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Effectiveness Of Blended Learning As Part Of Master Degree Curriculum During The Covid-19 Pandemic At The Algerian University.

Case Study: Master 1&2 students (language and communication) at Khemis Miliana University

Dissertation Submitted to the Department of Foreign Languages in Candidacy for the Master

Degree in Language and Communication

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Dedication 1

I dedicate this simple work to the soul of my dear and lovely mother.

To my beloved father, AHMED who encouraged and supported me with his prayers

To my husband, Mohamed.

To my lovely kids: Nadhir, Sarah, Abderrahmane and Abdelmalek

To my brothers and sisters

To my dear friends whom I shared efforts to continue this work: Hayet and Fatima

To all my mates and friends who I have met at Khemis Miliana University.

HOURIA RAHALI

DEDICATION 2

In the name of the most compassionate merciful.

On my part, I would like to dedicate this modest work to my parents who always encourage me to accomplish my study .To my dearest sisters Hizia , Khadidja and her son Lotfi whom I love so much .To my best friends, Mrs.Rahali Houria and Mrs.Bouhouia Hayet whom I respect so much.Special Thanks to our Supervisor :Mr .Habbiche Benyoucef ,and all the teachers

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FATIMA ZAHRA FELLAH.

Dedication3

In the name of God, my creator, my source of strength.

I dedicate this work to my parents who have never failed to give me all my needs during my study, who are wonderful supporters and encouraging me for months until my thesis was completed.

This thesis work is dedicated to my husband who has been a constant source of support and encouragement during the challenges of graduate and life .To my brothers and sisters with their children .

I dedicate this thesis to my supervisor Mr .Habbiche Benyoucef, to my teachers. To my friends To all the people who helped me to complete this thesis.

HAYET BOUHOUIA

Abstract

Blended learning has widely spread during the pandemic of covid-19 over the two last years. It becomes an adapted way of learning at the Algerian universities to transmit lessons and enable students to learn and prepare their researches and have access to different digital tools rather than learning in a traditional way, ie face- to-face learning. In order to evaluate the effectiveness of this new approach in Algeria, and to see in what extent it is successful in delivering and perceptions of students, we conducted a questionnaire with 51 master students from Khemis Miliana University, aged between 20 to 30 and 11 teachers from different universities. This research identified some obstacles in the sides of both teachers and students in the teaching – learning process.

Moreover, it found that to apply this new approach, participants have to adopt coping mechanisms to mix e-learning with face-to-face learning.

Further, the research examined student's interest about the use and the benefits of blended learning. This study suggests that students should be encouraged by their teachers to use technology devices in their learning without neglecting the traditional way.

Keywords: Blended learning _ Covid-19 _ Algerian University _ Effectiveness _ Faceto-face learning.

Résumé

L'apprentissage mixte est largement répandu pendant la pandémie de covid-19 au cours des deux dernières années. Il devient un mode d'apprentissage adapté dans les université

Algériennes pour transmettre des enseignements et permettre aux étudiants d'apprendre et de préparer leurs recherches et d'avoir accès à différents outils numériques plutôt que d'apprendre de manière traditionnelle, c'est-à-dire en face-à-face. Afin d'évaluer l'efficacité de cette nouvelle approche en Algérie, et de voir dans quelle mesure elle est succès dans la livraison et les perceptions des étudiants, nous avons mené un questionnaire auprès de 51

étudiants en master de l'Université Khemis Miliana, âgés de 20 à 30 ans et leurs nombre était 40 et 11 enseignants de différentes universités. , Cette recherche a identifié certains obstacles du côté des deux enseignants et élèves dans le processus d'enseignement-apprentissage. De plus, il a constaté que pour appliquer cette nouvelle approche, les participants doivent adopter des stratégies d'adaptation mécanismes permettant de combiner l'apprentissage en ligne et l'apprentissage en face à face. De plus, la recherche a examiné l'intérêt des étudiants pour l'utilisation et les avantages d'apprentissage mixte. Cette étude suggère que les étudiants devraient être encouragés par leurs enseignants d'utiliser des dispositifs technologiques dans leur apprentissage sans négliger la voie traditionnelle.

Mots clés : Apprentissage mixte _ Covid-19 _ Université algérienne _ Efficacité _ Face-À l'apprentissage en présentiel.

ملخص

الخزائرية و ذلك لنقل الدروس وتمكين الطلاب من التعلم وإعداد أبحاثهم والوصول إلى المنصات الرقمية المختلفة باستعمال عديد الأدوات التكنلوجية الجزائرية و ذلك لنقل الدروس وتمكين الطلاب من التعلم وحهًا لوجه. من أجل تقييم فعالية هذا النهج الجديد في الجزائر ، ومعوفة إلى أي مدى قد نجح في بدلاً من تلقي الدروس بطريقة تقليدية ؛ أي التعلم وحهًا لوجه. من أجل تقييم فعالية هذا النهج الجديد في الجزائر ، ومعوفة إلى أي مدى قد نجح في إيصال المعرفة و كذا تصورات الطلاب و الأساتذة تجاهه ، أجرينا استبيانًا إلكترونيا مع طلاب ماستر لغة انجليزية تخصص لغة و اتصال يزاولون دراستهم بجامعة خميس مليانة تراوحت أعمارهم بين 20 و 30سنة و عددهم كان 40 وكذا 11 أستاذًا من جامعات جزائرية مختلفة. حدد هذا البحث بعض المعوقات في عملية التدريس والتعلم لدى كل من الطلبة و أساتذتهم . علاوة على ذلك وجدنا أنه لتطبيق هذا النظرية الجديدة يجب على المشاركين تبني التكيف مع آليات حديثة لدمج التعلم الإلكتروني مع التعلم وحهًا لوجه .

بالإضافة إلى هذا ، فحص البحث اهتمام الطالب باستخدام التكنولوجيات الحديثة في الدراسة وفوائد التعلم المختلط. تقترح هذه الدراسة أنه يجب تشجيع الطلاب من قبل معلميهم لاستخدام الأجهزة التقنية في تعلمهم دون إهمال الطريقة التقليدية.

الكلمات المفتاحية: التعلم المدمج _ كوفيد -19 _ الجامعة الجزائرية _ الفاعلية _ التعلم وجها لوجه.

Declaration

We hereby declare that the substance of this dissertation is the result of our investigation due reference of acknowledgment is made when necessary to the whole of other researchers.

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List of Abbreviations

AECT: Association for Education Communication Technologies.

BL: Blended Learning.

BLE: Blended Learning Environment.

CCS: Classroom Community Scale.

Covid: Corona Virus Disease.

EAI: Enhanced Anchored Instruction.

EFL: English As A Foreign Language.

F2F: Face To Face.

IB: International Baccalauriate.

ICT: Information and Communication Technologies.

LMS: Learning Management System.

M2: Master 2.

MOOC: Massive Open Online Course.

NGOs: Non Governemental Organizations.

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1.General Introduction

Learning technology, according to the definition of AECT 2004, has a great role in facilitating, motivating learners and improving their performance by using the appropriate technological processes and resources. Therefore and to provide effective learning experiences to a digitally –oriented generation of learners, higher education adopted "blended learning "BL as a solution to meet learners needs and interests this type of learners has a keen interest in using technology and demand to use technology in teaching and learning, in Norberg, Dgiuban, and Moskal 2011an out of the classroom" (De George – Walka and Keeffe, 2010²).

Blended Learning is considered by some scholars as "the new traditional model" (Ross and Garret 2007³) or the new normal in delivering courses at universities (Norberg, Dgiuban, and Moskal 2011⁴). Universities, even in Algeria are implemented to improve the students learning outcomes, but less importance was given to adopting issues and policies which should be strategically done. There is a sort of disagreement about the way BL is defined and measured (Graham, 2003; Oliver and Tragwell, 2005; Shorpe, Benfieled, Roberts, and Grret 2007).⁵

Blended Learning helps learners to be partly free rather than bounded this flexible learning which combines both synchronous and asynchronous learning modality, was one of the solutions to avoid problems during the covid-19 pandemic for all the universities in the middle of the second semester of the academic year 2019- 2020. Public health official advice of social distancing led to implement a flexible learning instead of face-to-face one to protect student. Furthermore, it can help learners develop critical 21st century skills such as communication information literacy beside creativity and collaboration. As well the ability to use digital technologies for various purposes (Zurita, Hasbun, Baloian, and Jerez, 2015⁶).

However, negative perceptions held by both learners and teachers might influence the implementing of this new approach. There were some challenges and some obstacles which

²De George – Walka and Keeffe, 2010

³Ross and Garret 2007

⁴Norberg, Dgiuban, and Moskal 2011

⁵(Graham, 2003; Oliver and Tragwell, 2005; Shorpe, Benfieled, Roberts, and Grret 2007).

