



**People's Democratic Republic of Algeria**  
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**Dr. MOULAY TAHAR University of SAIDA**  
**Faculty of Letters, Languages and Arts**  
**Department of Literature and English Language**

***The Impact of COVID-19 Pandemic on Students' Learning Behavior***

***(The Case of Master 1 Students – Dr. Moulay Tahar -University of Saida)***

Thesis submitted to the Department of English Language and Literature as a partial fulfilment of the requirements for the degree of *Master One Didactics*

**Submitted by:**

Miss. SAHNOUNE Nesrine

**Supervised by:**

Dr. H. GHEMBAZA

**Board of Examiners**

Dr. Miloud BOUCHEFRA	President	University of Saida
Dr. Hichem GHEMBAZA	Supervisor	University of Saida
Dr. Latifa SELLAM	Examiner	University of Saida

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## **Declaration of Originality**

I henceforth for the proclaim that this research study is my original work and that it contains no previously released or written material by another individual, nor material that has been approved for the qualification of any other degree or diploma of a university or other establishment. I authenticate that the intellectual content of this thesis is the result of my own work and that all assistance and sources used in the preparation of this thesis have been acknowledged.

Name: SAHNOUNE Nesrine

Date:

Signature:

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## **Dedication**

I dedicate this simple work to my dear mother for her prayers and encouragement.

To my precious father, for his unconditional love and being the source of my motivation.

To my dearest sisters, who constantly admire me. Thank you so much for everything you have done for me.

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*Thank you so much.*

## **Abstract**

The ongoing propagation of COVID-19 pandemic is regarded as one of the most severe problems that might inhibit students from studying effectively. As a result, the current study investigated the impact of covid-19 epidemic on the learning behavior of M1 EFL students. It sought to shed light on the main psychological and cognitive effects of the pandemic on M1 students' educational process. To fulfill the study's objectives, a mixed method approach, encompassing both quantitative and qualitative methods, was used to compile, analyze and interpret data. Two research tools, a questionnaire and interview were delivered to M1 EFL learners and teachers respectively .In the light of the obtained results, students hold negative attitudes towards COVID-19 pandemic, resulting in a lot of psychological problems at the level of their mental health such as anxiety, depression, and lack of motivation due to a number of reasons including social isolation, virtual learning, lock-downs, confinement, repetitive negative thoughts, a lack of financial resources, academic pressure in addition to the lack of support from the university. Furthermore, the study revealed that the negative cognitive impact of COVID-19 pandemic is related to students' cognitive learning styles as challenges that EFL dependent learners face when studying online. For example ,they are not responsive to visual and verbal perceptions, but they are sensitive to external factors such as extrinsic motivation, social orientations including interaction and criticism, as well as they are external referential students who learn information in a structured way within the presence of the teacher. Conversely, COVID-19 outbreak has a positive cognitive influence on independent learners in relation to online learning because they pursue an active holistic approach that incorporates the stimulation of intrinsic motivation, internal reference, and visual perception in addition to an individualistic, analytical, competitive, and self-regulated learning.

**Keywords:** covid-19, virtual learning, anxiety, depression, lack of motivation, dependent learners, Independent learners.

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## **List of Abbreviations**

- WHO:** World Health Organizations.
- EFL:** English Foreign Language.
- Covid-19:** Coronavirus Disease 2019.
- HEIs:** higher education institutions.
- **UNESCO:** United Nations' Educational, Scientific, Cultural organization.
- **FFIL:** face to face interaction learning.
- OL:** Online Learning.
- **EL:** Electronic Learning.
- SDT:** Self-determination theory
- ICT:** Information communication technology.
- RNT:** Repetitive Negative Thoughts.
- FD/I:** Field dependent and Field independent.
- NLP:** Neuro-linguistic programming.
- TA:** Tolerance of Ambiguity



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## *General introduction*

## **General introduction**

The viral crisis has dramatically altered people's lifestyles all around the globe. The exponentially ongoing spread of Covid-19 virus was declared by the World Health Organization (WHO) on March, 11<sup>th</sup>, 2020 during its first germination in China, specifically Wuhan, to the rest of the whole world. The Algerian government and federal agencies, like those of other countries, have attempted to impose stringent measures, such as lockdown and social isolation in all sectors, especially in the field of education including higher educational institutions and universities. As an urgent and reasonable solution, the educational setting has been converted from face-to-face learning and teaching into a remote learning and teaching processes in order to ensure a safe learning environment and achieve successful academic outcome. As a matter of fact, during the pandemic, EFL teachers and students use a variety of technological devices and strategies such as emails, and Moodle platform which is defined as an electronic and vital website of learning. It is a useful technique due to its accessibility and flexibility.

However, the adaptation of this new policy, as well as the ongoing outreaching of the viral aftermaths, result in massive struggle at the level of the psychological state of being and cognitive functioning of EFL students. This stressful change provoked a number of affective disorders among learners as lack of motivation, anxiety, and depression, as well as cognitive impairments in relation to both independent and dependent cognitive learning styles involving studying online during the pandemic and other sorts of challenges that they encountered. As a result, appropriate solutions would be beneficial in promoting students' psychological well-being and successful cognitive functioning during the critical period of corona virus in the Algerian higher education.

Alternative methods as well as tools are provided by the minister of higher education for both the teachers and the students of the main setting during the COVID-19 pandemic to accomplish and optimize the pedagogical process. Different studies, however, claim that the real issue resides in the psychological and cognitive effects of viral aftereffects on learning behavior in relation to the implementation of distance learning techniques among M1EFL students.

The present study primarily aims at investigating the psychological, and cognitive impacts of COVID-19 pandemic on M1 EFL students' learning behavior covering issues like lack

## *General introduction*

of motivation, anxiety, depression, as well as the challenges that independent, and dependent learners encounter in relation to online learning.

The present research study tries to answer and to test the following research questions and their corresponding hypotheses:

RQ1: what kind of effect does COVID- 19 pandemic cause at the level of M1 English students' psychological side?

RQ2: What is the impact of COVID-19 pandemic on the cognitive functioning of both field- dependent and field-independent M1 English students?

The corresponding hypotheses are :

a- M1 English students experience a deplorable atmosphere full of anxiety, depression, and lack of motivation during Covid-19 pandemic.

b-As a result of the viral crisis, dependent and independent M1 English students are facing a significant retreat intheir cognitive functioning.

The M1 EFL students and teachers at Dr Moulay El Taher University of Saida were involved in this research work. To accomplish the study's objective and answer the research questions, a questionnaire and semi-structured interview were designed and administered to forty (40) M1 EFL participants and five (5) EFL teachers. The collected data was deeply analyzed and interpreted in the chapter of research methodology.

As mentioned earlier, the current study sheds light on the psychological and cognitive challenges that M1 EFL students face as a result of the COVID-19 pandemic. The findings may give a contribution to the process of teaching and learning in Algeria during the virus's critical period. The research gives an overview on both the psychological and cognitive state of EFL learners during the viral crisis, allowing teachers to better understand how to treat students during this span of time and what they need in terms of academic support.

The study also allows learners to be aware of the negative impact of COVID-19 pandemic outbreak on their affective side as well as their cognitive functioning. Therefore, it paves the way for them to manage these impediments based on different recommendations and implications.

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In addition, the research reflects the main initiatives and accomplishments of the researcher in terms of the originality of the work. It is also advantageous for other researchers to use this study as a reference, because it is a new research work related to the impact of COVID-19 repercussions on the educational sector.

This research is divided into three major chapters. The first chapter provides a detailed theoretical overview about the influence of the COVID-19 pandemic on students' psychological and cognitive well-being. The first part in this chapter is devoted to define Covid-19 pandemic as well as E-learning, in addition to the main significance and objectives of this research study. The following part involves a review of the psychological characteristics of university students in the time of the outbreak, including lack of motivation, anxiety, and depression. The third part stands for the cognitive difficulties that dependent and independent learners undergo during the virus crisis.

The second chapter is methodical, analytic, and interpretative. It focuses on the research methodology and method (design). In fact, this study was carried out using an exploratory research design. It is concerned with the data analysis and the interpretation of the obtained results. The chosen qualitative and quantitative research methods are used to reflect both learners' and teachers' perspectives concerning the impact of covid-19 on students' learning behavior.

Furthermore, the research instruments used in this study are questionnaire assigned or students and interview conducted with teachers. The first tool is distributed for forty (40) M1 students at Dr Moulay Tahar Saida University in order to statistically describe various variables using Excel processing software and SPSS measurement scales.

The third chapter stands for the constraints encountered while producing the investigation, and some recommendations related to the field of research as well as stating suggestions to further the current study.

As with any research project, the work concludes with a general conclusion that highlights the summaries of the work in general, the various phases it went through including review of literature, the research methodology, and finally suggestions and recommendations for further research

***Chapter One:***

***The Psychological and Cognitive Impacts of Covid19  
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## **1.1. Introduction**

The coronavirus pandemic has caused a massive closure of educational establishments in almost 190 countries. This emergency has been declared to prevent the spread of the virus. As a result, many universities and colleges in the countries suspended their operations and closed their doors believing that social isolation, lockdowns, confinement, and pivoting to online learning are lifesaving instructions. However, it appears that all of these measures affected negatively students' learning behavior, especially their psychological side. University students are more likely to experience higher levels of absence of motivation, anxiety, and depression than the general population. This burden is amplified when their educational experience undergoes major changes in the phase of the pandemic. In addition to their cognitive side which mainly involves the challenges that field dependent and independent students faced during the online learning process in the time of the outbreak.

## **1.2. An overview about covid19 pandemic and E-learning**

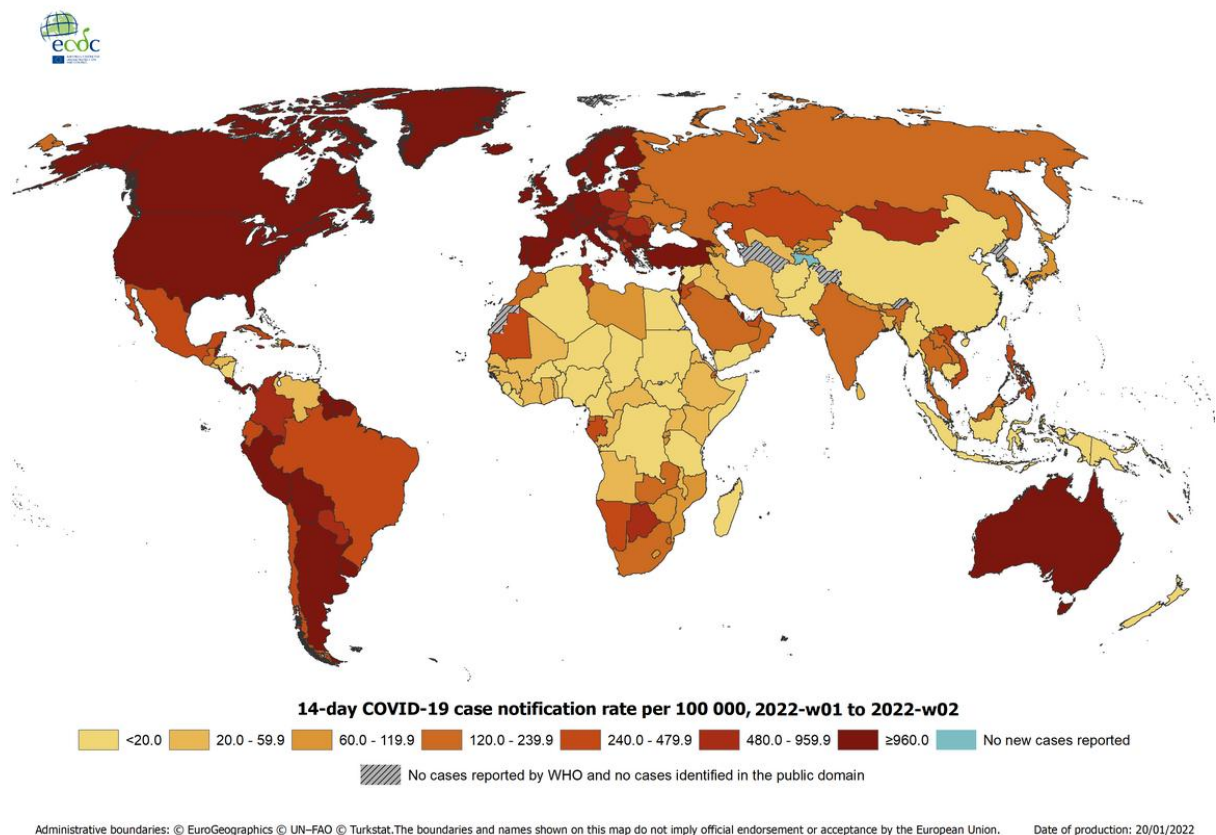
COVID-19 stands for coronavirus disease and even referred to as the 2019 novel coronavirus or '2019-nCoV' (Bender, 2020). The COVID-19 virus is linked to Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV) that similarly can be as fatal (Meng, Hua, & Bian, 2020). This new virus can be transmitted just in minutes through droplets or even touching the surface of metals or other materials which have been infected from a person who has respiratory problems. Even though the elderly and the very young children are easily affected, nobody is immune to this new infectious disease once it hits the body, so all people are susceptible to its disastrous impact (Bender, 2020; Meng, Hua, & Bian, 2020).

According to UNESCO, schools and higher education institutions (HEIs) were closed in 185 countries on April 1, 2020, affecting 1 542 412 000 students, or 89.4 percent of all enrolled students. Some countries began lifting confinement measures in early May, owing to a decrease in the number of cases and deaths. However, schools and higher education institutions (HEIs) remained closed in 177 countries, affecting 1 268 164 088 students, or 72.4 % of all enrolled students.



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Covid-19 does not turn the lives of billions of people around the globe upside down only , but also it significantly affected a plenty of diversified domains such as health, economy, environment, and most importantly education .According to the United Nations' Educational ,Scientific ,Cultural organization (UNESCO) the pandemic has interrupted the learning of more than one billion students in 129 countries around the world ,as a consequence ; many policies have changed to impose compliance at the level of rules , regulations as an attempt to preserve educational communities so as to ensure students' refinement in productivity as well as performance .



**Figure 1.1:** Geographic distribution of covid-19 pandemic adopted from European Centre for Disease Prevention and Control published in 22/01/2022 by the European Union

One of these policies is replacing face to face interaction learning (FFIL) by electronic learning(EL) or better to say online learning (OL) to facilitate both the process of teaching and learning during the pandemic. According to the OECD (2005), e-learning is the use of information and communication technologies in various educational processes to support and enhance learning in institutions of higher education, and includes the use of

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information and communication technology as a supplement to traditional classrooms online learning, or a combination of the two modes. Tao et al.(2006)added that this new environment for learning centered on electronic networks has enabled university students to receive individualized support as well as have learning schedules that are more appropriate to guarantee a safe learning atmosphere . This allows for more interaction and collaboration between instructors or teachers and peers than in a traditional learning environment.



**Figure1.2:** Learning through Moodleadopted from mylearningspacepublished on 23th January 2017 by Mary Cooch.

It is vital to shed light on the experience of university learners during the COVID-19 global recession and confinement in relation to online learning, which is why the aim of this literature review is to analyze the influence of the COVID-19 pandemic on students' psychological side, along with dependent and independent students' cognitive functioning, by taking into consideration the distinguishable perspectives of researchers on different kinds of fields, particularly in the field of educational psychology.

### **1.3. A theoretical background about the psychological characteristics of students**

Mental health is a considerable health concern which consists of the emotional, social, and psychological well-being of an individual. It has a huge effect on students' daily thoughts, emotions, in addition to behavior. Psychological health of university students during the pandemic portrays how students feel, relate, react in their life learning journey. It involves everything that deals with thoughts, feelings, perceptions, motivation, interpersonal relationships, acts in which they are all considered as the main construct of experiences, skills that learners elaborate to overcome any kind of hardships. Psychological health is considered as the one of the main components of the mental health that will be defined and studied during the pandemic in terms of students' motivation anxiety, and depression.

#### **1.3.1. Definition of the psychological side as part of mental health**

According to the psychological well-being theory, a person's well-being is also dependent on his positive functioning in numerous facets of his life. These include his interpersonal interactions, his ability to make independent judgments, and his personal development (zen, 2005). There is a tension between happiness and well-being. This is why it is critical to keep a healthy lifestyle (Ryff and Singer, 1998).

Psychological well-being is a term that refers to happiness and growth. It plays an important part in personality development and it is frequently utilized by psychologists to influence their clients' goals (Christopher, 1999). Subjective well-being, in other words, it refers to a person's happiness when he or she is content with life. This evaluation entails analyzing many areas of his or her life, such as relationships with people and what makes him or her feel good about herself (Ryff and Keyes, 1995).

#### **1.3.2. Students' psychological side during the pandemic**

Unfortunately, university students' psychological health gets frightfully devastated due to the challenges evoked by covid-19 pandemic including lack of motivation, prevalence of both anxiety and depression which arise owing to person's health

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concerns and worries .However, these psychological problems can progressively disappear when the pandemic makes an end .



