

# The Development of Communicative Skills and the Impact of Online Learning on Students: A Small-Scale Study on Moroccan University Students

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## Abstract

The state of urgency imposed by COVID-19 pandemic had a significant impact on all aspects of human life including educational systems. Overnight, teaching and learning by means of internet-based applications became the new classroom environment which proved to be inappropriate for all subjects. In this respect, the current study is investigating the influence of learning online via Zoom on a group of university students (N = 44) from the department of sciences of education that belongs to the faculty of letters and human sciences in Rabat-Morocco. The main focus is on assessing the significance of the impact of the experience on the students' development of communicative skills. The study relies heavily on the Communication Skills Inventory (CSI) by Ersanli & Balci (1998) that offers 45 questions targeting the students' feedback about communicative skills. A pre-test/post-test quasi experimental design has been adopted to track the students' answers before and after the experiment. Two main research questions have been formulated as: (1) using the Communication Skills Inventory, what is the impact of the online learning experience on the development of the students' communicative skills, and (2) what is the significance of the reported change of the communicative dimensions listed in the CSI inventory?

Data collected helped to generate descriptive and inferential statistics, and results revealed a significant change of results related to “cognitive”, “emotional” and “behavioral” sub-dimensions that belong to the CSI inventory. Finally, the conclusion part lists some limitations of the study and suggests further areas for future investigations.

**Keywords:** Face-to-Face Communication, Online Classroom, Online Education, Higher Education

## 1. Introduction

Human beings are doomed to communicate with each other on a daily basis, and the classroom environment is no exception to this reality. It is a challenging process as it involves a minimum set of shared knowledge among interlocutors, which makes communication a complex concept to define. In this regard, the following study lines up with Garton's (1992) opinion that communication is basically a social interaction that revolves around the exchange of knowledge and social or cultural values between people committed to a conversation via different channels. In his attempt to explain communicative

tasks, Corbett (2003) focuses on the transactional nature of language which ultimately turns communication into an information gap process and a quest to gain necessary understanding of the other. Powell & Powell (2010) also describe human communication as ubiquitous since “it exists everywhere and has profound impact on what unfolds in a communication setting” (p. 7). This includes both verbal and non-verbal communication, as Birdwhistell (1960) explicitly argues that nearly 65% of the intended meaning, which takes place in a face-to-face setting, is transmitted by means of non-verbal clues. This backs up the claim that every verbal or non-verbal conversation has resulting consequences (Powell & Powell, 2010). In various occasions No-verbal communication may act as an alternative to verbal messages, just like when a teacher is praising the students’ participation. Wrench et al. (2009) consider that such responses from teachers, peers or even parents have an everlasting impact on the students’ self-esteem and self-recognition. To get the big picture here, we should also consider the significant impact of factors related to the environmental and physical appearance over an ongoing conversation as they generate an inevitable set of expectations and obsessions that influence attitudes while communicating (ibid).

### **1.1. Communication and Classroom Instruction**

In the case of an EFL classroom context, the enhancement of the target language is the main goal, which ultimately increases the usage of English for class instruction and communication. The intercultural knowledge is also reinforced if students are encouraged to develop what Byram (1997) describes as “a readiness to engage with the conventions and rites of verbal and nonverbal communication and interaction” (p. 50). It is undeniable that home-based EFL students have limited exposure to native speakers and authentic cultural input, which explains the important role of the instructor in encouraging his or her students to practice English as much as they can (Corbett, 2003). Powell & Powell (2010) identified eight communication skills which they consider vital for the students’ mastery of the target language. Those skills include conversational skill, referential skill, ego-supportive skill, comforting skills, conflict management, persuasive skill, narrative skill, and regulation. Wrench et al. (2009) also talk more explicitly about the fulfilment of the students’ needs by means effective and affective communication, which if they go missing, students may turn very under social or very over social. In worst scenarios, McCroskey (1998) talks about communication apprehension which leads students to develop a certain fear or an anxiety from being called out to speak either individually or with other persons in front of their peers. According to Powell & Powell (2010) a healthy classroom communication is what ensures the success of the instructional process managed by the teacher. This is consistent with Corbett’s (2003) advocacy for providing students with opportunities that support the transfer of knowledge, and the exchange of ideas to be able to sustain conversations around various topics. In the case of a linear teaching mode, Powell & Powell (2010) realized that the teacher’s talking time dominates up to 70% of the classroom interactions which affects students’ participation. This encouraged Wrench et al. (2009) to advocate for the ‘Instructional Communication Process’ within which the instructor designs implements and evaluates the communicative tasks that ensure successful learning and favor more practice of the target language in class. The process entails “how teachers and students feel about each other, about the communication process, and about what is being taught and learned” (p. 2).

