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Title

Exploring the Relationship between Students' Introversion Characteristics and Online EFL Teaching during Covid19 Pandemic

The Case of Third Year Students of English at Biskra University

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Declaration

I, **Chohra Manal,** do hereby declare that this dissertation is my original work and has not previously been submitted to any institution or university for a degree. I also declare that a list of references is provided indicating all the sources of the cited and quoted information. This work was carried out and completed at Mohammed KHEIDER University of Biskra.

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Dedication

I dedicate this work to:

- *My dear parents, thank you for your endless support and encouragement you have always given me.*

  - *My dear siblings: Amira and Imad Eddine*

- *My grandmother, you may be gone from my sight but you are never gone from my heart.*

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Abstract

To slow down the spread of the Covid-19 pandemic, educational institutions were forced to switch to online teaching as an alternative to traditional face-to-face education. The online teaching environment is described as a quiet environment with less interaction, which may prove conducive to the preferences of introverted students. The present study explores the relationship between students' introversion characteristics and online EFL teaching. It aims to gauge the extent to which the implementation of online teaching helped introverted students to improve their academic achievement during Covid-19 pandemic. The researchers used the triangulation method (mixed-methods approach) to yield a set of valuable data which might provide interpretations to the hypotheses. In the current study, two research instruments were included which are: a questionnaire administered to third year students at the English department, University of Biskra to obtain quantitative data and a semi-structured interview with EFL teachers at Biskra University. Out of 30 participants, 16 students were identified as introverts according to the Quiet Revolution's questionnaire by Susan Cain. The questionnaire results revealed that the online teaching method was effective for introverted students and it helped them to improve their academic achievement. According to the interview data, four themes were provided after analyzing the teachers' answers. Teachers in the interview agreed that the online teaching method is suitable and comfortable for introverted students.

Key Words: introversion, online teaching**,** academic achievement, Covid-19 pandemic.

List of Acronyms

CALL Computer-Assisted Language Learning

CoI Community of Inquiry

EFL English as a Foreign Language

ESL English as a Second Language

ICT Information and Communications Technology

LCMS Learning/Content Management Systems

LLS Language Learning Strategies

MBTI Myers Briggs Type Indicator

OLT Online Language Teaching

PLS Perceptual Learning Style

VAK Visual, Auditory, and Kinesthetic

List of Tables

List of Figures

Table of Contents

Chapter One: Learning Styles and Learning Strategies

Chapter Two: Online Language Teaching

Chapter Three: Methodology

The Relationship between Students' Introversion Characteristics and Online Teaching

General introduction

1. Statement of the Problem

In response to the rapid speared of Covid-19 outbreak, many educational institutions closed the doors to schools, universities and campuses…etc. Education changed because of the unplanned transition from traditional face-to-face learning to online classes in order to continue the learning process. However, So many studies have been conducted to investigate the teachers' and the students' engagement and acceptance of online classes. Yet, few studies discussed the relationship between personality types and online classes or how the online teaching method can affect the performance and success of students with different personality types during Covid-19 pandemic. According to Jung (1971), there are two major attitudes or learning styles which are: extraversion and introversion. Extraverts tend to generate energy from other people and the external world, while introverts focus on the internal world of thought and reflection; they also prefer quiet places, so students with different personality types such as extroverts and introverts may have experienced distance education differently. However, online learning environment is described as a quiet environment with less interaction, which may prove conducive to the preferences of introverted students.

2. Aims of the Study

The online learning and teaching method can cause a feeling of isolation for some students due to the lack of interaction with their classmates and teachers. Besides, it can be a desirable and preferable learning environment for some students. Because introverts tend to focus on their inner world and interact with small number of people

The Relationship between Students' Introversion Characteristics and Online Teaching

rather than a large group, it is possible that introverted students preferred distance education because it meets their needs.

The above discussion leads to ask the following questions:

1. How effective has online language teaching been for introverted students during Covid-19 pandemic?
2. How suitable is the online teaching method for introverted students?

3. Research Hypotheses

The present study explores the relationship between students' introversion characteristics and online EFL teaching during COVID-19 pandemic. The research hypotheses state that:

1. The online teaching method was effective for introverted students and it helped them to improve their academic achievement.
2. The online teaching method is suitable and comfortable for introverted students.

4. Literature Review

The learner's personality influences his learning process and learning preferences. The individual's level of introversion and extraversion affects the way he interacts with the others surrounding him. Introverts feel comfortable in places that are quiet less stimulating whereas extroverts work and learn better by interacting with the outside world (Cain, 2012). In order to better understand the problem of this study and help this study's investigation about the relationship between introversion characteristics and online EFL teaching, this literature review provides an overview about introversion/ extraversion theories. The researcher also provides a review of the

The Relationship between Students' Introversion Characteristics and Online Teaching

previous studies about the impact of online teaching on introverts' academic achievement and language skills.

❖ **Extraversion-Introversion Theories**

So many psychologists have been interested in understanding personality development and its influence on the way we behave and think. Introversion was developed by psychologists such as Carl Jung and Hans Eysenck.

➢ **Jung's Theory**

The concept of introversion-extraversion was firstly introduced by Carl Gustav Jung (the founder of analytical psychology) in 1910. According to Jung (1971), Humans' personality is based on four opposing dichotomies which are: Extraversion/Introversion, Sensation/Intuition, Thinking/ Feeling and Judging/Perceiving.

Extroverts tend to engage with external world and sensory perception by viewing them subjectively, while introverts tend to focus more on their internal world by viewing it objectively (Jung, 1923). Scientists stated that the conceptualization of introversion and extraversion according to the Jungian theory is different from the modern perspective.

Myers-Briggs Type Indicator (MBTI) is an instrument based on Jung's theory of psychological types and its typology describes the person's source of energy. According to MBTI, extroverts are action-oriented and introverts are thought/ reflection-oriented.

➢ **Eysenck's Theory**

According to Eysenck (1952, 1966, 1967), dimensions of personality are based on biological factors. The individual's type of nervous system influences his preferences

of learning and doing things. There are three dimensions factors of identifying personality which are: extraversion, neuroticism and psychoticism (Eysenck, 1982).

Eysenck suggested that the differences in the brain affect his level of extroversion. The individual's cortical arousal level is reason why introverts prefer doing things alone and extroverts prefer to be socially active.

❖ **Introversion and The Online Learning Environment:**

Previous studies have been conducted about COVID-19 pandemic experience from different angles and perspectives to explore its impact on humans' life. However, many researchers investigated the experience of introverts and the link between the characteristics of both of introversion and online teaching.

In a research article presented by (Sanudin et al., 2022), the researchers investigated how extrovert and introvert personality traits influence the acceptance of virtual learning amid the COVID-19 pandemic. A total of 31 Diploma students at Multimedia University, Malaysia (MMU) participated in the study. Open-ended questions were used to learn about the personality of each participant, as well as to better understand how the opposing persona differs in their experiences with virtual learning. The results showed the extroverts expressed that the virtual learning experience was unpleasant, while the introverts and the PPIEs found virtual learning a useful and pleasant experience.

Another study by (Pavalache-Ilie &Cocorada, 2014) investigated the relations between intelligence, the student's personality traits (general and social self-efficacy, locus of control, introversion-extroversion, and cognitive style) and some dimensions of online learning. The sample was a convenience one and the participants were 175 students. The results of this study revealed that that introverts prefer to learn and contribute to an online discussion forum and they prefer the online environment when

they work alone and can conduct experiments and solve the assigned tasks in their own rhythm.

Shyness and introversion are sometimes used interchangeably but so many experts stated that both terms are distinct from each other. Shy people tend to have uncomfortable feeling of self in social situations whereas introverts seem to be shy, but the truth is that their desire to interact with the others is low (Asendorpf& Meier, 1993; Coplan et al., 2013 as cited in Afshan, Askari, Sam, &Manickam, 2015).