**Figure 1.3:** Student Mental Health Matters adopted from Rackham Graduate School (2011)

**1.3.2.1. Motivation to learn**

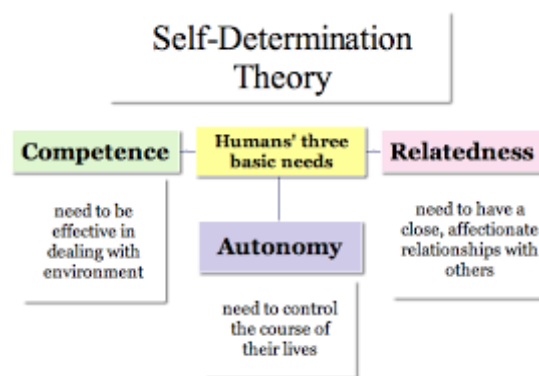
In their studies, Ryan and Deci (2000a,2000b) believed that motivated learners get extremely engulfed in demanding activities because they are more involved to create new strategies for the sake of easing the learning process .In the same sense ,Brown (2000) argued that motivation is the process which paves the way for smooth transfer from goal A to goal B. It is simply pictured as the endeavors being used in the transmission.Motivation is seen as an innate desire which fosters someone to do something so as to attain another thing (Harmer , 2007) .It is based on three major components : activation , persistence, and

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intensity as far as the quality of behavior is concerned ,specifically the goal-directed behavior which is the source of motivation(Brophy,2010). Motivation has an important role in boosting the activity through stimulation ,as well betterment ( Suknadinata,2011).Seminal contributions have been made by Purwanto (2011) ,who claimed that motivation is a drive , a motive, a desire which pushes the person to do whatever it takes in order to achieve a particular activity .To conclude motivation is related to both the mental , and psychological sides of learners in which they are influenced by external factors in the learning environment either in a positive , or in negative way (Shuck et al.,2014).

### **1.3.2.2. Self -determination theory of motivation**

Many theories have emerged to study motivation from various perspectives. Edward.L Deci and Richard.Ryan developed the theory of self-determination (SDT) in 1985. In 2012, they defined it as a study of motivation depending on a person's autonomy and control taking into consideration personality functioning in various situations. According to Pintrish and Shunk (2002), self-determination theory is a significant theory that allows for a review of motivation based on experiences and observations.Furthermore, Deci and Vanteenkiste(2004) explained that the sense of being in control, the ability to complete specific activities, and social connectednessare allplaying the role of stimulation when it comes to motivation.



**Figure 1.4:** Self-Determination Theory of Motivation adopted from Research Gate by C. E. Ackerman (2020).



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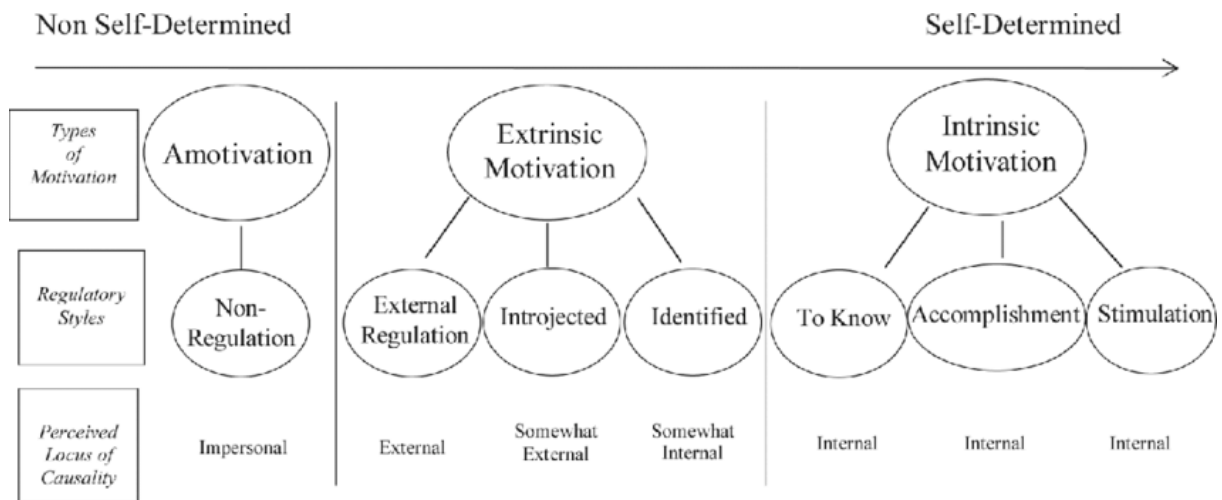
According to Deci and Ryan (2012), SDT theory does not only analyze humans' essential needs, but it also classifies motivation into three different types: intrinsic motivation, extrinsic motivation, and amotivation. In like manner, Sayeh (2006) divided motivation into parts: intrinsic motivation deals with the inside feelings of devotion, satisfaction, passion, ambition... However, extrinsic motivation is a bunch of outer derives that push a certain student to be engaged in learning tasks.

As Ryan and Deci (2000) assumed that intrinsic motivation manifests when a person has passion towards something without the interference of external factors. It is only related to innate aspects such as interest, fun, activities which are pleasant and satisfying. When it comes to the extrinsic motivation, they said that it is sum of activities which are used for fulfilling some several outcomes (Ryan and Deci, 2000).

### **1.3.3. Students' learning motivation during the pandemic**

For students all over the world, the move to online learning has been difficult. Many of them have reported a lack of interest, as a result of the new class style, which could influence their academic performance throughout the learning process. This kind of change caused a sense of amotivation among learners i.e. a state of being non motivated resulting hindrances in learning activities involvement, as well as losing interest in appreciating the importance of tasks and academic outcomes. The term amotivation was firstly mentioned in the theory of SD (self-determination) as a lack of a desire to perform when a person is unmotivated, their action lacks purpose and a feeling of personal causality. It is mainly caused by a lack of appreciation for an activity (Ryan, 1995), a lack of confidence in one's ability to perform it (Deci, 1975), or a lack of belief that it will result in the intended outcome (Seligman, 1975). In 2016, it was also defined by Harnet as low self-efficacy in learning engagement due to a lack of both intrinsic and extrinsic motivation, which manifests as a feeling of reluctance. In other words, a sense of failure stemming from the lack of priority placed on completing duties, which leads to low academic performance.

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**Figure1.5:** Continuum of Motivation (Self-Determination Theory)by Vallerand et al., 1992)

Students have lost interest in studying because learning is no longer contextualized. The lack of face-to-face interaction with teachers and classmates reduces learners' chances to express themselves and share new types of knowledge with one another through classroom practice. Furthermore, a lack of positive vibes from the part of teacher in the form of inspiration ,creativity, encouragement, and an enjoyable learning environment has a negative impact on students.

Dogan (2015) contends that the main reasons for successful educational outcomes can be summarized as follows: encouraging students' academic independence through desirable compliments stated by teachers, professors should function positively inside the classroom as their motivation is contagious, in addition to encouraging cognitive engagement through a variety of activities. All of these will aid in improving students' academic motivation. It is also worth noting that fish diversity content is highly valued by students.

Sari and Sugiyarto (2015)also agree that students become disconnected from classroom settings as a result of this learning condition. It influences them subconsciously, and no rewards are provided in the learning environment during this process. It is obvious that academic motivation has the greatest influence on learning performance. Teacher involvement is critical in developing strong cognitive abilities and social interaction.

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Moreover ,Nayakama et al. (2004) , supported the idea that students are influenced both intrinsically and extrinsically by motivators such as personalities and learning environments. In the same line of thoughts Song proposed that three types of factors sway students' motivation during online learning: internal factors such as curriculums and how their structures impact students' motivation, external factors like the online learning environment, and personal factors including learners' personality and how it is reflected in their motivation(2000).

However in 2008, Keller agreed that looking at motives which can be used in all circumstances is more helpful than seeking for a specific definition of motivation in online learning. He went on to say that teachers currently rely on various technologies to offer instruction to pupils and facilitate their learning in order to develop passion. As a result, the following five principles may stimulate motivation in all learning contexts:

1. Students' inquisitiveness, which stems from a desire to learn what they don't know.
2. Students' belief that what they are learning is relevant to their goals.
3. Students believe that the learning objectives are attainable.
4. Students' expectations and satisfaction with the results of the learning assignments.
5. Students' ongoing ability to self-regulate their learning.

According to Harandi (2015), there is a strong link between e-learning and student motivation. Other findings of a particular study revealed that teachers use e-learning, students are more motivated. More specifically learners who are intrinsically motivated did not encounter any difficulties during online learning because they are completely adaptable to all types of educational conditions. Extrinsically motivated students, on the other hand, faced a number of difficulties during their online learning process due to the absence of various motives such as rewards as well as the involvement of the teacher, because extrinsically motivated students learn for external rewards such as teacher and peer approval, as well as good grades, as opposed to intrinsically motivated students who learn



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for internal rewards (Mueller, Yankelewitz, and Maher, 2012). Extrinsic motivation, on the one hand, refers to engaging in an action because it contributes to an operationally separable outcome. The basic example of this kind of motivation is engaging in an activity because it is predicted to result in a reward or the avoidance of a particular act. On the other hand, intrinsic motivation refers to performing something because it is intriguing and spontaneously fulfilling (Ryan and Deci 2000). Because it is a reflection of people's inner desires, intrinsic motivation is considered to be invariably autonomous or self-determined. In another sense, when individuals are intrinsically motivated, they have volition and a feeling of choice because they completely support the activities in which they are involved. Autotelic actions are those that are intrinsically motivated, according to Csikszentmihalyi (1990).

That is to say, intrinsic motivation is positively impacted by the pandemic while studying online because when a person is intrinsically motivated, he or she performs an activity for its intrinsic pleasures rather than for some separate benefit. The individual is totally engaged for the sake of enjoyment or challenge rather than because of external nudges, pressures, or incentives. Intrinsic motivation was initially recognized in animal behavior experiments; even in the absence of reinforcement or reward. It was shown that many creatures engage in inquisitive, entertaining, and curiosity-driven activities (White, 1959). Mainly, in operant theory Skinner (1953) maintained on the one side, intrinsically motivated undertakings were defined as those in which the reward was in the activity itself. On the other side, all extrinsically motivated actions are motivated by rewards as food or money. The argument for intrinsic motivation's superiority usually revolves around the fact that it originates within the individual and is unaffected by external influences (Zhu and Leung, 2011). Researchers, on the other hand, saw temporary motivation as a significant disadvantage of extrinsic motivation, namely that it would vanish as soon as the reward or punishment was removed. Moreover, previous studies reported that students in face-to-face learning were controlled by extrinsic motivation, which leads to the study of educational factors during the learning environment, encouraging communication, strategic planning, and providing learners with options so that they can complete tasks (Harnett et al., 2011). Nevertheless, the absence of the external motives as interacting the teacher and classroom involvement during the online learning may impact the extrinsically motivated learners negatively, and intrinsically motivated learners positively as myriad studies found

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that students who use e-learning are more intrinsically motivated than students in face to face learning (Rovai et al., 2007).

Although, other researchers have shown that both extrinsically and intrinsically motivated students begin online courses highly motivated and may lose motivation as they become bored with technology. Students dropping out due to a lack of motivation as a result of their attitudes or an inability to cope with using technology in online learning contexts (Kim & Frick, 2011). Which indicates that lack of ICT skills may also be one of the reasons behind students' demotivation in time of the viral crisis. To sum up COVID-19 epidemic contributed to such a decline in learners' classwork completion and academic achievements. As a result, motivation should be prioritized today more than ever, and students' participation in the learning process is essential (Schwen, 2021).

#### **1.4. Students' anxiety**

The pandemic condition causes a number of issues, including a shift in health perceptions and a weakening of learners' future prospects. Students have suffered because of COVID-19-related constraints, therefore; many college students are prone to experiencing anxiety due to the many obstacles they face in their academic pursuits. This can often lead to them doubting their abilities to complete their goals and academic achievements. Although individuals may manage to deal with anxiety, it's likely that they will still experience other symptoms. In the next lines the term anxiety will be defined briefly according to different scholars' standpoints in addition to the impact of both E-learning and the viral crisis on students' anxiety

##### **1.4.1. Definition of anxiety**

Anxiety is a combination of intensive emotional terror and physiologic hyperarousals (Breurer, 1999). It is simply one of the psychophysiology difficulties (Callahan, 2001). The emergence of anxiety occurs when a person receives an alert of danger against ego and self-esteem due to a mixed feeling of both fear, and confusion. In which it causes harm in a way, or another (Gjg, 2004). Other researchers described anxiety as a stimulation of heartbeats, respiration issues, and a sensation of anxiousness. It is activated as a result of stressful and unpleasant circumstances (Spielberger & Reheiser, 2009). In other words,

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anxiety is an emotional state that leads to mental distress, neglecting accomplishment of tasks as well as ignoring interacting with people. It generates pressure at the level of muscles in order to operate during negative experiences(Craske et al.,2011).Anxiety is indeed a negative response that arises owing to an anguish situation resulting feelings such as numbness, perplexity , despair, and humiliation (Marley ,2011). It is necessary to mention that severe anxiety may damage students' academic progress and engagement (Kalok et al., 2020; Odriozola-González et al., 2020). Notwithstanding the fact that it can serve both students' perceptions as well as involvement as far as it is reasonable (Chen, 2019; Hordacre et al., 2016; Nasir, 2020) .

**1.4.2. Students' anxiety during covid-19 pandemic**

Lockdowns during Covid-19 outbreak force students to study at home through platforms to guarantee their safety, but it appears that this results anxiety among them.

Social connection is crucial for students, and its absence has a negative influence on them, particularly on their mental and emotional well-being(Nasir,2020).Therefore ,social isolation induced by the pandemic causes significant challenges for individuals during quarantine, such as changes in their daily living routines and interactions, which affect their psychological well-being (Chaherjee et al. ; Druss et al. ; Salari et al. ,2020) .Unfortunately ,the aftermaths of Covid-19 outbreak results a sense of anxiety among learners owing to social isolation, health risks, and the changeover to virtual education style(Tian et al. , 2020).

By the same token ,due to the lack of interaction and an increase in viral levels ,various individuals were influenced by the psychological impact of the pandemic (Chen et al. ; Li et al. ; Yang et al. , 2020).As students who are terrified of being infected by the lethal virus, as well as their families develop a significant degree of anxiety(Taylor et al.2020a,2020b).In the same line of thoughts ,Cao et al. ; Roy et al. (2019, 2020) stated that the primary causes of people's anxiety are : being frightened of contamination and insomnia .Moreover ,anxiety and other mental disorders rise during the covid-19 epidemic, particularly among adults who live alone and are terrified of contracting the disease since they have no one by their side to help them(Le et al., Tee et al., and Wang Pan et al. ,2020).

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Further researches conducted by Asmundson et al. (2020) shared that the amount of anxiety generated by the pandemic affects more students who already have anxiety as a trait personality, while the rest are not significantly influenced. Anxiety during corona can also lead to depression (Ho et al. , 2020 ; Wang et al. , 2020) .Covid-19 pandemic drives students to think of hurting themselves and even commit suicide just because their anxiety becomes a massive depression through the course of time (Patsaliet al. , 2020). Students' anxiety can be also related to E-learning that is considered as one of aftereffects of the pandemic .

**1.4.3. Students' anxiety and E-learning during the pandemic**

Anxiety during the pandemic can also be linked to academic pressure for example E-learning. Students are required to complete a plethora of course assignments in order to achieve the wanted academic competencies. The course assignments can range in difficulty from easy to highly difficult. Coursework completion adaptation can deteriorate over time as students become bored and hopeless. Especially, when they find it challenging to understand the E-courses posted in the platforms so as to resolve the tasks being sent by the teacher online. To put it in another way, college students are expected to complete a large number of course assignments in a short amount of time (Sirin, 2011). Computer operation is a common application of technology in the completion of coursework. Students majoring in English typically do not have the same level of skills as students majoring in computer science.

At this point, it is presumed that anxiety when operating a computer influences students majoring in English to procrastinate. Anxiety about using a computer has become common in the education sector, not only among educators (Ekizoglu&Ozcinar, 2010; Rahimi&Yadollahi, 2011; 2011a), but also among school and college students (Hussain& Sultan 2010; Kurt &Gurcan, 2010). Computer anxiety, like the perspective on computer attitudes and online learning, is a learner feature that may influence computer learning by affecting working memory load. Computer anxiety is thought to be a trait that includes both cognitive and affective components such as anxiety and worrying thoughts (Richter et al., 2010). It may result in an increase in extraneous load as a result of coping with negative emotions and thoughts about the computer. Learners who do not experience computer anxiety, on the other hand, are less likely to experience an increase in working

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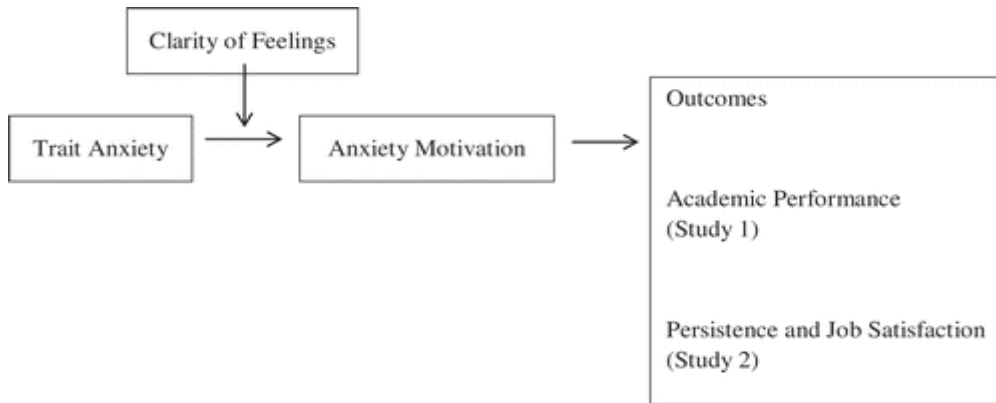
memory load. As a result, learners are assumed to be capable of navigating both technology and time management. In summary, It is noted that government decisions have fixed difficulties in the one hand, but raise new psychological issues at the level of students' mental health on the other hand.

However, recent studies have found that educational performance can be enhanced throughout anxiety if it is seen as a facilitative way of learning (Strack&Esteves,2015). They also added that facilitative anxiety helps in coping with stressful situation, and even emotional tiredness. Other researchers claimed that anxiety is a source of self-motivation that plays an essential role in contributing to successful outcomes (Strack Lopes, and Esteves,2015). Likewise, negative emotions are beneficial for people because they smooth a persistent process regarding solving tasks as well as ensuring refinement of performances (Tamir and Ford, 2009). According to attentional control theory, anxiety can interfere in accomplishing learning activities and tasks since it motivates the learner to make intensive endeavors during the learning process (Calvo & Eysenck, 1996; Eysenck, Derakshan, Santos, & Calvo, 2007). It is also assumed that anxiety increases the allocation of attention to threat-related inputs (and to selecting how to behave in the anxiety-provoking conditions). As a result, anxious people prioritize the allocation of attentional resources to threat-related cues, whether internal or external (e.g., worrisome thoughts, frightening task-irrelevant distractors), as proposed by Eysenck and Calvo's (2007) in the theory of attentional control.