## 1.2. Online Teaching

Innovations in technology constantly shape the field of education, redefine teaching methodologies, and setup new standards. Corbett (2003) points out that the ability to connect sophisticated electric devices, including computers and mobiles, to the World Wide Web completely redefined educational practices by providing exciting prospects to overcome barriers between teachers and students, either related to cultural difference or space distance. Marczak (2014) explains that Such abundance of devices connected to the internet in and outside the classroom pushed e-learning to grew simultaneously as online learning evolved.

According to Powell & Powell (2010), this revolution eventually had a huge impact on existing forms of communication within the classroom to the extent of influencing socio-emotional interactions or relations between faculty and students. As a matter of fact, Marczak (2014) is confident that communication by different means of information technology can never matchup face-to-face interactions because it lacks the paraverbal and nonverbal cues that individuals use in real life. Teachers across different educational levels implement various models when managing communication with learners inside the classroom. For those using a communication-oriented approach as a way of instruction they rely heavily on learning concepts with strong foundation from behavioral and educational psychology research (Wrench et al., 2009). The same teachers would face challenges when implementing a blended learning model as it falls midway between face-to-face and e-learning mode, resulting in a hybrid learning mode that combines the two methodologies (Marczak, 2014). In other words, communication by means of digital devices is less effective when teaching new intercultural patterns.

## 2. Context of the Study

Like all sectors around the world, Moroccan higher education has been hit by COVID-19 pandemic to the extent of completely swapping all courses to online distance teaching as soon as the lockdown was announced by March 16<sup>th</sup>, 2020. With schools and universities resuming to face-to-face teaching beginning of September of the same year, the ministry of national education enforced an attendance policy with only half of the normal capacity, to be able to maintain sufficient space distance between students in classrooms, laboratories and auditoriums. While monthly monitoring the curve of cases reported in the country officials in the ministry did not allow for full attendance until September 2021. The number of vaccinated students supported such decision but only for primary, junior and high schools. Concerning levels from higher education, universities offered both modes including face-to-face and distance teaching within the capacity of every department.

This study was conducted during fall 2021 and involved students from the department of sciences of education, who were registered at the faculty of letters and human sciences in Rabat, Morocco. To earn a Bachelor of Arts (BA) from public universities in Morocco students are supposed to successfully complete the necessary six semesters, which ideally results in graduating within three years. Students from the department of sciences of education who are in semester five and six are taught various courses in Arabic, intensely focused around teaching and learning principles. In addition to that, they have a mandatory course in English with a total of twenty-five hours of instruction throughout the entire semester. The course syllabus is meant to support and enhance communicative skills of students while

using English for various purposes including formal and informal interactions. In regular time students receive a session of two hours each week, but with the post-pandemic measures students took the course under two formulas with some being taught online while others had face-to-face instruction, depending on the availability and the competence of the teacher. Such divergent scenarios while teaching the same course encouraged the researchers to investigate the impact on the students' communicative skills development by comparing their performance before and after taking an online experience.

### 3. Research Methodology

This study investigates the impact of learning online on a group of university students taking an English course to enhance their communicative skills. A conveniently selected group of 44 students from the department of sciences of education at the faculty of letters and human sciences in Rabat took part in this study for the entire fall of 2021. The group reached semester five and was made of 19 males and 25 females with ages between 20 and 23. The teacher made use of Zoom to conduct the sessions and students were allowed to attend using either a mobile or a laptop with cameras on and off.

Two research questions have been formulated to which this study will attempt to provide sufficient answers. The suggested questions are listed as: (1) using the Communication Skills Inventory, what is the impact of the online learning experience on the development of the students' communicative skills, and (2) what is the significance of the reported change of the communicative dimensions listed in the CSI inventory?