5. Structure of the Thesis

The study is divided into two main parts: theoretical and practical with a total number of three chapters. The theoretical part which overviews the literature comprises two chapters; while the practical part consists of one chapter. The first chapter addresses students' learning styles and learning strategies. It also highlights the characteristics of a good language learner. The second chapter addresses the online language teaching method and its characteristics, tools and benefits. The third chapter presents data collection methods. Two instruments are used which are: a questionnaire was conducted with third year EFL students at Biskra University to measure the effectiveness of the online teaching method for introverted students, and a semi structured interview with teachers of English at Biskra University. It also deals with the analysis and discussion of results. Finally, a set of recommendations and suggestions are provided.

Chapter One

Learning Styles and Learning Strategies

Introduction

According to Oxford (1989), language learning styles and learning strategies play an important role when learning a second language because they influence the learners' language performance and academic success (p. 235). Reid (1987) defined Perceptual Learning Styles (PLS) as "... they are the changes from one learner to another in using senses to understand and retrain an experience". Language learning strategies, on the other hand, are the specific conscious steps used by the language learner to store, retain, recall and use additional information (Rigeney, 1978). However, the learner's learning style affects his/her learning strategy choices.

This chapter is divided into two parts which are learning styles and learning strategies. First, we start the first part with a definition of learning styles then we discuss some related topic theories. Next, the researcher states the main models of learning styles. Second, the second part is about learning strategies so we define learning strategies and we show how it differs from learning styles. We, then, cover taxonomies of language learning strategies. Finally, we discuss the characteristics of a good language learner.

1.1. Learning Styles

1.1.1. Learning Styles Definition

According to Brown (2007), learning styles refer to how the learners' minds and bodies gather information from everything around them when trying to learn; the awareness of learning style helps us identify and maximize our strengths based on several conditions. Similarly, Reid (1995) asserts that the term refers to individual,

habitual and preferred ways of absorbing, processing, and retaining information and skills so that students learn differently in ESL/EFL settings. The covered literature suggested that learners may differ concerning their learning preferences; in other words, some learners may learn more effectively through working with others. In contrast, other learners may learn more effectively through working alone.

1.1.2. Learning Styles and Related Theories

Learning styles are influenced by internal factors such as personality type, gender, age, intelligence, attention, talent and motivation. In addition, they are affected by external factors such as teaching methods, classroom atmosphere, and curriculum (Abante et al., 1982).Accordingly, learning about theories of related topics -such as personality types, intelligence, and cognitive dominance- can help to understand the core of learning styles theories.

1.1.2.1.Myers-Briggs Type Indicator (MBTI)

Isabel Myers and her mother Katherine Briggs (1962) inspired their introspective self-report questionnaire from Carl Jung's theory of personality types to identify someone's personal personality type, strengths and preferences.

Based on Myers-Briggs Type Indicator (MBTI), learning styles are different so that learners are categorized as follows:

- **Extraverts:** they learn best in a more verbal and social setting such as: group projects.

- **Introverts:** they learn best in a more quieter and private place.

- **Sensors**: they learn best from an orderly sequencing of details.

- **Intuitives**: they prefer possibilities and relationships.

- **Thinkers**: they prefer fact-based knowledge, statistics and analytics.

- **Feelers**: they are expressive and they consider the impact of interaction on the others.

- **Judgers**: they are decisive and they prefer planned and organized activities.

- **Perceivers**: they are flexible, tolerant and curious.

1.1.2.2.Theory of Multiple Intelligences

Gardner (1983) developed multiple intelligences theory and he suggested that humans have different types of intelligence. However, learning about intelligence modalities can help to identify the students' learning preferences, strengths, and weaknesses.

According to Howard Gardner's theory, learners have different characteristics and preferences based on their intelligence type, and they are categorized as follows:

- **Verbal /linguistic learners:** They are characterized by sensitivity to oral and written words.

- **Musical learners:** They are characterized by Sensitivity to rhythms and melodies.

- **Visual/spatial learners:** They prefer using visual presentations of material such as: charts and diagrams.

- **Interpersonal learners:** They have the ability to work and interact effectively with others.

- **Intrapersonal learners:** They have the ability to manage internal emotions and personal behaviors.

- **Logical/mathematical learners:** They have the ability to reason and think logically.

The Relationship between Students' Introversion Characteristics and Online Teaching

1.1.2.3.Brain Dominance Theory

Sperry (1975) explained brain dominance and hemisphericity as "each left and right hemisphere has its own separate chain of sensations, thoughts, memories and learning experiences that are accessible to recall by the other hemisphere so that each disconnected hemisphere have a separate "mind of its own". This further means that people who are right-brained have different learning style from those who are left brained because their brains process information differently. This further means that people who are right-brained have different learning style from those who are left brained because their brains process information differently.

According to Torrance (1980, as cited in Brown, 2007), left-brain dominance language learners and right-brain language learners are characterized as follows:

Left-brained oriented learners

- They prefer writing and talking.

- They respond to verbal instruction.

- They are organized, logical.

Right-brained oriented learners

- They rely on images to remember.

- They respond to illustrated instructions.

- They are spontaneous and intuitive and judgmental.

1.1.3. Learning Style Models and Classifications:

There are many classifications of learning styles proposed by the experts such as: personality learning styles, Perceptual Learning Style (PLS) and VAK learning style (visual, auditory and kinesthetic). However, some researchers such Kolb (1984), Reid (1987/1998), and Fleming (2001) have demonstrated four general perceptual learning styles:

- **Visual learning**

They learn best by using images, colors, computers and any other visual media.

- **Auditory learning**

They learn best through listening and their sense of hearing.

- **Tactile learning**

They have hands-on learning and they prefer to take notes.

- **Kinesthetic learning**

They learn best through active movements, experiences and activities such as playing, acting and designing.

1.1.3.1.Reid's Learning Style Model:

Reid (1995) examined the relationship between students' academic success and their learning styles, she defined learning styles as "… the learners' preferred ways of absorbing, processing, and retaining new information; thus; people learn differently". According to her, perceptual learning styles are divided into the following: auditory, visual, kinesthetic, tactile, group and individual.

- Auditory learners prefer studying and reading from text and notes.

- Visual learners prefer listening to oral lectures, audio tapes.

- Kinesthetic learners learn best when they participate in hands-on activities or solve problems.

- Tactile leaning is described as experiential and multisensory because learners tend to learn through touching,

- Group learning style is to learn best from group interaction.

- Learners with individual preference prefer self-directed and independent study.

1.1.3.2.Dunn & Dunn's Learning Styles Model

Dunn and Griggs (1988) assert that each student has his strengths as a learner; so they determined five elements of learning styles which are: environmental influence, emotional influence, sociological elements, physiological elements, and psychological influence.

There are five learning style elements and each dimension is related to a various stimuli as follows:

- Environmental elements are sound, light, temperature and design.

- Emotional elements are motivation, persistent, responsibility, and structure.

- Sociological elements are individual, peers, pairs and team, adult, and varied.

- Physiological elements are perceptual strengths, intake, time, and mobility.

- Psychological elements are Global or analytical, impulsive or reflective and hemisphericity (brain dominance).

1.1.3.3.Oxford Learning Styles Model:

Oxford (2001) demonstrated four elements of learning styles which are: sensory preferences, personality types and biological differences.

- **Sensory preferences**

Visual: They like to read and Learns more effectively through the eyes (seeing) and visual stimulation such as lectures, conversations and charts.

Auditory: Auditory students are comfortable without visual input and they profit from unembellished oral directions. They are motivated by classroom interactions in role-plays and similar activities.

Kinesthetic (movement oriented): Kinesthetic learners enjoy working with tangible objects and flashcards and they learn more effectively through body experience.

Tactile (touch oriented): They prefer hands-on learning (touch), taking notes.

- **Personality types**

Ehrman and Oxford (1989, 1990 as cited in Oxford, 2001) acknowledged various significant relationships between personality type and L2 proficiency in native-English-speaking learners of foreign languages.

According to Oxford (2001) learners are characterized as follows:

Extraverted Vs Introverted: Extraverts derive their energy from the external world, interaction with people and friendships; whereas, introverts gain their energy from the internal world and input, they learn best through quiet, mental reflection they prefer to learn in solitary activities and independent situations they have just a few friendships.

