

Blended Education in the Epidemic: Invest in What Strengthens the Twenty-first Century Learner

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Abstract:

The field of education has undergone numerous changes over the last decade. Much of what has been discussed is connected to the rapid changes and the revolution of hi-tech. Yet, the global pandemic of Covid-19 has paved the ground to reconsider different learning environments such as distance and blended education, which turned out to be in the public eye. Hence, their implementation in the education landscape in the Moroccan context is questioned. In light of this, the paper at hands aims at **a)** investigating the extent to which Moroccan learners benefited from distance learning during the lockdown compared to face-to-face method that used to be the main method before Covid-19, and **b)** to check the efficiency of implementing Blended learning in the educational process and its impact on Moroccan high school learners.

Keywords: Blended learning, Distance Education, teaching and learning process, Covid-19

1. Introduction

Throughout history, teachers, educators and researchers have aimed to develop various methods and approaches in an attempt to enhance the quality of the learning/teaching process and to support the learners' changing needs. The terms distance education and blended learning have been widely used as two different but interrelated learning strategies that contribute to the implementation of digital supplies into the classrooms to enhance the quality of teaching.

This paper is divided into four major sections. The first section sheds light on some theoretical ideas about distance education and blended learning. The second section compares between teaching in Moroccan high schools before and after COVID 19. The third section describes the methodology adopted to obtain the results, and the last section analyses the results obtained.

2. Theoretical Background

The term distance education is traced back to the nineties. Its emergence was a result to the radical changes in a variety of fields affecting our lives especially the economic and technological rapid growth. According to the United States Distance Learning Association (1998) and Roblyer & Edwards (2000), distance education refers to implementing mediated information and instruction including technological tools and any type of learning at distance with the intent of acquiring knowledge and/or developing skills (cited in: King et al. (2001)). The main characteristic of this kind of education is that unlike the traditional

type of education where the contributors, in this case teachers and students, share similar physical space, in distance education contributors in the teaching /learning procedure are physically separated and the communication occurs through various means and at dissimilar times. Kiryakova (2009) classified three major features of distance education that differentiates it from traditional education. First, this type of education suits the constant change of the society's needs in various domains. Bušelić (2012) argues that "distance learning is a contributing force to social and economic development". Second, it provides learners with a platform to decide the time and place fitting their circumstances. Third, it allows teachers to personalize their courses by opting for the appropriate technologies.

One of the main characteristics of distance education is that it permits contributors to choose the most convenient type of education for them. It has two types of communication; synchronous and asynchronous. Synchronous communication allows learners and teachers to integrate in the procedure of learning at the same time. That is to say, they are able to take part in an immediate interaction. This kind of communication happens through lives, chats.... Asynchronous communication permits participants to contact each other at a time and place that fit them, which usually occurs through the use of emails.

Blended learning refers to the process of combining two methods of instruction which are face to face/ traditional method and distance education. The implementation of blended learning is adopted to achieve many objectives. If applied carefully, it can assist learner's learning by allowing great opportunities for teachers to make learning interactive, dynamic, and enjoyable. Moreover, the use of blended learning approach allows teachers to proceed and make progress in their courses.

Blended learning is, accordingly, a great opportunity for students to benefit from the advantages of face-to-face teaching along with the benefits of the various digital resources and equipment. Also, it does not necessarily limit the learning process to the classroom and therefore learning time is additional compared to the one allowed in the traditional mode. Moreover, learners have an unprecedented opportunity to reinforce a number of traits such as self-reliance, time management and discipline (Lalima and Dangwal (2017).

3. Teaching in Moroccan High Schools before and after Covid-19

Prior to the offensive invasion of Corona Virus Disease, face to face instruction, where teachers are the central source of information, was typically the main method of instruction in Moroccan public high schools. This traditional approach of teaching that has been adopted for decades though its limited weaknesses, granted the necessary needs to meet the goals of teaching/learning process. Lalima and Dangwal (2017) claim that; face-to-face traditional approach creates a healthy environment for learners whereby they develop numerous social skills. Accordingly, interaction among their peers plays a vital role in enhancing many social skills such as collaboration, teamwork, sharing, expressing views and respecting other's opinions.

