T.C.
UFUK UNIVERSITY
GRADUATE SCHOOL OF SOCIAL SCIENCES
DEPARTMENT OF ENGLISH LANGUAGE TEACHING
ENGLISH LANGUAGE EDUCATION PROGRAMME

THE EFFECTS OF FLIPPED LEARNING MODEL IN TEACHING ENGLISH GRAMMAR

MASTER'S THESIS

CEREN SEÇİLMİŞOĞLU

SUPERVISOR
PROF. DR. GÜLSEV PAKKAN

ANKARA
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ACCEPTANCE AND APPROVAL

To Ufuk University Graduate School of Social Sciences,

This study named "The Effects of Flipped Learning Model in Teaching English Grammar" by Ceren SEÇİLMİŞOĞLU has been approved as a thesis for the Degree of Master in the division of English Language Teaching by the Examining Committee Members mentioned below.

Chair (*Supervisor*)	Prof. Dr. Gülsev PAKKAN	.....
Member	Assoc. Prof. Dr. Neslihan ÖZKAN	.....
Member	Assoc. Prof. Dr. Gülşen DEMİR	.....

This is to certify that this thesis has been approved by the aforementioned examining committee members on 5 February 2019 in accordance with the relevant articles of the Rules and Regulations of Ufuk University Graduate School of Social Sciences, and was accepted as a Master's Thesis in the Program of English Language Teaching by the Board of Directors of the Graduate School of Social Sciences on 08 / 02 / 2019

Prof. Dr. Mehmet TOMANBAY

Director of Graduate School of Social Sciences

ABSTRACT

The technological advancements enable an inverted method in teaching a language instead of the scenario in a traditional classroom. Thus, wasting class time on explanation and assigning homework are shifted to having lectures through videos at home and doing practice in class. This reversed way of teaching, *Flipped Learning Model*, blends active learning with the advantages of direct instruction.

Examining the effectiveness of *Flipped Learning Model* on students' perceptions and achievement through teaching grammar, this study was implemented to 22 students in two B2 level classes (experimental and control) at Denge Academy of Science and Art Anatolian High School during the spring semester of 2017-2018 school year. The data were collected through a mixed-method approach with the application of quasi-experimental research design / non-equivalent control group design. Although the principal focus was on the quantitative data gathered through pre- and post- tests for five grammar points, a Likert-scale questionnaire of students' attitudes towards the model and a semi-structured interview were administered for gathering qualitative data. The triangulation aimed at increasing the validity and reliability of the study.

Notwithstanding limitations identified, such as their familiarity with the grammar points and the use of technological devices, the results revealed that the students who were taught English grammar through *Flipped Learning Model* produced a higher performance than that of the control group. Additionally, both the questionnaire and the interview exploring students' positive reflection on the model showed that the implementation of studying grammar at home and allocating in-class time for more effective activities were considered viable.

Key words: Foreign Language Learning, Flipped Learning Model, Instructional Videos, Learner Autonomy, Constructivism, Blended Learning, Cooperative Learning, Computer Assisted Language Learning, Technology Enhanced Language Learning.

ÖZET

Teknoloji alanındaki ilerlemeler, dil öğretiminde geleneksel sınıf ortamında gözlenen ortam yerine farklı bir yöntemin kullanımını mümkün kılar. Böylece sınıfta yapılan açıklama ile kaybedilen zaman ve verilen ev ödevi, evde seyredilmesi tasarlanan öğretici ders videoları ve sınıfta yapılan konu alıştırmaları ile yer değiştirir. Bu öğretim yöntemi, yani *Flipped Learning Model* (Ters-Yüz Edilmiş Öğrenme Modeli), "düz anlatım tekniği"nin olumlu yanları ile "etkin öğrenme"yi birleştirir.

Öğrencilerin Ters-Yüz Edilmiş Öğrenme Modeli hakkındaki düşünceleri ve dil bilgisi öğrenimindeki başarılarının etkisini ölçen bu çalışma, 2017-2018 eğitim öğretim yılı bahar döneminde, Denge Eğitim Bilim ve Sanat Anadolu Lisesi'nde B2 seviyesindeki iki sınıfta (kontrol ve denek) toplam 22 öğrenciye uygulanmıştır. Veriler deneysel desen / eşdeğer olmayan kontrol grubu tasarımı uygulamasını içeren karma araştırma yöntemi yoluyla toplanmıştır. Esas odak noktası, beş dil bilgisi testi için uygulanan öntest ve sontestlerden toplanmış nitel veriler olsa da nicel veriler için öğrencilerin modele karşı tutumunu ölçmek amacıyla bir Likert türü ölçekli anket ve yarı yapılandırılmış görüşme tekniği uygulanmıştır. Üçleme, çalışmanın güvenirlik ve geçerliğini arttırmayı hedeflemiştir.