Intuitive-random Vs Sensing-sequential: Intuitive-random learners like to create theories and new possibilities they think in large-scale, abstract, and non-sequential ways. Intuitive types focus on general concepts and they rely on observations and see associations and meanings; whereas, sensing-sequential learners like facts rather than theories, they want guidance and instruction from the teacher; sensing-sequential is good at memorization and observing specifics

Thinking Vs Feeling: Thinking learners are oriented toward the stark truth, even if it hurts some people's feelings, they want to be viewed as competent and sometimes they use logical analysis to understand. Thinkers rely on critique things, so that they are good at problem-solving and they like clear course and topic objectives that are precise and action-oriented; whereas, feelers attempt to relate their learning ideas and concepts to their own personal experience. They enjoy group work only when individual relationships develop or are positive. They tend to develop a personal rapport with the teacher to receive feedback and encouragement; whereas, feeling

learners show empathy and compassion through words, not just behaviors; they want to be respected for personal contributions and hard work.

Closer-oriented /judging Vs Open-oriented/perceiving: Closure-oriented students want to reach judgments and clarity quickly. They are serious, hardworking learners who like to be given written Information, enjoy specific tasks with deadlines and they learn best in formal settings. However, Judgers plan their work schedule and stick to the plan prefer step-by-step instruction or manual and detailed explanations and they treat assignments seriously; whereas, Open learners want to stay available for perceiving and they take L2 learning less seriously as a game rather than a set of tasks to be completed .In addition, Perceivers work in flexibly, they also are good at informal problem solving. However, they excel at last-minute pressures and often they do their best work under pressure and they will work best if they divide the work into several sub assignments.

- **Biological Differences:**

Biorhythms: biorhythms reveal the times of day when students feel good and do their best. Some L2 learners are creatures of the morning, while others do not want to start learning until the afternoon.

Sustenance: sustenance refers to the need for food or drink while learning. In fact, some students can be distracted from study by food and drink.

Location: location includes the nature of the environment: temperature, lighting, sound, and class arrangement. L2 students differ widely with regard to these environmental factors may affect L2 learning according to their preferences.

1.2.Learning Strategies

1.2.1. Learning Strategies Definition:

Oxford (1990) defined learning strategies as "… specific behaviors which are taken by learners to enhance their learning and make it more effective, easier and self directed". Rubin (1987) stated learning strategies are strategies, operations and steps used by learners which affect the development of the language system that constructs learning directly or indirectly".

1.2.2. Difference between Learning Strategies and Learning Styles

Learning styles are internal attitudes that learners use in their learning (Dunn and Griggs, 1998), while learning strategies are external strategies that play affective-motivational and cognitive roles because they improve and facilitate the process (Mariani, 2002). This further means that both terms are distinct and different because learning styles refer to internally based characteristics, whereas learning strategies refer to external skills. In addition, Oxford (1990) asserts that some characteristics such as learning styles and personality traits are difficult to change and modify" but "learning strategies are easier to teach and modify" (p. 12). Therefore,

1.2.3. Taxonomies of language learning strategies:

So many researchers investigated the types of language learning strategies such as: Rubin (1987), Oxford (1990) and O'Malley and Chamot (1990). However, language learning strategies are generally classified into three main categories which are: cognitive, met-cognitive and social/ affective strategies.

1.2.3.1.Rubin's Taxonomy of Language Learning Strategies

A great deal of research has been conducted by Rubin (1987) about language learning strategies. The researcher proposed a framework that identified three major types of learning strategies that contribute directly or indirectly to language learning

and proficiency; however, theses language learning strategies are learning strategies, communication strategies, and social strategies.

- **Learning Strategies**

Direct strategies: Direct strategies are those operations taken by the learner that contribute directly the development of language learning, there are two types of direct strategies: cognitive and meta-cognitive strategies.

Cognitive strategies: direct analysis

- Clarification / Verification.

- Guessing / Inductive Inferencing.

- Deductive Reasoning.

- Practice.

- Memorization.

Meta- cognitive strategies: Learners use meta-cognitive strategies to control and self-direct their language learning. They involve various procedures such as:

- Self-management.

- Planning.

- Prioritizing.

- Goal-setting.

Indirect strategies:

Indirect strategies involve communication and social strategies:

- **Communication Strategies:** Learners use communication strategies when they face difficulty when they participate in a conversation or discussion to avoid any communication breakdown. According to Domyei (1995) there are twelve types of communication Strategies:

- Code switching.

- Literal translation.

- Hesitation devices.

- Use of non-linguistic means.

- Use of all-purpose words.

- Word coinage.

- Message abandonment.

- Circumlocution.

- Foreignizing.

- Topic avoidance.

- Appeal for help.

- Approximation.

Social Strategies:

Social Strategies contribute indirectly to learning; however, learners use social strategies to practice their knowledge when they interact with others.

1.2.3.2.Oxford's Taxonomy of Language Learning Strategies

Oxford's (1990) work findings are more noticeable and inclusive than earlier classification models, and she defined learning strategies as "specific actions taken by the learner to make learning easier, faster, and more self-directed*"* (p. 8). However, Oxford (1990) divided LLS into two categories: direct strategies include memory, cognitive, and compensation strategies; while indirect strategies include meta-cognitive, affective, and social strategies.

➢ **Direct strategies**

Direct strategies are language learning strategies and operations that involve directly the mental processing of target language at a cognitive level and there are

The Relationship between Students' Introversion Characteristics and Online Teaching

three groups of direct strategies are memory, cognitive and compensation strategies to complete this processing differently and for different functions.

Memory strategies

Memory strategies are strategies used by learners for storing and retrieving of new information when needed and it involves:

- Creating Mental Linkages (Grouping Associating/elaborating Placing new words into a context).

- Applying Images and Sounds Using imagery Semantic mapping Using key words Representing Sounds in memory.

- Reviewing Well Structured reviewing.

- Employing action

- Using physical response or sensation

- Using mechanical techniques Cognitive Strategies.

Cognitive strategies

Cognitive strategies are used for understanding and producing new language by different means and developing internal procedures so that they involve:

- Practicing (repeating formally, practicing with sounds and writing system Recognizing).

- Analyzing and reasoning.

- Creating structure for input and output.

- Receiving and sending messages.

Compensation strategies

Compensation strategies involve using the language despite the gap in knowledge to help learners continue communicating

- Guessing intelligently by (using clues).

- Overcoming limitations in speaking and writing.

- Switching to the mother tongue.

➤ **Indirect strategies**

Indirect strategies are language learning strategies and operations that bring the learner into closer contact without directly involve the target language. In the same way, they regulate learning.

Meta-cognitive Strategies

The term meta-cognition refers to "thinking about thinking" and these strategies are used for regulating and coordinating the learning process. They are:

- Centering learning (paying attention, delaying speech production to focus on listening.

- Planning learning

- Evaluating learning

Affective Strategies

Affective Strategies are used to control learners' emotional elements such as confidence, emotions, motivation and anxiety; we have:

– Lowering anxiety involves using music and relaxation.

– Taking emotional temperature by learners through discussing their feelings with someone else.

Social Strategies

Social strategies are used for developing the sociolinguistic competence, they include:

- Asking questions (asking for correction and verification).

- Cooperating with the others cooperating with peers or native speakers

The Relationship between Students' Introversion Characteristics and Online Teaching

1.2.4. The Good language Learner

Some researchers provided a list of good language characteristics as follows:

According to Stern (1975):

- A good learner is active towards language learning tasks.

- A good learner is a planner of his learning process.

- A good learner is a monitor of his/her second language performance.

- A good learner practices diligently.

- A good learner is good at communication and interaction.

- A good learner attends to meaning.

- A good learner is aware of language as a system.

According to Rubin J & Thompson (1982):

- A good learner is able to monitor his/her language performance.

- A good learner pays attention to both of form and meaning.

- A good learner tends to make his/her language learning more creative.

