



Contents lists available at ASJP (Algerian Scientific Journal Platform)

Academic Review of social and human studiesjournal homepage: www.asjp.cerist.dz/en/PresentationRevue/552

The Impact of COVID-19 Pandemic on Learning: Investigating Introverted EFL Students' Motivation and Attitudes in Algeria

تأثير جائحة COVID-19 على التعلم: التحقيق في دوافع الطلاب الانطوائيين في اللغة الإنجليزية كلغة أجنبية ومواقفهم في الجزائر

Amani Bouchareb^{1,*}, Mustapha Gasmi², Houda Boumediene³¹ Amar Telidji University of Laghouat, Language Sciences Laboratory, Algeria.² Amar Telidji University of Laghouat, Language Sciences Laboratory, Algeria.³ Amar Telidji University of Laghouat, Language Sciences Laboratory, Algeria**Article info:****Abstract****Article history:**

Received : 27-11-2022

Accepted : 04-06-2023

Key words:

Attitudes

COVID-19 pandemic
introverted EFL learners

motivation

online learning.

The rapid, unexpected changes during the COVID-19 pandemic have different consequences on learners' behaviors, especially in the EFL field. Introverted EFL learners, in particular, need to be carefully studied. Therefore, this study serves to explore the impact of the COVID-19 pandemic on introverted EFL learners' attitudes toward learning in Algerian Universities. To achieve this purpose, a quantitative approach to research is adopted based on a questionnaire and Myers and Briggs Type Indicator (MBTI) Personality Test. The study occurred with a sample of 53 second-year and third-year EFL Students at the University of 8 Mai 1945 Guelma. The results revealed that introverted EFL learners in Algeria have faced many issues in distance education, leading to their preference for face-to-face learning. Furthermore, from a psychological perspective, COVID-19 has caused anxiety, depression, and low motivation for learning among learners. However, during the pandemic, introverted EFL learners have remarkably developed their learning autonomy skills.

الكلمات المفتاحية: ملخص

الاتجاهات

جائحة كوفيد 19-

طلبة اللغة

الإنجليزية كلغة

أجنبية

الانطوائيين

تحفيز

التعليم عن بعد.

التغيرات السريعة غير المتوقعة خلال جائحة COVID-19 لها عواقب مختلفة على سلوكيات الطلبة، لا سيما في مجال اللغة الإنجليزية كلغة أجنبية. يحتاج طلبة اللغة الإنجليزية كلغة أجنبية الانطوائيون على وجه الخصوص إلى الدراسة بعناية. لذلك، تعمل هذه الدراسة على استكشاف تأثير جائحة COVID-19 على مواقف الطلبة الانطوائيين للغة الإنجليزية كلغة أجنبية تجاه التعلم في الجامعات الجزائرية. لتحقيق هذا الغرض، تم اعتماد نهج كمي للبحث بناءً على استبيان واختبار شخصية مايرز وبريجز (MBTI) يتم إجراء اختبار الشخصية لتحديد أنواع شخصية طلبة اللغة الإنجليزية كلغة أجنبية (الانطوائيون والمنفتحون). بالإضافة إلى ذلك، يتم إجراء استبيان الطلاب للتحقيق في مواقف المتعلمين تجاه التعلم. تمت الدراسة خلال العامين الأكاديميين، 2020-2021 و 2021/2022، مع عينة من 53 طالب في السنة الثانية والثالثة في جامعة 8 ماي 1945 قالمة - الجزائر. كشفت النتائج أن الطلبة الانطوائيين للغة الإنجليزية كلغة أجنبية في الجزائر واجهوا العديد من المشكلات في التعليم عن بعد، مما أدى إلى تفضيلهم للتعلم وجهاً لوجه. علاوة على ذلك، من منظور نفسي، تسبب COVID-19 في القلق والاكتئاب وانخفاض الدافع للتعلم بين المتعلمين. ومع ذلك أثناء الوباء، طور طلبة اللغة الإنجليزية كلغة أجنبية المنطويين بشكل ملحوظ مهاراتهم في التعلم الذاتي. تدعو الدراسة كذلك إلى الرغبة في تطوير وتسهيل التعليم عن بعد للتكيف مع الظروف الحالية والمستقبلية ومعالجة الاختلافات بين المتعلمين باستخدام استراتيجيات وطرق ومواد تعليمية مختلفة لمنح الانطوائيين فرصاً متساوية للتعبير عن طرقهم في التعلم.