Moreover, Tami believed (2005) that people who are characterized by trait anxiety prefer to experience a high level of tension, just in order to imply for both theoretical and practical activities. In the same vein, another study revealed that experiencing a lot of positive emotions may diminish the level of performance, thus it is better to take advantage of negative feelings in order to attain objectives (Erber, Erber & Poe 2004). In other words, anxiety is a motivational stimulus of behavior called "Functional Utility" of negative emotions (Parrott, 2002). Other researchers presumed that being aware of what is the source of anxiety, and how to manage it. All of which can refine self-motivation. That is to say, clarity of person's feelings helps in knowing how to deal with situations of anxiousness (for example, why the stimulus is related to one's worries), this process facilitates the identification of the source of stimulation as well as the application of efficient emotion

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regulation techniques in addition to adapting strategies as discussed by (Barrett & Gross, 2001; Gross & Jazaieri, 2014).



**Figure 1.6:** The mediated moderation model adopted from Research Gate by Juliane Strack Dos Santos Gonçalves( 2017)

## 1.5. Students' Depression

Governmental limitations such as lockdowns, social isolation, and lack of engagement as a way of preventing virus proliferation generate a range of psychological challenges at the level of mental health, such as depression in students is a prevalent mental health disorder that varies in intensity and length. It is a transient reaction to loss, stress, or life obstacles. It can be relieved with time and/or the natural healing benefits of social support, daily routines, and basic coping tactics such as diversion and exercise. Severe or persistent depression will be explicitly described as well as stated as one of the main psychological aftermaths of covid-19 pandemic due to loneliness, social isolation, and negative repetitive thoughts within the incoming lines.

### 1.5.1. Definition

Depression can be classified as mild, moderate, or severe, as well as recurrent, introspective, or psychogenic. It is categorized as a psychiatric mood condition (World Health Organization, 2010). Depression is also viewed as a way of dealing with unpleasant automatic thoughts, inescapable tasks, and unnecessary activities. It is characterized of an inaccurate interpretation of information, and a weak cognitive functioning (Matthews & Macleod 2005; Gotlib & Joormann 2010). Other researchers assumed that weak mental

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health outcomes are ascribed to different psychological disorders such as depression, psychosis, and suicide, all of which are the result of low levels of social interaction (see McKenzie et al. 2002; Sartorius 2003; Kim et al. 2012). People with mental health problems as depression make awful decisions from a psychological standpoint (Blanco et al. 2013; Chen et al. 2015). Although depression is typically thought of as a mood disorder, it is also associated with deficiencies in reasoning and decision making (Leykin et al. 2011; Blanco et al. 2013; Chen et al. 2015). According to different studies, depression is characterized of a decrease in perceptual speed, working memory, and metacognition. That is to say, it merely causes broad impairments in cognitive functioning (Ahern & Semkowska, 2017; Chakrabarty, Hadjipavlou, & Lam, 2016).

**1.5.2. Students' depression during covid-19 pandemic**

During the viral outreaching, university students are greatly impacted by depression, a psychiatric condition that develops as a result of social isolation, boredom, loneliness, and repetitive negative thoughts. Governmental restraints such as lockdowns, social distancing, and lack of interaction as a means of limiting virus propagation cause a variety of psychological difficulties at the level of mental health, such as depression (Holmes et al., 2020; Yao et al., 2020). From the beginning of the pandemic, this psychological condition spreads all across the world in an intensive and rapid manner (Bäuerle et al., 2020; Fullana et al., 2020; Huang & Zhoa, 2020; Salari et al., 2020). During the pandemic phase, several obstacles that impede the process of learning arise, such as university closures, restricted access to mental health treatments, diminished independence, delayed graduation, and loss of research, career, and internship prospects. All of these play a role in worsening students' psychological well-being (Aucejo et al., 2020; Gruber et al., 2020; Seidel et al., 2020; Zhai & Du, 2020). As a consequence, various mental health issues have an impact on students' learning behavior during this process, and one of these implications is depression (Douglas et al., 2020). This might be related to a lack of emotional resilience and social contact, as well as loneliness, which is a provocative risk factor for depression (Elmer et al., 2020; Zimmerman et al., 2020).

Thus, in the context of the COVID-19 pandemic, loneliness has been highlighted as a crucial component for understanding students' depression. Loneliness is regarded as a result of the pandemic's social isolation. It leads to self-harm, mood disorders, suicide, and aggravate pre-existing mental health concerns (Holmes et al., 2020). the influence of social isolation on mental

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health is supported by public worries .Regarding the severe changes of contemporary social context,it is plausible that the incidence of situational loneliness would be considerable (Cowan, 2020; Holmes et al., 2020).

Additionally,Boredom is regarded as one of the primary variables that contribute to the evolution of depression in learners. It is also considered as a link between loneliness caused by the epidemic and the onset of depressive episodes. Boredom goes hand -in- hand with the outreaching of the viral functioning;therefore,students' behavior is considerably influenced by boredom (Laato, Islam, Farooq, &Dhir, 2020).Social isolation and separation are considered as effective techniques to decrease pandemic spread (Shin & Kang, 2020). Nevertheless,recent research showed that there is a positive linkbetween social isolation and boredom (Banerjee & Rai, 2020; Chen, 2020).In fact, mental health is highly exposed to distinct amount of tension due to the limitation of social connection ,which is enforced by the lockdown during the pandemic (Brooks et al., 2020).Boredom affectsperson's perception of time , it reduces physical activity as well as it leads to passivity ,and self doubt (Line & Hanks, 2019).It createssense of being locked in an insignificant present .In other words,boredom is a person's uncomfortable sensation of having an unsatisfied motive to be involved in the environment (Fahlman, Mercer-Lynn, Flora, & Eastwood, 2013).Isolation causes a lot of major repercussions during the pandemic including boredom,frustration and disconnection from people.All of these should not be overlooked (Cava et al., 2005).Furthermore, evidence exposed that boredom predicts cross-sectional depression symptoms (Lee & Zelman, 2019; van Hooff& van Hoof, 2014; Wiesner et al., 2005).

Other researchers viewed that repetitive negative thoughts also function in increasing the depressive episodes among individuals .Because in this case, bored people adopt RNT either to overthink a certain problem without taking actions,or to quench their demand for stimulation (Kelly & Markos, 2001; Mugon et al., 2018). Worries and restlessness are often associated with negative thoughts.Loneliness, boredom, and recurrent negative thoughts appear to be important cognitive triggers of depression during the Covid-19 crisis.

Conversely, a group of experts declared that boredom has a beneficial influence on students' intrinsic motivation.As mentioned in self-determination theory, boredom is the transition from unfavorable situation to an activity for which people have a strong passion



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and fulfillment (Ryan and Deci, 2000). It is the only driving force behind this procedure (Elpidorou, 2018). That is to say boring situations are inevitable, yet bored individuals are intrinsically inclined to take part in something other than the dreary activity (Bench and Lench, 2013; Elpidorou, 2014; Fahlman et al., 2013; van Tilburg and Igou, 2012). Empirical research indicated that attaining goals is inextricably linked to an individual's high degree of commitment, self-regulation, and motivation. And it's all achievable through boredom (Elpidorou, 2018), which promotes personal refinement, creativity (van Tilburg and Igou, 2011, 2012), and social engagement (Baker, 1992; Game, 2007).

All of what is linked to boredom's contributions, including the aforementioned conducts, are classified as leisure crafting, which intends to facilitate the process of learning, socializing, boosting self-development, and goal orienting (Petrou and Bakker, 2016). Individuals tailor recreational activities to accommodate their interests via leisure crafting (Berg et al., 2010). Due to the social isolation caused by the covid-19 epidemic, a tiresome lifestyle arises. In this situation, boredom serves as an incentive to leisure crafting (i.e. online leisure crafting). As a result, individuals actively look for leisure activities on the internet. People can achieve a higher quality of life by doing so, according to the self-determination theory (Petrou and Bakker, 2016; Petrou et al., 2017).

### **1.6. Cognitive Learning styles: Field-independent learners versus Field-dependent learners**

Tomas (2004) suggested that humans differ from one another because they perceive information in various ways and interpret it in different manners. Gibbs (2009) made a point of saying that thinking and accumulating a significant deal of information happen through the activation of a mental process known as cognition. While Sternberg (2004) assumed that the process of absorbing information from the outside world and thinking about how it would be perceived, as well as understood. All of this is defined as a learning style that is not shared equally by male and female learners. It denotes that information is assimilated, and arranged as a result of a characteristic of an individual's mental functioning (Tennent, 1988; Shoaib; Ahmed Zade, 2013). Shi (2011) maintained that cognitive techniques and cognitive styles are inextricably linked. Although, they may be

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distinguished by the method in which they are handled. Furthermore, Ahmedzaide and Shoeje (2013) described cognitive learning style as an individual's mental cognitive capabilities in connection to disparities in personality types. Likewise, Naroozi (2003) stated that cognitive learning styles might influence social interactions as well as the learning environment when it comes to teaching and learning processes. According to the previous mentioned perspectives of researchers, cognitive style is viewed as the manifestation of individuals' intellectual capacities due to the activation of a mental process.

Only a few of the different cognitive styles have garnered the attention of second language scholars. According to Brown (2000), these are ambiguity tolerance, left/right brain functioning, reflectivity/impulsivity, and field dependence/independence. Of these, solely field-dependence/independence (FD/I) is the locus of this research.

Field independent (FI) and field dependent (FD) learners have different characteristics, as outlined in Figure 5.

Field Independent Learners	Field Dependent Learners
<ul style="list-style-type: none"> <li>• Analytic, competitive, independent, and individualistic</li> <li>• Self-defined goals, strategies, and reinforcement</li> <li>• Intrinsically motivated</li> <li>• Poor social skills/prefer individual projects</li> <li>• Well organized and structured in their learning</li> <li>• Autonomous in cognitive restructuring skills</li> </ul>	<ul style="list-style-type: none"> <li>• Sensitive to environments</li> <li>• Easily influenced by prevailing field or context</li> <li>• Group oriented, global, and socially-sensitive/prefer group project</li> <li>• Prefer externally defined goals and reinforcements, and clear definitions of desired outcomes</li> <li>• Extrinsically motivated</li> <li>• Less structured, less autonomous</li> </ul>

**Figure1.7:** Differences between Field Independent and Dependent Learners. Adopted from Lim (2005)

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**1.6.1. The influence of covid-19 pandemic on both dependent and independent learners**

Covid-19 pandemic affects university students differently because each student perceives information in his or her own unique way, which is why learners are classified as dependent or independent regarding their learning styles. Some students rely on the teacher, while others can depend heavily on themselves. Throughout this process, a general discussion concerning the characteristics of both independent and dependent learners will be extremely beneficial in determining which learning style is negatively impacted by the pandemic and which learning style is positively influenced by this outbreak.

**1.6.1.1. Personal characteristics of dependent students**

According to Hall(2000), dependent learners are externally motivated students who prefer to get information from the outside environment such as working in groups. They are nonverbal and nonvisual learners who seem to be extremely responsive to social interaction and criticism.He also added that dependent learning is centered on extrinsic motivation, social contextual interaction, and external learning variables. It also fosters group work cooperation.Besides that it entails participants who are fully immersed in their field of study so as to comprehend what is explicit and, more importantly, what is implicit (Brown,2000).As a result,this enables students to develop effective communication skills which can be done through various activities such as group discussions, listening sessions, and assignments that help them improve their learning outcomes(Brown,2000).

In the same line of thought, Governor (1998)made a point of saying that while solving a specific learning task, dependent learners require more external assistance and social input in order to interpret the implicit cues.In the same context, Daniels (1996) discussed how field dependents have difficulty recalling information from long term memory, finding a link between present knowledge and prior knowledge, their lack of conception regarding how to derive and use non salient cues in relation to ambiguous information.Jonassen and Grabowski (1993o) stated that dependent learners are easily influenced by both externally presented instructions and learning environment.They face difficulty in attending to particular cues and they have a holistic way of perceiving information (Davis & Cochran, 1990).Dependent learners rely on social interpersonal based skills in order to achieve

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success in learning since they enjoy socializing and working in groups (Witkin & Goodenough, 1981). Dependent learning is based on social connection and interaction between students, either as peers or in groups under the supervision of the instructor (Witkin & Goodenough, 1981).

**1.6.1.2. The impact of covid-19 pandemic on dependent students in relation to online learning**

Dependent learners may encounter difficulties while getting involved in distance education during the pandemic because its main characteristics are social isolation, personal autonomy, constrained orientation, and limited interpersonal interaction between students and instructors (Stein, 1960; Thompson, 1984, Wedemeyer & Childs, 1961; Wedemeyer, 1971; Woolsey, 1974). Issues have been raised about the opportunities and quality of interaction provided by online platforms between instructors and students who used to work in peers (Roblyer & Ekhaml, 2000; Howland & Moore, 2002; Petride, 2002; Vonderwell, 2003). So, dependent students' learning process is hindered because the environment and social settings are the main factors that influence the development of dependent learning (Pithers, 2002). Moreover, person-to-person social connection and interaction are also lacking in online learning, which prevents students from taking advantage of learning with one another (Vonderwell, 2003; Sit et al., 2005).

Decreased levels of educational success and involvement with others are associated with lower perceptions of support from peers, the university, and faculty among university students (Goodenow, 1993; Hagborg, 1998; Neel & Fuligni, 2013; Pike & Kuh, 2005). This indicates the absence of both engagement and extrinsic motivation on the behalf of dependent university learners as a study conducted by Altun and Lakan (2006) revealed that individuals with dependent learning tend to recall social ties and communicative discourses more easily when they are in an interactional environment. Several more studies supported the idea that a lack of direct communication can lead to feelings of isolation and loneliness among online learners (Bullen, 1998; Hara and Kling, 2000; Zembylas et al., 2008). Researchers determined that in the pandemic era, students' learning motivation was in the middle range when learning online (Avila & Genio, 2020). The lack of physical presence and interaction between students and their friends, as in face-to-face classes, is the cause of hampered motivational development (Pappas & Giannakos, 2021). The

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teacher's use of learning support during the pandemic determines whether students are motivated to learn more or less (Kurniawan et al., 2021). As a result, the pandemic has a negative impact on dependent learners in relation to E-learning based on their personal traits.

**1.6.1.3. Personal characteristics of independent students**

Independent or unassisted learning is a strenuous form of learning that not everyone can reach since it demands a high degree of intellect, and autonomy (Zeegers, 2007). The coursework of self-regulated learners is totally organized, executed, and graded under their authority of directing everything (Wallace, 2010). Students that enroll in autonomous learning are fully accountable for whatever path they follow in terms of learning and they seem to have control over it (Chan, 2010). Individual learning is a term that is generally used to represent autonomous learning (Chan, 2010; Benson 2001, 2002; Healey, 2007; Zeegers, 2007; Chan, 2010; Stockdale & Brockett, 2011).

Individual learners are eager to achieve their learning goals by employing a variety of ways and tactics. The self-directed learner is innovative, hence when it comes to selecting the appropriate tools and resources to complete a certain activity. In this case, learners can take learning-related decisions (Chan, 2010). According to Per Hiemstra (2004), knowledge gained by autonomous study is referred to as self-acquired knowledge. Self-regulated learning, on the other hand, refers to learners who hold accountability for their learning, whilst self-managed learning refers to independent learners. As mentioned in Couillault (2011), Abdullah (2001) divides the notion of independent learning into six points, which are as follows:

1-Independent learning requires responsibility, management, and manipulation.

2-Endeavours which are implemented by the self-directed learners are a key reflection of their motivation.

3-Field independent pupils are more reliant on themselves than on teachers.

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4-Beneficial strategies, as well as prior knowledge, are frequently utilized in autonomous learning.

5-Collaboration is not important in independent learning .

6-Knowledge which is learned through independent learning is applicable in different learning contexts.

**1.6.1.4. The impact of covid-19 pandemic on independent students in relation to online learning**

It has been found that online courses are beneficial to students who prefer self-directed learning (You & Kang, 2014). Individuals who are able to self-regulate their learning often utilized various methods to improve their performance. They do not seek help from peers or professors, and they had the ability of metacognition in order to reflect on their own learning (You & Kang, 2014). It should be noted that self-regulation and intrinsic motivation are important factors in ensuring a successful online course experience (Matuga, 2009).

Self-regulation is the ability of students to plan and monitor their own behavior. However, it is not enough to succeed in the academic realm, students must also be intrinsically and extrinsically motivated to use their own strategies in order to succeed in online learning (Matuga, 2009). For individuals who are field independent, online learning is thought to be a better method of learning. They usually have excellent organizational skills and can easily access and organize information. In their study, Chen and Ford (2000) explained that the levels of independency greatly affect the ways people organize and prioritize information. In contrast, field dependent learners tend to be more prone to making mistakes and exhibiting poor organizational skills, they may be less successful in learning in various online environments. Other studies also suggest that students who take advantage of distance education are likely to have a higher level of autonomy and control over their learning. They also tend to require less structure and interaction with their classmates as well as their instructor (Diaz & Cartnal, 1999; Flinck, 1979; Glatter & Wedell, 1971; Miller, 1995; Miller & Honeyman, 1993; Pascal, 1973; Thompson & Knox, 1987). It can be seen that COVID -19 outbreak

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may have a positive impact on the learning process of independent learners, particularly when it comes to online learning, due to their recognizable characteristics, which serve as a key factor in achieving considerable success during the viral crisis.