In a way to reach accurate conclusions, this study makes use of a pre-test/post-test quasi experimental design comparing the students' scores before and after the online course. Unlike the case of a true experiment, in this study, students were not randomly assigned to a group to be taught online while others assigned to be taught in a face-to-face mode. The chosen group was subject to a predefined condition as the decision to take this course online was enforced by the department and supported by the teacher. Cook & Campbell (1979) argue that such a case with no space for the researcher to intervene is an ideal situation to conduct behavioral studies or run educational interventions. For this research, the goal is to measure the impact of the online learning experience on the development of the communicative skills of the students. To achieve such objective the researchers relied on a survey with the Communication Skills Inventory developed by Balci (1996). The inventory had initially 70 items in its first version, when applied on 500 students for validity and reliability tests. Upon factor analysis, the inventory was reduced down to 45 items by Ersanli & Balci (1998) in the final version. It was then conducted on 170 participants to assess its reliability after a time span of one month. Using a split-half method 2 halves reliability coefficient resulted in a score of 0.64, while a test-retest method helped achieve a reliability coefficient score of 0.68. the Cronbach Alpha coefficient revealed that the inventory has an internal consistency score of 0.72.

The Communication Skills Inventory (CSI) serves perfectly the objectives of this study, as Ersanli & Balci (1998) have identified three significant dimensions measuring "cognitive", "emotional" and "behavioral" communication skills. Each dimension has 15 items assigned, which can be listed as follows:

- Cognitive: 1, 3, 6, 12, 15, 17, 18, 20, 24, 28, 30, 33, 37, 43, 45

- Emotional: 5, 9, 11, 26, 27, 29, 31, 34, 35, 36, 38, 39, 40, 42, 44
- Behavioral: 2, 4, 7, 8, 10, 13, 14, 16, 19, 21, 22, 23, 25, 32, 41

The first section of the survey helped collecting some demographic information about participants (gender, age), while the second section contained a Likert scale that helps participants answer the 45 questions by stating: never, rarely, sometimes, usually, or always. “Never” takes a score of 1 up to a score of 5 for “Always”. Students were asked to fill in their answers before taking the course and at the end via an electronic link with a google form sent to their emails. All data collected was analyzed using the SPSS 26.0 software which helped generate descriptive and inferential statistical analysis. A Paired Samples T-test was implemented in order to gain a deeper understanding of the results.

#### 4. Findings and Discussions

Descriptive statistics of the collected data revealed that the total number of participants in this study (N = 45) is made of 19 males (43.2%) and 25 females (56.8%) (Table 1). Records related to the age factor showed that students have between 20 and 23 years old.

Table 1: Descriptive Statistics - Gender Factor

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	19	43.2	43.2	43.2
	Female	25	56.8	56.8	100.0
	Total	44	100.0	100.0	

Students provided their feedback using The Communication Skills Inventory (CSI) by Ersanli & Balci (1998) before and upon completion of the online course using Zoom platform. Scores of the mean and the Standard Deviation related to the pre-test (M = 173.09, SD = 46.21) revealed an increase of the mean value by 21.2 when compared to post-test results (M = 194.29, SD = 28.24) (Table 2).

Table 2: Descriptive Statistics of CSI Pre-test and Post-test Scorers

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pre-test	173.09	44	46.21	6.96691
	Post-test	194.29	44	28.24	4.25739

A paired Samples T-test was then performed with the 95% confidence interval of the difference between the means ranged from -28.19 to 14.20. The results show that t has a value of -6.11 and df is at 43, while the P value is .000 which is less than the significance level of 0.05. This helps us conclude that the difference of the mean values recorded in the pre-test and the post-test of the CSI is statistically significant (Table 3).

Table 3: Paired Samples T-Test

	t	df	Sig. (2-tailed)
<b>Pair 1</b>	Pre-test -6.114	43	.000
	Post-test		

In a quest to gain further understanding of the collected data, the researchers operated a deeper look at the CSI sub-dimensions including the cognitive, the emotional and the behavioral levels. Table 4 provides descriptive statistics comparing cognitive pre-test (M = 58.31, SD = 16.09) and post-test (M = 76.34, SD = 10.24) records, which reveal an increase of the mean by 18.03. The emotional dimension also showed an increase of the mean by 3.62 when looking at the pre-test (M = 56.65, SD = 15.71) and the post-test (M = 60.27, SD = 11.25) results. Surprisingly, the mean value of the behavioral dimension declined by 0.43, once we compare the pre-test (M = 58.11, SD = 14.84) and the post-test scores (M = 57.68, SD = 8.32) (Table 4).