⁶Zurita, Hasbun, Baloian, and Jerez, 2015

appeared during the teaching —learning process. The study shows the attitudes and the readiness of teachers, learners and universities after the adoption of blended learning and evaluates its effectiveness at the Algerian university during the pandemic. Throughout this research, we tined to determine the adaptability and the benefits of blended learning in higher education using different technological platforms, and to investigate the obstacles and challenges that emerged.

2. Literature Review:

Blended learning has brought a radical change in the process of teaching-learning at higher education. Therefore, it can help learners to increase their outcomes and achieve higher scores comparing to face to face learning. The act of adapting this new pedagogic way to deliver the instructions at universities is somehow unattainable because of many challenges that can occur while applying this new way of teaching and learning. According to many studies blended learning has many advantages. First, it is considered as a part of learning that is done through ICT, online or offline mode so teachers and students get more time in the classroom for creative and cooperative exercise. Secondly, Students gain advantage of online learning and without losing social interaction element and human touch of traditional teaching'. Thirdly, it provides more scope for communication where communication cycle is completed in blended learning which is not possible if we follow only traditional approach. Finally, students use more technology and they gain enhanced digital fluency as they develop qualities like self-motivation, self-responsibility, discipline and it updates course content and so gives new life to established courses. In this regard, many studies has shown that blended learning is a way to increase student engagement and ultimately student achievements (Rotherham and Willingham; 2009')

Furthermore ,Bottge et al. (2014) ⁸found similar results using a much larger sample size. In their study, Bottge and his colleagues looked at 335 students with disabilities in 31 different middle schools. In the control group, teachers continued to teach as they normally did, but in the treatment group, they used "Enhanced Anchored Instruction (EAI)," which consisted of computer-based interactive lessons and videos in addition to regular classroom instruction (p. 424). The activities were largely conducted via special software, though the

⁷Rotherham and Willingham ;2009

⁸Bottge et al. (2014) (p. 424)

researchers implied that the Internet was also used for this instruction and in completing the projects for each unit. The research team observed that in the treatment group, students were more immersed in the hands-on and application activities provided by EAI than in the traditional, more lecture-based control group. Moreover, Both Jacobs (2014) and Zaka (2013) looked beyond a single classroom at how blended learning affected entire schools, and they found that it increased engagement throughout the school. Jacobs looked at eight schools in Oakland, California that had implemented blended learning. While the first year was a struggle because too much was implemented at once, the second year produced better results. Jacobs argued that this proved the need to "go slow to go fast" when implementing blended learning (Jacobs, 2014, p. 37). ⁹Zaka (2013) looked only at one school in New Zeland, but he focused on how that school had successfully implemented the change and what blended learning meant for all of the stakeholders involved. After interviewing principals, teachers, and students, and observing multiple classrooms, Zaka pointed out that one of the most positive elements of blended learning was the increase in student engagement and motivation that came with blended learning. She argued that blended learning required more interaction and collaboration, which led to the projects being more open to a public audience because students were able to view one another's work. This led students to a higher level of motivation to work hard and produce quality work.

Despite all the benefits of blended learning, not all researchers found that engagement and on-task behavior increased with the use of blended learning. Both de la Varre et al. (2011) and Najafi et al. (2014) ¹⁰ found that students were equally engaged or even less engaged in a blended classroom. De la Varre et al. (2011) found in their research that some students were less likely to participate because of a lack of immediate teacher feedback in some blended learning programs. In a more balanced blended learning environment, Najafi et al. (2014) found that on-task behavior did not increase for the blended students. This study followed 29 Canadian students in a college preparatory high school who were taking an economics course. The instructor had students enroll in a Massive Open Online Course (MOOC) and complete lessons within the MOOC as part of their instruction in the course for three weeks. The control group did not meet as a class during these three weeks. In studies comparing a blended classroom to a traditional classroom, however, data indicates that

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⁹(Jacobs, 2014, p. 37).

 $^{^{10}}$ de la Varre et al. (2011) and Najafi et al. (2014)

students do complete more tasks in the blended environment (Light& Pierson, 2014; Smith & Suzuki,2015)¹¹. In the same respect, many other studies find that blended learning cannot really enhance students achievements, while task completion may be higher in a blended classroom than in a traditional classroom, that does not always mean that students are achieving at a higher rate. If schools are going to invest in the technology necessary for blended learning, it is important to consider not just whether or not it will engage students, but whether it will help them achieve more.

Capponi et al. (2010) ¹²also determined that increased interaction with the teacher was key to increasing student achievement. Originally, their experiment was set up to be primarily online learning. They wrote a script that they expected students to follow as they solved online problems independently on their electronic devices. Furthermore ,Huang and Hong studied 77 Taiwanese students in an English classroom, and they found that students had statistically significantly higher English reading comprehension scores after spending twelve weeks using blended learning when compared to the control group, which used only face-to-face learning. Much of the online portion of the class involved watching videos or participating in English language drills, which are lower level skills.

On the other hand, after the emergence of this new model, the majority of universities find themselves obliged to implement blended learning .However, Schools should begin implementing more blended learning in classrooms. One way to ensure the success of blended learning is to ensure that all teachers are aware of the best practices in implementing blended learning. When blended learning becomes too technology based and lacks the appropriate amount of teacher interaction, students are less likely to be engaged (de la Varreet al., 2011)¹³. At the same time, too little technology can lead to a lower sense of engagement as well, since students are drawn to gamification and the use of technology in the classroom (Light & Pierson, 2014)¹⁴. An appropriate balance must be struck between technology use and teacher support and availability. Henceforth, the activities chosen in a blended learning classroom must be considered. Certain activities lend themselves to technology use more than others. Discussions with classmates are often better face-to-face

¹¹Light & Pierson, 2014; Smith & Suzuki, 2015)

¹²Capponi et al. (2010)

¹³(de la Varre et al., 2011)

¹⁴(Light & Pierson, 2014)

while technology can be used to interact and discuss with experts or people unable to be in the room (Wendt, 2015)¹⁵. Students also respond best to technologies that they find fun and aesthetically pleasing but that also allow them to have higher achievement (Mondi et al., 2008)¹⁶.

By considering what activities are best suited to technology use, teachers can increase student engagement, achievement, and positive attitudes. It is also important to consider the stakeholders involved when beginning a blended learning program. If students, parents, teachers, and administrators are not all on board, blended learning has a lower chance of success (Zaka, 2013)¹⁷. All of these people are affected by the choice to move to blended learning, and they can either help or hinder the process. To get teachers on board, it is important to have structured and useful professional development opportunities that incorporate examples of successful blended learning. Teachers need time to prepare to begin blended learning.

To conclude it can be said that blended learning is to some extent is the solution to problems prevailing in our educational system. If implemented in a well-planned, organized way with right type of attitudes it can become the future of our educational system. It is in our own benefit that steps for adapting blended learning are soon initiated.

For instance ,Indian education system is suffering from various problems like failing to expand the system to provide provision of free and compulsory education to all children, abating to maintain quality along with increasing the quantity , education curriculum is not able to meet demands of international market and not even able to conserve and propagate Indian value system , teachers are not fully dedicated towards their profession and teacher's inefficiency is adversely influencing the learning of the students. There is an urgent need of some radical steps and major revolutions within to overcome the challenges. Blended learning to some extent will help in solving these problems of Indian education system.

¹⁵(Wendt, 2015)

¹⁶(Mondi et al., 2008)

¹⁷(Zaka, 2013)

Still the education for all is a major challenge. Constitution provides the provision of free and compulsory education for all the children up to age 14 but our system is not able to meet this goal also. But if our educational institutes implement blended learning then they can easily increase the enrolment irrespective of geographical boundaries.

Educated students are also not efficient and skilled to meet the demands of global market so suffer unemployment but as discussed above the blended learning will help students to master all modern techniques and life skills that will help them in leading a successful life Similarly another problem in our education system is that it is failing to develop in students right value system and love toward Indian culture and tradition as it is adopting itself in modern technologies but blended learning gives equal importance to traditional mode and classroom teaching and thus can give students essence of Indian value system .

Finally, students need to be brought on board. They are directly affected by blended learning, and it is vital that they be willing to work with the new technologies in order to make them successful. This can be done through careful and thoughtful consideration of the technologies being used and slow and progressive implementation of change. By moving slowly, both teachers and students can adjust to the change and fine-tune what works best for them both.