Dil bilgisi konularına aşinalık ve teknolojik aletlerin kullanımı gibi teşhis edilen sınırlamalara rağmen sonuçlar Ters-Yüz Edilmiş Öğrenme Modeli uygulamasıyla İngilizce öğretilen öğrencilerin kontrol grubundakilerden daha yüksek bir performans sergilediklerini ortaya çıkardı. Ek olarak, öğrencilerin olumlu fikirlerini araştıran hem verilen anket hem yapılan görüşmeler, evde dil bilgisi konularına çalışma ve sınıf zamanını daha etkili etkinliklere ayırma uygulamasının daha uygun olduğunu gösterdi.

Anahtar kelimeler: Yabancı Dil Öğrenimi, Ters-Yüz Öğrenme Modeli, Öğretici Ders Videoları, Öğrenen Özerkliği, Yapısalcı Kuram, Harmanlanmış (Karma) Öğrenme, İşbirlikli Öğrenme, Bilgisayar Destekli Dil Öğrenimi, Teknoloji Destekli Dil Öğrenimi

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to my dad,

who has his signature in every step I take…

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CHAPTER ONE

INTRODUCTION

Hearing the school bell, students are required to sit down on their chairs and wait for their lecturer to come into the classroom. If they are not prepared for the class beforehand, they do not have a clue about what to be taught; even if they are, their minds might be filled with several question marks about the topic. The teacher, after introducing the title of that day, teaches the point to the students, perhaps wipes the question marks off their minds, and assigns them some or a lot of homework to put the things learned into practice at home before the bell that ends the lesson rings. They are, meanwhile, supposed to understand every detail of the topic in 45-50 minutes, and at times, they are given chance to ask their questions related to that topic but sometimes not. This is a precise description of a traditional classroom setting in which teachers take an active role during classes while students pay attention to the lecture given there and practise it through assignments at home.

As ‘traditional classroom setting’ was not a satisfying response to the needs of the students, how to advance teaching to the utmost and reinforce learning have always been highly controversial issues in English teaching field just like in other fields. According to Linda M. Gojak (2012), “teaching is a complex activity” so that “student needs, teacher content knowledge, conceptual understanding vs. procedural skills, district curriculum, teaching materials, and standards must all be considered as we plan instruction.” When taking all these criteria into consideration, it can simply be stated that teaching materials are the ones that can be improved greatly and that have significant contributions to lessons since “they stimulate, motivate as well as focus learners’ attention for a while during the instructional process” (Shabiralyani, et al., 2015, p.227). While books were formerly used as the sole materials in classrooms, later, visual aids (pictures, maps, flashcards, etc.), and with the advancement in technology, audio aids (radio, tape-recorder, cassettes, audio CDs, etc.), and additionally, audio-visual aids (LCD projector, film projector, TV, computer, etc.) were utilized. Within the process of the improvement of teaching materials, in this age, it has become inevitable to neglect the effects of technology, and there is no other way but to embrace it. Ralph S. Welsh (2013) states that “education is really evolving worldwide” and he adds “we’ve gone from traditional classrooms where we all gathered, listened to the

lecture and took notes to more dynamic classrooms where almost everyone has a laptop open and access to almost anything on the Internet."

Since technology has taken over the control of several things, even in our daily lives, teachers feel an urge to integrate it to lessons, and with the help of this pressure, they seek the best ways to re-evaluate, evolve and enrich their teaching styles. Therefore, throughout years, in order to recuperate class time and enhance teaching and learning, including technological development, numerous techniques and models have been applied to teach English effectively. Among these, as a technological medium, properly used videos have been found efficient in many ways, hence teachers have been using them to raise the interest in lessons.

The growing use of the Internet and videos has encouraged the educators to come up with a totally different ideology, called 'flipped classroom'. As its name signifies, the order of traditional teaching steps is inverted. In other words, the basic meaning of it is described by Bergmann and Sams (2012, p.13) as: "that which is traditionally done in class is now done at home, and that which is traditionally done as homework is now completed in class."

This first section that comprises of problem statement, aim, significance, assumptions, limitations and research questions of the study gives a general framework of the study.

1.1 Statement of the Problem

The deficiencies of foreign language learning in Turkey have led several inquiries in this field. Therefore, many techniques, approaches and models have been tried throughout years in order to make up this lack or develop the way the language is taught. While some of these have proved success in various situations, some others have necessitated quite a few improvements. As Thomas L. Friedman (2009) expressed in his article, the foundation of all researches based on one question: "we not only need a higher percentage of our kids graduating from high school and college - more education - but we need more of them with the *right* education."

