Secondary School Students' Critical Thinking within the Scope of Distance Education during Covid-19 Pandemic

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Abstract. The announcement of schools' closure due to Covid-19 pandemic for an undetermined period of time left Baccalaureate (Bac) students in a complete uncertainty as they were surely not prepared for such a situation. Having an exam by the end of the academic year, Bac students, had to adapt to distance education and its vagaries instead of the habitual face-to-face instruction. The present exploratory study investigates how both secondary school (SC) EFL Teachers and (SC) FL students have managed to prepare for the Bac exam in the light of the pandemic and distance education as well as the place of critical thinking (CT) in distance instruction. For that, in parallel with the literature review, the researcher opted for a quantitative approach using questionnaires as research tools, one addressed to 102 3rd year SC FL students and another to 121 SC EFL teachers. The findings showed that CT is important to distance teaching but distance instruction has a long way to go in the field of education in Algeria.

Keywords. Critical thinking – distance instruction - autonomous learning – 3rd year SC FL students –SC EFL teachers.

Résumé. L'annonce de la fermeture pour une période indéterminée de tous les établissements scolaires à cause de la pandémie du Covid-19 a mis les élèves de terminale dans une situation d'incertitude car ils devaient faire face aux aléas de l'apprentissage à distance avant l'examen du baccalauréat, eux qui sont habitués à l'enseignement direct. Cette étude a pour but d'investiguer et de déterminer la manière dont les enseignants ainsi que les élèves ont procédé pour la préparation au baccalauréat. Pour ce faire, en parallèle à l'analyse documentaire, l'auteur a procédé à une analyse quantitative utilisant deux questionnaires qui ont été respectivement adressés à 102 élèves de 3ème année filière langues étrangères et 121 professeurs de langue Anglaise du cycle secondaire. Les résultats de cette étude ont démontré l'importance de la pensée critique dans l'instruction à distance mais aussi que ce mode d'apprentissage a encore un long chemin à parcourir dans le domaine de l'éducation en Algérie.

Mots-clés. la pensée critique – l'apprentissage à distance – l'apprentissage autonome – élèves de 3ème année secondaire filière langues étrangères - enseignants d'anglais du secondaire.

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1. Introduction

Covid-19 pandemic is one the most significant event of 2020. Because of Covid-19, a virus which was detected in China, and its worldwide spread (Carmosino, 2020b) drastic measures had to be taken. Hence, lockdown is one of those measures most of the world's countries chose to adopt, as 3.9 billion people (50% of the world population) have been confined (Le Monde, 2020b). In addition to causing a sanitary crisis, the pandemic affected all kinds of institutions. Yet, educational institutions have been impacted too and like many countries, Algeria took the decision to close schools, which was announced on 12th March 2020 and this was for an undetermined period of time. Secondary schools were not an exception as they have also been forced to close, leading students who were about to take the Baccalaureate exam (will henceforth be referred to as Bac exam) to get ready for an inevitable autonomous instruction.

Grohol (2020) said: "Coping with coronavirus and the accompanying disease — called COVID-19 — isn't easy. Many people feel overwhelmed by anxiety and fear" (Grohol, 2020), this applies to students too. Thus, Algerian students spent a total of 166 days far from school and of course those who had final exams were the most affected ones, as it has been the case for 3rd year secondary school Foreign Languages (henceforth FL) students, who were expected to take the Bac exam on the 13th September 2020 (Meddi, 2020b). However, the Algerian ministry of education decided that secondary schools had to reopen on the 25th August 2020 and 16 days have been dedicated for Bac students to get revision classes in order to study and prepare for the final exam in schools and with their teachers (Elwatan, 2020).