Klein, Noe, and Wang (2006) ¹⁸asserted that both the learner characteristics and the instructional characteristics of learning environments affect student motivation. They also stated that perceived affordances affect student motivation: "Because learners believe that their efforts will be facilitated rather than hindered, they become more motivated" (p. 671). A parallel effect also may have resulted; i.e., while these positive perceptions increased their motivation for the course, it is possible that their motivation may have affected their perceptions positively as well.

On the other hand ,many challenges can occur while implementing blended learning .But despite these benefits, there are challenges that can impede the utility of blending of two learning environments. Studies have indicated that the main challenges of BLEs for students

¹⁸Klein, Noe, and Wang (2006) (p. 671).

are time management, workload, course design barriers, and personal barriers that include familial and career pressures (Futch, 2005; Lupshenyuk, 2008; Tanner, 2007).¹⁹

Another affordance was time efficiency. This was also found to be significant by Garnham and Kaleta (2002)²⁰. The students could ask and respond to questions without time limitations, and flexibly study the content. This opportunity was mainly attributed to the online environment, and it was more efficient for the students when they had the online support after F2F classes. Another important time- saving aspect was the availability of course materials, and the communication and interactions in more than one place. A final factor indicated by the students involved their preference to use the F2F environment more efficiently by staying focused on the content, and not so much on the other issues (i.e., announcements, detailed discussions, Q&As, etc.).

The students complained that their workload in the two environments made the overall course load heavier than for a usual course. It also meant more time commitment. The students' complaints about workload increased after the middle of the semester, which was the start of the project assignment. Hence, as the assignments increased throughout the semester, the students appear to have perceived the overall course load to be too heavy, and they viewed the BLE as causing significant time devotion. The students specifically complained about the large amount of assignments and readings. This shows that the activities need to be balanced, and that the amount needs to be diminished (not doubled due to two environments) compared to a single environment. Finally, the inter-dependence of the two environments was regarded as a barrier, because the students regarded success in one environment to be dependent on success in the other.

The challenges of blended learning in higher education are numerous and their emergence is encouraged permanently based upon the innovative technological developments and interaction through traditional learning environments, which emphasizes blended learning transformational force. For higher education courses blended learning has become the reality characterized by continuous investigation and debates of the benefits, potential and effectiveness to transform and improve the learning process. New, highly interactive, meaningful and student centered blended learning environments have been developed

¹⁹(Futch, 2005; Lupshenyuk, 2008; Tanner, 2007).

²⁰Garnham and Kaleta (2002)

fostered by the current and advanced technologies. The convergence of traditional face-to-face and distributed learning environment that were sharply separated in the past has been in progress by developing blended learning environment.

The absence of spontaneity and human connection are in the same time disadvantages of computer mediated environment, and for face-to-face environment these are the decreased participation and the lack of flexibility.

3.1. Statement of the problem:

Blended learning is considered as a new method of teaching and learning which requires special atmosphere to be well applied. It is new approach in our country where universities used to teach only in traditional way. It is not easy to adopt it .Thus ,it should be taken as a serious matter to avoid obstacles and obtain good results.

3.2Research question:

In the light of the above, this study attempts to answer the following questions:

1-How can blended learning affect master two student's outcomes and learning

Achievements? /to what extent can blended learning effective?

- 2-What are the main challenges that can emerge while implementing blended learning?
- 3-Can higher education afford and adapt blended learning?

3.3. Research Hypothesis

- 1-Master two language and communication students use two ways while receiving learning resources, they may increase their knowledge.
- 2-Administrators and stake holders may face challenges while implementing blender learning.

3.4. Significance of the study:

The main objective of this research is to shed light on students and teachers general state of the use of blended learning at the university of Khemis Miliana in terms of effectiveness Moreover, the research attempts to explore master two students' use of mixed learning strategies taking in consideration the new technologies which online learning is mainly based on.

3.5. Research Methodology

This section provides the used research methods, the sample of the study followed by the data gathering tools, and the structure of the dissertation.

3.6. Methods

The aim of this study is seeking to discover the benefits and effectiveness of blended learning .A descriptive method is conducted ,qualitative method is used to enrich the objectives of the study .Data are analyzed qualitatively through which descriptive thematic interpretation is provided .

3.7. Population and sampling

The population and sampling of this study is chosen from master 1 and 2 students and teachers from the department of English . The target population was 51 students and teachers took part in our research because they witnessed the last pandemic and both experienced BL.

3.7. Data gathering tools

To check the research hypothesis, a prospective questionnaire is addressed to master students to investigate whether they benefit from blended learning and what are the challenges they face during their use of this new model.

3.8. Structure of the study:

The present study is divided into two chapters: the first chapter is devoted to the literature review and the second is about the fieldwork and findings obtained from the research instruments .the first chapter is arranged into two sections .Section one attempts to form a comprehensive overview of blended learning benefits and short comes .The

second section is devoted to adaptability of blended learning at universities and the challenges that may encounter its implementation .The second chapter ,on the other hand , presents the data derived from the instruments used in the study ,discusses the results ,offers an interpretation of the findings , and provides recommendations and pedagogical implications .The dissertation ends with a general conclusion to sum up all the discussed points in the two chapters.

CHAPTER ONE: THEORETICAL PART

1. Introduction:

Coronavirus disease 2019 (COVID-19) caused by Severe Acute Respiratory Syndrome Coronavirus-2 (SARS-CoV-2) first broke out in the city of Wuhan, Hubei Province of China (Susilo, A. et. al., 2020). ²¹The most recent data accessed on October 9, 2020, shows an increase in the worldwide COVID-19 transmission chart, with 36,754,395 confirmed cases and 1,064,838 deaths due to Covid-19 (WHO, 2020)²². The number of cases is not small and can continue to increase in the absence of effective prevention efforts so as not to be infected with this coronavirus, the governments all over the world rushed to serious quarantine and lockdown of the educational institutions in order to tackle the case of the spread of this contagious pandemic in the field of higher education . However , they found themselves obliged to carry out distance learning which was considered as a change in the learning system. Therefore, this change in the learning system has become a challenge for the world of education because they adapt a new pedagogic model in the teaching and learning process. Lecturers have a very important role in the effectiveness of the course of lectures because they are the ones who determine the right strategy for learning activities. Changes in the current learning system really require the readiness of strategies and techniques used for online distance learning (Aliyyah, R. R., et. Al)²³, so that lecturers as educators at the college level need to prepare themselves to face changes in this learning system quickly.

2. Historical background of blended learning:

The origins of blended learning pre-date the advent of digital technology. Its genealogy lies in distance learning through correspondence courses. In Canada, for example, the children of lighthouse keepers were among those educated thanks to a 1919 scheme. The

²¹(Susilo, A. et. al., 2020).

²²(WHO, 2020)

²³(Aliyyah, R. R., et. Al)

goal of bridging distance remains a possible motive for using blended learning. The rise of personal computing in the eighties and the advent of the worldwide web in the nineties encouraged the development of new models of the learning process at different levels of education. In higher education, one such new model was Diane Laurillard's 'conversational' approach, which regards learning as an iterative dialogue between student and teacher. This model remains an influence on current debates about blended learning. Digital technology also began to be introduced into the field of private sector training, where Friesen finds the term 'blended learning' used as early as 1999.

Blended learning may be traced back to early medieval times when printed material provided the first asynchronous learning opportunities. However, the digitalization of contemporary learning environments results in a de-emphasis on teaching and learning spaces. When time becomes the primary organizing construct for education in a technology-supported environment, blending possibilities emerge around five components: migration, support, location, learner empowerment, and flow.

3. Definition of blended learning:

Many definitions have been given to blended learning .However; Blended learning pedagogies have been used by scholars for language teaching for several decades. According to Sharma (2010)²⁴, the concept of blended learning was first introduced around 1990 in relation to language teaching when it was given three definitions: "a combination of face-to-face and online teaching, a combination of the technologies and a combination of methodologies" (ibid, p. 456)²⁵. He asserted that the first definition is the classic view of blended learning, where in traditional face-to-face language teaching classes are combined with sessions delivering additional supplementary course materials via online platforms. The course materials used in virtual classes variously comprise synchronous and asynchronous tools, chats, and discussion blogs and are accessed via a virtual management system such as Blackboard. The second definition refers to courses in which no direct face-to-face interaction takes place between the instructor and the students, as teaching is delivered in distant learning settings, via emails and virtual classes online. This definition included e-learning, a purely distant learning format in which instructors never meet their students in

²⁴Sharma (2010)

²⁵(ibid, p. 456)

the physical world. Sometimes, the label 'e-learning' is used as a synonym when referring to blended learning (Ja'ashan, 2020)²⁶. The third definition proposed by Sharma (2010) is broad and refers to a combination of pedagogic methods that involve diverse technologies.