In traditional classrooms, the setting can simply be described as "a combination of long lectures and demonstrations by the teacher, with application of learned concepts done through homework assignments, tests, exams and projects" (Murphy, 2011). However, in time, the need to fulfil the requirements for

a better language education caused teachers to look for more effective techniques. With the progress of technology and its widespread use in language teaching, it has become unavoidable to switch the traditional classrooms into modern ones integrating technology in them because today's kids are born into a digital world and they are surrounded by the sources that the Internet provides them with such as Facebook, YouTube, Instagram, Snapchat, and many others. Hence, this explosion in the use of technology makes it to be a key element in the classrooms.

Because of some possible adverse effects, students, on the contrary, do not know how to develop autonomy and self-sufficiency so as to find out how they learn the best. Accordingly, they must be able to achieve this goal through discovering their learning abilities. Only by this way, they can notice their competence in setting up their priorities, applying their very own methods in their learning, and drawing conclusions from their experience.

In consequence of the facts mentioned, created by Jonathan Bergmann and Aaron Sams, and developed by Salman Khan (Murphy, 2011; Ash, 2012; Bull, et al., 2012; Tucker, 2012; Pappas, 2013; Jenkins, 2017), '*flipped learning model*' provides a great way to bridge the gap between the classroom and the outer world with the help of technology, specifically the means of videos. Elizabeth Millard (2012) expresses her idea about this approach by stating it turns "lectures into homework to boost student engagement and increase technology-fuelled creativity."

The search for a better model to apply in teaching English grammar to high school students by integrating technology into class has led the researcher to carry out a study in this field.

1.2 Significance of the Study

The term 'teaching' can be counted as a huge puzzle that consists of a considerable amount of unique pieces which the puzzle cannot be complete without even one piece. Every part must fit the total picture properly since the pieces are all related to one another. That's why, it's tough for teachers to decide on how to convey the information, and additionally, how to spend time during class time. It's, unfortunately, not only about meeting the students' needs, teaching them the point and achieving a particular goal, but also about accomplishing the educational objectives with some standards. Since these objectives are not definite enough, they need to be organized and put in more precise steps.

Flipped Learning Model, yet, bases its source of strength on several theories developed to facilitate language learning for people to discover the best way for them. The first of them is *Bloom's taxonomy*, which has a significant impact on supporting teachers to increase precision, promote understanding by designing instructional activities. The other one is *constructivism* which is about constructing knowledge or meaning by reflecting upon the experiences in the past to generate new ones. Learner Autonomy, for which learners take charge of their own learning instead of relying on their teachers, is also considered to be one of these theories. Since *Flipped Learning Model* places a significant role on technology which enhances language learning, *Computer-Assisted Language Learning* (*CALL*) and *Technology-Enhanced Language Learning* (*TELL*) must be mentioned as well.

Bloom's Taxonomy

The idea for classification system (named *Bloom's Taxonomy of Educational Objectives*) was formed at an informal meeting of college examiners attending the 1948 American Psychological Association Convention in Boston (Bloom, et al. 1956). The concept was initially created to be utilized as a testing aid; however, "after considerable discussion, there was agreement that such a theoretical framework might best be obtained through a system of classifying the goals of the educational process, since educational objectives provide the basis for building curricula and tests" (Bloom, et al., 1956, p.4). As such, the system presented under Benjamin S. Bloom's guidance was intended to be helpful for distinguishing between different levels of education goals and objectives, and to be conductive to this hierarchy with successive steps that are specified from less to more complex.

While Bloom and his colleagues (1956, p.7) introduce "a complete taxonomy in three major parts - the cognitive, the affective, and the psychomotor domains," in 1956 the system was developed to include six levels of learning in the order of "from simple to complex and from concrete to abstract" (Krathwohl, 2002, p.12): Knowledge, Comprehension, Application, Analysis, Synthesis and Evaluation. Years later, modifying the names of the levels and changing the places of two of them, David R. Krathwohl and his colleagues devised a different version of the original taxonomy.