Unexpectedly, and with the changes that were necessary to protect the country from the spread of the epidemic, schools had to close their doors and distance education was the only option that was left for Moroccans. Accordingly, teachers as well as learners found themselves allocated with new responsibilities. For teachers, their role diminished from being the center of information to a monitor and guidance. As for learners, they had to become the active and the central factor in the educational procedure. Their role transformed from an inactive receiver of information to a vital and dynamic participant of the procedure. In the traditional face to face method, instructors were the ones who manage and direct the progress pace, while in distance education, students which become the core of education measure progress

rates. In other words, learners shift from consumers of what their teachers provide with, to contributors to the process of building knowledge. However, within this new way of teaching, instructors are facing with new challenges.

After nearly six months, students were back to school with a different attitude towards the learning environment given that online learning has brought a number of challenges and interesting ways of learning. On the basis of this metamorphosis, both learners and teachers have recognized a new learning environment, namely blended learning.

4. Methodology

To attain the objectives of this study, two instruments were adopted to collect the required data. Tests were administered to high school students and an interview was used to gather data concerning high school teachers' perceptions.

The aim of the first test was to check the efficiency of distance education, which took place from March 2020 to July 2020, and to compare their results to last year students (preceding Covid19), who were tutored with the use of traditional face to face approach. Students are then exposed to an intervention in the sense that along with the face to face traditional courses, a blended course covering supplementary aspects that can enhance students' learning of the language. The second test identifying the students' performance and development was addressed after the designed period (From September 2020 to January 2021) to high school students belonging to different levels (1st year and second year baccalaureate). Finally, a comparison of the first and the second test was developed to evaluate the effectiveness of the two methods, and another comparison of the results of first high school students' tests of last academic year and the current one.

Along with this procedure an interview that was designed to high school teachers of English language to dive deeper into the various perceptions and insights related to this hot issue.

a. Participants

Participants of the study were undergraduate high school students belonging to "Mehdi ELMenjra" High School, Tangier. 39 of the participants, who took part in the study, were 1st year Baccalaureate students, while 142 of them were 2nd year Baccalaureate students. Thus, a total of 181 students was the overall number of participants. 56 % of the participants were females and 44% were males. Concerning the interview, participants were high school teachers of languages: English, French and Arabic. In this regard, 30 high school teachers took part in the interview which main aim was to investigate their perceptions about the students' level as well as the efficiency of blended and distance learning in the educational process and their effects on Moroccan high school learners of languages.

b. Data Analysis

One-way ANOVA was used as the major statistical method for the quantitative part. The use of one-way ANOVA provided information on the differences between the three independent variables: face-to-face learning, blended learning and online learning. Added to this is the inferential statistics obtained within and between the variables.

Content analysis was used as the major method of the qualitative part. It shed light on the ideas expressed by the teachers, their rationale and the frequency of repeating the opinions.

5. Results and Discussion

a. Students’ performance in face-to-face learning, online learning and blended learning

As shown in table 1, while the mean for distance learning is the lowest among the three learning environments (7.97), it turned out that students’ performance with blended learning was the most successful one (10.81). In addition, the descriptive statistics revealed that the second best learning environment in terms of students’ scores is face-to-face (10.54). Given the affinity existing between blended and face-to-face learning environments, it is quite clear that students are in need of a certain level of guidance as the teacher plays an effective role of guiding students in both environments. By contrast, distance learning is very challenging due to the high level of self-reliance when it comes to managing one’s own learning environment.

Table 1: Students’ scores in the three learning environments

Descriptives								
Test1								
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
face to face method	181	10,54	3,672	,273	10,00	11,07	2	20
Distance learning	181	7,97	4,843	,360	7,26	8,68	0	20
Blended learning	181	10,81	4,750	,353	10,11	11,51	0	20
Total	543	9,77	4,626	,199	9,38	10,16	0	20

The low scores of students in distance learning might be due to two major reasons. First, although online learning is not relatively a new environment for many learners as they are used to getting information from the internet, the full exposure to the whole program and its units puts students’ comfort zone at stake. Distance learning is still at its embryonic stage in Moroccan education system. Hence, a lot of ingredients are still taking shape to improve the culture of learning at a distance in Morocco. Second, the role of teachers in students’ learning input and output has been central in Moroccan high schools for many decades.