- A good learner is aware of the fact that errors are part of their language learning process.

- A good learner creates moments and chances to practice their language

- A good learner develops learning strategies based on their learning styles

- A good learner tries to learn formulaic, idiomatic expressions and language chunks

- A good learner uses context clues to understand the meaning of unfamiliar words

The Relationship between Students' Introversion Characteristics and Online Teaching

Conclusion

To sum up, learning styles are defined by Dunn & Griggs (1988) as "…the general approaches and the biologically and developmentally characteristics in which students use them when learning a new language"; however, learning styles are generally divided into visual, auditory, reading and writing, and kinesthetic. Learning strategies are the specific steps such as seeking out conversation partners or encouraging oneself (Scarcella& Oxford, 1992), and they are divided into direct strategies such as cognitive strategies and indirect strategies such as meta-cognitive and socio-affective strategies. However, because learning environments vary into four types which are: physical, virtual, formal, and informal; a good language learner is aware of his learning style preferences and strategies in any learning environment, as well as a good language teacher is aware of designing the appropriate instructional materials to fulfill the needs of individuals with different learning styles so that their learning strategies will be improved (Oxford, 1990).

Chapter Two
EFL Online Teaching

Introduction

Due to devastating Covid-19 outbreak, most institutions of higher education introduced online learning platforms to teachers and students as an alternative to face-to-face education so some classes are undertaken on digital platforms or from remote in the sake of distance education. Within a short period of time, online teaching has grown from an academic experiment to a recognized alternative to traditional classroom education (Shelton and Saltsman 2014).

In this chapter, we start with a brief definition of online language teaching and how it differs from traditional teaching and learning. We, then, list the most effective online language teaching tools. Next, we draw attention to the relation between online teaching and learning styles as well as we highlight the benefits of this teaching approach. Finally, this chapter discusses the main characteristics of a good online language teacher.

2.1. Online Language Teaching Definition

Online language teaching (OLT) is related to designing and creating a distinctive learning environment to provide an internet-based language instruction with the help of digital technologies such as live classes and video conferences (Rapanta et al., 2020), thus, online classroom as conceived here, can be held in different format such as: hybrid, asynchronous, web facilitated or fully virtual classes.

The Relationship between Students' Introversion Characteristics and Online Teaching

2.2. The Difference between Online Teaching and Face-to-face Teaching

Learning environments refer to the diverse physical locations and psychological or social contexts in which learning occurs and has an influence on motivation and success (Rusticus et al., 2022).

In one hand, online teaching process is mainly based on providing an asynchronous interactive environment as long as both of the teacher and students take active roles and communication attributes in a class that is based on tools such as visual link, audio link, text chat and whiteboards (Wati& Yuniawatika, 2020). On the other hand, traditional face-to-face education is a synchronous process in physical location on a schedule and the lecture is primary curriculum delivery method (Eryilmaz, 2015).

What we can infer from these two definitions is that the difference lies on elements such as: teaching tools, attendance, course delivery, time and place.

2.3. Technology based Approach and Computer Assisted Language Learning (CALL) during Covid-19 Pandemic

With the emergence of the Covid-19 crisis, many educational institutions adopted online teaching to replace traditional face-to-face instruction because schools and universities for the sake of safety and protection. Researchers and educators stressed the need for Computer-assisted Language Learning (CALL), which is defined as the process of using computers to improve the learner's language and reinforce learning materials (Beatty, 2013), to be used for language learning and EFL teaching platforms like Zoom and Moodle give access to activities that can be more engaging for visual and kinesthetic learning and promote information sharing.

2.4.Online Language Teaching Tools

Online classroom or distance education is mainly based on the use of digital platforms so that teachers and students log in to the class when the class begins in order to receive knowledge, to interact with each other or even to take exams. However, Son (2010) identified a list of effective online language teaching tools that teachers would use to improve their students' language skills thus these tools are:

- **Learning/Content Management Systems (LCMS)**

  Blackboard http://www.blackboard.com/

  Drupal http://drupal.org/

  Joomla http://www.joomla.org/

  Moodle http://moodle.org/

  Sakai http://sakaiproject.org/

- **Communication Tools**

  Gmail http://mail.google.com/

  Skype http://www.skype.com/

  TokBox http://www.tokbox.com/

  Windows Live Messenger http://explore.live.com/windows-livemessenger

  Yahoo! Messenger http://messenger.yahoo.com/

  Jabberwacky http://www.jabberwacky.com/

  Verbot http://www.verbots.com/

  PhpBB http://www.phpbb.com/

  Tangler http://www.tangler.com/

- **Live and virtual worlds**

  Elluminate http://www.elluminate.com/

  Livestream http://www.livestream.com/

OpenSimulatorhttp://opensimulator.org/

ActiveWorldshttp://www.activeworlds.com/

Ustreamhttp://www.ustream.tv/

Wimba Classroom http://www.wimba.com/

- **Social networking and bookmarking sites**

  Diigohttp://www.diigo.com/

  Elgghttp://elgg.org/

  Facebook http://www.facebook.com/

  Grouplyhttp://www.grouply.com/

  MySpacehttp://www.myspace.com/

  Ninghttp://www.ning.com/

  LinkedIn http://www.linkedin.com/

  Twitter http://twitter.com/

- **Blogs and wikis**

  Blogger, http://www.blogger.com/

  Edmodo, http://www.edmodo.com/

  Edublogs, http://edublogs.org/

  LiveJournal, http://www.livejournal.com/

  WordPress.com, http://wordpress.com/

  Wikispaces http://www.wikispaces.com/

- **Presentation tools**

  280 Slides, http://280slides.com/

  Animoto, http://animoto.com/

  Empresser, http://www.empressr.com/

  Prezi, http://prezi.com/

SlideRocket http://www.sliderocket.com/

Zoho Show http://show.zoho.com/

- **Resource sharing tools**

Google Docshttp://docs.google.com/

Box.net http://www.box.net/

Dropbox http://www.dropbox.com/

VoiceThreadhttp://voicethread.com/

Flickrhttp://www.flickr.com/

MyPodcasthttp://www.mypodcast.com/

PodOmatic, http://www.podomatic.com/

Glogster, http://www.glogster.com/

Screenr, http://screenr.com/

Slideshare, http://www.slideshare.net/

Dipity, http://www.dipity.com/

Jing, http://www.techsmith.com/jing/

SchoolTube, http://www.schooltube.com/

TeacherTube, http://www.teachertube.com/

WatchKnowhttp://www.watchknow.org/

YouTube http://www.youtube.com/

- **Website creation sites**

Google Sites http://sites.google.com/

Jimdohttp://www.jimdo.com/

KompoZerhttp://kompozer.net/

Maharahttp://mahara.org/

Movable Type http://www.movabletype.org/

SnapPages http://www.snappages.com/

Weebly http://www.weebly.com/

Webnode http://www.webnode.com/

Webs http://www.webs.com/

Wix http://www.wix.com/

- **Web exercise creation tools**

ContentGenerator http://www.contentgenerator.net/

SMILE http://clear.msu.edu/teaching/online/mimea/smile/

ESL Video http://eslvideo.com/

JClic http://clic.xtec.cat/en/jclic/

Hot Potatoes http://hotpot.uvic.ca/

Quia, http://www.quia.com/

Lingt http://lingtlanguage.com/

 Listen and Write http://www.listen-and-write.com/

- **Dictionaries and concordancers**

Dictionary.com, http://www.dictionary.com/

Merriam-Webster Online http://www.merriam-webster.com/

YourDictionary.com, http://www.yourdictionary.com/

Compleat Lexical Tutor, http://www.lextutor.ca/concordancers/

Forvo, http://www.forvo.com/

Howjsay, http://www.howjsay.com/

Visuwords, http://www.visuwords.com/

OneLook Dictionary Search http://www.onelook.com/

VLC Web Concordancer http://vlc.polyu.edu.hk/concordance/

- **Utilities**

CalculateMe, http://www.calculateme.com/

CalendarFly, http://www.calendarfly.com/

Doodle, http://doodle.com/

ClustrMaps, http://www.clustrmaps.com/

Currency Converter, http://www.oanda.com/currency/converter/

Google Earth, http://earth.google.com/

Lesson Writer, http://www.lessonwriter.com/

Storybirdhttp://storybird.com/

Mindmeister, http://www.mindmeister.com/

Voki, http://www.voki.com/

W3C Link Checker,http://validator.w3.org/checklink/

Wordlehttp://www.wordle.net/

2.5.Benefits of Online Teaching and Learning

Online classes are based on the use of the internet and digital resources to teach and learn. Many studies highlighted the numerous benefits of online so it can be consider as an ideal alternative to tradition classroom.