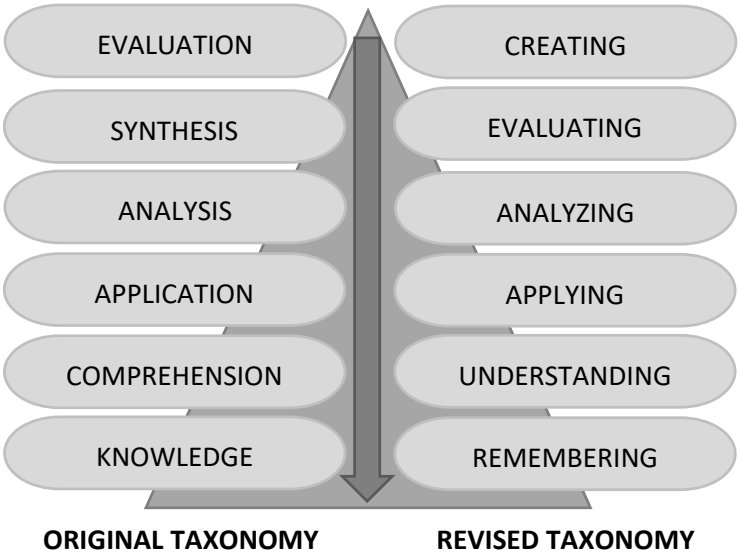

Figure 1.1 Bloom's Original vs. Revised Taxonomy

Both forms of Bloom's taxonomy provide a valuable insight for teachers to arrange their lessons and activities so as to cover the six levels of the hierarchy, yet the second one is more preferred since it is more up-to-date. Since 'flipped classroom' indicates 'the inversion of the traditional education, that is, learning the new material outside the class and devoting the class time to the skills that necessitate higher thinking skills through interactive activities, discussions or peer learning.' According to C. J. Brame (2013),

> "*this means that students are doing the lower levels of cognitive work (gaining knowledge and comprehension) outside of class, and focusing on the higher forms of cognitive work (application, analysis, synthesis, and/or evaluation) in class, where they have the support of their peers and instructor*."

And she adds the *Flipped Learning Model* "contrasts from the traditional model in which 'first exposure' occurs via lecture in class, with students assimilating knowledge through homework" (Brame, 2013).

On the other hand, for Sams and Bergmann (2013, p.18), it is important to "evaluate whether students need to move through Bloom's taxonomy from the bottom up or whether, instead, they might start at the top and tap down into the lower end when they require some basic knowledge about a topic." According to these two chemistry teachers, "it just depends on the learner and the learning objective."

Constructivism

Constructivism, in which the learner is considered “as an active agent in the process of knowledge acquisition” (Bada, 2015, p.66), is a theory hinges upon investigation about how learning is progressed. For this, as S. O. Bada (2015, p.66) explains learners “discover and transform information, check new information against old, and revise rules when they do not longer apply.” Put it differently, “students learn by fitting new information together with what they already know” (Bada, 2015, p.66). Defining how people should learn, constructivism puts learners in charge of acquiring knowledge, constructing the meaning by adjusting it to previous ideas and experiences. In such a manner, learner gets to become the creator of his / her own learning.

In the classroom environment, however, the theory is seen in the form of “encouraging students to use active techniques (experiments, real-world problem solving) to create more knowledge and then to reflect on and talk about what they are doing and how their understanding is changing” (Bada, 2015, p.67).

Dewey (1929), Bruner (1961), Vygotsky (1962), and Piaget (1980) play a prominent role in proposing constructivist conceptions of learning (Bada, 2015), and additionally, “Bednar, Cunningham, Duffy, and Perry (1992) and von Glasersfeld (1995) have proposed several implications of constructivist theory” (Bada, 2015, p.66). Among these, as being strong proponents of constructivism, Piaget and Vygotsky are mentioned in the study.

The thing that distinguishes Piaget from other constructivists is “that not only was he interested in describing structures, but that he wanted to produce a developmental or genetic structuralism to describe how structures evolve” (Bliss, 1993, p.27). On his version of constructivism “knowledge construction takes place when new knowledge is actively assimilated and accommodated into existing knowledge” (Jones and Brader-Araje, 2002, p.3). J. Bliss (1993) outlines two features of Piaget’s as the environment is not a stimulation for the child’s learning since the child has the initiative to assimilate meaningful concepts to his / her prior knowledge and to modify them. As “Piaget is not concerned with the individual or with those differences that distinguish one person from another” (Bliss, 1993, p.31) and “describes universal stages that are identical for all children as a function of age” (Vygotsky, 1979, p.125), Vygotsky’s belief differs from that of Piaget since L. S. Vygotsky (1979, p.125) defends that “a functional learning system of one child

may not be identical to that of another" because "there may be similarities at certain stages of development."

Learner Autonomy

As the Chinese proverb "give a man a fish and you feed him for a day; teach a man to fish and you feed him for a lifetime" implies, learner autonomy qualifies students for being responsible for their own learning instead of asking or depending on somebody (in this context; teacher).

"The concept of learner autonomy was first introduced into the ongoing debate about L2 learning and teaching by Henri Holec in a report published by the Council of Europe in 1979" (Holec, 1981; cited in Ahmadzadeh and Zabardast, 2014, p.50). For Learner Autonomy, P. Benson (2011, p.10) gives a depiction as:

> "*Autonomy, or the capacity to take charge of one's own learning, was seen as a natural product of the practice of self-directed learning, or learning in which the objectives, progress and evaluation of learning are determined by the learners themselves*."