1. Introduction

The coronavirus pandemic (COVID-19) poses an unexpected public health risk. In the months following the outbreak in December 2019, most countries took preventive precautions to prevent the infection from spreading across their borders. Lockdown restrictions, school closures, and stay-at-home orders were among the measures implemented. Researchers, educators, and doctors grew increasingly worried regarding individuals' mental health as these measures influenced daily social interactions. Recent international research has revealed an alarming rise in mental health symptoms, such as depression and anxiety (Racine et al., 2020). Given this evidence, it is plausible to believe that academic achievements and, more specifically, students' attitudes towards learning have been affected.

The rapid changes that have occurred due to this change in today's world have increased the demands on the educational system. A vast number of educational institutions around the globe are moving their focus away from traditional education and toward online education, which can be delivered entirely online or as part of a blended learning program (hybrid learning). It is widely acknowledged that online learning has numerous advantages (Al Rawashdeh, 2021; Appanna, 2008; Gilbert, 2015). Students enrolling in online courses delivered in asynchronous learning settings have the ability to access material in a flexible manner without ever leaving their homes. Consequently, educational institutions find it beneficial to retreat to online learning to carry out education (Bárcena & Uribe, 2020; Butnaru & Niță, 2021; Dhawan, 2020). However, since the pandemic, students appear to have had fewer interactions with their friends and teachers. There are reasons to suspect that their motivation has decreased. To our information, there has been very little empirical research on this topic to date. As a result, determining the effects that the COVID-19 pandemic had and continues to have on students' learning is essential, particularly on introverted English as a Foreign Language (EFL) learners, since their attitudes are not clearly manifested. The purpose of this research is to fill that gap in the literature.

2. Literature Review

2.1 Learning During COVID-19 Pandemic

Starting from the early months of the outbreak, the educational systems took a turn in the way of teaching and learning, adopting a blended learning strategy that combines both face-to-face and online education. Accordingly, the COVID-19 pandemic has an effect on shaping a new way of learning. The new concept of online education, which was introduced to learners, has a variety of advantages, including the benefit of lifelong learning (Saykılı, 2018), ensuring educational continuity (Bidarra & Russman, 2016), and lowering the high expenses associated with traditional education (Syaimar & Sutiarso, 2018). Nevertheless, online education still has several setbacks in learning, such as the chance of getting distracted, the lack of social connection, the confusion in using advanced technology, and the struggle to communicate with teachers. Additionally, since the teacher and the student were in separate locations, limitations such as instructional techniques, scheduling, and time persist (Traxler, 2018).

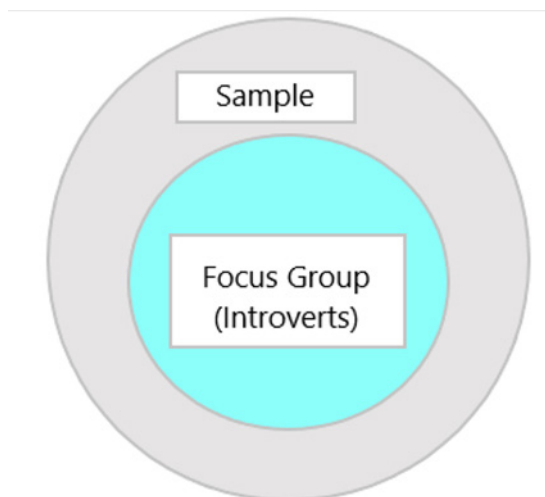
2.2 Introverted Versus Extroverted Learners

Extroversion and introversion are fundamentally contradicted behaviours that result in differences, if not dealt with, can cause pressure for both society and the individual (Jung, 1971). The term 'introverted' is sometimes used interchangeably with the term 'shy'; however, the two are not interchangeable (Briggs, 1988). Shyness is linked to feelings of discomfort as well as inhibition or avoidance of regular social activity when in the company of others (Briggs, 1988). Introverts are naturally introspective and quiet, yet they are not necessarily shy.

Introverts, unlike extroverts, are unaffected by a lack of engagement with the teacher because they favor situations that allow being concentrated and alone (Offir et al., 2007). In general, introverts do not prefer to be the center of attention but rather have adequate alone time. They enjoy being in small groups of two or three instead of larger ones, being part of deep or task-oriented discussions instead of small talk. Introverts also like to write instead of speak, use reflection before speaking, and inquire instead

of simply answering questions (Jacobs & Renandya 2019). In general, teachers value extroversion in their learners, including active participation in classroom activities and social contact. As a result, introverted students can be neglected due to their preferred way of learning and interacting with the teacher. Therefore, it is essential to recognize that introversion and extroversion spectrums should be respected, acknowledged, and developed in order to give equal opportunities for different learning styles among students. Notably, during COVID-19, the way of teaching and learning has gone through a significant change. Consequently, exploring the changes in introverted students' attitudes and behaviors is of paramount importance.