A study by Salbego and Tumolo (2015) as cited in (Al-Qahtani, 2019) stated that virtual class is a comfortable and convenient environment for students to practice their communication skills because they feel more motivated and engaged in speaking with lecturers and peers during online classes than in traditional classes. Based on the data obtained, online teaching can improve communication and speaking skills.

Moreover, online classes are suitable for students who are introverted or too shy to participate in conversations or classroom discussions (Howard, 2009), and this further uncovers the fact that virtual classroom is more student-centered learning environment so that students are less passive and responsible about their learning.

The Relationship between Students' Introversion Characteristics and Online Teaching

To conclude, educational institutions started to develop their online platforms to continue with the process of educating students due to the numerous benefits f online teaching and its positive impact; besides, virtual teaching as an alternative method that is similar to traditional teaching in terms of interaction between students and teachers (Yilmaz, 2015).

2.6. The Good Online Language Teacher

Salmon's five stage model of online teaching and learning and CoI framework provide practical teaching strategies for an effective online teaching environment. Both frameworks help to develop the students' and teachers' abilities as a successful online learners and teachers. However, integrating 21St Century Skills improve communication skills.

➢ **Salmon's Five Stage Model**

Salmon's five stage model is a framework that is used by teachers and learning designers in designing online or blended learning, and it includes five stages which are:

1. Access and motivation.

2. Online socialization.

3. Information exchange.

4. Knowledge construction.

5. Learner development.

➢ **The Community of Inquiry (CoI) Framework:**

The Community of Inquiry (CoI) is a theoretical framework for the optimal design of learning processes in online and blended environments to support critical thinking, critical inquiry and discourse among students and teachers (Garrison, Anderson & Archer 1999), this framework is based on three aspects which are:

Social presence: the ability of learning community participants to identify "with the community, communicating purposefully in a trusting environment, and developing interpersonal relationships" (Garrison, Anderson, & Archer, 2010, p. 7).

Cognitive presence "the analysis, construction, and confirmation of meaning and understanding within a community of learners through sustained discourse and reflection" (Garrison & Anderson, 2003, p. 55).

Teaching presence: the design, facilitation and direction of cognitive and social processes for the purpose of realizing personally meaningful and educationally worthwhile learning outcomes (Anderson, Rourke, Garrison, & Archer, 2001, p. 5).

➢ **21 Century Skills Framework (PT21 Framework)**

The main aim of PT21 (The Partnership for 21st Century) model is helping students to thrive in their 21st century life through integrating core skills and competencies into learning and teaching. 21ST Century Skills are listed as follows:

- Critical thinking.

- Problem solving.

- ICT literacy.

- Information literacy.

- Flexibility.

- Creativity and innovation.

- Self direction.

- Productivity.

- Initiative.

- Leadership.

- Responsibility.

❖ **Creativity and Innovation**

Creativity and innovation are considered as one of the most necessary skills in 21st century. A creative teacher is able to solve the problem and address the problem in transformative ways (O'hara, 2017 as cited in Nakano &Wechsler, 2018). Online innovation learning is essential in order to produce better learning output. Moreover with the creativity possessed by teachers; innovation is generated by him (Saputra and Sienny, 2022).

❖ **ICT (Information, Communications and Technology) Literacy**

A Good online language teacher is aware of the importance of integrating technology and communication tools for better output. According to Murugesan (2021), ICT literacy is implemented through the following:

– Providing an easy exchange of information.

– Desk grouping.

– Use of digital technologies to interact with students with tools such as computers, document sharing, whiteboard, chat...etc.

❖ **Initiative and Self Direction**

According to Knowles (1975, p. 18), self direction is about taking the initiative with or without the help of the others; he stated that self direction process includes:

- Formulating tactile and strategic goals.

- Organization and time management

- Working independently

- Evaluating learning outcomes.

The Relationship between Students' Introversion Characteristics and Online Teaching

Conclusion

This chapter defined online language teaching in the first place; it also highlighted the main differences between online classes and traditional face-to-face classrooms. Due to covid19 pandemic circumstances, the use of CALL was needed to help language teaching and learning. Yet, online and web-based instruction can be considered as an ideal alternative to traditional teaching because of its numerous benefits and useful teaching platforms such as Moodle and Zoom. Through this chapter, the researcher highlighted effective ways and strategies to help students thrive in an environment that is different from their usual one. Finally, three online teaching models were presented to help teachers and students experience a high quality distance education.

The Relationship between Students' Introversion Characteristics and Online Teaching

Chapter Three

Methodology

Introduction

This chapter will highlight the most important elements of the methodological procedure used in this research such as instruments, research design, sampling techniques, data analysis and discussion of results. A triangulation research method will be used to gather quantitative and qualitative data through two instruments which are: questionnaire and interview. Through the analysis of findings, the researcher tried to find meaningful and convenient links to the research hypotheses.

3.1.Quantitative Strand/Questionnaire

3.1.1. Research design

The quantitative strand of this study utilized a descriptive design to describe the experience of EFL introverted students during Covid19 pandemic; furthermore, it will measure and quantify the effectiveness of online teaching from their perspective.

3.1.1. Sample and sampling methods

This study was conducted on third year English students at Biskra University. The researcher used Susan Cain's Quiet Revolution Personality Test (2014) (see appendix 01) to pick out introverted students and their full names, and it consists of 10 items so that students, who got high scores for their answers, are the students who are considered as introverts. They were, then, asked to answer the questionnaire with questions related to the topic of the study. However, the sampling method used in this research was purposive sampling and this research is conducted on third year students because they have been experiencing distance education for nearly two years and they were also dealing with modules such as oral expression, written expression and

The Relationship between Students' Introversion Characteristics and Online Teaching

phonetics; thus, the main aim of these modules is to improve the four language skills

which are: writing, speaking, reading and listening.

3.1.1. Data analysis and results

The researcher utilized Susan Cain's The Quiet Revolution quiz (see appendix 01)

to make sure that the participants in this study meet certain characteristics to be

considered as introverts. The researcher identified 38 or more as the appropriate score

of students with qualities of introversion.

Total number of participants	Number of participants identified as introverts	Percentage
30	16	53.33%

Table 01: *the number of students with high introversion based on the Quiet Revolution*

Personality Test

The table above shows the number of introverted students based on Cain's Quiet

Revolution's Questionnaire. There are 16 (53.33%) introverted students out of 30

participants from third year English students at Biskra. The identified introverts were,

then, asked to answer the questions related to the research topic and its aims.