All in all, the cognitive style is the description of field independence-dependence learners' personal characteristics such as visual perceptiveness and analytical abilities. Which has been deeply studied in order to know the influence of COVID-19 pandemic on their learning process through both traditional and technology-based teaching environments. Nonetheless, it is not yet specified which field of students is negatively affected by this viral condition, it is clear that more research is needed to resolve this issue.

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### **1.7. Conclusion**

COVID-19 pandemic plays a virulent and influential role in the field of education especially when it comes to university students. The aftermaths of this outbreak bring out new governmental regulations and policies such as lock-downs confinements, and social isolation. All of these forced learners to study at home through online based learning and only attend traditional classes when it is necessary, as a result; students feel demotivated and they are more exposed to several mental health problems including anxiety and depression. Furthermore, the cognitive functioning of university students during the pandemic differs from one learner to another since they do not share the same cognitive style of field dependent and field independent. On the one hand, students who belong to the dependent field of learning face a plenty of difficulties while studying online due to the absence of self-reliance and other factors. Independent learners, on the other hand, do not find it hard to cope with online based learning owing to their analytical abilities and other specific characteristics. Yet more studies are required in order to expose out what kind of influence has COVID-19 pandemic caused at the level of dependent and independent learners.



***Chapter Two:***  
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## **2.1. Introduction**

This chapter describes the impact of COVID-19 on M1 students from the Department of English at Saida University. As a first step, this phase of research discusses the sample population and the instruments used in the investigation. These instruments include a questionnaire for students and a semi-structured interview for teachers, both of which are intended to collect data on the psychological and cognitive effects of the COVID-19 pandemic on M1 students' learning behavior. This chapter concludes with an analysis and the interpretation of the gathered data which was obtained through the previously mentioned tools.

## **2.2. The Description of the Research Methodology**

In order to answer the research questions that either validate or reject the assumptions, the current study implements both qualitative and quantitative methods (mixed method). The former is used to explain the EFL students' insights and perceptions of the impact of COVID-19 on their cognitive and psychological sides throughout their questionnaire responses, which will be described as statistical variables. Furthermore, an anonymous semi-structured interview was designed for EFL teachers because their responses help in gathering available information about the influence of the pandemic on students' learning behavior, as well as collecting necessary data for any future research. Finally, in order to analyze the data, the research study is interpreted into graphs when it comes to the questionnaire only, but the interview was analyzed and interpreted using the language script which was provided by EFL teachers.

## **2.3. Research Objectives**

This research work is devoted to discuss the influence of COVID-19 outbreak on M1 English students' behavior during the learning process at Saida University .So,it is essential to shed light on how the aftermaths of the pandemic affect the psychological state of being, as well as, the cognitive functioning of university students .This recent study will be tackled in the analysis and the interpretation of the investigated data which was gathered from the part of teachers and students.

## **2.4. Sample of the study**

As in any EFL situation, the investigation was built upon subjects related to students' behavior during the learning process in relation to the impact of covid-19 pandemic. The population of the present study was divided into two groups: teachers and master-one students from the department of English at Moulay El Taher University. A sample of 40 master one students and 5 EFL teachers was chosen randomly from the Department of English. Throughout this process, two research instruments were used in which the questionnaire was addressed to students and the interview was conducted with teachers in order to collect information concerning this issue. As a matter of fact, this target population was chosen because they had previously experienced the e-learning strategy and the situations during the quarantine period in their previous academic year (2019/2020). Hence, they may be able to provide valid answers and accurate information to the questions being asked before.

## **2.5. Research Instruments**

Different tools and instruments were used for gathering data in order to achieve the objectives of this research work. The first research tool was a questionnaire to the sample population with the aim of identifying their personal educational experience in relation to their psychological and cognitive side during COVID-19 pandemic. The second research instrument was a semi-structured interview conducted with teachers for the purpose of discussing the impact of the pandemic on students' learning behavior according to their distinct perspectives and experiences during the outbreak.

### **2.5.1. Students' Questionnaire**

A semi-structured questionnaire is a collection of open-ended and closed-ended questions written by the researcher and addressed to the participants in order to provide different answers. The investigator chose this research tool because it can be analyzed in a short period of time.

During the first semester of the academic year (2021-2022), the questionnaire was distributed to forty (40) respondents in the English department. Its main target is to identify the psychological and cognitive impacts of COVID-19 pandemic based on the standpoints

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of learners. The semi-structured questionnaire is divided into three sections. The first section includes questions about students' personal information, the second one involves concerns about the impact of the pandemic on learners' psychological well-being and the final section entails inquiries about the cognitive functioning of both dependent and independent learners during the COVID-19 outbreak.

The questionnaires composed of eleven (11) questions of different types: Closed-ended, open-ended, and mixed (See Appendix A). Question 1 and 2: Are personal informative questions about M1 students.

Question 3: Asks about the influence of the pandemic on students' mental health.

Question 4: Aims at pinpointing the impact of the pandemic on intrinsic motivation, extrinsic motivation, and amotivation.

Question 5: Asks about the psychological mood disorders that manifest among M1 students during the pandemic.

Question 6: Aims at knowing if the E-learning affects the psychological side of students negatively

Question 7: Asks for stating the reasons behind students' lack of motivation, anxiety, depression during the viral crisis.

Question 8: Inquires about whether learners are dependent or independent.

Question 9: Investigates if students like to attend courses online or inside the classroom.

Question 10: It is about knowing the degree of the negative impact of E-learning on dependent learners.

Question 11: Asks about the influence of COVID-19 outbreak on both dependent and independent students.

This questionnaire is primarily used as a research tool to determine the psychological and cognitive effects of COVID-19 on EFL students. It is also attempted to investigate the issues from the informants' perspectives. As a result, the goal of using this questionnaire in

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this research work is to produce more accurate information, gather free insights, as well as provide a better exploration so that further research can be undertaken.

### **2.5.2. Teachers' Interview**

The semi-structured interview is the best tool for gathering informative data because each mixed (open-ended and close-ended) question is addressed individually to every informant. As a result, the investigator is confident that no question will go unanswered.

The Semi-Structured interview was conducted with four participants at the English Department. All teachers interviewed had an idea concerning the learners' psychology and cognitive functioning. The main goal was to get information about the actual cognitive, and psychological effect of COVID-19 pandemic on the target population behavior during the learning process.

This interview consists of nine (9) questions. On the one hand, the first five questions address the psychological influence of COVID-19 on students, including a lack of motivation (intrinsic, extrinsic, or both), as well as psychological inhibitions experienced by students during the pandemic. The other three questions, on the other hand, seek to identify the negative and positive effects of the viral outbreak on the cognitive functioning of both dependent and independent learners. Finally, the last question concerns teachers' recommendations for promoting or strengthening students' psychological well-being and cognitive effectiveness during the viral crisis.

To conclude, This section addressed the research design and methods used to achieve the current study's goal. Two research tools were used including teachers' interview, and learners' questionnaire in order to gather data about the impact of Covid-19 pandemic on students' learning behavior.

### **2.6. Data Analysis and Interpretation**

The current section is devoted to the procured data analysis and interpretation of the semi-structured interview and questionnaire. The information gathered is carefully analyzed and interpreted. The objective of this part is to provide a number of answers to the research questions as well as to test the validity of hypotheses. This section is divided into two sub-stages. The first stage is primarily concerned with analyzing quantitative and

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qualitative results. The second stage aims to discuss and interpret the findings of both the interview and the questionnaire analysis. It is important to mention that the results are presented in the order in which they were obtained.

### **2.6.1. Analysis of Students' Questionnaire**

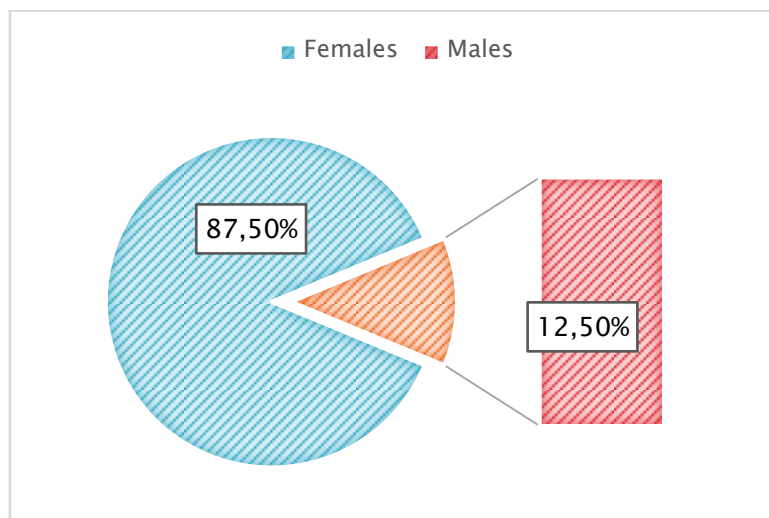
The questionnaire is divided into three sections. After the process of gathering data, the findings have been analyzed qualitatively and quantitatively as follows:

#### **Rubric one: students' personal information**

The primary aim of this rubric is to present the gender and age of students who participated in this research work.

#### **Question 1: Students' Gender**

According to the results of this question, there are 87.5 % females and 12.5 % males among 40 participants. To put it differently, the female population outnumbers the male population as it is illustrated below in the graph:



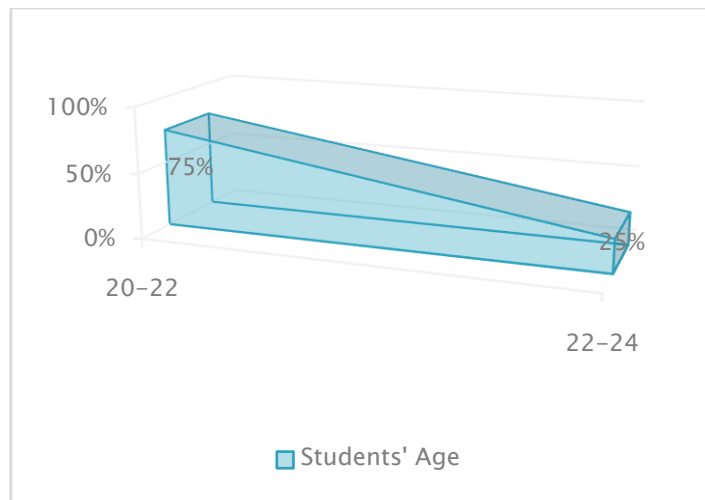
**Chart 2.1: Students' Gender**

#### **Question 2: Student's Age:**

This question attempts to distinguish between two age groups of respondents in order to determine whether they are mature enough to be aware of the impact of the Covid-19

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pandemic on their psychological and cognitive sides. Regarding the findings of this question, the students' ages range from 20 to 24. It can be seen that the majority of them are between the ages of 20 and 22, which embodies 75% out of the total, while the remaining 25% are between the ages of 22 and 24; these numerical data reveal that all the participants are fully mindful adults. Therefore, they can provide valuable information about how the pandemic affects their learning behavior. The following bar graph depicts the preceding result:



**Chart 2.2: Students' Age**

### **Rubric Two: Students' perspectives about the psychological impact of Covid-19 pandemic**

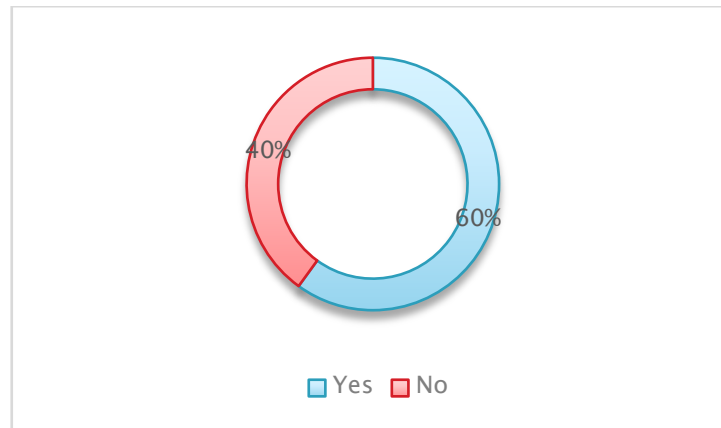
The main gut of this section is to discover out what kind of change does the pandemic provoke at the level of the psychological or affective side of M1 EFL students.

#### **Question 3: Does covid-19 pandemic influence your mental health?**

This question seeks to determine whether or not the pandemic seems to have a significant impact on students' mental health. The results show that more than half of M1 EFL students (60%) say yes, whereas the rest (40%) believe that covid-19 outbreak has no effect on their psychological well-being.

The following chart depicts the above findings:

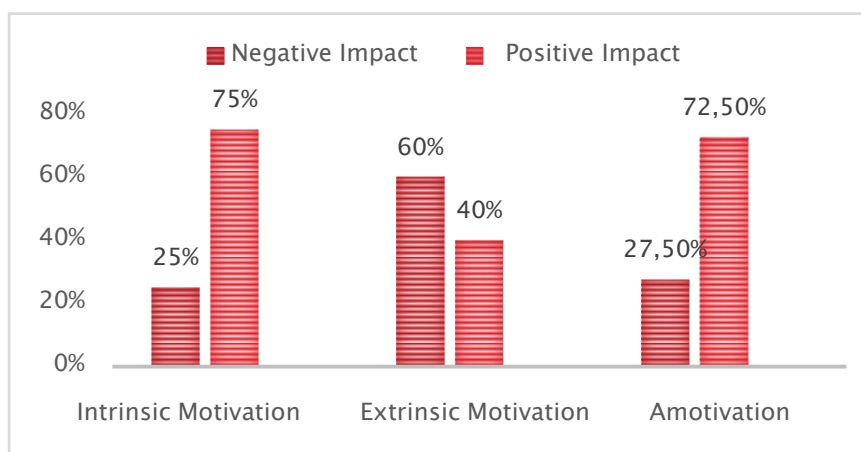
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**Chart 2.3: The Influence of Covid-19 Pandemic on Students' Mental Health**

### Question 4: Pandemic and Students' Motivation

This question investigates whether the Covid-19 pandemic has a negative or a positive impact on students' motivation. According to 75% of the participants, the pandemic has a positive effect on intrinsic motivation; however, the remaining participants (25%) reckon that it is quite the opposite. Furthermore, the majority of the students (60%) presume that the outbreak has such a negative impact on extrinsically motivated learners, in contrast to 40% of respondents who believe that the pandemic boosts this type of motivation. Additionally, most of the students (72,5%) agree that the outbreak of covid-19 has a positive influence on their lack of motivation. Which means it increases their level of demotivation. On the other hand, (27,5%) of learners assume that the pandemic has a negative impact on learners' amotivation. In other words, the outbreak plays a particular role in diminishing the level of amotivation (lack of motivation) which leads to foster students' motivation to learn.



**Chart 2.4 the Impact of the Pandemic on Students' Motivation**



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### Question 5: Which one(s) of these psychological mood disorders influences(s) you the most during the pandemic?

The results of this inquiry reveal that students who experience anxiety are the same number as the individuals who face depression during the pandemic in which they form 45 % out of the whole percentage which means 22,5% for each one of them . However, it appears that students who are both anxious, and depressed at the same time are quite numbered comparing to the others in which they embody 52, 5% among 40 participants. In addition to the minority of learners (2, 5%) who do not undergo any of the aforementioned psychological inhibitions but they experience over thinking, stress, boredom, and shyness.

The aforesaid statistics are depicted in the bar graph below:

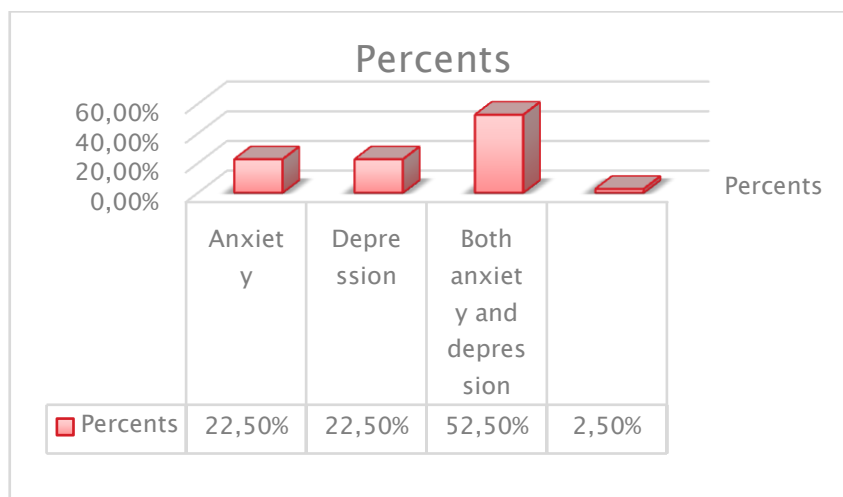


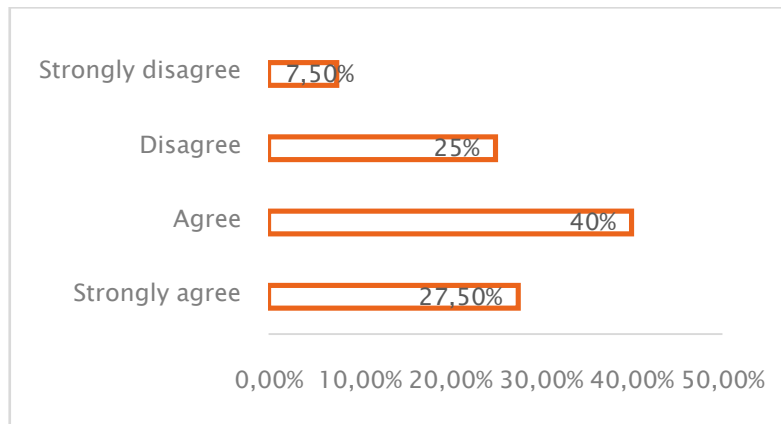
Chart 2.5 Students' Psychological Inhibitions during the Pandemic

### Question 6: Do you think the E-learning affects negatively the psychological side of learners?

The findings indicate that (27,5%) of students strongly think that E-learning has a negative impact on their psychological side, and (40%) of the whole participants agree on the same point of view. Nonetheless, (25%) of respondents disagree, believing that online learning has no detrimental influence on psychological well-being. Similarly, (7.5%) of learners strongly and fully agree with the previously mentioned notion. To put it differently, most of the learners agree on the fact that online learning influences their affective side in a deplorable way.