Of course, secondary school teachers' main task during the period of revision for the Bac exam would be to refresh students' memory and help them revise the most essential lessons of the program. The approach to language teaching in Algeria is the Competency-based approach (CBA) which suggests that students are formed and prepared to develop intellectual, linguistic and problem-solving abilities in school to be able to face challenging situations in school and outside school in a pragmatic and cognitive way (Mizra, 2017).We can suppose that the CBA encourages problem solving in real life situations, therefore, the use of critical thinking (CT) abilities because CT is viewed as "any mental activity that helps formulate or solve a problem, make a decision, or fulfil a desire to understand" (Ruggiero, 2012 p.4). For its own part, CT is a concept which applies to all kinds of knowledge and implies the true engagement of learners in the knowledge construction process (Saleh, 2019),bit is consequently part of FL teaching and learning. Furthermore, Nosratinia and Zaker (2013) found out that a positive relationship exists between CT and autonomous learning (Nosratinia and Zaker, 2013)

As already mentioned, from the day schools closed students had to study at home each their own strategy, which implies online instruction and distance learning as well as the use of the acquired skills such as CT skills and knowledge to cope with that unfamiliar mode of education. The present research provides a review of the literature dealing with autonomous and distance education as well as critical thinking and how secondary school EFL teachers and 3rd year secondary school FL students have coped with Covid-19 outbreak as the latter

were about to take the Bac exam. Data were gathered in an attempt to answer the following research questions:

a) How did 3rd Year secondary school FL students and secondary school EFL teachers cope with distance instruction during Covid-19 pandemic?

b) Is critical thinking important to distance education?

1.1. Education during Covid-19 Pandemic

The least one can say is that education has been disturbed; according to UNESCO (2020), due to Covid-19 pandemic 117 countries decided to close all educational institutions, which affected 1,313,085,794 (75% of total enrolled learners) pandemic affected learners (UNESCO, 2020). Algeria has not been an exception, the country has made a series of decisions to avoid a large scale contamination; a curfew all over the country, the closure of airports, schools and universities have been the principle measures adopted (Mehenni,2020) . As a result, the most convenient solution has been distance education and autonomous learning (Zermane and Aitouche, 2020).

In Algeria, the Ministry of Education dedicated TV stations for the teaching of different subjects in order to allow students to carry on studying for final exams with a special schedule for each level and subject (Maghreb Émergent, 2020). Students, forced by the situation, have been forced to switch to autonomous learning and obliged to shift from face-to-face education to autonomous learning and also cope with distance education.

1.2. Autonomous Learning

Learner autonomy is about the learner's maximum responsibility for what they learn the way it is learnt. They should be involved when it comes to decisions about setting objectives and methods of learning, and reflecting on and evaluating what has been learned (Richards, 2012b)

Autonomous learning can suppose the use of technology for their own benefit, in case the instructor is not available (Canonico, 2020). Which assumes utilising ICT, an abbreviation for information and communication technology: the use of computers and other electronic equipment and systems to collect, store, use, and send data electronically (*Cambridge Dictionary*,2020)

Nevertheless, autonomous instruction cannot be achieved if not following some principles that are:

1. active involvement in student learning
2. providing options and resources
3. offering choices and decision-making opportunities
4. supporting learners
5. encouraging reflection (Benson 2012 as cited in Richards, 2012)

According to Grenfell (2000), the teacher's role in autonomous instruction is restricted to the teacher's role providing a framework and resources to achieve learning objectives (Grenfell, 2000).

1.3 Distance Education

Many definitions of distance education also called distance instruction or distance learning have been reported, among which the one cited in *Cambridge Dictionary* (2020) and which is the most representative of what this concept is, namely "a way of studying in which you do not attend a school, college, or university, but study from where you live, usually being taught and given work to do over the internet" (Cambridge Dictionary, 2020)

Distance education is meant to be formal and framed as explained by Schlosser and Simonson (2002) who think that it is an institution-based and formal instruction involving separate learning group, and interactive telecommunications systems which connect learners, resources, and instructor (Schlosser and Simonson, 2002)

1.4. Critical Thinking

Among the various definitions of critical thinking, we can consider Talentlens' (2011), who views CT as a thinking needed in problem understanding and solving as it is organised and logical (Talentlens, 2011). According to Valenzuela, Nieto and Saiz (2011), people think critically in the process of problem solving, when assessing an argument, deciding about a belief, or making a decision in general (Valenzuela, Nieto and Saiz 2011). Moreover, Sternberg (2011) as cited in Fahim and Eslamdoost (2014) sees that CT when practised effectively in an educational context may involve the integration of real-life issues when teaching problem-solving skill, which will help students transfer the CT skills to diverse contexts (Sternberg, 2011; Fahim and Eslamdoost, 2014). We can also consider the definition given by Scriven and Paul (1987), who define CT as "the intellectually disciplined process of actively and skilfully conceptualizing, applying, analyzing, synthesizing, and/or evaluating information gathered from, or generated by, observation, experience, reflection, reasoning, or communication, as a guide to belief and action'' (Scriven and Paul, 1987),