3.1.1.1.Background Information

This part of the questionnaire is concerned with collecting information about the

participants' gender and age

The Relationship between Students' Introversion Characteristics and Online Teaching

Gender

Gender	Number	Percentage
Male	5	31.25%
Female	11	68.75%

Table 02: Introverted Students' Gender

Age

Age	Number	Percentage
19 and under	1	6.25%
20- 29	15	93.75%
30+	0	0%

Table 03: Introverted Students' Age

3.1.1.2.Question Item 1

"Did you learn online from remote during Covid-19 pandemic?"
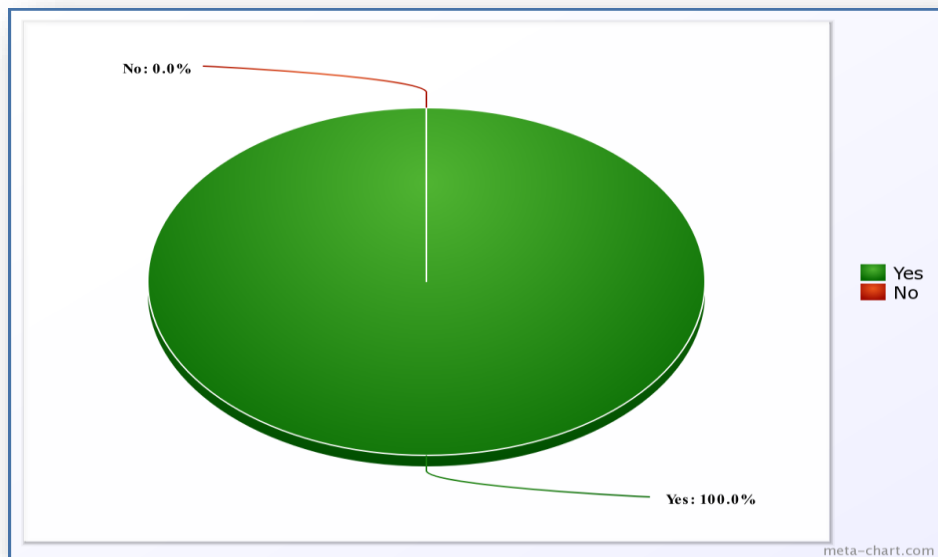
Figure 01: Students' answers distribution to Question 01.

This question was designed to assure that the participants had received online teaching during Covid19 pandemic because the respondents should meet certain standards for this research such as being an introverted student and receiving online

teaching or distance education. However, the results above show that all the participants learnt online from remote during the crisis.

3.1.1.3. Question Item 2

"How effective had distance education been for you?"
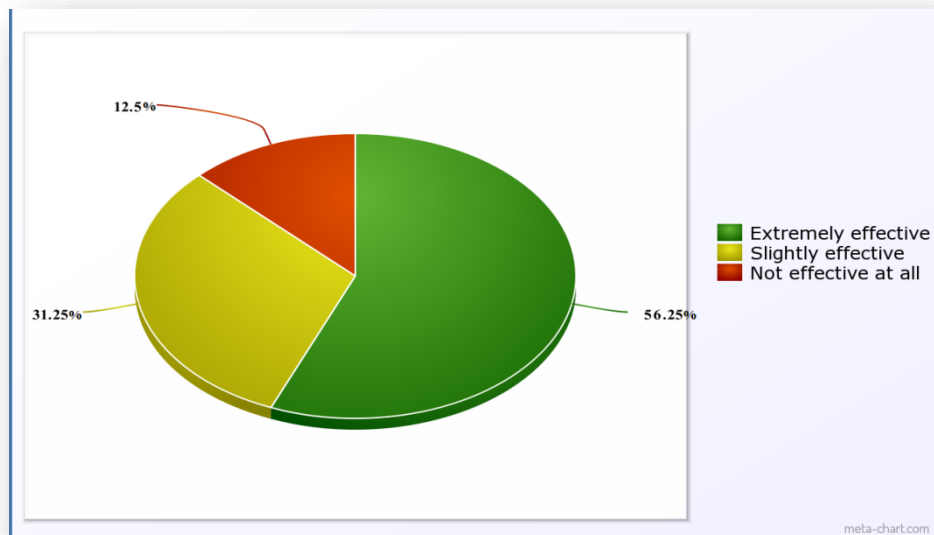
Figure 02: Students' answers distribution to Question 2

Through this item, we wanted to have an idea about EFL introverted students' opinion about the quality of online teaching and to what extent it was effective for them. The results showed that 9 participants (56.25%) out of 16 introverts answered positively with extremely effective. This response can be justified through Cain's explanation of the fact that introverts are characterized by reserve and thoughtfulness, they also do their best in quiet places with low stimulation like virtual classes. However, online teaching is slightly effective to 5 introverted students (31.25%) and the expression "slightly" is related to words such as "a little", " a bit" and "somewhat" and this indicates that these introverts are okay with online classes but not to a great extent. 2 introverted students think that online teaching was not effective at all for

The Relationship between Students' Introversion Characteristics and Online Teaching

them. This further means that not all introverts think that online teaching is extremely

effective or even better than traditional classroom.

3.1.1.4.Question Item 3

"Online teaching affected my academic achievement"
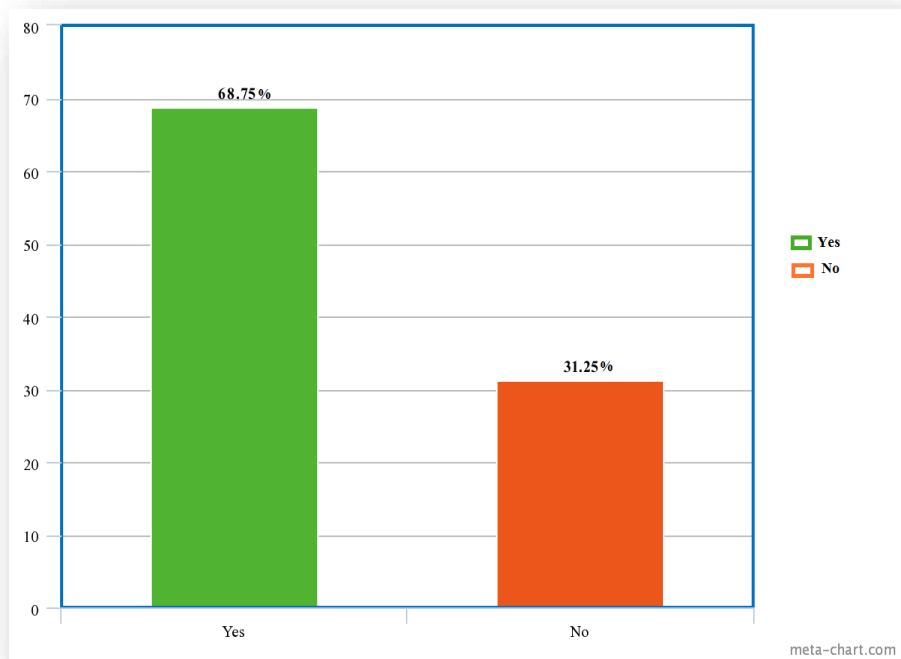
Figure 03: Students' answers distribution to Question 3

Out of 16, 11 introverts (68.75%) said that online teaching method affected their academic achievement. This further means that this teaching method as an alternative to traditional classroom changed their learning ways and their performance due to the nature, the characteristics and the tools of online learning and teaching. However, 5 participants (31.25%) answered with "No" and they said that there was no impact on their academic achievement due to distance education so that the differences between an online class and a tradition classroom could not affect their performance and grades.

3.1.1.5.Question Item 4

"If yes, do you think it affected your academic achievement positively or negatively?

	Number	Percentage
Positive impact	10	62.5%
Negative impact	1	6.25

Table 04: *Students' answers to Question 04*

This item is designed to be answered only by those who answered with "Yes" to the previous question about if online teaching had impacted their academic achievement. Out of 11, 10 introverted students stated that it was a positive impact. There are so many possible reasons behind this success. First, these students are able to flourish and improve their grades in this type of environments because of their personal type itself. Maybe introversion characteristics and online classroom characteristics go well with each other. Second, it is possible that online teaching suits all learning styles and personality types due to its tools and benefits. However, only one introverted student said that this method affected his success and his academic achievement negatively. This begs the question if online teaching environment and tools and environment are the reason behind his academic failure or there are other causes which are the same thing as the negatives of distance education such as the lack of interaction and face-to-face communication.

