that EFL students faced using e-learning strategies during Corona Virus pandemic.

In order to offer a better understanding for this research problem, this study is divided into two main parts: a theoretical part, in which a full review of the related literature has been presented, and a practical part which was devoted for detailing the different stages of the gathered data, from data tools, design, and collection to analysis and explaining the different procedures done within this study. To gather relevant data for this study, a questionnaire for 103 was submitted and an interview has been done for 12 master one EFL students.

The outcomes have showed that master one EFL students' perceptions towards e-learning during covid 19 pandemic are passive, and denied the fact that adopting e-learning during this pandemic is the appropriate solution to carry on the process of learning, which is displayed in the issues experienced by the students during online practices in COVID-19 pandemic at Khenchela university ,among which the limited strategy option , learners have dealt with the electronic

lectures e-learning strategy that what caused a problem of the understanding of all the courses , lack of educator-student interaction, not being able to make a reliable assessment of learning, lack of knowledge about how to evaluate the learners' knowledge and skills, , not being able to reach all the learning outcomes determined for learning, difficulty in providing feedback to students, difficulty in teaching according to the individual interests and abilities of the students, lack of student motivation, also the students have chosen the face –to face way of teaching ,where they use printed educational materials over the new way ,because of their total independency on teachers , in addition to this students were facing technological matters concerning the difficulty of access to online lectures , and the absence of internet connection, and the unavailability of electronic devices ,the thing that it could be obtained is students declarations that e-learning was not helpful for them during this pandemic because it was their first experience, and that they were not prepared for a step like this.

Thus why we think that some measures must be taken against a potential outbreak in the future because we may go back to teaching online in case of a pandemic like COVID-19. According to students , the measures to be taken in education are enhancing network capacity, internet speed, information technology, supporting students ' competencies related to online learning environment, training teachers and learners to use online learning management systems, guaranteeing every student's access to the internet or other necessary equipment, organizing special trainings about getting ready for another potential outbreak in the future, dynamizing teacher , student and parent cooperation, placing more emphasis on teaching real-life problem-solving skills, revising the curricula and making it more effective, integration of the topics related to self-care, health, hygiene etc. into the curriculum content more, making effective plans for extraordinary conditions in the future by the educational decision makers.

Limitation of the study

The present study comes across some difficulties that limit the estimated achievements such as:

- One of the limitations of the study is that the sample population has been drawn from a single department (English department) and a single level (Master 1).
- We could not reach the whole number of the sample size of (for the questionnaire only, unlike the sample size of interview that was achieved), the master one students whole number is 144 (the population) we supposed to work with the sample size of 103 for questionnaire according to Cohen, L. & Manion, L. & Morrison, K. (2000). Research methods in education (5th ed.). the sample size in Box 4.1, (p 93), but due to covid19 pandemic circumstances, we could not reach the whole number this why we worked with 95 students only instead of 103 as a sample size).

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Appendix



Master's Dissertation Questionnaire Research:

EFL Students' Perceptions towards E-learning Strategies during Covid-19 Pandemic:

- We are conducting this study to investigate master 1 EFL students' perceptions towards E-learning strategies during Covid- 19 pandemic at Abbess Laghrou University.
- The questionnaire consists of 9 questions plus the Likert scale that will take no longer than 10 minutes to complete, all responses will be kept anonymous and no one will be identifiable in the research.
- Please tick (✓) the box provided to show your consent to be part of the research, thank you for your cooperation.
- E- learning refers to the application of using electronic assets in teaching learning process, which includes is the use of ICT i.e. internet, computer, mobile phone, Learning Management System (LMS), Television, Radio, CD-ROM.....

1. Are you self motivated and able to learn independently?

Yes

No

8. How helpful are your Department and teachers while studying (e-learning)?

Very helpful slightly helpful

Moderately helpful Not helpful

9- Where there a Lack of Customization/Adaptability of course content according to students' requirements during Covid- 19 pandemic?

Yes No

- For each statement, put a tick (✓) to show your level of agreement; strongly Disagree, Disagree, Agree, and Strongly Agree. Do not tick across two boxes.