Figure.1: Division of the Students' Sample Groups



3. Research Questions

- How does the COVID-19 pandemic affect introverted students' attitudes towards learning?
- What is the preferred way of learning for introverted EFL students during COVID-19?
- How do introverted EFL students perceive distance education during COVID-19?

4. Methodology

4.1 Population

The population of this study consists of second-year and third-year LMD students at 8 Mai 1945 Guelma University, Faculty of Letters and Languages, Department of English. The total number of second

year (239) and third-year (229) students in the English department is (468). Prior to conducting the research, the researcher requested and was granted access to the university.

4.2 Sample

The participants of this study are second and third-year Licence students of English as a foreign language (EFL) during the two academic years 2020/2021 and 2021/2022. Sampling, hence, depends on the nature of active actors in educational contexts. That is, the sample of students -as the core population- is featured with randomly selected groups of Licence students at the department of English, 8 Mai 1945 University of Guelma

The sample consists of fifty-three EFL students in four randomly selected second-and third-year groups (two groups from each level) at the English department, 8 Mai 1945 University of Guelma. A focus group is taken from the total number of participants (53), which contains introverted students. The number of students in the focus group is based on the personality test results, which indicated 34 introverted students out of 53 students (64.2%).

4.3 Research Instruments

The research tools implemented in the study consist initially of the personality test based on Myers and Briggs Type Indicator (MBTI). It is used to determine students' characteristics of introversion and extroversion (Myers, 1962). This MBTI test consists of 60 items and takes about 10-15 minutes to complete. The choice of introverted participants is determined by scaling their answers on the test. Consequently, the number of students in the focus groups depends on the test results indicating 34 introverted students. The personality test was administered online through the 16 personalities website, a free website to test the personality type of individuals. The second tool used in this research is a students' questionnaire administered to EFL learners by the end of the academic year 2021/2022 to gather statistics and attitudes towards learning in the pandemic. The questionnaire includes five sections; the first section is dedicated to general information, the second section for learning during the

pandemic, the third section for learners' personality awareness, the fourth section for online learning, and the fifth section is dedicated to suggestions.

5 Results

This study includes a sample of second and third-year EFL learners from 8 Mai 1945 University of Guelma, but the focus group in the research comprises only introverted EFL learners, as they are the main focus while tackling the results and discussion below.

5.1 The Personality Test

An online personality test (MBTI) is administered to students participating in this study to determine the focus group of introverts. After finishing the test, which consists of 60 items, the results conclude that 34 out of 53 introverted students represent 64.2% of the whole sample.

5.2 Students' Questionnaire

Section One: General Information

This questionnaire section includes general information about participants' gender, personality type, and grade level. It includes information concerning both introverts and extroverts.

Table.1: Participants' General Information

Characteristics		Number of Students (out of 53)	Percentage (%)
Gender	Male	14	26.4%
	Female	39	73.6%
Personality Type	Introvert	34	64.2%
	Extrovert	19	35.8%
Grade Level	2 nd Year	15	28.3%
	3 rd Year	38	71.7%

This study includes Algerian EFL students from second and third years, as shown in Table 1. The statistics indicate that the highest proportion of students participating in this study is females, with a percentage of 73.6%. Introverted students represent the majority of the whole sample (64.2%), while extroverted students represent 35.8%. Additionally, third-year students also represent the majority of respondents to this research (71.7%), while second-year students represent 28.3%.

Section Two: Learning During the Pandemic

This section of the questionnaire focuses on the degree and nature of students' learning difficulties during both academic years 2020-2021 and 2021-2022, which took place during the COVID-19 pandemic. The majority of Introverts participating in this study describe their learning experience during the pandemic as moderate (55.9%), with a preference mainly for face-to-face learning (55.9%) and a mixture of both face-to-face and online learning (38.2%).

Table.2: Obstacles Faced by Students in Learning during the Pandemic

Obstacles	Number of Students (out of 34)	Percentage (%)
Feeling of anxiety	9	26.5%
Lack of social interaction	7	20.6%
Change of planning and schedule	19	55.9%
Online-learning related issues	25	73.5%

As indicated in Table 2, the biggest obstacle faced by introverted students in learning during the COVID-19 pandemic is online-learning-related issues (73.5%). Followed by a change of planning and schedule (55.9%). Finally, the feeling of anxiety and lack of social interaction are faced by 26.5% and 20.6% of students, respectively.