Table 2: Differences between the three Learning environments

Multiple Comparisons
Dependent Variable: Test1
Tukey HSD

(I) Methods	(J) Methods	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					LowerBound	UpperBound
face to face method	Distance learning	2,565*	,468	,000	1,46	3,67
	Blendedlearning	-,273	,468	,829	-1,37	,83
Distance learning	face to face method	-2,565*	,468	,000	-3,67	-1,46
	Blendedlearning	-2,838*	,468	,000	-3,94	-1,74
Blended learning	face to face method	,273	,468	,829	-,83	1,37
	Distance learning	2,838*	,468	,000	1,74	3,94

*. The mean difference is significant at the 0.05 level.

Concerning the differences within the groups, it turned out that the difference between face-to-face and distance learning methods is highly significant **0.0** (table 2). The status quo confirms the claim that learners feel more comfortable when they have direct contact with their teachers, which might be attributed to the fact that direct explanations and support are essential for a better understanding. Moreover, the psychological barrier does not hinder students’ demands and queries. In this respect, Gardner (2010) argues that learners’ performance is enhanced when they get access to comfortable learning environments which reflect their psychological readiness for a better learning outcome.

However, the difference between face to face and blended learning is not significant **0.8**. This shows that performance in both face to face and blended learning environment improves remarkably students’ scores. Students, accordingly, feel more comfortable with a certain amount of contact with their instructors. The status quo was also expressed by numerous students when they were asked to reflect on their online learning experience during the first classes after the lockdown. Furthermore, a lot of students pointed out that the experience of distance learning has been the worst in their school career. This negative attitude raises a lot of questions about the idea of implementing and encouraging new learning environments in Morocco in spite of the huge access to the virtual word and the digital resources by students. In fact, facilitating access to the online environment is insufficient given that the learning process is surrounded by many psychological and cultural factors. That is to say, students need to be introduced gradually to the online learning environment through, say, project-based learning that requires some use of the internet and online collaborative learning. These primary steps are of paramount importance to make online learning more geared towards learning objectives instead of merely entertaining uses.

b. Teachers’ perceptions of the Blended Learning Environment

The attitudes expressed by teachers confirm a lot of previous obtained results. First, the majority (52%) suggested that students are in dire need to learn effective ways of being autonomous learners given that the pandemic has forced many students to engage in a completely different environment for the first time. For example, the following participant puts much emphasis on students’ skills to manage their own learning:

Participant one:

The new pandemic has brought serious issues concerning students' abilities to learn autonomously. A lot of hard work is needed to give students the skills that make them able to look for the information and use effective time-management skills.

Other teachers (35%) stress the challenge of materials availability and the poor logistic service of the internet (example: participant 2). Hence, digital divide is one of the most challenging hindrances for many students given that their degree of getting access to IT facilities differs in terms of tools/gadgets, internet rate and digital literacy.

Participant two:

A lot of students do not have even smart phones. Others live in areas where the internet rate is too slow if not unavailable. I think students feel frustrated because they suffer a lot to keep updated with the lessons and the syllabus.

Added to the abovementioned challenges of autonomous learning and digital divide is the central importance of motivation to learn via online mediums. In this respect, 12% of teachers pointed out that students were not motivated to embark on the experience of distance learning as they could not have clear objectives and their poor use of the internet make them more frustrated. Also, the psychological circumstances that were concomitant with the lockdown and when the pandemic reached its peak made students live in a time of uncertainty about their school career. This idea was suggested by participant three who clarified:

Participant three:

Students' motivation was really a serious issue because it is the first time that they experience something similar to COVID circumstances. Many of them were not sure if and when they get back to school. All this affected students' readiness to take exams and motivation to make effort.

All in all, the challenges that teachers mentioned can be classified into three major issues: autonomous learning, availability of materials and IT logistics, and motivation. Only one participant mentioned that parents' illiteracy is a serious problem due to the lack of monitoring.

Conclusion

In light of the current crisis that the world is living, many educationalists around the world have questioned the effective use of distance learning and how the experience might be an important factor for the future of education. Although distance learning and blended learning are not new concepts in the educational landscape, controversies about their use have been sharpened during COVID 19. Hence, the present study aimed to bring together the three main learning environments: face-to-face learning, blended learning and distance learning to investigate the readiness of students to engage in the environments where there is relatively less guidance by the teacher. Therefore, the study gathered data both from students' scores and teachers' perceptions to get insights into students' performance and the success of each of these learning experiences. The findings revealed that students suffer when there is limited contact with teachers, which was confirmed by the scores obtained in online learning. Moreover, it turned out that the differences between blended and face-to-face learning is not significant. Students thus benefited from blended learning where teachers are relatively more involved.

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