	Statements	Strongly agree	Agree	Disagree	Strongly disagree
1	-I believe E-learning is very helpful.				
2	-It is easier to revise electronic educational materials than printed materials.				
3	I feel Uncomfortable readings books, articles...				

	on a laptop or Smartphone screen.				
4	- Students were prepared enough for e-learning practices during covid-19 pandemic.				
5	- E-learning reduces the quality of knowledge gained.				
6	- A face-to-face method is more effective than E-learning method.				
7	-Educators who are used to formal education practices could not adapt to e-learning (teaching/learning) practices.				
8	-Motivation during e-learning is lower compared to face-to-face classes.				

9	-E-learning increase learners' social isolation.				
110	-Students and teachers lack technology acceptance and internet skills needed during the pandemic.				

Interview Questions

1-First, let us talk about your experience with the first e-learning (online/distance) course, when was that?

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-Now, let's talk about courses during the pandemic, what was your experience with that first e-learning course? Was it like you expected?

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2- I am sure that there are courses you enjoyed and some that you did not. Can you tell me about one course you liked and one you didn't like and why?

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3-Having taken so many e-learning (online/distance) courses within a short period of time, how would you describe your learning experiences?

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4-Please tell me about your e-learning content delivery –was the strategy of electronic lectures enough for you as a student to understand all the lectures perfectly, or you were in need for further e-learning strategies?

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- Do you find it easy to access e-learning course information?

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- Do you perceive the e-learning/online course information to be adequate, why or why not?

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5-Does the e-learning system provides you with the content or the information you need or do you have to go for further researches during the pandemic use?

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6-Do instructors welcome your questions and comments?

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7- Now tell me about your interaction with other students in your program: How often do you interact with other students?

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8-In brief would you tell what were the most challenges or obstacles that you were facing during the Covid -19 using e-learning?

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الملخص

أدى غلق المعاهد التعليمية في جميع أنحاء العالم بسبب جائحة كوفيد-19 التي تهدد التقويمات الأكاديمية، الى تحول انتقال معظم المراكز التعليمية إلى منصات التعلم عبر الإنترنت، للحفاظ على استمرار الأنشطة الأكاديمية. لهذا قمنا بدراسة الهدف منها هو التحقيق في آراء طلاب اللغة الانجليزية اتجاه التعلم الإلكتروني خلال جائحة كوفيد-19 في جامعة عباس لغرور. وقد عالجت مشكلة هذا البحث التحديات والعقبات التي تواجه الطلاب والمراكز التعليمية لتبني هذه الخطوة، ودرجة فعالية استراتيجيات التعلم الإلكتروني التي تم استخدامها في نظرهم. بالإضافة إلى الابحاث الموجودة مسبقا، قمنا بدراسة اجرينا فيها استبيان ومقابلة للطلاب. الفئة المستهدفة كانت، طلاب الماستر سنة اولى لغة انجليزية في جامعة عباس لغرور- خنشلة، خلال السنة ال دراسية2020-2021. و كشفت نتائج الدراسة أن غالبية الطلاب لديهم تجارب سلبية فيما يتعلق باستراتيجيات التعلم الإلكتروني، و هذا بسبب العمل على استراتيجية واحدة ،وهي المحاضرات الإلكترونية مما ادى عرقلة عملية فهم بعض المحاضرات ، عدم توفر الانترنت ووسائل التعلم الإلكتروني لدى بعض الطلاب ، ايضا عدم استعداد الطلاب لهذا التحدي بسبب اعتمادهم الكلي على الاساتذة ،لكن تبقى هذه الاسباب بداية و خطوة اولى يمكن ان تتخذها المنظومة التعليمية لتطوير البيات التعلم الإلكتروني في المراكز التعليمية بتدريب الطلاب على اكتساب مهارات التعلم الإلكتروني و توفير جميع الوسائل لاعتماد مثل هذه الطريقة مستقبلا .

الكلمات الأساسية

استراتيجيات التعليم الإلكتروني، التحديات، طلاب اللغة الإنجليزية، جائحة كوفيد-19، النظام التعليمي، الجامعة.