The Relationship between Students' Introversion Characteristics and Online Teaching

3.1.1.6.Question item 5

"Have you witnessed any improvement in your language competence due to online teaching and distance learning?
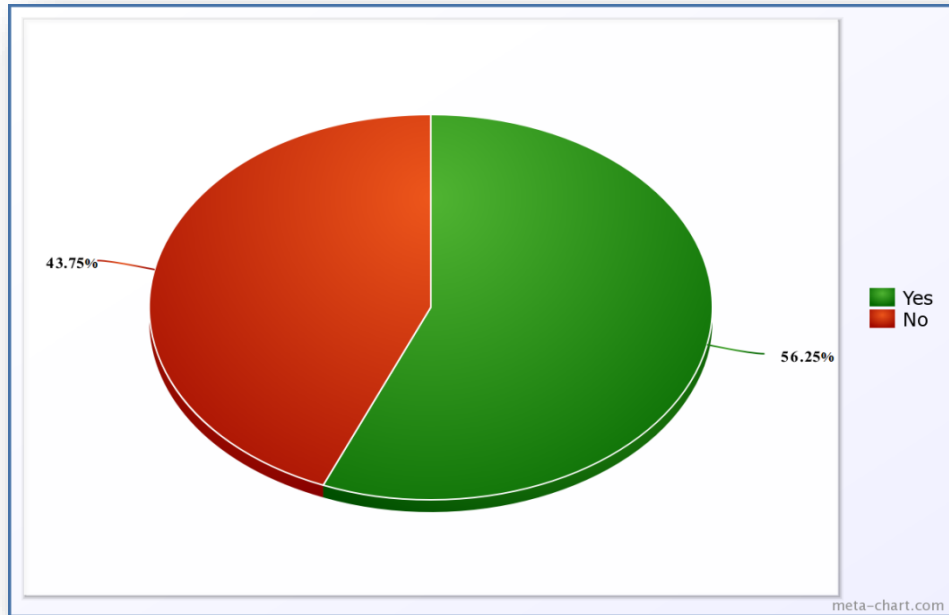
Figure 04: Students' answers distribution to Question 05

9 participants (56.25%) said that they have witnessed improvement in their language skills when they received online teaching during covid-19 pandemic. These answers are related to another fact that claims that ICT has so many benefits to English language learning so that integrating ICT helps students to develop their English language skills. However, 7 introverted students (43.75%) reported that their language skills didn't improve when they studied virtually due covid-19 circumstances.

3.2.Qualitative strand/ interview

3.2.1. Research design

Qualitative data in this research was collected via semi structured interview technique (see appendix 02) with EFL teachers at university of Biskra, so that teachers

can describe the learning experience of introverted students based on their observation and teaching experience.

3.2.2. Sample and sampling method

According to Hennink& Kaiser (2022), qualitative studies can reach saturation at relatively small sample size. Hence 5 teachers participated in this research. Three of them were oral expression teachers and two of them were teachers of phonetics. The sampling technique used to collect data is purposive sampling method (judgmental or selective sampling).

3.2.3. Data analysis and results

The researcher used thematic analysis to analyze the data obtained. The teachers' names were encoded with letters from A to E (A, B, C, D and E). However, the analysis yielded four themes which are:

Theme 1: The most used online teaching tools to deliver courses during covid19 pandemic.

Before asking teachers about the most used online teaching tools, the researcher asked teachers if they taught remotely during Covid-19 pandemic and this question is designed to assure that the collected data is related to the topic of the research. Four teachers said "Yes, we did" and teacher D said: *"No, I didn't teach online but I just uploaded electronic handouts as well as recorded videos"*. However, there were a variety of answers about the online teaching tools that teachers used to teach due to Covid19 crisis. Based on the answers, teachers used this tools and platforms to deliver their courses:

- Moodle

- Fecebook (groups, pages, group call)

- Email

The Relationship between Students' Introversion Characteristics and Online Teaching

- – Youtube channel

- – Google meet

Theme 2: The difference between face to face and online teaching concerning students performance.

There are so many differences between traditional and online teaching methods in terms of setting, use of the internet, attendance, level of comfort, communication...etc. There were different answers from teacher about students' learning in distance education. Teacher B said: *"students are learning better through face to face classes"* and Teacher E said that he is not sure that they were learning better with online teaching, but he is confident that online learning tools give students more tool to find the information than the traditional classroom. Besides, teacher A reported that he did not noticed any remarkable difference.

Theme 3 introversion and online teaching

Jung (1995) described introverts as individuals who tend to seek knowledge and inner intensity, they are also visionary. All teachers in the interview agreed that online teaching method is suitable for introverted students; furthermore, teacher E said: *"online teaching keeps learners away from the face-to-face interaction, which is actually the biggest fear/concern of introverted students. Learning on their own pace and style without any peer or teacher's pressure makes introverts more confident and comfortable"*. Teacher A stated that online learning is very suitable for introverted students as it allows them to participate in activities they wouldn't do in a face-to-face setting.

Theme 4: Importance of face-to-face communication while teaching online

Communication in traditional in-person classroom is verbal and non- verbal action that requires use of multisensory approach that targets as many senses as possible and

the classroom is viewed as community where each learner has a sense of belonging and worthiness through managing group process (Ndethiu, 2019). All teachers assured that face-to-face communication is important for them and for students because through this face to face communication they can ensure that the students have understood the lesson and not the same thing in remote learning, teachers also prefer to see his/her students' reactions and have an eye contact with them (teacher B). However, teacher E said: "both teaching styles have their own pros and cons; therefore, blended learning that makes the best of the two seems to be the most convenient way of teaching at the moment". However, Face-to-face communication has always been in the heart of teaching as it establishes the affective, social and cognitive connections between teachers and their students. Finally, teachers appreciate the importance of face to face communication is fundamental for language learning as it is the natural way of using language (teacher A) and they see that it can't be replaced by remote teaching. This later can be added to support it.

3.3.Discussion of results

The research hypotheses are:

1. Online teaching helped students to improve their academic achievement during Covid19 pandemic.

2. Online teaching method was suitable for introverted students during covid-19 pandemic.

Two instruments were used to examine the research hypotheses, which are, the questionnaire, to describe the effectiveness of online teaching from introverted students' perspective and to measure the impact this teaching method on their academic achievement and language competence, an interview with teachers to

The Relationship between Students' Introversion Characteristics and Online Teaching

discuss and investigate the used teaching tools in distance education during Covid-19 pandemic and the usefulness of online teaching for introverted students.

In the discussion of results, the researcher presented details and explanations of findings and related them to the hypotheses to sound meaningful and convenient.

Hypothesis One:

Online teaching helped students to improve their academic achievement during Covid19 pandemic. The questionnaire results show that online teaching method affected the academic achievement of 62.5% of the participants in a positive way.

> **The Positive Impact of Online Teaching Method on EFL Introverted Students' Academic Achievement.**

The students were asked 4 questions about the positive impact of online teaching method on EFL introverted students' academic achievement. Their positive answers is an indication that online teaching helped students to improve their academic achievement during Covid19 pandemic as can be seen in questions: 2,3,4 and five.

Questions	Positive answer	Positive answer percentage
Q2: How effective had distance education been for you	Extremely effective	56.25%
Q3: Online teaching affected my academic achievement	Yes	68.75%
Q4: If yes, do you think it affected your academic achievement positively or negatively?	Positive impact	62.5%
Q5: Have you witnessed any improvement in your language skills due to online teaching and distance learning?	Yes	56.25%

Table 05: *learners' positive answers to questions 2, 3, 4 and 5*

In question two, because many educators stated that online teaching and learning has so many benefits and it is suitable and desirable for certain learning styles; more than a half of introverted students (56.25%) agreed on the fact that distance education had been extremely effective for them.

In question three and four, most of the students agreed on the positive impact of online teaching on their academic achievement (62, 5%).

In question five, English language learners achieve the language the achievement of language competence is an indicator of a successful English language learning

The Relationship between Students' Introversion Characteristics and Online Teaching

process, so that 56.25% of the students stated that their language competence improved because of online teaching and distance education.

Hypothesis two:

Online teaching method was suitable and useful for introverted students during covid-19 pandemic. In the interview, all teachers answered positively to third question stating the fact that online education is suitable and desirable for introverted students because they do their best in a quiet environment with less interaction with the others.