By the end of this section, participants mention their positive impressions and experiences in learning during the past year of the pandemic. Firstly, the majority of participants mention having more free time and having the opportunity to spend more time at home. Secondly, they stress the positive experience of trying online learning and finding the balance between face-to-face and online education. Thirdly, students speak about being more responsible and autonomous in learning. Moreover, some students showed content with less social interaction. Finally, many students expressed getting higher grades and averages.

Section Three: Learners' Personality Awareness

In this section, students express their awareness of their personality traits between the introverted and extroverted spectrum along with their way of learning. 52.9% of students think being an introvert/extrovert does not interfere with their learning experience during the pandemic, while 47.1% believe being an introvert/extrovert interferes with their learning. Those who answered yes, explain the interference of their personality type (introvert/extrovert) in learning as the following:

- Many students said that being an introverted learner can lead to finding some difficulties in asking questions, interacting with the teacher, participating in group work, and presenting in front of their classmates.
- Despite being introverted learners, many others said they struggled in online learning more than in-class learning and did not feel comfortable expressing their thoughts.
- Other students expressed their gratitude for studying online and being comfortable at home, not surrounded by other people.

Table.3: The Impact of Being an Introvert/Extrovert on Learning

Impact	Number of Students (out of 34)	Percentage (%)
Group work	17	50%
Participation and engagement	18	52.9%
Self-esteem	5	14.7%
Being reserved	6	17.6%
Fear of asking questions	17	50%
Listening	6	17.6%
Speaking	16	47.1%
Risk-taking	11	32.4%

Table 3 shows how being an introvert or extrovert impacts students' learning in their opinion. Half the participants (50%) think that being an introvert/extrovert has an effect on group work and fear of asking questions. In comparison, more than half (52.9%) believe that it affects participation and engagement. Almost half of them (47.1%) believe that speaking is also affected, whereas only 17.6% believe listening is affected. Some students think that being an introvert/extrovert can also impact students' risk-taking (32.4%), self-esteem (14.7%), and being reserved (17.6%).

Moreover, 50% of students believe that their way of learning during the pandemic is somewhat different from before. Other 20.6% believe that learning before and during the pandemic is very different. While the rest of the participants believe it is similar (11.8%) or the same (17.6%). In explaining the difference, students say that learning during the pandemic differs from learning before it in several factors, including being introduced to online learning, having fewer lessons than before and less classroom time, and learning to be more autonomous learners. Many students expressed having less interest in studies during the pandemic and being psychologically affected negatively.

At the end of this section, 61.8% of students say that distance education did not help them in learning, while 38.2% said it helped them. Some students say they prefer face-to-face while others say they enjoy distance education because they get to stay home and not take long ways to go to university. On the one hand, lack of social interaction and not being surrounded by people cause students to prefer distance education. On the other hand, having a poor internet connection or other technical issues are among the reasons for students to prefer face-to-face education.

Section Four: Online Learning

This section includes information about students' online learning, their way of attending online courses, and their engagement with it. For instance, 32.4% of the participants say they always attend online classes, 29.4% attend often, 26.5% attend sometimes, and only 11.8% attend rarely.

The most used device for attending online classes by students is mobile with 76.5%. 52.9% use laptops, and only 2.9% use desktop computers. However, nobody uses tablets to attend online classes.

Table.4: Platforms Used for Online Learning

Platform	Number of Students	Percentage (%)
Moodle	17	50%
Google Meet	12	35.3%
Zoom	5	14.7%
Google Classroom	16	47.1%
Social Media	9	26.5%

As indicated in table 4, there is a diversity in platforms used by students for online learning. Moodle is the most used platform (50%), followed by Google Classroom (47.7%), then Google Meet (35.3%). Social media platforms like Facebook and YouTube are used by 26.5% of students, and finally, the least used platform for online learning is Zoom (14.7%).

Moreover, this section is concluded with a demonstration of students' satisfaction with the online learning experience. 38.2% of students express having a pleasant experience of online learning to some extent; other 23.5% say it was a pleasant experience to some extent. Whereas 20.6% of participants think the online experience was not at all pleasant. Finally, only 17.6% of introverted students feel that this experience was pleasant to a great extent.