Furthermore and more recently, Alowedi (2020) ²⁷ outlined a classic approach to blended learning but included synchronous virtual classes. She opined that blended learning combines a variety of methods including face-to-face teaching in the classroom, teaching synchronous lessons via virtual classroom spaces in which the instructor meets her student in real time, and having English learning materials uploaded to a Learning Management System (LMS) such as Blackboard. Virtual classes can then be recorded and subsequently posted on the LMS as part of the EFL course materials to be viewed as asynchronous classes.

Moreover, Friesen found that, in the early days of blended learning, the term could mean 'almost any combination of technologies, pedagogies and even job tasks'. Definitions might cover any instructional technology at all, or restrict themselves to web-based technology; they might not mention technology specifically, but instead focus on blending different theoretical approaches ., Friesen has suggested the need to redefine 'face-to-face' (F2F) as 'co-present'. For Friesen²⁸, "Blended learning" designates the range of possibilities presented by combining Internet and digital media with established classroom forms that require the physical co-presence of teacher and students'. Furthermore, during corona virus, the term blended learning is used to refer to the type of learning implemented to deliver English courses at King Saud University, involving synchronous virtual classes and online tests via digital platforms, during the COVID-19 pandemic. It also refers to the use of English learning materials as related to the required textbooks uploaded on Blackboard to supplement students' learning and achievement. It is important to emphasize that instructors and students had met in person before the spread of corona virus, and so had experienced seven weeks of face-to-face teaching, during which time using Blackboard as part of the English course was not obligatory. After face-to-face teaching was withdrawn on 9th March 2020, the instructors and students met in real time in virtual classes on digital platforms until the end of the academic year. All enrolled students were directed to use the official LMS offered

²⁶(Ja'ashan, 2020)

²⁷Alowedi (2020)

²⁸Friesen

by King Saud University, which is Blackboard Collaborate Ultra. The students were also invited to use licensed digital platforms technically supported by King Saud University.

4. Components of the Blended Learning Model:

A model can be a description of a system or phenomenon that accounts for its known or inferred properties and can be used for further study of its characteristics. Therefore, a blended learning model can be used as a guide in evaluating and integrating separate components that would result in instructionally-sound learning situation. The components are as shown in **Figure 1**

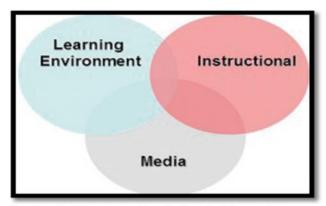


Figure 1. Components of Blended Learning

Figure 1; Components of BL

4.1. Learning environment component:

A learning environment can either be synchronous or asynchronous. Each learning environment has a distinct set of advantages and disadvantages. The goal of blended learning is to leverage the specific positive attributes of each environment to ensure the optimum use of resources to attain the instructional goal and learning objectives. (Holden& Westfall, 2006)²⁹

4.2. Media component:

Media refers to vehicles that simply deliver content. Some instructional media, however, may be more appropriate than others in supporting either a synchronous or asynchronous

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²⁹(Holden& Westfall, 2006)

learning environment, but no single medium is inherently better or worse than any other. Whereas a given delivery medium might not alter the desired content, the selection of a particular medium may affect how you design the content to take advantage of unique attributes of that specific medium. Nevertheless, when the most appropriate media are selected, learning outcomes will not be affected—it is the instructional strategies employed that do s (Holden & Westfall, 2006)

4.3. Instructional component

This component is used to select the most appropriate instructional strategies that support the learning objectives. Such strategies are the products of learning objectives and serve to ensure the learning objectives and facilitate the transfer of learning. When developing blended learning, maintaining instructional quality is paramount. Consequently, learning objectives need not be compromised when developing a blended learning solution. (Holden& Westfall, 2006)

5. Synchronous instructional methods

Methods in this domain consist of traditional classrooms, virtual classrooms, live product practice labs, interactive chat rooms and mentoring (Woodall, 2010)³⁰

6.Live classroom Traditional classrooms

They allow instructors and learners to be face-to-face in the same place. The subjects usually consist of topics such as complex, broad, programmatic or new content, that require face-to-face interaction, expert observation, culture building, team building, networking, business problem solving or materials to be presented by an instructor or facilitator. The term Instructor-Led Training (ILT) is used synonymously with on-site training and classroom training (Woodall, 2010)

7. Virtual classroom:

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³⁰(Woodall, 2010)

A virtual classroom allows instructors and learners to be in different places at the same time, and allows the instructor to archive the event for later viewing. These events are usually conducted through the use of virtual meeting tools. The topics covered can be similar to those dealt with in a live classroom unless they are too complex or contentious (Woodall, 2010).

The medium is not limited to technology and can include:

Stand-alone, asynchronous, or synchronous online learning / training

Performance support tools (knowledge management tools)

Traditional classroom, labs, or other "hands-on" experiences

Reading assignments, CD-ROMs or other self-paced learning.(E-Learning Resources, 2012)³¹

Table: media used in blended learning

	Live face-to-face (informal)
Live face-to-face (formal)	Collegial connections
Instructor-led classroom	Work teams
Workshops	Role modelling
Coaching/mentoring	
On-the-job (OTJ) training	
	Virtual collaboration/asynchronous
Virtual collaboration/synchronous	E-mail
Live e-learning classes	Online bulletin boards
E-mentoring	Listservs
	Online communities

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^{31.(}E-Learning Resources, 2012)

Self-paced learning	Performance support
Web learning modules	Help systems
Online resource links	Print job aids
Simulations	Knowledge databases
Scenarios	Documentation
Video and audio CDs/DVDs	Performance/decision support tools
Online self-assessment	

Table1: Source: Strategies for Building Blended Learning

Rossett, Douglis and

Frazee³²

Several studies have proposed various blended learning models that can be implemented by institutions of higher education in various contexts. Nonetheless, the models proposed by Graham (2009) ³³stand out in the literature. He proposed three blended learning delivery models: Enabling Blends, Enhancing Blends, and Transforming Blends.

The choice of the model depends on several factors. Nevertheless, for developing countries like Tanzania where institutions are still faced with poor ICTs infrastructure, the choice of the model depends on the technologies available to individuals at different bands of the socioeconomic spectrum (Graham 2009). ³⁴ The definitions of blended learning developed by Graham and Friesen, noted above, revolve around bimodal delivery, involving a face to-face or 'co-present' element, and a computer mediated element. However, the ways in which these elements are used for different learning purposes, and the balance between the elements, allow for more than one model to be constructed consistent with these definitions. How may these different models be characterized and classified?

One early typology, suitable for the world of work-related training, was that of Valiathan. This divided blended learning models into three types: those which are skill-driven, aimed at the acquisition of specific knowledge and skills, where the instructor gives feedback and support; those which are attitude-driven, aimed at the development of new attitudes and behaviors', where peer-to-peer interaction and group work are central; and those which are

³²Strategies for Building Blended Learning.Rossett, Douglis and Frazee

³³Graham (2009)

³⁴⁽Graham 2009).

competency-driven, aimed at capturing tacit knowledge, where learners must observe experts at work]. They work with a Typology of four models, reduced from an original six. The six original models were: (1) the face-to face driven model, in which classroom learning is supplemented with online learning; (2) the rotation model, in which students rotate between working online and other classroom-based modalities; (3) the flex model, in which students study mainly online according to an individually customized schedule, and face-to-face support is provided by the teacher as needed' (4) the online lab model, in which students supplement their traditional studies by taking an additional online course oncampus; (5) the self-blend model, in which students supplement their traditional studies by taking an Additional online course off campus; (6) the enriched virtual model, in which learning is mainly online with occasional visits to a brick- and-mortar setting for face-to-face tuition. That students experienced their learning across several dimensions, including teacher roles.

8.1 Model 1: Face-to-Face Driver

The programs that fit in the face-to-face-driver category all retain face-to-face teachers to deliver most of their curricula. The physical teacher deploys online learning on a case-by-case basis to supplement or remediate, often in the back of the classroom or in a technology lab.

8.2.. Model 2: Rotation

The common feature in the rotation model is that, within a given course, students rotate on a fixed schedule between learning online in a one-to-one, self-paced environment and sitting in a classroom with a traditional face-to-face teacher. It is the model most in

between the traditional face-to-face classroom and online learning.

8.3.. Model 3: Flex

Programs with a flex model feature an online platform that delivers most of the curricula. Teachers provide on-site support on a flexible and adaptive as-needed basis through inperson tutoring sessions and small group sessions.