Glaser (1987) as cited in (*Defining Critical Thinking*, n.d.) explains that "CT calls for a persistent effort to examine any belief or supposed form of knowledge in the light of the evidence that supports it and the further conclusions to which it tends. It also generally requires ability to recognize problems..." (Glaser, 1987). Moreover, we can affirm that all the definitions of CT converge and agree that any individual needs CT in their life, be it in education, in their daily personal and community life.

2. Method and Tools.

The present study is quantitative, it is aimed at investigating secondary school FL students as well as their EFL teachers' behavior vis-à-vis and during Covid-19 pandemic and the perception of their teachers about CT as an essential element in education. Djamila Khiar(2020) said in an interview held with the European Training Foundation (2020), that distance learning didn't really exist in Algeria; still, some classes were organised and ran on the six national television stations (*Algeria: Distance Learning for Students | ETF*, 2020).That being said and considering the critical situation of 3rd year students who must take an exam, which is crucial in high school students' life; as it enables them to become university students, the researcher tried to answer two main research questions.

2.1. Participants

The population involved in the research is constituted of 121 secondary school EFL teachers who accepted to take part in the survey, a number which accounts for 35.48% of the total number (341) of EFL teachers performing in the 85 public secondary schools of the Algerian city of Oran. And 102 3rd year secondary school EFL students who were about to sit for the Bac exam.

2.2. Instruments

The instruments used in this study are: a questionnaire elaborated for secondary school EFL teachers containing 12 open-ended and close-ended questions evolving around distance learning as well as students' critical thinking, which permitted to treat two main themes: teachers' practices in the scope of distance learning and 3rd year students' critical thinking from the teachers' standpoint during the pandemic.

In addition to teachers' questionnaire, another questionnaire has been addressed to 3rd year secondary school FL learners including 10 closed- and open-ended questions, whose aim was to collect information on the lockdown period and distance learning. Both Arabic and English versions of the questionnaires were available, but some terms had to be explained by their EFL teachers and the researcher (when present).

2.3. Procedures

Data collection and analysis occurred between July and September 2020 but this has not been an easy task due to the pandemic, especially the questionnaires addressed to students because of the difficulties encountered to administer printed versions of the questionnaire. In fact, among 131 FL students, 102 returned the questionnaires completely filled in.

Concerning Teachers' questionnaires, they were completed during the period of revision and preparation for the baccalaureate exam between the 25th august and 09th September 2020. It is necessary to observe that no postpilot modifications have been made.

It is also important to note that 57.30% 71 teachers out of 121 received electronic versions of the questionnaires, knowing that all were recruited because identified as having the needed criteria, namely EFL teachers who perform in public secondary schools in Oran and 3rd year foreign languages students who study in public secondary schools in Oran too. Students had the possibility to choose to answer either the English version of the questionnaires or the Arabic one, in order to avoid any ambiguity due to language.

3. Results and Discussion

Analysing the findings was done in two phases; in the first one, teachers' questionnaires and students' were examined separately whereas the second phase was meant to proceed to the analysis of reported answers collectively in order to compare the collected data.

Neither Teachers nor students have been selected taking into account their gender. Concerning their age, students were aged between 17 and 19 years old (62.66% aged 19). Table1 provides more details about the teachers participants.

Table (1): Information on the Respondents' Years of Teaching Experience

	%
Years of Teaching Experience	
< 5	24.79
5 – 10	19
> 10 years	56.19
Years of Teaching EFL Classes in public schools	
< 3	9.09
3 – 10	38.84
> 10 years	38.01

3.1. Findings of Teachers' Questionnaire

Teachers' questionnaire was designed in a way to treat two themes, which are developed in two sections:

3.1.1. Teachers' practices and perception of distance education during Covid-19 pandemic

Seven questions constituted this section, the first question was about online classes and if teachers organised online audiovisual EFL classes with their students and their answers were negative for the majority (96.69%), the remaining 3.30% respondents (who represent 4 teachers) whose answer was "yes", admitted that students' participation was timid as two teachers answered that less than 10% of students took the online classes and the two other teachers provided the percentages of 20% and 20-50% respectively.