Section Five: Suggestions

The last section of this questionnaire includes some suggestions by introverted students regarding their learning experience during the pandemic of COVID-19. Many students in this section mention that it is necessary to facilitate and guarantee that all students have access to the Internet and digital devices. Many other students believe that using the platform of Google Meet or Zoom is way better than using Moodle because they struggle with logging in, attending courses, and not finding the recordings

available for as long as they need them in Moodle. Additionally, some students suggest that the ministry should organize online learning training for both students and teachers since it is a new aspect of education in Algeria. Another concern addressed in students' suggestions is the importance of planning and organizing distance education when a global pandemic is a significant risk and putting strict rules for protecting individuals' safety in educational institutions.

6. Discussion and Interpretations

The purpose of this study is to explore the impact of the COVID-19 pandemic on introverted EFL learners' attitudes towards learning in Algerian universities. After analyzing the data collected from both research tools, a considerable amount of information on introverted learners' attitudes has been collected. The study results show that the COVID-19 pandemic affects the learning attitudes of introverted EFL learners in Algerian Universities at various points.

According to the results of the study, the learning experience of introverted EFL learners during the period of COVID-19 is moderate in difficulty. Students emphasize the difference between their learning during the pandemic and their learning before it; COVID-19 affects their learning experience and their learning attitudes.

Regarding the data collected from the personality test, the results show that more than half of the participants are introverts, representing this study's focus group. Additionally, relying on the test results and observing students inside the classroom and in online classes, the researcher discovers different degrees of introversion and extroversion. COVID-19 pandemic might have increased some students' introversion levels. Moreover, students' psychology has been affected during the pandemic; students exhibit a decreased engagement and motivation to learn. Safety concerns, lack of social interaction, and change of way of learning contributed highly to causing feelings of anxiety and depression among students, therefore, showing less interest in learning.

One significant finding of this study is students' preference for face-to-face learning other than online

learning, although they are introverted learners. The reason behind their preference for face-to-face learning is mainly because of technical issues faced in online learning classes. With that being said, most of the students appreciate trying the new experience of online learning. Furthermore, being introduced to online learning for the first time is a significant highlight in learning during the era of COVID-19. Students' unfamiliarity with online learning led to them being intimidated by it and hindered their engagement. Although, some other cases of introverted students show more engagement in online classes and express having more comfort.

Nevertheless, COVID-19 has a significant effect on learners' autonomy. Learning has been less structured, with a vast space left for students to research and take control of their own learning rather than just being passive learners. The change in planning and schedule during COVID-19 prompted students to be more active learners and take more responsibility in the learning process.

The present study is one of the few studies that focus on learners' personality and their attitudes in learning during COVID-19. Some similar studies share a few aspects of this study. Similarly, Tümen-Akyıldız and Seçil's (2021) study on the impact of the COVID-19 pandemic on EFL classes in Turkey reveals that the participants preferred face-to-face foreign language teaching to remote teaching due to technical, economic, contextual, and individual challenges. Contrary, a study conducted by Oraif and Elyas (2021) investigated the impact of COVID-19 on EFL learners' engagement in Saudi Arabia. The study results show a high level of engagement among EFL Saudi learners in online courses.

7. Conclusion

This study has explored the effects of the COVID-19 pandemic on the learning experience and attitudes of introverted EFL students in Algerian universities during the pandemic. The effect has been studied from psychological, academic, and technical aspects. Students show feelings of anxiety, depression, and low motivation for learning. Accordingly, their engagement in learning has decreased significantly

in online learning. Nonetheless, introverted EFL learners during the pandemic have developed their learner autonomy skills remarkably. The introduction of online learning as a new learning tool during this pandemic has enormously shaped learners' experiences. Poor Internet service, unfamiliarity with online education, and technical issues from both teachers' and students' sides caused students to prefer face-to-face learning over online learning.

Since the COVID-19 pandemic continues to be a current issue throughout the world, it still causes an impact on the educational system. The need for reforms in the educational system and online education is a must. Consequently, the Algerian government should put a great effort into organizing and facilitating education during a pandemic and fostering online learning. An easily accessible educational platform and a stable internet connection are requirements. Learners' differences should also be taken into consideration within the educational institution and the educational system as a whole. Different teaching strategies, methods, and materials should be used to give introverts equal opportunities to express their ways of learning and interacting. With the continuity of the COVID-19 pandemic, further research is needed to track the development of introverted EFL learners' experience in learning.

Conflict of Interest

We the authors BOUCHAREB Amani, GASMI Mustapha, and BOUMEDIENE Houda have no conflict of interest.