Table 4: Descriptive Statistics - CSI Cognitive, Emotional and Behavioral Sub-dimensions

		Mean	N	Std. Deviation	Std. Error Mean
<b>Pair 1</b>	Cognitive pre-test	58.31	44	16.09	2.42690
	Cognitive post-test	76.34	44	10.24	1.54391
<b>Pair 2</b>	Emotional pre-test	56.65	44	15.71	2.36986
	Emotional post-test	60.27	44	11.25	1.69640
<b>Pair 3</b>	Behavioral pre-test	58.11	44	14.84	2.23872
	Behavioral post-test	57.68	44	8.32	1.25492

Results from a Paired Samples T-test over the three elements help determine that for the confidence dimension, the reported increase of the mean between the pre-test and the post-test for 95% (-20.25, -15.78) is statistically significant as results show that the P value is .000 which is lower than the significance level of 0.05, while t has a value of -16.272, and df reached 43. Similarly, the Paired Samples T-test related to the emotional dimension within a 95% confidence interval that ranges between -5.63 and -1.58 shows that t has -3.598 while df is at 43 with a P value of .001, which is less than the significance level of 0.05. We can conclude again that mean values are statistically significant.

Table 5: Paired Samples T-Test of the Three GIS Dimensions

		Paired Differences		t	df	Sig. (2-tailed)
		95% Confidence Interval of the Difference				
		Lower	Upper			
<b>Pair 1</b>	Cognitive Pre-test	-20.25637	-15.78908	-16.272	43	.000
	Cognitive Post-test					
<b>Pair 2</b>	Emotional Pre-test	-5.63907	-1.58821	-3.598	43	.001
	Emotional Post-test					

<b>Pair 3</b>	Behavioral Pre-test Behavioral Post-test	-2.77124	3.63488	.272	43	.787
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Eventually, the decline in the mean value recorded between the pre-test and the post-test results of the behavioral dimension calls for a Paired Samples T-test. The records in Table 5 show that within 95% confidence interval of the difference between the means that ranged from -2.77 to 3.63, t has a value of 0.272 with a df value at 43 while the P value is .787, which is greater than the level of significance level of 0.05. This helps us conclude that values of the mean are not statistically significant (Table 5).

Additional input that can explain such a decline can be obtained with a meticulous look at students’ answers for item 45 in the CSI, which states that “I try to empathize with the person before me in order to understand their feelings and thoughts”. In the pre-test stage, 24 students (54.5%) answered “always“ and 13 students said “usually” (29.5%), with 4 students saying “sometimes” (9.1%), and only 3 of students said “rarely” (6.8%). Once students’ answers were collected during the post-test stage the number of students who said “always” declined to 20 (45.5%), and those who answered “usually” went even down to 8 (18.2%). Visibly, the number of students who answered sometimes went up to 11 (25%), and students who said “rarely” became 5 (11.4%). That testifies having learning experience online deprived students from the natural face-to-face input that helps both interlocutors exchange feelings and thoughts.

As demonstrated, the impact of the online learning experience on the students’ “cognitive”, “emotional” and “behavioral” communication skills is inevitable, and students demonstrated a significant development of areas mostly associated with verbal communication techniques they were able to participate similarly to what they were used to in regular face-to-face sessions. The significant challenge for students was mainly related to nonverbal communication clause as students were missing much of the necessary input in order to appropriately interpret indirect messages from their interlocutors. This can be the result of communicating via Zoom without direct visible contact as students might have their cameras turned off. This goes down the same line of conclusions reached in the work provided by Bayraktar (2001) on the effects of computer-aided instruction, and Tavangarian et al. (2004) while dealing with impact of technology over various educational contexts.

**5. Conclusion**

It is well agreed that the introduction of online teaching and learning into the Moroccan educational system has been reasonably performed in a state of urgency due to the unprecedented situation caused by COVID-19 pandemic. This allows researchers to assess the impact of such teaching measures on both teachers and students and how this can affect their work compared to regular face-to-face setting. There are different formulas by which teachers can turn internet-based communication tools into teaching platforms, but this certainly requires adequate training and proper adaptation to specific necessities.

In the case of this study the main focus was on the investigation of the impact of the online learning experience on Moroccan university students while they are taking a course that is meant to enhance their communicative skills in using English for different purposes. The study has certainly some limitations related to the research design where there has been no controlled group since the students where not

randomly assigned to have the experiment. Additionally, the size of the population was limited to one group and future researches are encouraged to extend the target population and include a large sample from other departments. Using additional scales to assess the development of the communicative skills in addition to the Communication Skills Inventory (CSI) can also bring an added value to the interpretations of the collected results.

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