Adapting and simplifying H. Holec's original of learner autonomy, L. Dam (2008, p.13) defines it as:

> "*An autonomous learner is a learner who is willing to take charge of his/her own learning and is capable of doing so. This involves among other things that the learner - independently or together with others - is capable of:*
>
> • *specifying aims and purposes for the work undertaken*
> • *choosing relevant methods, tasks, and materials for the aims*
> • *organizing and carrying out the tasks, and*
> • *choosing criteria for evaluation and applying them.*"

M. E. Llaven-Nucamendi (2014, p.24) states learner autonomy "is seen today as an effective alternative to traditional education that has greatly enriched educational practice." For her, the development of autonomy means that "students have the opportunity to develop their ideas and exercise their abilities to change the world around them" since they "need to be aware of their responsibilities and active in the search for improving their environment" (Llaven-Nucamendi, M. E., 2014, p.25).

***Computer-Assisted Language Learning* (*CALL*) and *Technology-Enhanced Language Learning* (*TELL*)**

Since “the present day generation seems to be born to win with the use of computers”, it can definitely be noticed all over the world that “the strident growth in the rate of people resorting to computational technology for anything and everything in their lives” (Jose, 2014, p.43). For this reason, that “creation of innumerable new vistas of information and knowledge at the fingertips of the present day generation by the accessibility and availability of the computers” has led to “new challenges to the old concepts of educational approaches” (Jose, 2014, p.43). As C. P. Jose (2014, p.44) identifies no matter if it is named *Computer-Assisted Language Learning* (***CALL***) or *Technology-Enhanced Language Learning* (***TELL***), it cannot be neglected that “there is increased use of computers for the purpose of learning a language.” The thing that differs CALL from TELL is that “the computer simultaneously becomes less visible yet more ubiquitous” (Patel, 2014).

With the inescapable advancements in technology and the excessive use of it in several areas of our lives, the purpose of facilitating learning has urged teachers to bring new horizons to their understanding of teaching. Hence, throughout years “teachers have incorporated various forms of technology to support their teaching, engage students in the learning process, provide authentic examples of the target culture, and connect their classrooms” (Patel, 2014).

Admitting its exciting nature, P. Hubbard (2009, p.1), however, asserts that “technology changes so rapidly that CALL knowledge and skills must be constantly renewed to stay apace of the field,” and yet he adds “despite this uncertainty, as computers have become more a part of our everyday lives -and permeated other areas of education- the question is no longer whether to use computers but how.”

The aspects using technology in classes improve are itemised by P. Hubbard (2009, p.2) as follows:

> • “*learning efficiency: learners are able to pick up language knowledge or skills faster or with less effort;*
> • *learning effectiveness: learners retain language knowledge or skills longer, make deeper associations, and/or learn more of what they need;*

- *access: learners can get materials or experience interactions that would otherwise be difficult or impossible to get or do;*
- *convenience: learners can study and practice with equal effectiveness across a wider range of times and places;*
- *motivation: learners enjoy the language learning process more and thus engage more fully;*
- *institutional efficiency: learners require less teacher time or fewer or less expensive resources.*"

In this regard, this study is influential for the reason that it provides important information about the benefits and hindrance of applying 'flipped classroom' to teach English grammar in the view of these instructional theories of learning.

1.3 Aim of the Study

This study is primarily aimed at providing English teachers in Turkey with further information by presenting potential advantages and disadvantages of Flipped Learning Model for teaching grammar since it is crucial to inform the teachers who intend to reverse their classes about both positive and negative impacts of the model on high school students. In the light of this purpose, this research focuses on not only examining the achievements of students but also giving a real insight about their perceptions.

1.4 Research Questions

In consideration of the primary focus research question "what are the effects of Flipped Learning Model in teaching English grammar in terms of attitude and achievement?" that led this inquiry, some sub questions were developed:

1. Is there a statistically significant difference in the pre- and post- test results of the students in the experimental group after the treatment of Flipped Learning Model?

2. Is there a statistically significant variation in the pre- and post- test grades of the students in the control group after teaching grammar in a traditional way?

3. Is there any significant difference in the scores of the students in the experimental and control groups before and after applying Flipped Learning Model in teaching grammar?

4. What are the students' attitudes towards Flipped Learning Model in learning grammar in the experimental group?

1.5 Assumptions of the Study

In this study all the participants from both the experimental and the control groups are assumed to have the same educational background and that the ones from the experimental group have not been taught English grammar using flipped instruction before the investigation.

1.6 Limitations of the Study

Notwithstanding cautions taken in order to ensure the validity and reliability of the research in the process of preparing and conducting it, some limitations were unavoidably encountered. First, the research was carried out on a small number of participants since the class sizes of both groups were not large enough. Nonetheless, this study within a small group can provide a good deal of implication and a good base for further and extensive researches. Second, as the school where the research was undertaken accepts only high-quality students, the former education of the participants might have affected the results related to their success. Third, the evaluation of the participants' attitude towards Flipped Learning Model may not have been truly accurate considering the fact that their classroom teacher was also the researcher, and thus, they may have wanted to provide only positive feedback for their teacher's study.