Nevertheless, 62.80% opted for other distance teaching strategies which were asynchronous, from their answers we can cite for example, electronic texts to read and activities to do at home plus teacher's feedback and assignments, audio messages recorded to explain lessons as well as phone calls to answer students' inquiries at any moment of the day. Most of the participants said that they used the following media as teaching platforms: Viber, Whatsapp, Facebook, Gmail. The 76 teachers who taught online, admitted at 47.36% that they were not satisfied with distance teaching compared to face-to-face instruction because not all of their students could get access to distance instruction. According to them, students for their part, were not satisfied neither, teachers think that learners were not motivated as they are not used to such practices (distance learning) in addition to that, the internet , when accessible, is not of high speed. Teachers regret the lack of measures taken to make distance education available for every teacher and student and wish future improvements would be done in the domain. Furthermore, 59.64% of participants think that the pandemic has negatively impacted their students and believe that they were not ready to sit for Bac exam as they were not motivated, emotionally and psychologically affected and uncertain about their level because of the lack of assessment.

3.1.2. Teachers Perception of the Place of Critical Thinking

When asked if critical thinking was one of their priorities in distance instruction, 61 respondents out of 76 (teachers who taught online), mentioned that without critical thinking, students will not be able to solve problems, give arguments, analyse and synthesise. Teachers also think that CT is essential to the process of writing and reading as they have mentioned in

the survey, because as 3rd year students will sit for Bac exam, they must be critical thinkers and face pedagogical and contextual issues.

In regard to the online teaching of CT, teachers' answers were unanimous; 121 out of 121 believe that CT and CT skills can be taught and assessed. They also deplored that critical thinking was neglected in teaching English as a foreign language in Algerian secondary schools as 47.83% saw that CT was not given much importance knowing the important role it plays in any individual's life.

However, 66.11% felt that the period spent far from of school did not alter students' critical thinking, they argued that CT is acquired from early stages so it cannot be affected, while 33.88% think that CT abilities like any other skills can be lost due to the lack of practice.

3.2. Findings of 3rd Year FL Students' Questionnaire

The questionnaire addressed to 3rd year secondary school FL students also contained two sections: one dedicated to their state of mind and preparation for Bac exam during Covid-19 pandemic and another one dedicated to their opinion on distance and autonomous learning.

3.2.1 Students' State of Mind during Covid-19 Pandemic and Preparation for Bac Exam

All of the FL students involved in the study answered with a percentage of 100% that they have got informed about the spread of Covid-19 in Algeria and all over the world. The great majority (80.33%) admitted that Covid-19 crisis affected their personal life explaining that the impact was negative as they were afraid for the members of their family to be contaminated, they were also tired of the lockdown that limited their freedom. If the number of those who have been impacted in a negative way was big (85 students out of 102) those who mentioned that the pandemic had advantages explained that the confinement helped them rest and remedy the lacks they had in many subjects as they were given enough time to grasp what they had to grasp. And when asked if they were excepting Bac exam to be cancelled, 73.52% of the respondents' answers were affirmative.

3.2.2 Students' Opinion on Distance and Autonomous Learning

When asked if they used the Internet to study for Bac exam, 75.49% of the participants relied with "yes". They have said that when studying for the exam, they watched Algerian TV channels proposing revision, they have also used online learning platforms and social media as well as printed documents in their preparation. Some students (14.70%) also admitted that they used to revise in small groups breaking the rules of social distancing. Tables bellow give further details on students' viewpoint and preferences in terms of learning modes; Table 2 (what students prefer the most as learning mode), Table 3 *(percentage of students watching TV channels that transmit EFL classes) and* Table 4 (percentage of students having unlimited and permanent access to the Internet)

Table 2: Students Preferences regarding Learning Modes

Face-to-Face Instruction	Autonomous Learning
97.05%	2.94%

Table 3: The Use of Algerian TV Stations in Autonomous Learning of EFL

Yes	No
54.90%	45.09%

Table 4: Students Permanent and Unlimited Access to the Internet

Yes	No
67.64%	32.35%

AS 62.2% admitted having difficulties coping with distance and autonomous learning, they have reported more disadvantages than advantages; 97 out of 102 explained that they preferred face-to-face learning to autonomous learning. Third year FL students argued that due to slow internet connection, they could not get access to all kinds of network resources, they also mentioned that the lack of guidance and orientation that only face-to-face learning can provide. Students deemed assessment and evaluation important to know what they have to do to avoid failure in the subject.