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The aforementioned findings are represented in the bar graph below:



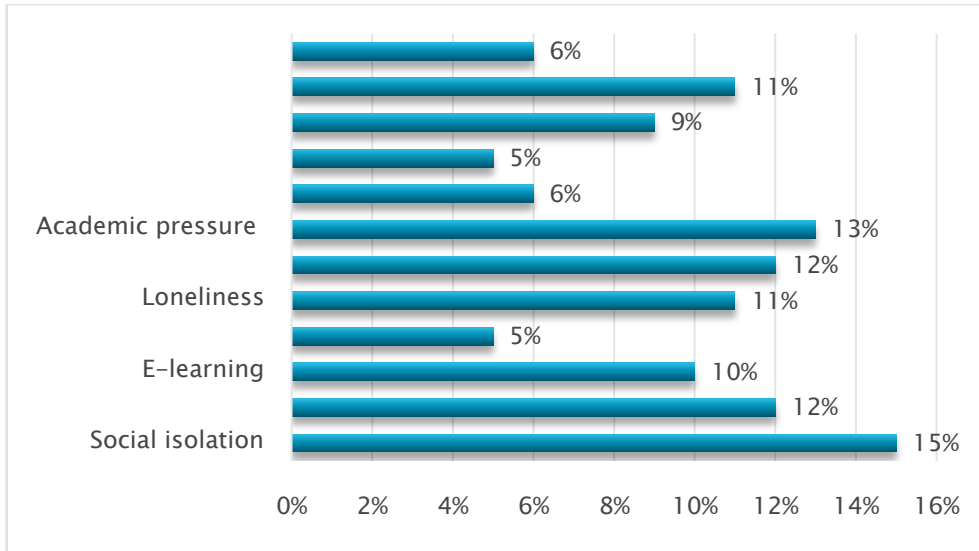
**Chart 2.6 theNegative Effect of E-learning on the Psychological Side of Learners**

**Question 7:What are the reasons behind students' lack of motivation ,anxiety and depression during covid-19 pandemic ?**

The findings of this question present a plenty of reasons behind students' lack of motivation, anxiety, and depression. The majority of students admit that the most impactful reasons are social isolation(15%), E-learning (10 %), hopelessness (9%), academic pressure (13%), loneliness (11%), and repetitive negative thoughts (12%). Furthermore, there is a lack of both university support (5%) and ICT materials (6%). Additionally, there is a lack of interaction between students and teachers (11%). Other contributing factors encompass boredom (6%), fear of the future and the viral infection itself (12%), and a lack of financial resources (5%).

The following chart represents the above question results:

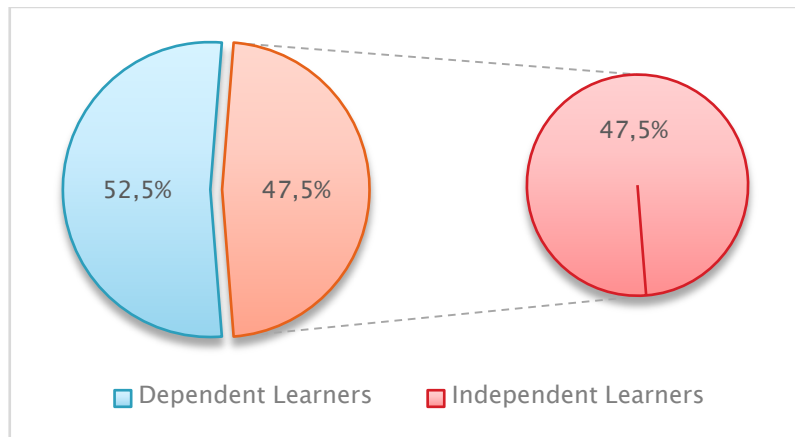
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**Chart 2.7 the Reasons behind Students’ lack of Motivation, Anxiety, and Depression**  
**Rubric Three: Students’ perspectives concerning the cognitive impact of the pandemic.**

**Question 8: Are you Independent or dependent learners?**

Based on the results of this question, it is plain that more than half of the learners (52,5 % ) are dependent students who cannot rely on themselves only during the process of learning. Whilst, the other participants (47,5% ) are self-reliant learners that depend on themselves heavily while learning .



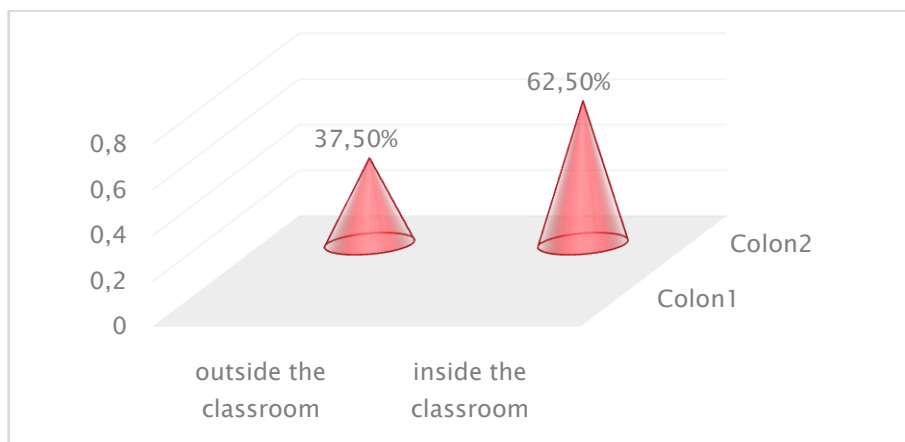
**Chart 2.8 Independent and Dependent Students**

**Question 9: How would you like attending classes?**

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This question is about how students like to attend classes. The results demonstrate that most of the students (62,5%) prefer to attend courses inside the classroom, but the rest of learners (37,5%) like to study online which indicates only the minority of students see that E-learning as the best way of learning from a distance as they think that virtual learning is more practical and technical than traditional one on the one side. However, on the other side the majority of students like to take traditional courses in the classroom due to the real interaction with their teachers as well as their classmates.

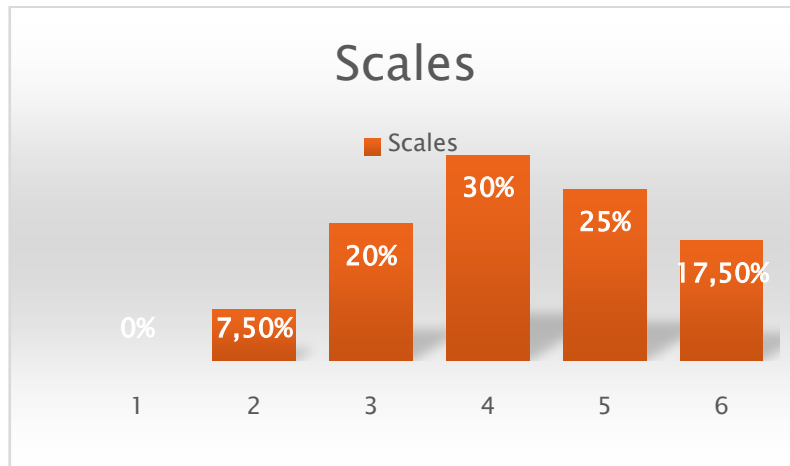
The following chart depicts the above-mentioned inquiry outcomes:



**Chart 2.9 Inside vs Outside Classroom Attendance among Dependent and Independent Students**

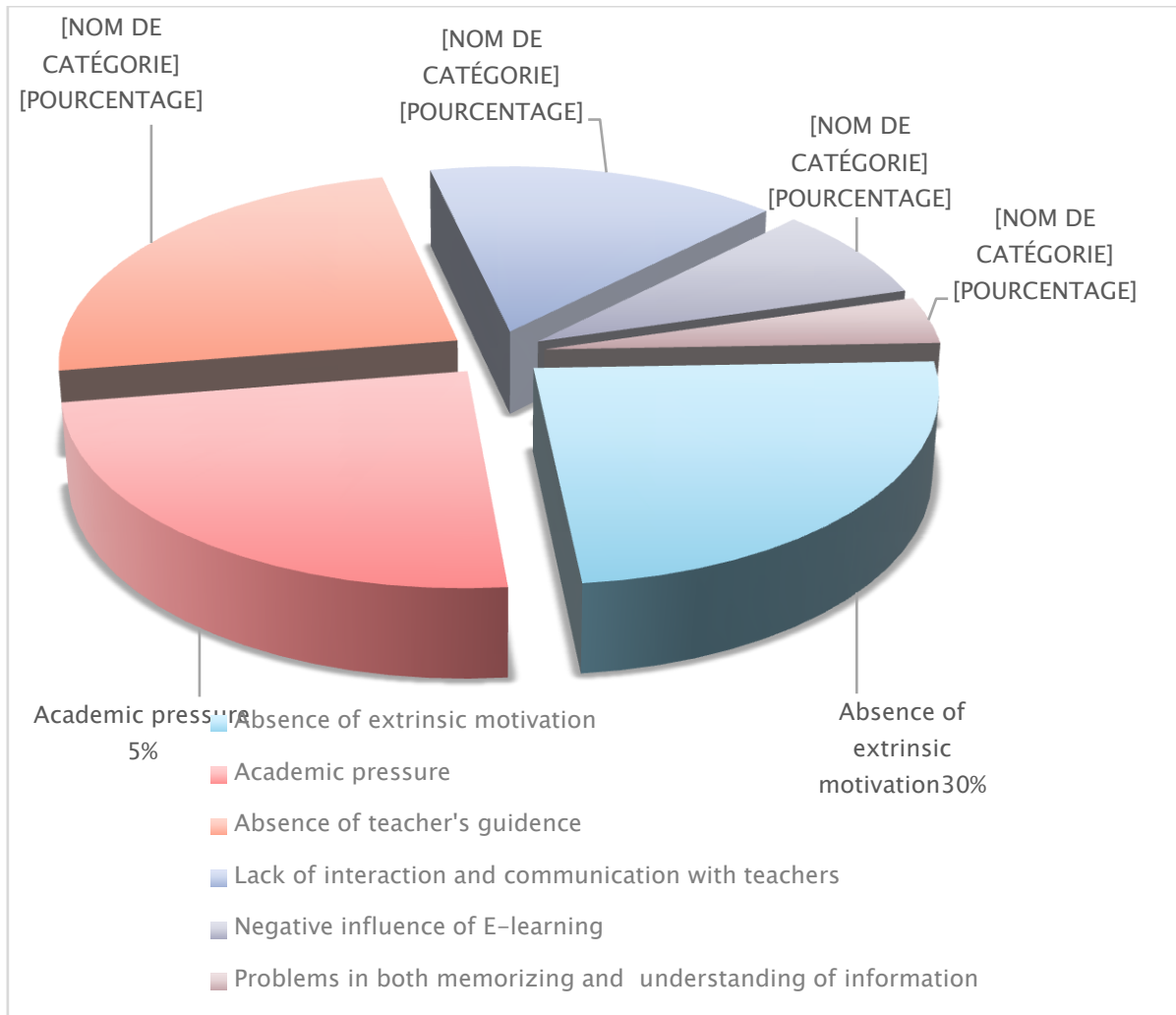
**Question10: on scale of 1 to 6, how would you rate the negative impact of blended learning on dependent students' cognitive functioning?**

On a scale of one to six, respondents to this question rate the deleterious impact of E-learning on dependent learners' cognitive performance (1-6). No one among the participants ranks the negative impact of E-learning as (1/6) and just a handful rate it as (2/6) about approximately 7.5%. However, the influence of E-learning on reliant students' learning process gradually increases from (3-6), with a high level of percentages in comparison to the other previously stated ratings about 20% for the score of (3), 30% for the rating of (4), 25% for the scale (5), and ultimately 17.5% for the scale of (6). The following bar graph displays the results of the above-mentioned inquiry:



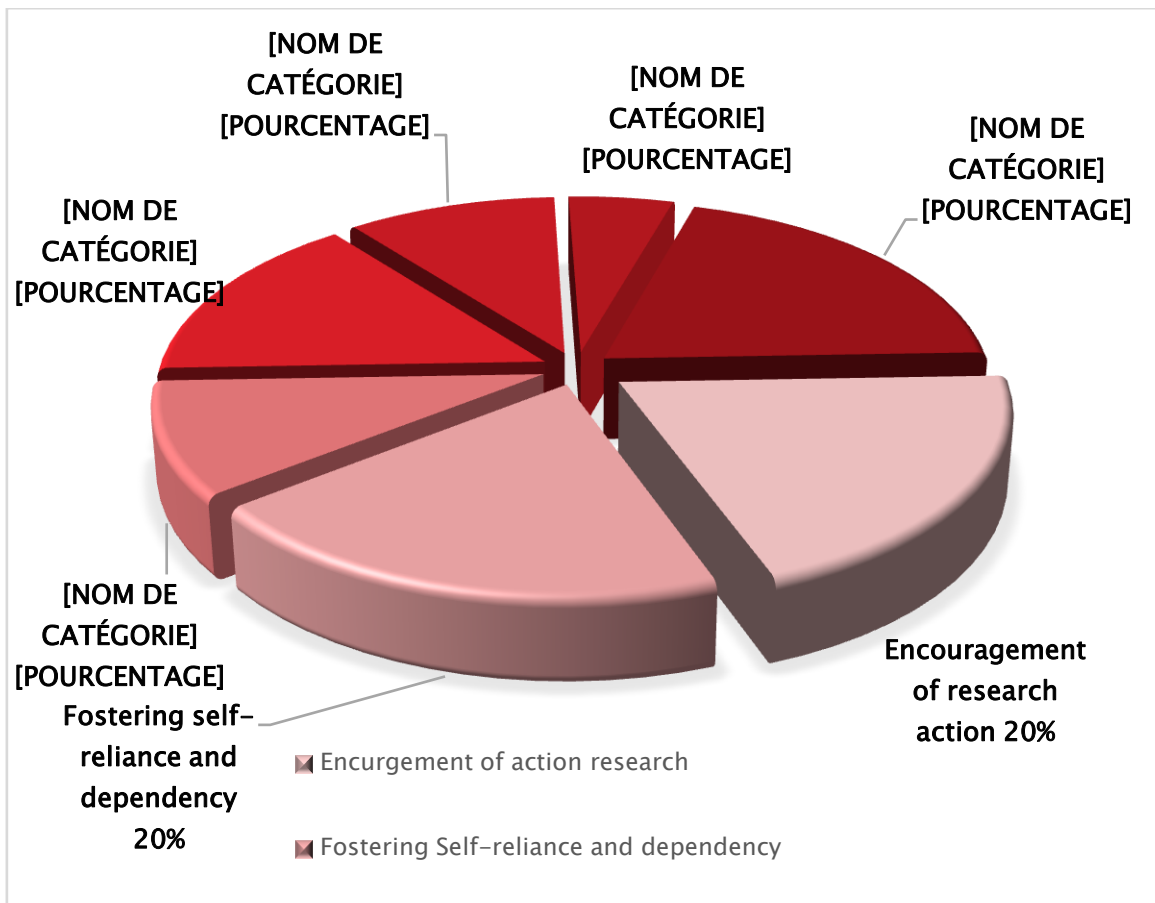
**Chart 2.10 Ratings of the Negative Influence of E-learning on Dependent Learners' Cognitive Functioning**

**Question 11: According to you how does the outbreak of covid-19 influence your learning process either as a dependent student, or as an independent student?**



**First part of the question: The influence of Covid-19 Outbreak on the Learning Process of Dependent Students**

The findings of this question highlight that the spread of the covid-19 pandemic has a negative impact on the learning process of dependent students. The most overarching effects are the absence of both teacher's guidance (30%) and extrinsic motivation (30%), all of which occur as a result of a lack of interaction and communication with teachers (20%). In addition to the negative impact of E-learning due to the academic pressure (5%) such as giving students a great number of homework to be done. And, also experiencing difficulties in memorizing and understanding the pile of online courses in the platform (5%).



**Chart 2.12** the Influence of Covid-19 Outbreak on the Independent Students

**Second part of the question: The influence of covid-19 outbreak on the independent students:**

The results show that the outbreak of the covid-19 pandemic has such a positive impact on the learning process of independent students. In addition to stimulating their intrinsic motivation (20%) the most prominent effects are encouraging research action (20%) and fostering self-reliance and dependency among learners (20%). All of this enables the emergence of an analytical learning process (15%) among self-reliant students because they are open-up to new experiences (10%), that is why E-learning has a positive impact (10%) on them, and as a result they are capable of self-evaluating and self-judging (5%) their learning outcomes.

### 2.6.2. Teachers' Interview analysis

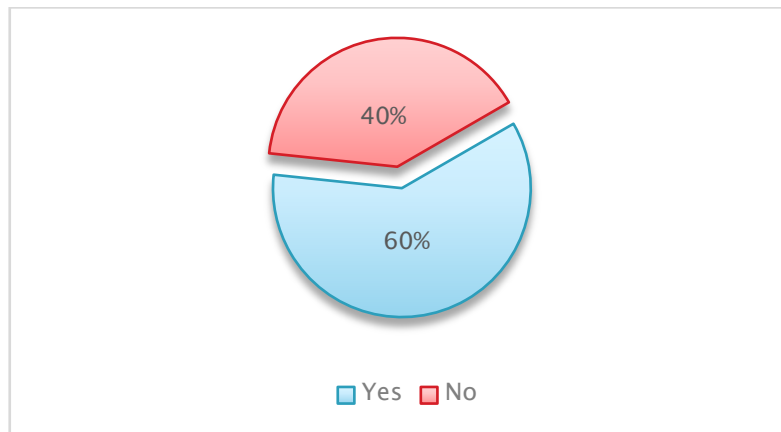
To achieve the desired objective, 9 questions were designed to 5 EFL teachers in order to elicit their personal opinions on the psychological and cognitive impact of the covid-19

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pandemic on students' learning behavior, as well as to gain insight into how teachers can fix these issues by ensuring a sane psychological well-being as well as successful cognitive functioning during the viral crisis. And thereby, as explained in the following lines, teachers' interview consists of various types of questions:

**Question 1:** Do you think that your learners experience lack of motivation during Covid-19 pandemic?, please elaborate more .