8.4. Model 4: Online Lab

The online-lab model characterizes programs that rely on an online platform to deliver the entire course but in a brick-and-mortar lab environment. Often students that participate in an online-lab program also take traditional courses and have typical block schedules.

8.5. Model 5: Self-Blend

The nearly ubiquitous version of blended learning among American high school students is the self-blend model, which encompasses any time students choose to take one or more courses online to supplement their traditional school's catalog.

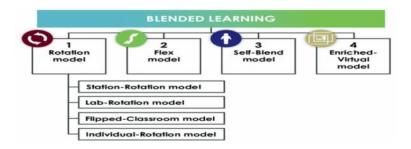
8.6. Model 6: Online Driver

The online-driver model involves an online platform and teacher that deliver all curricula. Students work remotely for the most part. Face-to-face check-ins is sometimes optional and other times required. Some of these programs offer brick-and mortar components as well, such as extracurricular activities. For ease of identification, this paper uses the following symbols for each model.

Table2: BL models

Face-	Online Lab
to-Face	
Driver	
Rotation	Self-Blend
Flex	Online Driver

Figure 2: BL models



9. Advantages of blended learning:

It represents a switch from passive learning to active learning. The focus of the classroom shifts from A presentational format to one of active learning. This involves putting learners in situations which compel them to read, speak, listen and think. It offers learners the opportunity to be either together or apart. The model of blended learning Emphasizes bringing together the online and face-to-face classroom components. In addition, a blended delivery System allows students to learn and access material in a variety of modes—an important feature since students Often have very different learning styles. In fact, research indicates that blended learning increases students' Chances of meeting course outcomes compared with fully online and even fully face-to-face courses, by decreasing dropout rates, increasing test scores and increasing motivation on the part of students. It adds a human touch to the teaching. The interactive content enables the instructor to create a high level of interest, accountability, and real assessment. It enhances individualization, personalization and relevance. It lets the instructor tailor learning content to the unique needs of different audience segments. The model offers students the best of both worlds because instructors and students have greater flexibility and accessibility without sacrificing face-to-face contact. A blended learning approach is an effective and low-risk strategy aimed at meeting the challenge of the transformational changes that technological developments bring to higher education. (Hancock & Wong, 2012).

10. Challenges: There are three kinds of challenges that may face blended learning

10.1. Technical Challenges:

The technical challenges are not about getting technology to work on networks. Rather, they consist of ensuring the success of the program by utilizing and supporting appropriate technologies. Technical challenges include: Ensuring participants can successfully use the technology and resisting the urge to use technology simply because it is available. (Hofmann, 2011)³⁵

10.2. Organizational challenges:

Management often agrees that blended learning is the correct direction for training initiatives, but it fails to understand that this is a complex process that needs thought beyond an individual program. Organizational challenges include – Overcoming the idea that blended learning is not as effective as traditional classroom training Redefining the role of the facilitator managing and monitoring participant progress (Hofmann, 2011)

10.3. Instructional design challenges:

When learning technologies are introduced, attention is often paid to the technology implementation, while the design of the actual appropriate content is left with too little time and budget to create a successful program. Instructional design challenges include Looking at how to teach, not just what to teach Matching the best delivery medium to the performance objectives Keeping online offerings interactive rather than just "talking at" participants. Ensuring participant commitment and follow-through with "non-live" elements. Ensuring all the elements of the blend are coordinated (Hofmann, 2011) . 36

11. Benefits and challenges of blended during the pandemic:

All the researches show that blended learning face approximately the same challenges over many universities such as lecturers 'lack of knowledge and confidence, universities readiness and learners 'achievements . In this respect, There is literature that points out the impact of the Covid-19 pandemic on global education in terms of difficulties, constraints and challenges faced by governments and institutions (Aucejo et al., 2020; Huber & Helm,

³⁵. (Hofmann, 2011)

³⁶(Hofmann, 2011) .

2020)³⁷. Moreover, publications have focused on innovations, experiences and descriptions of how institutions adapted to the new scenario created by the Covid-19 pandemic (Flores &Gago, 2020; Moorhouse, 2020)³⁸. From a different perspective, several studies have been conducted to examine students' perceptions of changed environments. Hassan et al. (2021)³⁹recognized students' perceptions of quality and satisfaction in taking virtual classes as important factors in maintaining students' motivation for learning and their academic performance. However, a strong negative correlation between the impact of the pandemic on learning and higher education students' attitudes was demonstrated in the study by Gonçalves et al. (2020). ⁴⁰

Chandra (2020) ⁴¹pointed out several negative consequences of the pandemic: students experienced academic stress, fear of failure, feelings of boredom and depressive thoughts that distracted students from academic and creative activities. These findings underscore the importance of paying widespread attention to students' workload, motivation to learn, and providing appropriate pedagogical tools to reduce anxiety and negative academic self-perceptions (Aucejo et al., 2020; Gonçalves et al., 2020; Hassan et al., 2021; Huber &Helm, 2020)⁴². Finally, recent studies have shown that various demographic factors (such as a different year of study, students' previous achievements, familiarity with learning environments and gender) can be linked to different levels of motivation and students' perceptions of learning (Chandra, 2020; Hassan et al., 2021)⁴³.

Besides motivation and achievements, the students' opinions about distance learning were also the topic of the research in this area. In the students' opinion, distance learning is very suitable for time management, reduction of costs and for the students who are prevented from attending lessons for some reason (employment, health, etc.). In addition, some of the students pointed out that it is much easier for them to attend a lesson by using a computer

³⁷(Aucejo et al., 2020; Huber & Helm, 2020)

³⁸(Flores &Gago, 2020; Moorhouse, 2020)

³⁹Hassan et al. (2021)

⁴⁰Gonçalves et al. (2020).

⁴¹Chandra (2020)

⁴²(Aucejo et al., 2020; Gonçalves et al., 2020; Hassan et al., 2021; Huber & Helm, 2020)

⁴³(Chandra, 2020; Hassan et al., 2021)

(Kutluk&Gulmez, 2012)⁴⁴. The positive aspect of distance learning is also the possibility for the students to adjust their learning methods (Mulenga&Marbán, 2020).⁴⁵

However, the negative aspects of distance learning have also occurred. It was more difficult for the teachers to see the differences between students and, therefore, they are not able to anticipate the individual needs of students to the appropriate extent (Vanslambrouck et al., 2018). ⁴⁶The most significant disadvantages of distance learning are related to the examining. Namely, there are the problems with the tests design, possibility of cheating, lack of motivation, increased anxiety, technical problems and insufficient digital literacy. In the research conducted by Kutluk and Gulmez (2012)⁴⁷, the students expressed dissatisfaction with the possibilities of communication among the students and the teachers. Overcoming the problems with communication would be very important for the successful realization of online learning, because it directly impacts the students' satisfaction with the quality of teaching (Palmer & Holt, 2009). ⁴⁸

12. Conclusion:

Implementation of online learning in higher education does have advantages and disadvantages. The advantages of online learning are that it is flexible and can be widely used, while the drawback is that it is very potential to do plagiarism practices, internet signal strength, and devices that support (Arkorful&Abaidoo, 2015; Irfan, 2015)⁴⁹. Since COVID-19 Pandemic occurred in Indonesia, research on COVID-19 began to be carried out. In the field of mathematical modeling, many experts predict when the pandemic reaches its peak when it ends, and the transmission model of the spread of viruses (Kim et al., 2020; Ndaïrou et al..During the Covid-19 Pandemic, universities in Indonesia have implemented many online-based learning policies. This is a form of a rapid response from universities in Indonesia to minimize Covid-19 transmission in the campus environment. Overall, to use online learning, lecturers must at least master presentation software, text processing, assessment, and video conferencing. This study proves that higher education policies by

⁴⁴⁽Kutluk&Gulmez, 2012)

⁴⁵(Mulenga&Marbán, 2020).

⁴⁶(Vanslambrouck et al., 2018).

⁴⁷Kutluk and Gulmez (2012)

⁴⁸(Palmer & Holt, 2009).

⁴⁹(Arkorful&Abaidoo, 2015; Irfan, 2015)

implementing online learning are not accompanied by the ability to use platforms that can support online learning. This research can be used as a reference to explore further the obstacles faced by students when online learning is implemented.

CHAPTER TWO : Methodology and Data Analysis

1. Introduction:

This study is conducted to investigate the effectiveness of BL at the Algerian university during the pandemic. To achieve that and after reviewing the literature regarding the topic in the theoretical part, the current chapter presents a description of the practical part of our research.