Regardless of the limitations mentioned above, the anonymity and privacy of the participant information were well preserved as stated in the letter of permission for the research.

1.7 Definitions of Key Terms

Flipped Learning Model: An instruction model that prepares students for the actual learning in class with the help of pre-prepared videos assigned for the study at home, and that allocates the class time for the practice of the related subject.

Traditional Education: Also known as back-to-basics, conventional education, customary education or chalk-and-talk lecture (Becker and Watts, 1996; cited in Lage, et al., 2000), traditional teaching is based on rote learning and memorization with a focus on basic (mostly receptive) skills.

Instructional Videos: Video used to illustrate a key point or provide another channel of information. (Retrieved from http://personal.psu.edu/bxb11/MMinEd/MMinEd6.html)

Video Lectures: A video lesson or lecture is a video which presents educational material for a topic which is to be learned. The format may vary. It might be a video of a teacher speaking to the camera, photographs and text about the topic or some mixture of these. (Retrieved from http://www.wikizero.biz/index.php?q=aHR0cHM6Ly9lbi53aWtpcGVkaWEub3JnL3dpa2kvVmlkZW9fbGVzc29u)

Information and Communication Technologies: "The term is an extensional term for information technology (IT)" (Retrieved from http://www.wikizero.biz/index.php?q=aHR0cHM6Ly9lbi53aWtpcGVkaWEub3JnL3dpa2kvSW5mb3JtYXRpb25fYW5kX2NvbW11bmljYXRpb25zX3RlY2hub2xvZ3k), and it covers all devices, networking components, applications and systems that enable people to interact in the digital world. (Retrieved from https://searchcio.techtarget.com/definition/ICT-information-and-communications-technology-or-technologies)

Millennials / Digital Natives: Even though these terms do not refer to a specific generation, they are used to call the individuals who are born and raised in the era of technology. "This exposure to technology in the early years is believed to give digital natives a greater familiarity with an understanding of technology" (Retrieved from https://www.techopedia.com/definition/28094/digital-native).

Digital Immigrant: This term is used to name the individuals who are born after the spread of digital technology or who are not exposed to it in the early years of their lives. Compared to *digital natives*, they do not have strong interaction with technology from childhood (Retrieved from https://www.techopedia.com/definition/28139/digital-immigrant).

Vodcast: "A podcast consisting of video recordings, instead of solely audio" (Retrieved from https://en.wiktionary.org/wiki/vodcast).

Screencast: "A screencast is a digital recording of computer screen output, also known as a video screen capture" (Retrieved from http://www.wikizero.biz/index.php?q=aHR0cHM6Ly9lbi53aWtpcGVkaWEub3JnL3dpa2kvU2NyZWVuY2FzdA)

CHAPTER TWO

REVIEW OF LITERATURE

Educators have always striven to find out an explicit way to clarify their major concern; '*teaching*', and accordingly, for them, 'what to teach', 'how to teach' and 'where to teach' are the three basic merits needed to be discussed prior to the provision of '*teaching'*. Considering the fact that every educator, in his / her own field, has the answers to the two of these questions; what and where, it comes as no surprise that, in order to use in their classes, they go through all the resources supplied to discover the model, approach or technique which can be counted as 'the best'. On this account, in order to achieve their idealistic purpose of maximizing learning, they follow quite many directions for engaging their students in lessons, using a diverse range of items in classes, increasing teacher-student and student-student interaction, and making every single student responsible for their own learning process by putting the onus on them. Thus, here comes '*Flipped Learning Model*'.

2.1 Meaning of Flipped Learning Model

It is high time the conventional education system was reformed to be more compatible with today's kids, also known as "millennials" (Roehl, et al., 2013) or "digital natives" (Prensky, 2001), and up-to-date technological utilities in present world since traditional classrooms are highly believed to consist "of long lectures and demonstrations by the teacher, with application of learned concepts done through homework assignments, tests, exams and projects" (Murphy, 2011). These are the places where students are mainly taught to learn and memorize the information without considering the relevance of the information to anything else, and they are oftentimes asked to reproduce the information solely during the assessments to present what or how much they learn (King, 1993; Harris, et al., 2016). A. King (1993, p.30), here, argues that "such a view is outdated and will not be effective for the twenty-first century, when individuals will be expected to think for themselves, pose and solve complex problems, and generally produce knowledge rather than reproduce it." In her article, M. Jacobsen (2010) supports King's idea saying that "learning is more than memorization and recall; it is an active, situated, and engaged process of making meaning, interpretation, and developing deep understanding," and she adds "teaching is more than information delivery; engaged teaching involves the design and support of rich learning

experiences." The need of alteration in this ordinary system has necessitated a dissimilar perspective, hence looking at it from a different angle has brought about a change in the manner, which helps educators do a hand-stand in their styles of teaching because in a flipped classroom "the teacher uses 'You Do', 'We Do', 'I Do'." However, "the traditional classroom has utilized the 'I Do', 'We Do', 'You Do' as a strategy for teaching for years" (Schmidt and Ralph, 2016, p.1).