All five teachers responded with "Yes" to question three, they also supported their answers with following reasons:

- Online teaching keeps learners away from the face-to-face interaction without any peer or teacher's pressure.

- It allows them to participate in activities they wouldn't do in a face-to-face setting.

- They feel freer to learn in their own way, and they feel less forced to attend and participate in class discussion.

- It is the best method of teaching for this group of students because the absence of the teachers will not affect their learning process and progress.

Conclusion

In this research, the researcher used three instruments to discuss and check the two hypotheses about the impact and usefulness of online teaching for introverted students during Covid-19 pandemic. After analyzing the data and discussing the findings, the researcher concluded that the first hypothesis was confirmed, since introverted students' (the participants) answers were positive. The researchers founded that number of students, who agreed that online teaching helped introverted students to improve their academic achievement and language skills, was good enough to

The Relationship between Students' Introversion Characteristics and Online Teaching

confirm the hypothesis. The second hypothesis was also confirmed by the researcher

based on the findings of the interview and all the teachers being interviewed agreed

with the concept of the hypothesis that indicated that online teaching was suitable for

EFL introverted students during Covid-19 pandemic and has always been, they also

supported their opinion with reasons and explanations. Teachers in the interview

linked their answers (about introversion learning style and online teaching) with the

benefits of using blended learning and ICT tools in teaching English language for all

learning styles.

The Relationship between Students' Introversion Characteristics and Online Teaching

4. RECOMMENDATIONS AND SUGGESTIONS

The study examined the relationship between students' introversion characteristics and online EFL teaching during Covid-19 pandemic. Further studies could discover the main problems and challenges that faced introverted students when they received online teaching. A similar study could be conducted to explore the experience of extraverted students with distance education; it could be also conducted to compare the experience of both of introverts and extroverts to better understand the unique characteristics of introverted students. The study is conducted with third year EFL students, different results can be achieved if the study is conducted on other levels or students of other fields such as medical sciences or mathematics. This study used two data collection tools which are: a close-ended survey questions for introverted students and a semi- structured interview with EFL teachers, future studies could utilize different instruments such as in-person interviews or open-ended questions with introverts. Future studies could also use more than one extraversion- introversion test to assure that participants meet the research's criterion.

General Conclusion

In order to prevent the spread of Covid-19 disease, many educational institutions and public areas closed their doors as of march 2020.Institutions had to find continue the process of teaching and learning so they switched from traditional teaching to online classes. However, students' academic success can be influenced by various factors such as age, gender, personality type, motivation, type of instruction...etc. The present study investigates the relationship between introversion characteristics and online EFL teaching; it also explores the effectiveness of online classes for EFL introverted students and its impact on their academic achievement and language skills.

The Relationship between Students' Introversion Characteristics and Online Teaching

The researcher's aim is to explore the bridge between students' introversion characteristics and online teaching characteristics. Hence the study is carried out to reject the hypotheses stating that Online teaching method was effective for introverted students and it helped them to improve their academic achievement. In addition, online teaching method is suitable and comfortable for introverted students. Third year EFL students at Biskra University were chosen to be the case study in this research.

The researcher used questionnaire and semi structured interview to collect qualitative and quantitative data. The analysis of the questionnaire answers revealed that online teaching method had a positive impact on their success and it helped them to improve grades and their language skills. The results showed also that all teachers in the interview agreed that introverts prefer online teaching method so that it is suitable and comfortable for them. This further was explained by the fact that online classes are a quiet learning environment with less interaction with the others. In the same way, introverted students perform best in calm and peaceful environment; they also derive energy from eternal world of thought and reflection. Consequently, the results led to confirming the alternative hypotheses.

The Relationship between Students' Introversion Characteristics and Online Teaching

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Appendix 01:

Dear students,

You are kindly requested to fill in this questionnaire which aims to investigate The Effectiveness of Online Teaching from the Perspective of EFL Introverted Students. We greatly appreciate your help in providing us with your honest answers to the questions below. I reassure you that the information gathered in this survey will only be used for academic research purposes and kept confidential.

Thank you for your time and support.

Name: ....

Gender:

Male ☐

Female ☐

Age:

19 and under ☐

20-29 ☐

30+ ☐

Section 02: Introversion- Extraversion Personality Test

Please tick (✔) in the boxes provided

Num	Questions	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
01	I quickly feel drained when in a large crowd of people.					
02	I am a cautious decision maker					
03	I feel drained after being out and about, even if I've enjoyed myself.					
04	I don't take risks unless I've done some careful research or evaluation first.					
05	When I was a child, people described me as "quiet."					
06	In large social gatherings, I often feel a need to seek out space to be by myself.					
07	I don't rush decisions.					
08	Too much exposure to noise or light leaves me feeling drained or spacey.					
09	I am patient to find out all the facts before making a decision.					
10	I do my best work in a quiet environment.					

Section 03: Online Teaching Effectiveness

Q01: Did learn online from remote during COVID19 pandemic?

Yes ☐

No ☐

Q02: How effective had distance education been for you?

Not effective at all ☐

Slightly effective ☐

Extremely effective ☐

Q03: do you think online teaching affected your academic achievement?

Yes ☐

No ☐

Q04: if yes, do you think it is positive or negative influence?

Positive impact ☐

Negative impact ☐

Q05: have you witnessed any improvement in your language skills because of online teaching during COVID19 pandemic?

Yes ☐

No ☐

Do you have any addition?

....

Appendix 02:

Dear teacher,

For current research about the effectiveness of online teaching from the perspective of EFL introverted students, we greatly appreciate your help in providing us with your honest answers to the questions below. I reassure you that the information gathered will be used only for academic research purposes and kept confidential.

Thank you very much.

1. Did you teach remotely during Covid-19 pandemic?

   ....

2. How did you deliver your distance courses during Covid-19 pandemic?

   ....

3. Are your students learning as much as they were before switching to remote learning?

   ....

4. Introverted students are the ones who have a solitary learning style, they often prefer to solve problems on their own and they like to brainstorm and seek theoretical exploration. Do you think online teaching is suitable for introverted students? Why?

   ....

5. How important is face-to-face communication for you while teaching remotely?

   ....

الملخص

لإبطاء انتشار جائحة كورونا ، اضطرت المؤسسات التعليمية إلى التحول إلى التدريس عبر الإنترنت كبديل للتعليم التقليدي أي وجهاً لوجه. توصف بيئة التدريس عبر الإنترنت بأنها بيئة هادئة مع تفاعل أقل بين الأفراد، مما قد يتماشى مع تفضيلات الطلاب الانطوائيين. تستكشف الدراسة الحالية العلاقة بين خصائص الانطواء لدى الطلبة والتعليم عبر الإنترنت. ويهدف أيضا إلى قياس إلى أي مدى ساعد تطبيق التدريس عبر الإنترنت الطلاب الانطوائيين على تحسين تحصيلهم الأكاديمي خلال جائحة كورونا. استخدم الباحثون إستراتيجية التثليث (نهج طرق البحث المختلطة) للحصول على مجموعة من البيانات القيمة التي قد توفر تفسيرات للفرضيات. تم تضمين أداتين بحثيتين في الدراسة الحالية هما: استبيان موجه لطلاب السنة الثالثة في قسم اللغة الإنجليزية بجامعة بسكرة للحصول على بيانات كمية ومقابلة شبه منظمة مع أساتذة اللغة الإنجليزية كلغة أجنبية في جامعة بسكرة. من بين 30 مشاركًا ، تم تحديد 16 طالبًا على أنهم انطوائيين وفقًا لاستبيان "Quiet Revolution " بواسطة سوزان كين. أظهرت نتائج الاستبيان أن طريقة التدريس عبر الإنترنت كانت فعالة للطلاب الانطوائيين وساعدتهم على تحسين تحصيلهم الأكاديمي. وبحسب بيانات المقابلة ، تم تقديم أربعة محاور بعد تحليل إجابات الأساتذة. اتفق الأساتذة في المقابلة على أن طريقة التدريس عبر الإنترنت مناسبة ومريحة للطلاب الانطوائيين.