The purpose of this question is to determine whether or not learners experience a lack of motivation during the Covid-19 pandemic, and how teachers can explain to what extent this outbreak affects students' motivation to learn. The results obtained are depicted in the pie chart below:



**Chart 2.13 Teachers' Perspectives on Students' Lack of Motivation during the Pandemic**

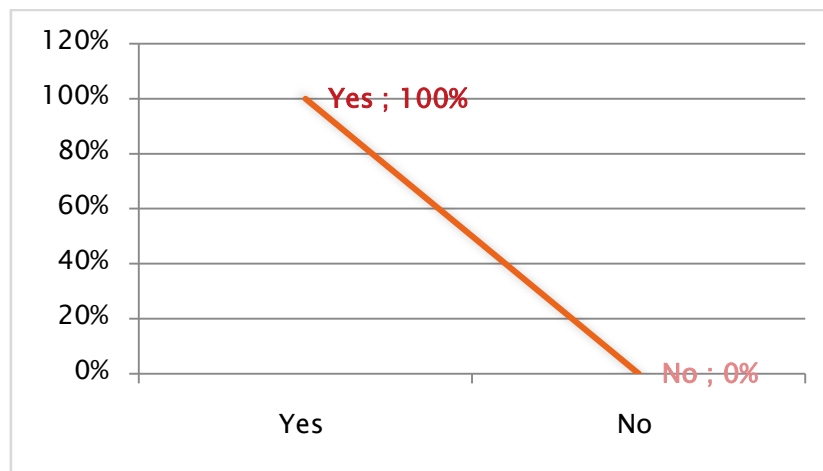
### **Teachers' elaborations regarding students' lack of motivation during the outbreak:**

According to (3) instructors, students' lack of motivation during the pandemic is due to the rapid change in learning style, which entails a shift from face-to-face learning to virtual learning, as well as health worries about viral infection and spending most of their time at home. However, the remaining teachers argued that learners' demotivation is not solely due to the pandemic, but also to educational conditions at university, social issues, and academic problems. In other words, the pandemic is just an excuse for students to justify their lack of motivation, which is exacerbated by their indolence rather than the viral crisis.



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**Question2:** Are there any specific factors that you consider influencing students' motivation in the time of covid-19 outbreak?



**Chart 2.14 the Existent Factors that Influence Students' Motivation during the Phase of the Pandemic**

The purpose of this inquiry is to determine the common factors that impact students' motivation during the Covid-19 epidemic. EFL teachers focus heavily on a number of factors, including:

1-Virtual learning and a lack of ICT skills, as well as lack of the ability to use moodle proficiently.

2-Anxiety, fear of both uncertain future and virus infection.

3-Social and academic pressures, such as administrative mismanagement.

4-Social isolation, and a lack of both learner-learner and teacher-learnerinteractions .

**Question 3:Can you explain how does the pandemic impact both intrinsically ,and extrinsically motivated students ?**

In response to this question, the (5) EFL teachers offer a variety of explanations for how the pandemic affects both intrinsically and extrinsicallymotivated students. (2) Teachers believe that the pandemic tends to affect both intrinsically and extrinsically motivated students negatively due to virtual learning and a lack of interaction with educators inside the classroom as well as the successive feeling of being lost and hopeless. The other two

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teachers believe that the outbreak impacts both sorts of motivated learners in a negative way, but it has a greater extent of influence on extrinsically motivated students due to the absence of some stimulating external factors and a slightly lesser degree of effect on intrinsically motivated learners since they are so into the learning research . For the one remaining teacher, the pandemic has nothing to do with student motivation and it has no kind of impact on the students' learning process.

**Question 4:** What are the psychological inhibitions that students undergo during covid-19 outbreak?

Educators state different psychological inhibitions experienced by the M1 EFL students. The first tutor reckons that anxiety , stress , fear of the virus and overthinking about what will happen in the future is really distracting when it comes to studying . The second teacher thinks that depression is a dominant psychological inhibition during the pandemic due to the lack of interaction between students and their classmates as well as students and their teachers . The third one believes that feeling of being socially isolated and locked down is one of the reasons behind learners' psychological problems. Additionally , the other remaining (2) teachers did not state the exact psychological problems but one of the two argues that these affective problems have to deal with virtual learning in relation to lack of motivation and self-awareness . However, the second one contends that learners' psychology is really complicated to speak of because they are getting stuck in fact between staying as a teenager or jumping into adulthood . In other words , they are earlier adults who are quite sensitive and they do not even understand themselves clearly .

**Question 5:** According to your personal perspective, what leads to students' anxiety , and depression in the phase of the pandemic ?

The (5) EFL teachers believe that there are numerous reasons for students' anxiety and depression during the pandemic phase, including individual factors like successive overthinking and psychological fear about how the courses and a large pile of homework will be tackled and how E-assessment can be done. Other reasons are offered social factors such as the fear of being infected by the virus and the loss of family members due to viral infection, as well as the continuous propagation of the virus, social isolation, the negative impact of social media Lock-downs, and lack of support on the part of the family.

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**Question 6:** How would you describe the influence of E-learning on the field of both dependent, and independent learners during the pandemic?

The answers to this question differ from one teacher to another. (3) teachers out of five agree that E-learning has a negative impact on dependent students because they need the teacher to guide them and shed light on many things, they are also extrinsically motivated extroverts who prefer to learn in a collaborative work environment. Consequently dependent learners consider online learning as an obstacle. Independent learners, on the other hand, benefit from E-learning since they enjoy research and they are intrinsically motivated introverts who prefer working alone as well as self-reliant, analytical learners. Another instructor believes that online learning has a negative impact on both learners because they are too bone idle to enter the platform for studying. Furthermore, the last educator contends that virtual learning has no impact on these types of students as the platform is simply a website where teachers post only lectures.

**Question 7:** What kind of hindrances do dependent students encounter while studying online within the viral outreaching?

The majority of instructors (4) state that dependent students face numerous challenges while studying online, including a lack of perception of online courses, an absence of extrinsic motivation, a dearth of student-student interaction and teacher-student interaction, social isolation, E-learning in relation to lack of ICT skills and a poor internet connection, and an over reliance on educators. Nonetheless, other educator contends that E-learning has no impact on reliant students because it is simply a compendium for previously explained lectures by the teacher.

**Question 8:** Do you believe that independent students do not face any kind of difficulties concerning E-learning during Covid-19 pandemic?, and why ?

According to (3) educators, independent learners face difficulties during online learning such as fear of what will happen in the future because they are analytical learners and keep questioning such things, a lack of both internet access and ICT skills, and the need for further clarifications concerning the online published courses. However, the rest of teachers (2) argue that this type of students do not meet any arduousness since they can

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rely on themselves as well as possess a kind of intrinsic motivation and self-awareness. They know how to deal with problems and how to rectify solutions.

**Question 9:** As an EFL teacher, what would you recommend for promoting students' psychological wellbeing and successful cognitive functioning in relation to the viral crisis ?

EFL instructors' strengthening students' psychological well-being and cognitive functioning can be summarized as follows:

1-Students should be familiar with the use of ICT skills, online learning, and E-assessment. This process includes two important components, self-reliance and self-awareness.

2-Students should work on their neuro linguistic-programming more, in other words, they should think only about positive things, ignore the negative side, and visualize only success. All of this contributes to effective cognitive functioning.

3-Learners should participate in more extracurricular activities such as the in USA the (American Corner), which helps them become more independent and responsible for their own learning process.

4-When it comes to E-learning, learners' perspectives should be taken into account concerning for example E-testing; otherwise, such imposed academic pressure may have a negative impact on their psychological and cognitive sides.

5-Students should practice sports and read more books about educational psychology, as well as the holy book Quran, in attempt to optimize their cognition throughout this process, because psychological well-being and cognitive functioning are inextricably linked to each other.

### **2.7. Discussion of the main Findings**

The current section summarizes the main findings of the study. It focuses on the interpretation and discussion of the overall data derived from the analysis. It essentially answers the research questions raised at the beginning of the present research project. Furthermore, the researcher will confirm or reject the hypotheses that were established

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prior to the experiment based on the results. To recap, the current study sought to answer and test the following questions and hypotheses:

A-Research questions:

RQ1 : To what extent is the ongoing health crisis disrupting students' learning ?

RQ2 : What is the impact of the COVID-19 pandemic on learners' psychological and cognitive level as well ?

B-Hypotheses:

1- M1 English students experience a deplorable atmosphere full of anxiety, depression, and lack of motivation during Covid-19 pandemic.

2-As a result of the viral crisis, dependent and independent M1 English students are facing a significant retreat intheir cognitive functioning.

### **2.7.1 Discussion and interpretation of the students' questionnaire results**

This discussion highlights some of the core research findings gleaned from the questionnaire. The purpose of the study was to unveil the perspectives of M1 English students at Saida University on the psychologicaland cognitive effects of the covid-19 pandemic on their learning behavior. Several conclusions can be drawn from the aforementioned results, which are premised on a correlation between the participants' responses in the three sections of the questionnaire .More than half of the students (60%) said that the pandemic has negatively affected their mental health, specifically their psychological well-being, which includes motivation, anxiety, and depression. Intrinsically motivated learners(75%) seem to be unaffected by the pandemic because this type of motivation is characterized by an inner stimulation devoted to holding both passion and interest towards studying. The EFL teachers agreed on the same stated point during the interview. Students who are extrinsically motivated (60%) , on the other hand, believe that the outbreak has a negative impact on them because they like to socialize and, more importantly, study in pairs or groups within the presence of the teacher.In terms of the role of extrinsic motivation in second language learning, a group of researchers (e.g., Change, 2010; Wong, 2008) discovered a link between social support and learner motivation. According to Phan (2010), social support, including support on the behalf of teachers as

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well as family members, particularly parents, has a significant impact on students' motivation to learn English. Furthermore, the majority of the participants (72,5%) agreed that the covid-19 pandemic has a negative effect on their motivation to learn in terms of both intrinsic and extrinsic motivation, resulting in a sense of amotivation, which refers to a complete lack of motivation to learn. Amotivation is the most significant factor for unsuccessful learners, particularly those who study online (Artino, 2008; Keller, 2008).According to M1 Englishrespondents , viral outreaching not only affects their motivation, but it also causes anxiety and depression (52,5%) at the level of their psychological health, as well as other types of inhibitions (2,5%) like overthinking, stress, and boredom...

Students gave various reasons for the previously stated psychological problems caused by the pandemic, such as E-learning in which most of the learners agreed on the fact that it has a negative influence on their psychological or affective side ,in addition to social isolation,repertitive negative thoughts,academicpressure,loneliness,boredom, and hopelessness. Within the same line of thoughts , several studies have found that suicide, domestic violence, mental disorders, anxiety, and depressive disorders are all on the rise as a result of the COVID-19 crisis (Sifat,2020).Other scholars also confirmed that many psychological disorders, such as depression and anxiety,increased as a result of the aftermaths of the covid-19 pandemic, including social isolation, financial problems, despair, and loneliness (Killgore et al., 2020a; Serafini et al., 2020; Xin et al., 2020; Serafini et al., 2020; Serafini et al., 2020; Serafini et al., 2020).The findings of the questionnaire's second section confirmed what was hypothesized at the very beginning of the study , that is to say M1 English students experience a deplorable atmosphere full of anxiety, depression, and a lack of motivation during the viral crisis.Furthermore, the outcomes of the third section of the questionnaire disclosed that students who do not tend to favor attending courses online outnumber learners who like to study virtually because they need the real presence of the teacher in order to provide them with courses in the usual traditional methods ,in other words face to face learning method .Although if lessons are only partially online, students may feel that online discussion takes away from their sense of community with their peers and instructor.There are various reasons why students may favor more traditional, in-class activities. Even though social connectedness may be obtained online (Grieve et al., 2013), most students believe that face-to-face contact is necessary for developing a sense of social connectedness (Conole et al., 2008). The main

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impact of covid-19 on both dependent(52,5%) and independent students(47,5%) has been described as negative when it comes to reliant students, especially while studying online , due to many factors such as lack of interactive communication with the teacher, absence of both educator's assistance and extrinsic motivation, heavy academic workloads, and problems in memorizing new information. Nonetheless, self-reliant learners argued that the pandemic has a beneficial impact on their learning process, notably their virtual learning, for a plethora of reasons such as the positive impact of E-learning, openness to new experiences like learning new languages which can be attained through research action, self-reliance and interdependence(the dependence of two or more people on each other), and most importantly, the analytical process of learning when the intrinsically motivated independent learner is able to use various tactics or strategies and seize control over them based on self-evaluation and assessment. Interestingly, while conducting the interview, teachers also stated that the pandemic appears to have both positive and negative effects on both types of learners.

This result is in line with studies by Hall (2000) ,who claimed that dependent learners have a passive global way of learning in which they are not responsive to visual and verbal perceptions , but they are sensitive towards external factors as extrinsic motivation ,social orientations including interaction and criticism in addition to both external reference and information structures.On the contrary,the independent learners follow an active holistic approach of learning that is characterized of intrinsic motivation, internal reference and visual perception in addition to individual analytical, competitive and self-regulated process of learning .This demonstrates that only dependent learners undergo a significant retreat concerning their cognitive functioning during the viral crisis, whilst self-reliant learners experience no challenges.

### **2.7.2. Discussion and interpretation of teachers' interview**

The interview was conducted with (5) EFL teachers in order to review their different views regarding the psychological and cognitive influence of the pandemic on students' learning behavior.In the first three questions , educators provided different opinions regarding students' motivation during the viral outreaching .Most of the instructors believed that M1 EFL learners experience lack of motivation during the pandemic due to a number of individual and social factors like the continuous viral outreaching which leads to the fear of the uncertain future ,anxiety ,and social isolation in addition to the virtual learning that

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results many kind of issues including social and academic pressure as well as a lack of ICT skills when it comes to studying online using moodle platform .Also, the lack of both learner-learner and teacher -learner interactions. Correspondingly, Johnson (2008) stated that the variables that affect students' motivation include a broad range of environmental factors .For instance, teacher-student and student-content interactions and other aspects that are worth noting, like the effective learning environment.

During the learning process, learners do not share the same kind of motivation. As a result, COVID-19 outbreak affects them differently. According to some (4) EFL teachers, the pandemic has a detrimental impact on extrinsically motivated learners due to the lack of externally driven elements like social connections .Which means,instead of focusing on the task as a whole , the primary reason behind the manifestation of this extrinsic motivation is what reward will be delivered after completing the activity. This process is influenced by external factors such as the surrounding environment and organization. in other words ,extrinsic motivation is boosted by external variables such as incentives, social features , authority, and pair work (Deci and Ryan ,1985).To put it another way , extrinsic motivation as opposed to intrinsic motivation, pushes students to engage in academic assignments for external reasons. Yet intrinsically motivated learners constantly ask questions in order to broaden their knowledge and learn, regardless of external push factors or teacher aid, they enjoy learning and exhibit positive sensations when doing so. They are really motivated students who learn freely and always choose to tackle challenging problems in the same style. This means that learners integrate what they learn in school with what they learn outside of school. Intrinsically motivated learners persevere in fulfilling the tasks they have set for themselves (Stipek, 1988).Which indicates that learners who are intrinsically motivated, on the other side, appear to have positive attitudes towards learning in the time of the outbreak since they are completely immersed in studying and conducting research on their own.Intrinsic motivated learners are characterized of relatedness,autonomy (self-reliant learners) ,competence ( due to self-confidence ).Therefore , these previously mentioned traits contribute in accomplishing a specific task successfully (Gagne and Deci,2005).

Surprisingly, another professor assumed that the lack of students' enthusiasm in general has nothing to do with the epidemic; it's just a pretext to avoid learning.



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Teachers offered various responses for the next two questions about the psychological impact of COVID-19 on learners. They asserted that students experience a variety of psychological inhibitions such as anxiety, depression, stress, and fear. This occurs for a variety of reasons, including individual factors such as consecutive overthinking and psychological fear about both what the future hides and how the courses and a large stack of homework will be handled, as well as social factors such as the fear of being contaminated by the virus and the loss of family members due to viral infection, as well as the continuous propagation of the virus, social isolation, the negative impact of social media, lock-downs, and a lack of support on the part of the family.

All of the previously provided information was briefly stated in the hypotheses section, indicating that what was speculated is completely correct. Moreover, (3) EFL instructors believed that studying online during the pandemic has a positive impact on independent students because they are self-aware, intrinsically motivated introverts who prefer to work alone using a self-reliant analytical process, they know how to rectify solutions for problems on their own. However, the pandemic has a negative impact on dependent learners because they are extrinsically motivated learners. As Davis (2006) maintains, field-independent individuals are considered as self-reliant students who undertake a certain task based on their own orientation, whereas; field-dependent learners are reliant and less competitive especially when it comes to accomplishments (Haimes-Bartolf, 2006). Similarly, other experts argue that field-independent individuals like more structured learning environments in which internal cues are their main reliance. As a result, they can be described as more productive and goal-oriented learners (Witkin & Goodenough, 1980; Witkin, Moore, Goodenough, & Cox, 1975; Witkin, Oltman, Raskin, & Karp, 1971; Wooldridge, 1995).