Flipped Learning Model, as its name stems from '*to flip'*, is "a learning and teaching approach that turns the traditional classroom on its head" (NTU, 2013, p.1), in other words, it "turns the traditional classroom *upside-down*" (Harris, et al., 2016, p.327). Its root is based on reversing "the classroom / homework paradigm" (Overmyer, 2012, p.46), "the traditional lecture-plus-homework formula" (Arnold-Garza, 2014, p.10) or "inside and outside classroom activities" (Alsowat, 2016, p.109). As B. Bennett, et al. (2011) express in their article, "the order of the *lecture* and *homework* components of the class are, well – flipped." By this way, "instead of listening to lectures at school and doing problems at home, students in a flipped classroom watch videotaped lectures at home (perhaps taking notes or working sample problems), then work through problems and exercises at school" (Baker, 2012), which ensures that "they (students) spend in-class hours practicing and mastering the learning objectives" (Han, 2015, p.100). With the help of this change, this model "consists of two parts: interactive group learning activities inside the classroom, and direct computer-based individual instruction outside the classroom" (Bishop and Verleger, 2013). In a general overview, *Flipped Learning Model* is accepted as "a pedagogical model in which the typical lecture and homework elements of a course are reversed" (Educause, 2012). As the introducers of the term '*inverted classroom*', M. J. Lage, et al. (2000, p.32) state that "inverting the classroom means that events that have traditionally taken place *inside* the classroom now take place *outside* the classroom and vice versa." In Flipped Learning Network (FLN, 2014a, p.1), *Flipped Learning Model* is described as:

> "*A pedagogical approach in which direct instruction moves from the group learning space to the individual learning space, and the resulting group space is transformed into a dynamic, interactive learning environment where the educator guides students as they apply concepts and engage creatively in the subject matter.*"

This influential model is basically attributed to two high school chemistry teachers (Arnold-Garza, 2014), A. Sams and J. Bergmann (2012a, p.13), who

define it specifying that “which is traditionally done in class is now done at home, and that which is traditionally done as homework is now completed in class.”

When A. Sams (2012a, p.5) posed the question “what if we prerecorded all of our lectures, students viewed the video as *homework*, and then we used the entire class period to help students with the concepts they don't understand,” a tiny spark of curiosity flared within him and his colleague J. Bergmann.

2.2 History of Flipped Learning Model

The idea that gave birth to this model lies behind the need for the presence of the educator. Because of some problems that A. Sams and J. Bergmann’s students had such as heavy schedule, being involved in extracurricular activities, falling behind with schoolwork, struggling in classes, missing the school, and so on, they simply decided to “address the needs of students” in order to “personalize the students’ education” (Bergmann and Sams, 2012a, p.2). Since they were friends, and, as teachers, had several things in common, they got determined to work out how to improve the quality of their teaching and the competence of their students. Seeing an article on a software that made it probable for a PowerPoint slide show to be captured on a video, which could be uploaded and shared online, they realized how advantageous it would be for their purpose. The videos, soon, were appreciated by not only the ones who missed the class, but the ones who wanted to revise their studies. As B. Tucker (2012, p.82) says “they, too, used the online material, mostly to review and reinforce classroom lessons.”

The conclusion could be quite well summarized with A. Sam’s expression “the time when students really need me physically present is when they get stuck and need my individual help. They don’t need me there in the room with them to yak at them and give them content; they can receive content on their own” (Bergmann and Sams, 2012a, p.2). Having grasped the significance of assigning homework-videos that teach topics instead of lecturing lessons in classroom, they thought that “class time could be used for expanding upon the content through collaborative learning and mastery concept exercises” (Pappas, 2013). Subsequently these two high school chemistry teachers, A. Sams and J. Bergmann “became dedicated to prerecording their direct instruction for review outside the classroom, leaving class time for more meaningful learning activities and increased focus on more difficult concepts” (Bergmann and Sams, 2014; cited in Jacot, et al., 2014, p.23).