2. Research Methodology:

This part describes the methodology and the procedures of the work. It covers the research design, samplingsise and the method used for data gathering. In order to realize the study objective, we relied on an analytical method .We collected data, analyzed them .Then, we drew a conclusion using qualitative method.

3. Research Design:

The study employed a qualitative method which is preferred and suitable for in-depth understanding of the research topic.

4. Setting, Sampling Size and technique:

This study was done at Khemis University' Department of English during 2021/2022. It was conducted in the second semester in May .I consists of 51 participants (M1 and M2 students/ Language & Communication) .They took part in answering an online questionnaire of both teachers and students. They were randomly selected from the total number which was 80.

The main reason for the choice of sampling is that at Master 1 level, the same time the students were requested to answer to answer the questionnaire; they had already completed a year of experiencing distance education during the pandemic at least. So, they

took a general point of view about the new way of learning based on modern tools and techniques.

5. Data Collection Tools:

The tool used in the study was an online questionnaire to gather accurate data from the respondents. Some responses were neglected and 51 ones were correct and valid for the study.

Chapter Three: Findings And Implications

1. Introduction:

This chapter is devoted to discuss the findings and the interpretations of the results got from the questionnaire and that are already analyzed by the end of this chapter some recommendations, limitations of study and pedagogical implications are proposed as well

2. Questionnaire results:

Among the participants in the questionnaire, there were twenty ones (20) who declared they are university teachers. Most of them (65. /.) were females. Their answers were almost all similar with slight differences.

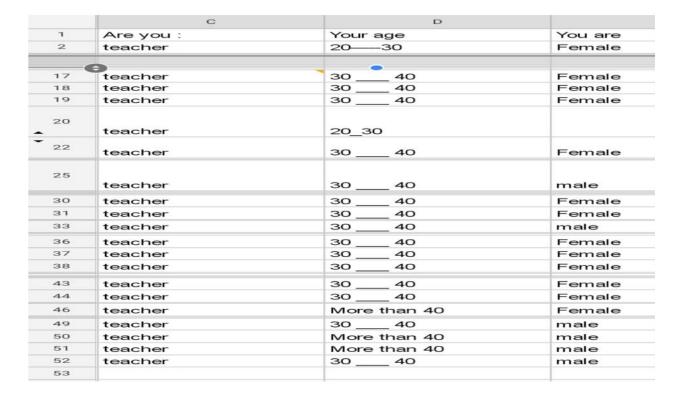


Figure: gender and age of teachers took part in the questionnaire (screen capture)

Here are the main yes /no questions results obtained from teachers responses:

Questions:	yes	no	N°	%
. Do you have a computer or a smart phone?*	-		20	100
. Do you have ADSL or (sim) card (a subscriber identity module) with internet access ?*	~		20	100
. Was it easy for you to log into the Moodle Platform of your university*.	~		12	60
. Have you taken some training sessions on the use of the Moodle Platform?*.		~	15	75
. The Platform of you university is always available.*.		~	9	45
. Have you used the platform to interact with the learners/ teachers?*	~		15	75
.Have you ever used the platform or one of the mentioned applications before the pandemic?	-	10		50
• Do you find that Blended Learning was useful at the Algerian university during the pandemic?	~	14		70
. Blended Learning improved the teaching-learning process	~	14		70

3. The Teachers Responses:

The results shows that the majority of the target population of teachers said that they have not received any training sessions on the right use of Moodle Platform of the university .Some of them have found difficulties to access the university platform. In one hand, of them declared that they have accounts on the university platforms but they do not always interact with their learners through, then because some students do not know how to use the platform icons effectively or cannot always find access to it.

In the other hand, all of the teachers state that they have both (SIM) and (ADSL) line, smart phones and laptops but they are not convinced by the distance education since it does not meet the desired goals and respond to the target needs.

A few number of the teachers shows that they have never used the Moodle Platform of their universities before the pandemic, while some of them declare that it sometimes causes them a kind of pressure when dealing with students and the administration.

The majority of the teachers agree on the idea that the time allocated to face-to-face sessions is insufficient to transmit the lessons, and for all of them (one hundred percent), the distance education could not achieve the designed objectives.

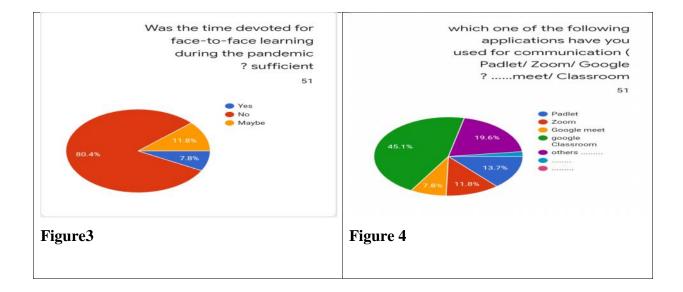


Figure 3 and 4: Graph of percentages for time efficiency and applications used in blended learning during the pandemic.

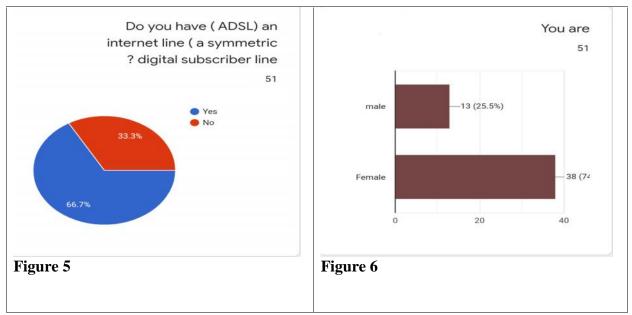


Figure 5: Graph for availability of an AdSL for students.



Figure 11: Graph for student's 'possession of Sim Card with internet access

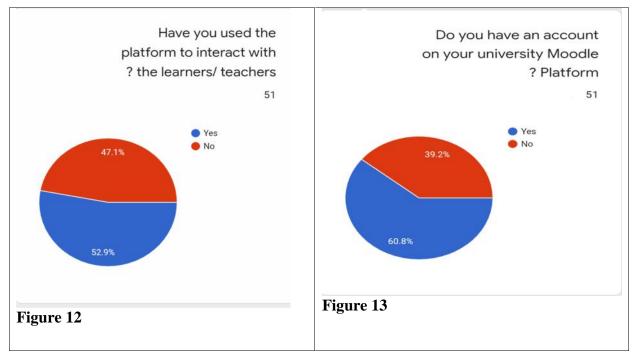


Figure 12and 13: students 'use of their own platforms for different interaction.

4. Students responses:

Most of the students participated in our questionnaire were less than 30 years. All of them have mobiles or laptops (one hundred percent 100%). But (13.7% percent) of them have not received any training sessions on how to use the Moodle Platform and some applications used in distance education and blended learning.

The majority of them (52.9 % percent) find difficulties and obstacles when they access into their university platform. In addition to that, they declare that (52.9%) of the have an account on that platform whereas the others do not know even how to create one on it. The majority (64.7 percent %) said they have never use it before the pandemic.

(52.9 percent %) of the students interact with their teachers using other forums mainly « Google Classroom and Padlet », or simply via e-mailing them. Which means that those two applications are effectively used?

All of respondents state that they are always connected to internet and (51 percent %) of them find that during the pandemic, online education was good and interesting but because of some difficulties, it could not realize some objectives of the teaching –learning process.

5. Interpretations of the study responses:

The main objective of this study is still highlighting and investigating the effectiveness of Blended Learning at the Algerian University during the period of Covid-19 pandemic. The questionnaire we made did not mean that Blended Learning has failed to improve the teaching – learning process. Most of the participants admit that its implementation and adoption was welcomed at the Algerian Educational system and it could bring change into the methods of delivering and receiving data at the universities if it was applied in the right way. Most of the previous studies spoke about its adoption in different universities around the world and that it was useful and successful. When we come to the Algerian case, it was implemented on a poor situation which should be solid normally.

Both teachers and students complain all the time from many obstacles. They ask for training sessions, seminars to improve their limited knowledge in the field of Blended Learning. They found themselves unfamiliar with some new applications for learning, which creates gap between them, and makes the transmission of knowledge a little bit harder.

There is no doubt that Blended Learning in Higher Education can improve the teaching-learning process, but only in case of providing universities with the required conditions and the needed equipment to make the implementation of Blended Learning flexible and successful.

6. Limitations of the study:

In order to finish our study, we faced some difficulties without which our work could be better. First, the number of teachers of English in the department of Languages was limited which led us to do the questionnaire online with teachers from different Algerian universities. Second, we did not have enough time to complete our study in a good way because we started the practical part in May. Third ,we face a problem with administrating the questionnaire itself because this is the first time for us to use such kind of research tools.