Other professors, however, indicated that even autonomous learners have challenges when learning electronically during the outbreak, which may be attributed to their sequential analytical process of studying and uncertainty about the unknown future. Aside from a lack of internet connection and ICT abilities, there is also a need for more clarification regarding the online published courses. Within the same line of the thoughts, in order to avoid technology's barriers, it is important to teach students important computer skills like word processing, as well as providing them with enough experience so that they are at ease and are not easily discouraged by technological issues. When they are

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independent students are typically hesitant to study on the internet when technology creates annoyance (Gifford, 1999).

According to the above-mentioned clarifications provided by most of EFL teachers, the second hypothesis is somewhat correct only when speaking of the negative impact of the covid-19 pandemic on dependent learners' cognitive functioning in terms of E-learning, but the assumption is erroneous when it comes to independent learners because they tend to be positively influenced by the pandemic, which is a kind of beneficial aspect that achieves a slightly elevated level of improvement in their intellectual performance.

### **2.8. Conclusion**

The purpose of this chapter is to examine the conclusions and findings of both research instruments, namely the students' questionnaire and the instructors' interview. The researcher attempted to interpret and scrutinize the responses of both tutors and learners in order to ascertain plausible answers to the research questions posed and to verify the hypotheses proposed at the beginning of the study.

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The prevailing study's results demonstrate that, on the one hand, the pandemic has a psychological impact on students in terms of lack of motivation, anxiety, depression, and, on the other hand, it has a negative cognitive impact on dependent learners' cognitive functioning .Whereas,this outbreak has a positive effect on independent learners' intellectual academic performance.

***Chapter Three:***

***Promoting Students' Psychological and Cognitive  
Side during the Pandemic - Suggestions and  
Recommendations***

*Chapter Three: Promoting Students' Psychological and Cognitive Side during the  
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### **3.1. Introduction**

As discussed in the previous chapter, M1 EFL students are susceptible to a variety of major psychological and cognitive problems during covid-19 outbreak . These issues are seen to have a detrimental effect on the results of the learning process , and teachers are thought to have a substantial role to play in addressing this essential troublesome issue. On the light of the research findings, the current chapter aims to give some suggestions and recommendations for both instructors and EFL learners to appropriately manage and mitigate the affective and cognitive influences of covid-19 on the university setting.

### **3.2. Ensuring support by teachers**

The position and expertise of teachers are irreplaceable, and their regular interaction with students places them among the most significant agents of educational change. Furthermore, teachers and school leaders are the most likely to be connected to students' families and may play a significant role in both reaching the most vulnerable students and keeping their families interested in their education. They are key players in the COVID-19 dilemma, helping their students through the escalation of online distant learning. While the crisis has affected approximately 63 million teachers by the end of March 2020, providing teacher assistance during such a crisis represents a significant issue and a critical policy area to promote fairness and inclusion in education amid school closures. In the same vein ,Harding et al. (2019) confirmed that child and student wellbeing are linked to educator wellness (Harding et al., 2019). Educators who offer emotional support and build strong relationships have an impact on the mental health wellbeing, and the overall happiness of children and students (Stewart & Suldo, 2011).

### **3.3. Encouraging EFL students to participate in wellness programs**

During the pandemic, university students experienced a variety of psychological issues; therefore, there is a need for balanced programming that supports learning while also helping their social, emotional, and cognitive adjustment, including preventive care .This can be achieved through prioritizing stress reduction, mental and physical wellness routines such as daily chances for motion, yoga, mindfulness activities, meditation, and

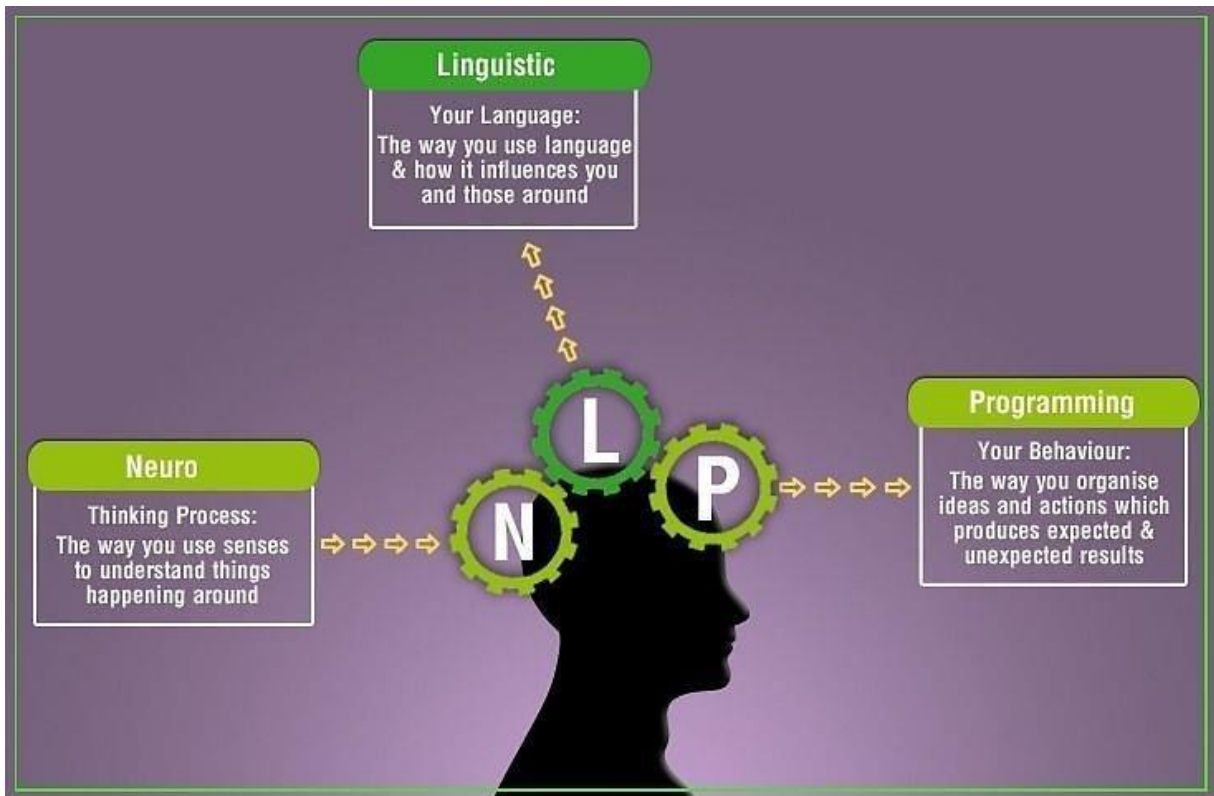
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any extra relaxing routines to support self-regulation (e.g., lights off, music, breathing, sketching, sport ). These routines (a) boost resilience and health in students who have got mental - health problems (Sciaraffa et al., 2018), (b) help to improve the overall health and focus in young adults . In addition to that colleges and institutions in higher education can provide students with tools such as wellness kits.

### **3.4. Fostering the use of neuro-linguistic programming among EFL students**

Amid covid-19 outbreak, EFL students should engage in a self-talk within themselves in which they should fill their brains with only positive aspects of the pandemic and disregarding everything bad. Since communication is a form of therapy, it might be conducted via the law of attraction or neuro-linguistic programming. This latter is a substantial communication model that was labeled by one of the interviewees while collecting data, and it caught the researcher's attention because it is beneficial for students in promoting both their psychological well-being and academic achievement during the outbreak. NLP is a psychological discipline concerned with the interior subjective world. It is a paradigm that allows an individual to comprehend how thoughts are processed and the influence on overall behavior and decision-making. In the same line of thoughts, Alder (1992) believed that there is no failure in the NLP technique, only feedback, implying that if things did not go as planned, one would simply respond sensibly and then change his or her efforts to accomplish the wanted objectives. Interestingly, when instructors include parts of suggestopedia, theatre, music, community language learning, and body language into their classroom, they are already using NLP in the same manner that it was twenty years ago (Darn, 2005). It is worth noting that if NLP is frequently deployed by M1 EFL students during the critical period of the virus, it will boost both their psychological and cognitive functioning as well as their academic performance .

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**Figure3.1:** Neuro-linguistic programming adopted from Aclaron Academy (2017)

There are a few sorts of NLP that EFL learners should adopt to resist the recurring negative thoughts and other psychological problems like anxiety, sadness, and demotivation that the epidemic induced at the level of their mental health :

- ✓ **Dissociation:** This strategy involves identifying a feeling (nervousness, fear, wrath, etc.) that needs to be eliminated. It is about picturing floating out of the body then look back to the oneself and float out of it once more, so it is time to stare at the oneself . This will assist in disconnecting from the bad mood.
- ✓ **Reframing:** In this approach, you reframe unpleasant emotions and sentiments with positive ones, which aids in shifting the meaning of the event.
- ✓ **Anchoring:** Anchoring is a mental activity that involves linking an emotion with a physical action. For example, establishing a powerful position to enhance confidence.
- ✓ **Rapport and Mirroring:** This NLP strategy can help in creating good relationships, trust, and rapport with people. It is used to assist as well as develop rapport with others by mirroring their behavior, body language, words, gestures,

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and voice. NLP communication model does not help students only in achieving academic success, but it also develops the character and alters the behavior into a more pleasant one. Some of the advantages of NLP are:

- ✓ **Self-Confidence:** NLP model assists in establishing self-confidence and believing in oneself.
- ✓ **Clear Vision:** NLP explains aims and goals while also assisting in striving for the target without distractions.
- ✓ **Leadership:** NLP creates leadership character, which promotes performance in order to stand out from the crowd.
- ✓ **Problem Solving:** NLP gives a hand in building problem-solving abilities.
- ✓ **Developing better Relationships:** NLP can help in enhancing different interpersonal skills and eliminate shyness from personality traits.
- ✓ **Communication and presentation skills:** NLP may aid in becoming a better communicator and presenter that will pave the way to attain the ultimate objective.

#### **3.5. Encouraging family-centred engagement**

The presence of family-centred engagement is critical throughout the pandemic, especially for university students, who have been found to suffer from a variety of psychological problems like anxiety, depression, and stress. Even if teachers and school psychologists do their best to reach out to those who are struggling, parents remain professionals in the sense that they may know more than both sides. Since one hand cannot clap, parental assistance is strongly intended to guarantee adolescents' academic progress and psychological well-being. The aims of family-centred involvement during physical separation remain the same, with an emphasis on 1) appreciating the role of family members as caregivers, 2) cooperation between family members and the health-care team, 3) maintaining family integrity. Family-centred engagement has traditionally focused on the actual presence of family members in order to foster trust, communication, engagement in care-taking, and shared decision-making. Family involvement is essential in promoting student mental health. Although adolescents spend many hours a day studying, their home lives are just as significant and important for sustaining a psychologically healthy balanced lifestyle. In the same token, supporting minds (2013) asserted that educators and parents



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are key stakeholders in a student's overall mental health. It seems that , supporting a parent-centred practice for your students will involve parents and the community assisting in the maintenance of a positive and healthy connection with all caregivers. However, parental participation may be challenging for teachers at times when parents disagree with their views and are in denial of what their youngster is going through.

### **3.6. Encouraging students to learn about self-regulated multi-dimensional felt experiences**

Individuals can learn to manage their emotions by participating in a feel-based, person-centered intervention, according to some studies (Arcand, Durand-Bush & Miall, 2007; Callary & Durand-Bush, 2008; Doell, Durand-Bush & Newburg, 2006; Lussier-Ley & Durand-Bush, 2009). The Resonance Performance Model (RPM; Callary & Durand-Bush, 2008), developed from Newburg, Kimiciek, Durand-Bush, & Doell, (2002), illustrates resonance as a dynamic and interactive process by which individuals manage their felt experiences to enhance performance and well-being. As a self-regulation process, it emphasizes people's efforts to change their inner states or reactions in order to conform to accepted norms (Vohs & Baumeister, 2004). It leads individuals to become consciously aware of the disparities between their existing and intended self-states, and then to deliberately choose to participate in measures to lessen these disparities, according to Carver and Scheier (1981). Individuals who experience resonance, referring to Vohs and Baumeister (2004), have the ability to preserve harmony between their inner self and their social and physical world. The RPM is made up of four parts: the way you want to feel, preparation, hurdles, and revisiting the way you want to feel. Table 3.1 briefly outlines the RPM's components.

*The way you want to feel:* Refers to the way individuals want to feel in important areas of life from different relevant perspectives (e.g. physically, emotionally, cognitively, and socially, and spiritually).

*Preparation:* Refers to what allows individuals to feel the way they want while achieving their performance goals. It can include, but is not limited to, cognitive, physical, technical, tactical, emotional, social, or organizational means, strategies, or activities.

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*Obstacles*: are both internal (e.g. negative thought) and external (e.g.covid-19 pandemic) barriers that prevent individuals from feeling the way they want.

*Revisit the way you want to feel*:

Refers to what allows individuals to reconnect with the way they want to feel after facing an obstacle.

*Table 1. Components of the Resonance Performance Model (Simon & Durand-Bush, 2009, adapted from Newburg, Kimiecik, Durand-Bush, & Doell, 2002)*

Component	Description
The Way You Want to Feel	Refers to the way individuals want to feel in important areas of life from different relevant perspectives (e.g., physically, emotionally, cognitively, socially, and spiritually).
Preparation	Refers to what allows individuals to feel the way they want while achieving their performance goals. It can include, but is not limited to, cognitive, physical, technical, tactical, emotional, social, or organizational means, strategies, or activities.
Obstacles	Obstacles are both internal (e.g., negative thought) and external (e.g., parental pressure) barriers that prevent individuals from feeling the way they want.
Revisit the Way You Want to Feel	Refers to what allows individuals to reconnect with the way they want to feel after facing an obstacle. It can include, but is not limited to, cognitive, physical, technical, tactical, emotional, social or organizational means, strategies, or activities.

**Table 3.1** Components of the resonance performance model (adapted from Newburg et al., (2002: internet page)

### **3.7. Enhancing EFL Learners' Independent Learning through Promoting New Skills and Competencies**

It is worth noting that EFL instructors are invited to teach dependent students the fundamentals of becoming independent students, so that they may rely on themselves to study online during the Covid-19 epidemic. Furthermore, a variety of models and strategies are used to encourage student self-reliance, such as the peer-tutoring virtual model established by Herrera-Bohórquez, Largo-Rodríguez, and Viáfara-González (2019), which

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diminishes asymmetric relationships among the actors. It allows going beyond the academic realm and helping learners grow in other realms (metacognitive, emotional, affective, motivational, and professional). Simply said, it is an approach that helps learners because of its collaborative character, which allows "a more capable other" to collaborate with learners, scaffolding and amplifying learning chances.

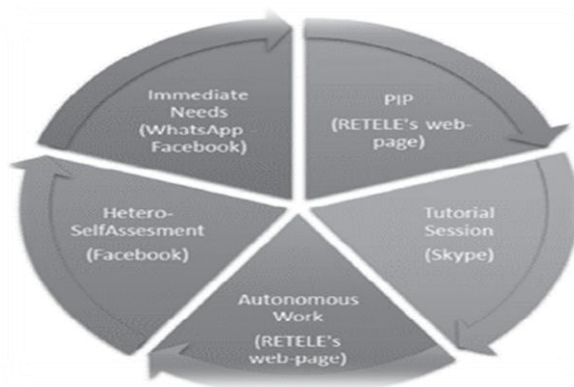
The online-tutoring peer model includes the following phases, which all use internet resources (Herrera-Bohórquez, Largo-Rodríguez, & Viáfara-González, 2019):

An instructional session that makes use of internet resources. Chats are online conversations in which the teacher gives immediate and continuous assistance and feedback. It allows for the detection and addressing of learners by taking into consideration:

Much attention should be given to immediate needs, such as using WhatsApp and Facebook. Then, create a personal development plan (PIP) to help you improve your skills. Creating a personal development plan (PIP) is an essential part of improving your life. PIP stands for "personal improvement plan," and it refers to a plan that students create to improve themselves. Learners are planning and engaging in abilities and skills through their learning. The website is being built on it. A tutorial session can be conducted through Skype. This website is run by autonomous employees. The toolkit includes tools and connections for self-access language practice and information, as well as suggestions for learning how to study effectively.

Self-assessment of one's hetero on social media. This is a reflection discussion on Facebook for peer and self-evaluation purposes. Some people recommend reflecting on language learning or autonomous work in specific subjects often. A new cycle begins with great anticipation.

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**Figure 3.2:** Online peer-tutoring model Viáfara & Ariza (2008: 20)

Moreover, Olaya's (2018) project is also connected to the notion of student-centered learning since the activities are designed and implemented based on the learners' needs and interests, resulting in autonomous behavior, a willingness to take responsibility, collaborative work, and a self-evaluation process.

According to Olaya (2018), the following are some major elements of this project that the teacher can undertake in a directing role:

- ✓ It is important to consider the students' personality characteristics, learning styles, cultural domains, and needs when designing and implementing a course. - Students need to develop observational skills in order to see what is significant as cognitive abilities to identify and solve problems and assess the benefits of their current student status. They spend a lot of time on the internet. Preventing problems before they happen by incorporating proactive activities into your English class schedule.
- ✓ Providing extra support to less autonomous learners will help them to develop self-motivation, self-regulation, and time management skills. Many student-centered activities can help foster autonomous behavior, such as the desire to take responsibility, make decisions, select activities, control their learning process, present results, work collaboratively, reinforce learning skills, and develop self-evaluation.

To successfully implement a learning process, it is necessary to take into account the following autonomous behaviors:

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- cooperating with partners,
- self-assessing their learning process,
- defining clear goals, and
- Organizing learning processes.

The learners must set goals or objectives for the activity, and then work together with their partners to try to achieve these goals. They should also evaluate their performance during the activity to see how well they succeeded. In-person meetings should be used to ask questions, clarify doubts, and improve communication with the rest of the class. Web-based resources, such as blogs, can be helpful in helping students improve their writing abilities. This process is about using a blog to allow students to share their views, assist teachers in asking students questions, and build a sense of teamwork.