- References

- Al Rawashdeh, A. Z., et al. (2021). Advantages and disadvantages of using e-learning in University education: Analyzing students' perspectives. *The Electronic Journal of e-Learning*, 19(2), 107-117. <https://doi.org/10.34190/ejel.19.3.2168>
- Appanna, S. (2008). A Review of benefits and limitations of online learning in the context of the student, the instructor and the tenured faculty. *International Journal on E-Learning*, 7(1), 5-22. <https://www.learntechlib.org/primary/p/22909/>
- Bárcena, A., & Uribe, C. (2020). (rep.). Education in the time of COVID-19. United Nations ECLAC-UNESCO. https://repositorio.cepal.org/bitstream/handle/11362/45905/1/S2000509_en.pdf
- Bidarra, J., & Russman, E. (2016). Towards a pedagogical model for science education: Bridging educational contexts through a blended learning approach. *Open learning: the Journal of Open, Distance and*

E-learning, 32(1), 6-20.

<https://doi.org/10.34293/education.v9i4.4210>

<https://doi.org/10.1080/02680513.2016.1265442>

Briggs, S. R. (1988). Shyness: Introversion or neuroticism?. *Journal of Research in Personality*, 22(3), 290–307.

[https://doi.org/10.1016/0092-6566\(88\)90031-1](https://doi.org/10.1016/0092-6566(88)90031-1)

Butnaru, G. I., et al. (2021). The Effectiveness of online education during Covid 19 pandemic—A comparative analysis between the perceptions of academic students and high school students from Romania. In *Sustainability*, 13(9), 5311.

<https://doi.org/10.3390/su13095311>

Dhawan, S. (2020). Online learning: A panacea in the time of COVID-19 crisis. *Journal of Educational Technology Systems*, 49(1), 5–22.

<https://doi.org/10.1177/0047239520934018>

Free personality test. 16Personalities.

<https://www.16personalities.com/free-personality-test>

Gilbert, B. (2015). (dissertation). Online Learning Revealing the Benefits and Challenges.

https://fisherpub.sjfc.edu/education_ETD_masters/303/

Jacobs, G. M., & Renandya, W. A. (2019). Student centered cooperative learning: Linking concepts in education to promote student learning. Springer. <https://doi.org/10.1007/978-981-13-7213-1>

Jung, C. G. (1971). Personality types. *The portable Jung*, 178–272.

Myers, I. B. (1962). *The Myers-Briggs Type Indicator: Manual*.

<https://doi.org/10.1037/14404-000>

Offir, B., Bezalel, R., & Barth, I. (2007). Introverts, extroverts, and achievement in a distance learning environment. *The American Journal of Distance Education*, 21(1), 3–19.

<https://doi.org/10.1080/08923640701298613>.

Oraif, I. & Elyas, T. (2021). The impact of COVID-19 on learning: Investigating EFL learners' engagement in online courses in Saudi Arabia. *Education Sciences*, 11(3), 99.

<http://dx.doi.org/10.3390/educsci11030099>

Racine, N., Cooke, J. E., Eirich, R., Korczak, D. J., McArthur, B., & Madigan, S. (2020). Child and adolescent mental illness during COVID-19: A rapid review. *Psychiatry Research*, 292, 113307.

<https://doi.org/10.1016/j.psychres.2020.113307>

Saykılı, A. (2018). Distance education: Definitions, generations, key concepts and future directions. *International Journal of Contemporary Educational Research*, 5(1), 1-17.

<http://ijcer.net/en/pub/issue/38043/416321>

Syaimar, C.P. & Sutiarto, S. (2018). Study anywhere and anytime, not necessarily in class. *International Journal of Technology in Education and Science (IJTES)*, 2(1), 35-39.

<https://ijtes.net/index.php/ijtes/article/view/9>

Traxler, J. (2018). Distance learning: Predictions and possibilities. *Education Sciences*, 8(1), 35.

<https://doi.org/10.3390/educsci8010035>

Tümen-Akyıldız, S., Çelik, V., & Ahmed, K. H. (2021). The impact of Covid-19 pandemic on EFL classes through the lenses of secondary learners. *Shanlax International Journal of Education*, 9(4), 389-406.

How to cite this article according to the APA method

Bouchareb, A., Gasmi, M., & Boumediene, H. (2023). The impact of COVID-19 pandemic on learning: Investigating introverted EFL students' motivation and attitudes in Algeria. *academic review of social and human studies*, vol 15, number 02, Hassiba Ben Bouali University of Chlef, Algeria, pages: 497-504.