7. Conclusion:

The research investigation has been done with a practical framework for the aim of fulfilling the purpose of the study that is shown in the first chapter. The research reports the finding and provides some recommendations based on the results of our study which have proved that the majority of the students are in real challenge after adopting BL.

General Conclusion:

Blended Learning became an obligation. The period of the Covid-19 and the modern technologies helped in its quick adoption by universities all around the world. The Academic Year 2019-2020 was a special period in the history of Higher Education in Algeria. The Ministry in charge has taken some arrangements, aiming at organizing Higher Education system through a set of laws and measures such as Decision n° 633 of august 26th2020 which declares some exceptional procedures in the field of Higher Education with its different aspects (organization / management / evaluation of students and their transfer). The Second Article of this decision adopts online education as a new pedagogical system for studying and testing students. It brings changes and reforms to the whole educational system at universities.

Adopting such way of education in Algeria led the Ministry in charge to face many challenges that needs more efforts to make Blended Learning effective enough to create a solid generation which takes part in the country development in the near future.

In order to meet that point some important decisions should be taken in consideration to get good results:

- _ Scheduling some training sessions for both teachers and students to help them use new technologies and avoid any obstacles may appear during lessons.
- _ Providing universities with free access of internet to facilitate the interaction between them and the administration.
- _ Helping teachers and students to integrate online learning to the designed programs by linking Education with Technology and Computing world.
- _Cooperation between Ministry of Telecommunication, Education and Higher Education to exchange the experiences and transmit Blended Learning to schools in the future.

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APPENDICES:

Google Questionnaire Blended Learning Effectiveness at the Algerian University during the Pandemic

Dear teachers and students,

This questionnaire attempts to gather data for the fulfillment of a Master's thesis. You are kindly requested to answer the following questions by ticking your chosen response. Your answers will be kept anonymous and will be used for academic research purposes only. Your cooperation is much appreciated. Thank You!

1.		* Email
2.	Are you :	
	Teacher Student	
3.	Your age*	
	20 30 30 40 More than 40	
4.	You are*	
	Male Female	
5.	Do you have a computer or a smart phone?*	

Yes No 6. Do you have (sim) card (a subscriber identity module) with internet access?* Yes No 7. Do you have (ADSL) an internet line (a symmetric digital subscriber line?*. Yes No 8. How often do you use internet?*. Always Sometimes Rarely 9. Was it easy for you to log into the Moodle Platform of your university*. Yes No 10. Have you taken some training sessions on the use of the Moodle Platform?*. Yes No 11. The Platform of you university is always available.*. Yes No

Effectiveness Of Blended Learning As A Part Of Master Degree Curriculum During The Covid-19 Pandemic

12.	Do you have an account on your university Moodle Platform?*.	
	Yes	
	No	
13.	Have you used the platform to interact with the learners/ teachers?*.	
	Yes	
	No	
14.	Do you have other means of communication except the university platforms?.	
	yes .no	
15.	Which one of the following applications have you used for communication (
	Padlet/ Zoom/* Google meet/ Classroom ?	
	Padlet	
	Zoom	
	Google meet google Classroom others	
	16. Have you ever used the platform or one of the mentioned applications before the * pandemic?.	
	Yes	
	No	
	17. Have you experienced or attended a class, a forum, or a seminar using a video	

lecture* technique?

	Yes No	
18.	You feel satisfied when using distance education?*	
	Agree Disagree uncertain	
19.	After the pandemic, you will keep dealing with distance teaching/ learning?*.	
	Yes	
	No	
	Maybe	
20.	Do you find that Blended Learning was useful at the Algerian university during the	
	* pandemic?	
21.	Was the time devoted for face-to-face learning during the pandemic sufficient?*.	
	Yes	
	No	
	Maybe	
22.	Blended Learning improved the teaching-learning process. your opinion*	
23.	Online lessons are sufficient and students do not need to attend face-to-face lessons.*.	

Effect	tiveness Of Blended Learning As A Part Of Master Degree Curriculum During The Cov	id-19 Pandemic
	Strongly disagree	
	Disagree Neutral	
	Agree	
	Strongly agree	
24.	Blended Learning achieved all the desired objectives of Higher Education.*	
	Strongly disagree	
	Disagree	
	Neutral	
	Agree	
	Strongly agree	
25.	What do you suggest to make Blended Learning more effective at your univ	versity?*

Google.

Forms

Google

 $\label{thm:continuous} \textbf{Screen captures taken from the teachers responses:}$

	T	U	v	w	×	Y
1	pandemic, you v	Do you find that Blended	Was the time devoted for	Blended Learning improv	Online lessons are suffici	Blended Learning achiev
2		Yes Jt IS better than face	No	Yes. But I think WE need	Disagree	Disagree
21		Not really	No	I don't think so.	Strongly agree	Neutral
22		Yeah	Maybe	Certainly	Disagree	Disagree
23		of course	Maybe	i m agree	Disagree	Agree
2.4						
26		Not 100/. But it has sole	No	Not really becaude the sto	Disagree	Disagree
29		Not really, il found sole di	No	In fewaspects only	Disagree	Disagree
34		Maybe	No	Of course	Strongly disagree	Agree
35		Maybe	No	Yes	Strongly disagree	Agree
37		Yes it is very useful	No	The data is always availa	Neutral	Neutral
40		Yes	No	I totally agree	Disagree	Agree
41		it is usefull	Yes	Yes	Agree	Disagree
42		Yes	No	I totally agree	Strongly disagree	Agree
47		no	No	yes ,many resources for I	Disagree	Disagree
48		yes	No	yes, learners improve the	Disagree	Disagree
50		Yes	No	I agree	Strongly disagree	Agree
53		Of course	No	Maybe	Strongly disagree	Disagree
54		Yes.	Maybe	It helps but It itself needs	Strongly disagree	Strongly disagree
55		Yes	No	Yes	Disagree	Disagree
56		Yes	No	Of course	Strongly disagree	Disagree
57						

	C	D	E	F	G	
1	Are you:	Your age	You are	Do you have a computer	Do you have (sim) card	(Do you
2	teacher	2030	Female	Yes	Yes	No
21	teacher	30 40	Female	Yes	Yes	No
22	teacher	30 40	Female	Yes	Yes	Yes
23	teacher	30 40	Female	Yes	Yes	Yes
24	teacher	20_30				
26	teacher	30 40	Female	Yes	No	No
29	teacher	30 40	male	Yes	Yes	No
34	teacher	30 40	Female	Yes	Yes	No
35	teacher	30 40	Female	Yes	Yes	Yes
37	teacher	30 40	male	Yes	Yes	Yes
40	teacher	30 40	Female	Yes	Yes	Yes
41	teacher	30 40	Female	Yes	Yes	No
42	teacher	30 40	Female	Yes	Yes	Yes
47	teacher	30 40	Female	Yes	Yes	No
48	teacher	30 40	Female	Yes	Yes	No
50	teacher	More than 40	Female	Yes	Yes	Yes
53	teacher	30 40	male	Yes	Yes	Yes
54	teacher	More than 40	male	Yes	Yes	Yes
55	teacher	More than 40	male	Yes	Yes	Yes
56	teacher	30 40	male	Yes	Yes	Yes
57						
58						