### **3.8. Promoting tolerance of ambiguity among EFL students**

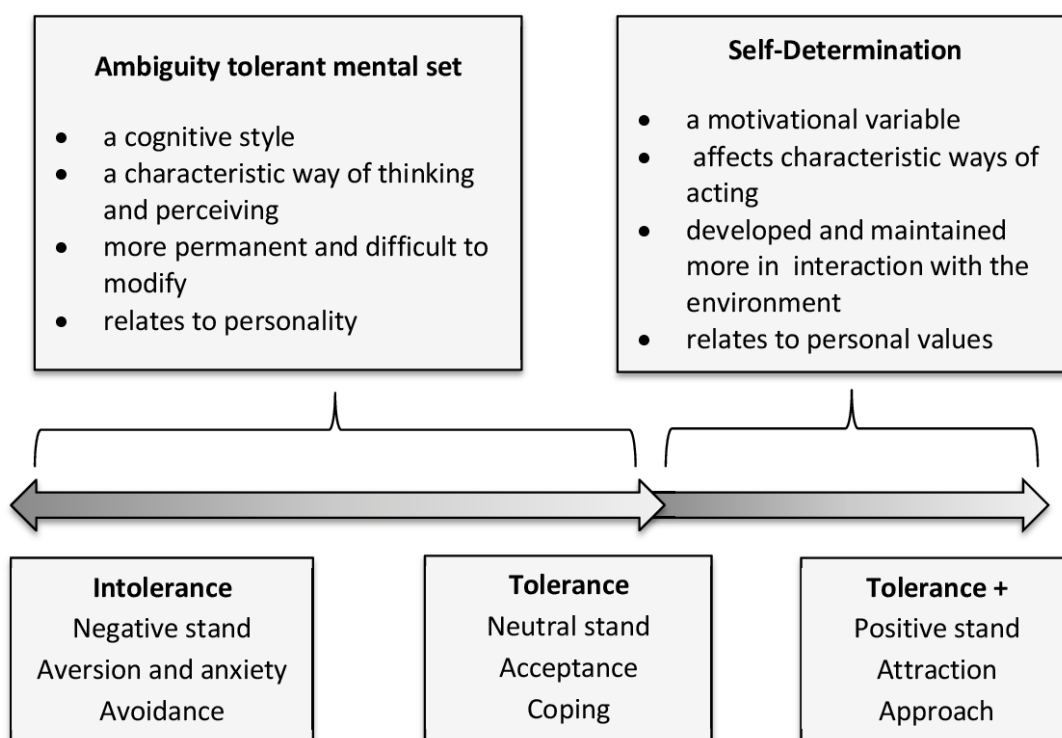
It is essential to promote ambiguity tolerance among students during the onset of the covid-19 pandemic since it is helpful to their mental health and cognitive functioning. Tolerance of ambiguity is an effective way of reaction towards a certain dubious happening. The role of this absorption is to take control over new experiences without panicking or seeking professional assistance (Ehrman et al., 2003). Those who can endure ambiguity can enjoy inventive possibilities without being impacted intellectually or emotionally by ambiguity or unpredictability. Tolerance for ambiguity implies that a person faces complex new situations and welcomes them without becoming dissatisfied. Ambiguous conditions are those in which a person lacks sufficient knowledge. Uncertainty tolerance refers to the ability to recognize ambiguity in knowledge and practice in an impartial and open manner. (Hadley, 2003).

For instance when a learner is confronted with a large amount of new material or clashes in language instruction, it can result in strong negative emotional responses such as stress (Furnham and Marks, 2013). However, those who are tolerant of ambiguity have a strong personality and can hold their own intellectual debates in relationships and in situations where problems need to be solved. Furthermore, EFL educators carry a heavy burden on their shoulders and create a class setting that is more human and less stressful, helping their

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students face less stress in the language class setting or out of it and thereby allow them to participate in the class.

Educators are encouraged to consider the tolerance of the learners to the duality and durability in education to develop a friendly educational environment, and encourage them to participate in the classroom. It is very valuable to recognize the powerful effects of tolerance to foreign language education, and it means that educators will be able to organize and implement the course to help students overcome mental disorders in a better way, and they will be encouraged to consider the tolerance of ambiguity as well as foster them to participate in the classroom(Dornyei and Ryan, 2015).



**Figure 3.4:** Ambiguity Tolerance as an Instrument of Learner Profiling Mäntysaari, M. (2013: 151)

### 3.9. Other Pedagogical Recommendations

In the light of the study's findings, the researcher advocates the following:

- ✓ EFL instructors are invited to provide learners with further clarifications concerning the use of Moodle platform in order to keep them aware of the E-

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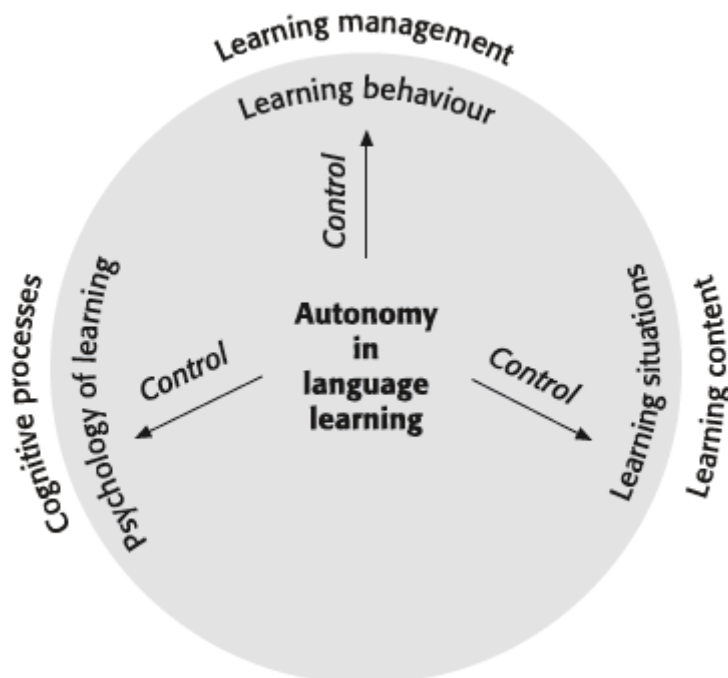
assessment as well as enhance their ICTs skills, especially during the critical period of covid-19 pandemic. According to Jones and Preece (2006), teachers need to have a variety of technical and communication skills in this regard, such as using various types of ICT tools, as well as chat rooms, word processing skills, writing web pages, file transfer protocols (Ftp), compression and data decomposition. Information and Communication Technologies (ICT) will rarely be used effectively for instructive delivery without instructor's expertise and the master of appropriate ICT integration skills. Therefore, students and teachers need to learn to trust the technology to improve its performance, enhance the reception and reduce the resistance to technology (Bar, 2002).

- ✓ EFL teachers need to minimize the pile of online homework because students feel anxious and depressed about it. This academic pressure may lead to fortify the psychological problems at the level of their mental health. It has a negative impact on learners' well-being, employment choices, sleeping difficulties, psychosomatic symptoms, worrying about the future, comorbid illnesses such as anxiety and depression, and so on. As a result, most of the students have low self-esteem and poor concentration, which has an effect on their academic performance (Bedewy and Gabriel, 2015; Acharya, 2003; Iqbal et al., 2015).
- ✓ EFL Instructors can instruct dependent learners in the main basis behind how to become independent students, so that they can rely on themselves when it comes to learning during covid-19 pandemic. In the same vein, Benson (2007) argues that behaviors of autonomous learning, such as recommending, implementing, monitoring, and assessing learning, are better conducted in partnership with the instructor. The focus in modern language education is on learning rather than teaching. According to a recent study, learner-centered classrooms outperform teacher-centered classes in terms of learning outcomes. As a result, learner autonomy (LA) has become a strategy as well as an ultimate goal in educational institutions all over the world (Nguyen, 2008; Winch, 2002).

Moreover, Farrel and Jacobs (2010) that one of the most significant components of learners' autonomy is self assessment. Its major purpose is to develop internal standards for the quality of their work rather than relying entirely on external evaluation or assessors. There are numerous methods for increasing students' autonomy, which include empowering collaborative learning (e.g., through the use

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of small groups and pairs), encouraging a life-long reading habit (e.g., through extensive reading or student-selected reading), And also using self-assessment as the only way to gauge language learners' strengths and weaknesses.



**Figure3.5** Dimensions of Autonomy:the Capacity to Take over Learning. (Benson 2011: 61)

- ✓ EFL teachers are invited to implant passion towards online learning among extrinsically motivated students because life-long learning has a long term stability which promotes research action, and a high level of intrinsic motivation. In this regard, both of external and internal commitments, self-efficacy, effective teacher training, the use of scaffolding methods, and real-time feedback were listed as contributing factors in order to motivate learners in the online teaching process (Samir et al., 2014; Lee & Martin, 2017; Gedera. et al., 2015).



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**3.10. Conclusion**

The psychological and cognitive concerns that students faced throughout the epidemic will not vanish in the blink of an eye. It requires patience, but it can be solvable via the previously mentioned recommendations and suggestions. Based on the study findings, this chapter was devoted to notions and recommendations that primarily focused at strengthening both students' mental health and cognitive performance. Among the varied suggestions is ensuring teacher assistance, encouraging EFL students to participate in health programs, fostering the use of neuro-linguistic programming among EFL students, encouraging family-centered engagement, enhancing EFL learner's independent learning through promoting new skills and competences?

## *General conclusion*

## **General Conclusion**

This chapter also included some practical suggestions for motivating students, maintaining their focus levels, and even assisting them in self-regulation.

The covid-19 pandemic raises a number of hurdles and impediments in the educational sector, particularly among university students. As a consequence, the intended objective of the study is to investigate the psychological and cognitive effects of the covid-19 epidemic on students' learning behavior after taking a full glimpse into the different perspectives of scholars in the related review of literature concerning the aforementioned matter. During this process, an exploratory research design was used to deduce plausible conclusions from the gathered findings of both qualitative and quantitative approaches, laying the groundwork for providing related recommendations and further suggestions regarding other forthcoming researches on the educational impact of the covid-19 outbreak.

The results of the students' questionnaire and teachers' interview regarding the affective impact of covid-19 pandemic revealed that students confront a variety of psychological barriers during the viral epidemic. They believe that at this juncture, they are completely unmotivated, both intrinsically and extrinsically, resulting in a sense of "Amotivation" for a plethora of reasons such as social isolation and the rapid change in learning style which entails a shift from face-to-face learning to virtual learning, as well as health worries about viral infection. They also mentioned the types of psychological disorders that they experienced as anxiety and depression in relation to the pandemic aftereffects such as E-learning, hopelessness, academic pressure, loneliness, and repetitive negative thoughts. Furthermore, the scarcity of both university support and ICT materials. And, also a dearth of engagement between students and professors....

The findings of the students' questionnaire and teachers' interview concerning the cognitive implications of the covid-19 outbreak on both dependent and independent learners' cognitive functioning uncover that the pandemic has a negative impact on reliant learners because they are sensitive to external factors such as students' interaction and communication with the teacher, as well as with one another. In addition to teachers' guidance and support because he/she is considered as source of extrinsic motivation. Self-reliant learners hold positive attitudes concerning the repercussions of the pandemic. Other troublesome factors include the negative impact of E-learning due to a lack of ICT skills, a

## *General conclusion*

poor internet connection, and academic pressure, and problems. The pandemic has a three-pronged impact: on the one hand, it has a detrimental impact on both the psychological side of EFL learners in general. On the other hand, the outbreak has a positive influence on the cognitive functioning of reliant EFL students. Interestingly, not denying the fact that some other teachers have stated that even independent learners encounter obstacles during learning in the phase of the outbreak such as a lack of ICT skills, a poor internet connection, overthinking about the future during the pandemic as they are analytical self-dependent students, and finally the need for the teacher so that he/she provides them with further clarifications regarding E-courses.

The pandemic has a three-pronged impact .On the one hand, it has a detrimental impact on both the psychological side of EFL learners in general. On the other hand, the outbreak has a negative influence on the cognitive functioning of reliant EFL students during the online learning. Self-reliant learners hold positive attitudes concerning the repercussions of the pandemic since they possess a high level of intrinsic motivation and an analytical style of learning. Some other teachers have stated that even independent learners encounter obstacles during learning such as a lack of ICT skills and a poor internet connection.

No research is intended to be out of lacks,or flaws. Based on this premise, the researcher admits that the current study underwentvarioushindrances that hampered its successful implementation and resulted in some drawbacks. During the course of the investigation, the researcher identified various issues that needed to be addressed:

- ✓ The current study's breadth was limited due to a lack of previous research studies and references on the topic.
- ✓ Due to learners' unfamiliarity with the psychological terminologies mentioned in the questionnaire, the investigator encountered challenges with EFL students. As a result, the researcher was prompted to use the mother tongue language in order to explain the key terms.
- ✓ Because the current study is concerned with learner's psychology, the limited number of the educational psychology teachers was one of the challenges that the research experienced when conducting the instructors' interviews.
- ✓ No available previous studies related to the impact of covid-19 pandemic on dependent and independent students which made it really hard for the researcher to link between covid-19 and the two learning styles.

### ***General conclusion***

Based on the findings and limitations of the existing research, it is worthwhile to propose some suggestions about the field of study:

- ✓ It is suggested for other researchers to conduct studies based on the impact of covid-19 pandemic on students' learning behavior not only in relation to learners' cognitive or psychological aspects, but also the physical side.
- ✓ Further studies should be conducted concerning the impact of covid-19 outbreak not only on dependent vs independent learners, but also other cognitive learning styles such as holist vs. analytical, sensory preference, hemispheric preference, and/or Kolb's learning styles.
- ✓ Due to the radical changes provoked by covid-19 pandemic at the level of university educational system, It is suggested that other researchers design an experimental procedure to investigate the impact of online learning on students' learning behavior during the pandemic.

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## *Appendices*

## **Appendix A: Students' Questionnaire.**

Dear students,

You are generously requested to answer this questionnaire which is an attempt to gather information needed for the completion of a master dissertation. The study aims to investigate the impact of covid-19 pandemic on students' learning behavior .It would be much better, if you respond to these questions appropriately and honestly.

Please do not mention your names on this paper.

Your participation will be completely anonymous.

Thank you for your kind cooperation!

Section one: Personal information.

1-Please indicate your gender:

a. Male

b. Female

2-Please select the category that includes your age:

a-20-22

b-22-24

Section two : Students' perspectives about the psychological impact of covid-19 pandemic

1)-Does covid-19 pandemic influence your mental health?

Yes  No

2)-Please tick (X) for your answer

Impact of the pandemic on motivation

Negative impact

Positive impact

Intrinsic motivation

Extrinsic motivation

Amotivation

3)-Which one(s) of these psychological mood disorders influence(s) you the most during the pandemic?

A-Anxiety

B-Depression

c-Both anxiety, and depression

d-Other psychological inhibitions

Please specify \_\_\_\_\_

4)-Do you think the E-learning affects negatively the psychological side of learners?

A-Strongly agree

B-Agree

C-Disagree

D-Strongly disagree

5)-What are the reasons behind students' lack of motivation, anxiety, and depression during covid-19 pandemic?

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Section three: Students' perspectives concerning the cognitive impact of the pandemic.

1)-Are you:

A-Dependent learner

B-Independent learner

2)-How would you like attending courses?

A-Inside the classroom

B-Outside the classroom (online)

3)-On scale of 1 to 6, how would you rate the negative impact of blended learning on dependent students' cognitive functioning?

1          2          3          4          5          6

4)-According to you, how does the outbreak of covid-19 influence your learning process either as a dependent student, or as an independent student?

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Definitions of the key terms:

1. Intrinsic motivation: is the type of motivation in which the individual is being motivated by internal desires such having a passion towards a language ,so you feel motivated to learn it .

2. Extrinsic motivation: is a type of motivation in which the individual is being motivated due to external factors such as when you get motivated when you are around your friends.

3. Amotivation: The absence of both extrinsic and intrinsic motivation, in other words the lack of motivation.

4. Independent learning: is a process, method, and a philosophy of education whereby a learner acquires knowledge by his, or her own efforts and develops the ability for enquiry and critical evaluation.

5. Dependent learning :is a process ,method which refers to acquiring knowledge by relying on the others .It tends to rely on structure and on receiving direction .It is a based teaching style which means instructors who give explicit direction ,assignments , and guidelines.

## **Appendix B: Teachers' Interview**

Hello, Sir/Madam

First and foremost, I am delighted to meet you, and I would like to express my gratitude for providing me with this opportunity as well as dedicating your precious time to me.

My name is SAHNOUNE Nesrine .I am a master two English student .This interview mainly aims at investigating the impact of COVID-19 pandemic on Master one EFL students' learning behavior at Saida University. You are respectfully requested to respond to the following questions as an attempt to give me hand in gathering data for my research.Your collaboration will be kept strictly confidential and used solely for academic purposes.This interview will last no more than10 minutes. I shall also be employing a tape recorder to guarantee a thorough and accurate account of our interview, as well as to ensure that I do not overlook any of the information you will offer me.

Thank you for your kind cooperation!

### **The Questions:**

1)-Do you think that your learners experience lack of motivation during Covid-19 pandemic? Please elaborate more.

2)-Are there any specific factors that you consider influencing students' motivation in the time of covid-19 outbreak?

3)-Can you explain how does the pandemic impact both intrinsically, and extrinsically motivated students?

4)-What are the psychological inhibitions that learners undergo during covid-19 outbreak?

5)-According to your personal perspective, what leads to students' anxiety, and depression in the phase of the pandemic?

6)-How would you describe the influence of E-learning on the field of both dependent and independent learners during the pandemic?

7)-What kind of hindrances do dependent students encounter while studying online within the viral outbreaking?

8)-Do you believe that independent pupils do not face any kind of difficulties concerning E-learning during Covid-19 pandemic?, and why ?

9)-As an EFL teacher, What would you recommend for promoting students' psychological wellbeing ,and successful cognitive functioning in relation to the viral crisis?