3.3. Discussions

Overall findings support the fact that many Algerian secondary school EFL teachers managed on their own initiative to accompany their students during Covid-19 pandemic and help them study for Bac exam, although not all the conditions were in place for such mode of instruction. Secondary school EFL students' preference for face-to-face instruction shows that students were probably not ready for distance learning because not trained for such instruction, which was the case for their teachers too.

The results also showed that critical thinking is an important element in distance and autonomous learning, hence many teachers think that without CT, students are unable to decide what to believe especially when dealing with fake news concerning Bac exam and the spread of the virus, in this respect, Norris and Ennis (1989) think that CT is a "reasonable and reflective thinking that is focused upon deciding what to believe and what to do" (Norris and Ennis, 1989). Moreover, in the era of social media, where fake news is everywhere, Jerry Baldasty (2018) explains: "… it is crucial that we educate our students how to think critically, access and analyze data, and, above all, question the answers" (Jerry Baldasty, 2018). Secondary school EFL teachers have also mentioned that critical thinkers are those who manage to study for exams as they know how to deal with thinking itself, as critical thinkers use their skilful thinking which is well founded, structured and reinforced (Lipman, 1988)

As already mentioned, distance learning did not really occur as deplored by the participants in this research and Djamila Khiar(2020). Although many teachers and students managed to carry distance education, such instruction can't be feasible unless the necessary conditions are in place because even autonomy has to be taught and learned (Thanasoulas, 2000b). Therefore,

the fact that not all teachers engaged in distance learning could be explained by their insufficient knowledge and training in ICT.

It is also evident that teachers think that their students were psychologically not ready to take the exam, because they were asked to accompany students pedagogically, intellectually and psychologically (*Radio Algérienne*, 2020)

4. Conclusion

The present study attempted to depict the real educational practices during Covid-19 pandemic in Algeria particularly in teaching English as a foreign language and to know more about students and teachers' behaviour in terms of instruction, especially how students managed to study for a crucial exam in the absence of their teachers since face-to-face instruction was not possible. As we know, a very obvious reason for promoting the learner's autonomy is that the teacher may not always be available to guide or instruct, and learners should possess the ability to function in the context of real world (Nosratinia and Zaker, 2013), students are then asked to rely on themselves. Moreover, if students have critical thinking abilities they might succeed because CT varies according to the motivation which underlies it and if it is based on selfish motives it is reflected and seen in skilful use of ideas in service of the individuals' own person or own group, this way pragmatic success might be achieved *(The Foundation for Critical Thinking, n.d)*, which means that CT is needed in any situation that implies problem solving such as the outbreak which pushed students to adapt to a different mode of instruction that was almost exclusively autonomous during the pandemic and overcome difficulties. Facione explains that "CT is a self-adjusting process of judging what to believe or what to do in a given context",and, in this study the context in question is the outbreak. In this respect and in regard to learning English as a foreign language Facione, Nosratinia and Zaker (2013), believe that there is a significant relationship between CT and autonomous learning, and that using autonomous learning strategies and autonomous language learning can help the learner to be more reflective and critical in learning a foreign language(Nosratinia and Zaker, 2013) .

Finally, one should say that time spent outside schools because of Corona virus is a sudden and unscheduled break (*School's Out: A Parents' Guide for Meeting the Challenge During the COVID-19 Pandemic*), and if there is a lesson to be learned from this, it would be the urging need for a real blended instruction, based on alternatives to the traditional face-to-face education. Hence, further changes such as training teachers to distance teaching and the use of ICT as well as creating learning platforms for students and their teachers ... should be considered in the future to avoid long school breaks like the one observed during Covid-19 pandemic. Last but not least, CT should be given more importance as it is an essential element in learning English as a foreign language be it autonomously, with the teacher or through distance instruction because it important in education as well as in real life and it would serve the learners in case similar crises happen.

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