	f.	J	K	L	M	
1	Howoften do you use int	Was it easy for you to log	Have you taken some trai	the Platform of you univ	Do you have an account	Have
2	always	No	No	No	No	Yes
21	Alumin	Yes	Na	Va.	Ven	NI-
22	Always Always	Yes	No No	Yes Yes	Yes Yes	No Yes
23	Always	Yes	No	No	Yes	No
	Arrays	100	140	140	100	140
24						
26	Sometimes	No	No	No	No	Yes
	Sometimes	NO	140	140	140	103
29						
	Always	No	No	No	No	Yes
34	Sometimes	No	Yes	Yes	Yes	No
35	Always	Yes	Yes	Yes	Yes	Yes
37	Always	Yes	No	Yes	Yes	Yes
40		1200			19.00	
41	Always	Yes	Yes	Yes	Yes	Yes
42	Always	No	No	Yes	No	No
42	Always	Yes	No	Yes	Yes	Yes
47	Always	No	No	No	No	Yes
48	Always	No	No	No	No	Yes
50	Rarely	Yes	No	Yes	Yes	Yes
53	Always	Yes	No	No	Yes	Yes
54	Always	Yes	No	No	Yes	Yes
55	Always	Yes	No	No	Yes	Yes
56	Always	Yes	No	No	Yes	Yes
57	100000000000000000000000000000000000000					
58						
	м	N	0	p	Q	
1	Do you have an account	Have you used the platfor	Do you have other means	which one of the following	Have you ever used the p	Have
2	No	Yes	yes	google Classroom	No	No
21	Yes	No	yes		No	Yes
22	Yes					
	res	Yes	no	P adlet	Yes	Yes
23	Yes		no no			Yes No
23		Yes		P adlet	Yes	
		Yes		P adlet	Yes	
	Yes	Yes No	no	Padlet google Classroom	Yes Yes	No
24		Yes		P adlet	Yes	
24 26	Yes	Yes No Yes	yes	Padlet google Classroom google Classroom	Yes Yes	No
24 26 29	Yes	Yes No	yes	Padlet google Classroom google Classroom Padlet	Yes Yes No	No
24 26 29 34	No No Yes	Yes No Yes Yes	yes yes yes	Padlet google Classroom google Classroom Padlet google Classroom	Yes Yes No Yes Yes	No No No
24 26 29 34 35	No No Yes Yes	Yes No Yes Yes No Yes	yes yes yes yes	Padlet google Classroom google Classroom Padlet google Classroom Google Meet	Yes Yes No Yes Yes Yes Yes	No No No No Yes
24 26 29 34 35 37	No No Yes Yes Yes	Yes No Yes Yes No Yes No Yes Yes	yes yes yes yes yes	Padlet google Classroom google Classroom Padlet google Classroom Google meet Zoom	Yes Yes No Yes Yes Yes No	No No No Yes Yes
24 26 29 34 35 37 40	No No Yes Yes Yes Yes Yes	Yes No Yes Yes Yes Yes Yes Yes Yes Yes	yes yes yes yes yes yes	Padlet google Classroom google Classroom Padlet google Classroom Google Classroom Coogle meet Zoom others	Yes Yes No Yes Yes Yes No No	No No No No Yes Yes No
224 226 229 334 335 337 40 41	No No Yes Yes Yes Yes No	Yes No Yes Yes No Yes No Yes Yes Yes Yes Yes No	yes yes yes yes yes yes yes	Padlet google Classroom google Classroom Padlet google Classroom Google meet Zoom others	Yes Yes No Yes Yes Yes Yes No No No	No No No No Yes Yes No Yes
24 26 29 34 35 37 40 41 42	No No Yes Yes Yes Yes Yes No Yes	Yes No Yes Yes No Yes No Yes Yes Yes Yes Yes Yes Yes No Yes	yes yes yes yes yes yes yes yes yes	Padlet google Classroom google Classroom Padlet google Classroom Google meet Zoom others	Yes Yes No Yes Yes Yes Yes No No No No	No No No No Yes Yes No Yes Yes
24 26 29 34 35 37 40 41 42	No No Yes Yes Yes Yes No Yes No	Yes No Yes Ves No Yes No Yes No Yes Yes No Yes No Yes Yes	yes	Padlet google Classroom google Classroom Padlet google Classroom Google meet Zoom others padlet	Yes Yes No Yes Yes Yes Yes No No No No	No No No No Yes Yes No Yes No No
24 26 29 34 35 37 40 41 42 47	No No Yes Yes Yes Yes Yes No No No No	Yes No Yes Yes No Yes No Yes Yes Yes Yes Yes Yes Yes	yes	Padlet google Classroom google Classroom Padlet google Classroom Google meet Zoom others others Padlet google Classroom	Yes Yes No Yes Yes Yes Yes No No No No No	No No No No Yes Yes No Yes Yes No No No
24 26 29 34 35 37 40 41 42 47 48 50	No No Yes Yes Yes Yes Yes No No No No Yes	Yes No Yes Yes No Yes No Yes Yes Yes Yes Yes Yes Yes Yes Yes	yes	Padlet google Classroom google Classroom Padlet google Classroom Google meet Zoom others others Padlet google Classroom Zoom	Yes Yes No Yes Yes Yes Yes No	No No No Yes Yes No Yes Yes No Yes No No No Yes
24 26 29 34 35 37 40 41 42 47 48 50 53	No No Yes Yes Yes Yes Yes No Yes No Yes No No Yes Yes	Yes No Yes Yes Yes No No Yes	yes	Padlet google Classroom google Classroom Padlet google Classroom Google meet Zoom others others Padlet google Classroom	Yes Yes No Yes Yes Yes Yes No Yes Yes Yes	No No No No Yes Yes No Yes No Yes Yes No No Yes Yes
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24 26 29 34 35 37 40 41 42 47 48 50 53 54 55 56	No No Yes Yes Yes Yes No Yes No Yes No No No Yes Yes Yes Yes	Yes No Yes Yes No Yes No Yes No Yes	yes	Padlet google Classroom google Classroom Padlet google Classroom Google meet Zoom others others padlet google Classroom Zoom google Classroom Padlet	Yes Yes No Yes Yes Yes Yes Yes No	No No No No Yes Yes No Yes Yes No Yes Yes Yes Yes Yes Yes
24 26 29 34 35 37 40 41 42 47 48 50 53 54	No No Yes Yes Yes Yes Yes No No No No Yes Yes Yes Yes Yes Yes Yes	Yes No Yes Ves No Yes No Yes	yes	Padlet google Classroom google Classroom Padlet google Classroom Google meet Zoom others others Padlet google Classroom Zoom google Classroom Zoom	Yes Yes Yes No Yes Yes Yes Yes No No No No No No Yes Yes Yes Yes Yes	No No No No Yes Yes No Yes No No No Yes Yes Yes Yes Yes Yes Yes

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2	No No	Yes		s which one of the following google Classroom	nave you ever used ti No	No No
_	140	162	yes	google Classroom	140	NO
21	Yes	No	yes		No	Yes
22	Yes	Yes	no	Padlet	Yes	Yes
23	Yes	No	no	google Classroom	Yes	No
	100	110	110	googie ciassiooni	100	110
24						
26	No	Yes	yes	google Classroom	No	No
	1.776	1.15.5		33.		
29						
	No	Yes	yes	P adlet	Yes	No
34	Yes	No	Van.	google Classroom	Yes	No
35		1111	yes			
	Yes	Yes	yes	Google meet	Yes	Yes
37	Yes	Yes	yes	Zoom	No	Yes
40	Yes	Yes	yes	others	No	No
11	No	No	yes	others	No	Yes
12	Yes	Yes	yes	others	No	Yes
					20.1	
47	No	Yes	yes		No	No
18	No	Yes	yes	google Classroom	No	No
50	Yes	Yes	yes	Zoom	Yes	Yes
53	Yes	Yes	yes	google Classroom	Yes	Yes
54	Yes	Yes	yes	Padlet	Yes	Yes
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55	Vec					Vec
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56 57 58	Yes R se p Have you experienced No	Yes s or you feel satisfied whe agree	yes T After the pandemic, yes	google Classroom U ou VDo you find that Blende Yes Jt IS better than fa	Yes V Id Was the time devo	Yes
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56 57 58 1 2	Yes R se p Have you experienced No	Yes s or you feel satisfied whe agree	yes T After the pandemic, yes	google Classroom U ou VDo you find that Blende Yes Jt IS better than fa	Yes V Id Was the time devo	Yes
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	T	U	V	W	X	Y
1	pandemic, you v	Do you find that Blended	Was the time devoted for	Blended Learning improv	Online lessons are suffici	Blended Learning achieve
2		Yes .It IS better than face	No	Yes. But I think VVE need	Disagree	Disagree
21		Not really	No	I don't think so.	Strongly agree	Neutral
22		Yeah	Maybe	Certainly	Disagree	Disagree
23		of course	Maybe	i m agree	Disagree	Agree
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26		Not 100/. But it has sole	No	Not really becaude the stu	Disagree	Disagree
29		Not really. Il found sole di	No	In fewaspects only	Disagree	Disagree
34		Maybe	No	Of course	Strongly disagree	Agree
35		Maybe	No	Yes	Strongly disagree	Agree
37		Yes it is very useful	No	The data is always availa	Neutral	Neutral
40		Yes	No	I totally agree	Disagree	Agree
41		it is usefull	Yes	Yes	Agree	Disagree
42		Yes	No	I totally agree	Strongly disagree	Agree
47		no	No	yes ,many resources for I	Disagree	Disagree
48		yes	No	yes, learners improve the	Disagree	Disagree
50		Yes	No	I agree	Strongly disagree	Agree
53		Of course	No	Maybe	Strongly disagree	Disagree
54		Yes.	Maybe	It helps but It itself needs	Strongly disagree	Strongly disagree
55		Yes	No	Yes	Disagree	Disagree
56		Yes	No	Of course	Strongly disagree	Disagree
57						