While A. Sams and J. Bergmann (2013/2014) state in their article “we began using teacher-created video as an instructional tool in 2007, and we have since been regarded as some of the pioneers of the flipped classroom,” they also acknowledge that their classes were composed of inquiry-based learning and projects before flipping, they could be the pioneers or proponents of the model but not the first users of vodcasts or screencasts as instructional tools, there are educators who call their classes ‘*flipped*’ use some different educational tools but not videos, and last but not least, they did not invent the term ‘*flipped classroom*’ as well as it belongs to no one (Bergmann and Sams, 2012a). Considering A. Sams and J. Bergmann as the initiator and first advocator of *Flipped Learning Model* does not put an end to the story of its commencement. As K. Ash (2012, p.6) states in her article “the movement was inspired partly by the work of Salman Khan,” with his collection of free educational videos that cover a variety of lessons, named Khan Academy, which is deemed to be “a touchstone of the flipped-classroom technique.”

At the outset, Sal Khan, with the aim of teaching his cousins some techniques of math, began recording his videos and sharing them online for his cousins to access. Instead of keeping the videos secret, he decided to publicize them and therefore founded Khan Academy in 2005. The organization has yielded an enormous amount of educational videos in the form of YouTube and it helps both educators and learners with its videos and supplementary materials. Although the content on the website is mainly in English, the resources are made accessible in other languages thanks to the team working for the academy (Makice, 2012; Khan Academy; Wikizeroo). For this reason, Khan Academy is considered to be “one of the most telling indicators for the future of flipped learning and its potential for use in training and development” (Jacot, et al., 2014, p.25).

At that point, in 2012, it was inescapable for A. Sams and J. Bergmann to set up a network named Flipped Learning Network (FLN), which is “the original non-profit online community for educators utilizing or interested in learning more about the flipped classroom and flipped learning practices” (FLN, 2014b). Some functions of the network are to establish a link between them and educators all around the world, to supply support for each other through shared experiences, to share resources with everyone in that community of FLN (Filiz and Benzet, 2018; FLN, 2014b).

2.3 Background of Flipped Learning Model

"The flipped classroom pulls together a number of instructional techniques" (Fulton, 2012; p.23), so *Bloom's Taxonomy*, *Constructivism*, *Learner Autonomy* and *Computer-Assisted Language Learning* (*CALL*) *and Technology-Enhanced Language Learning* (*TELL*) are the primary ones that adverted to under this title.

2.3.1 Bloom's Taxonomy

The Taxonomy of Educational Objectives was pioneered by Benjamin S. Bloom who expected to lower the overwhelming work of assessment preparation. He thereupon compiled a list of educators who had encountered similar problems, and they agreed to contribute to preparing a scheme with his team through attending conferences held between 1949 and 1953. He and his several colleagues developed *The Taxonomy of Educational Objectives*, which is also called as *Bloom's Taxonomy* on the grounds of B. S. Bloom's precious and influential effect on the processes of teaching and learning. In 1956, they published their work titled *Taxonomy of Educational Objectives: The Classification of Educational Goals. Handbook I: Cognitive Domain* (Bloom, et al., 1956). And years later, Lorin Anderson, one of B. S. Bloom's students, modified the original taxonomy with some minor changes such as names and categories, the function of it, yet, remains the same (Coffey, 2008). B. S. Bloom et al. (1956, p.1) identify the goals of the taxonomy noting "it is intended to provide for classification of the goals" and "it is expected to be of general help to all teachers, administrators, professional specialists, and research workers who deal with curricular and evaluation problems." There is no doubt that it is a quite practical tool to see "how learning should be structured and supported" (Marquis, 2012).

B. S. Bloom et al. (1956) precisely explain in their book that, *The Taxonomy of Educational Objectives* is comprised of three domains: *the cognitive domain* (knowledge-based), *the affective domain* (emotion-based) and *the psychomotor domain* (action-based). B. S. Bloom identifies six levels for the cognitive domain, which has been the core subject matter of educators to form "curriculum learning objectives, assessments and activities" (Wikizeroo), and these are '*knowledge*, *comprehension*, *application*, *analysis*, *synthesis*, and *evaluation*,' "with sophistication growing from basic knowledge-recall skills to the highest level, evaluation" (Coffey, 2008, p.1). That is to say, "the taxonomy works like a series of steps that help learners ascend to higher order thinking by building on previous

skills" (Marquis, 2012). In other words, in *knowledge level* the emphasis is on recalling the information which moves on with understanding that information in *comprehension level*, the information is then required to be applied in new ways in *application level* and to be analyzed to differ it from its parts in *analysis level*, for the top two levels, that represent complex and abstract levels of thinking, first the creation of new information in *synthesis level* and the judgement of the information with supporting decision in *evaluation level* are important (Bloom, et al., 1956; Krathwohl, D. R., 2002).

In regard to Bloom's taxonomy, instead of wasting valuable class-time on "lower-order thinking" (Tucker, C., 2013, p.10), *Flipped Learning Model* enables learners to spend class time to place more emphasis on "the higher forms of cognitive work" (Brame, 2013). Taking the knowledge and comprehension levels (gaining, acquiring and understanding the information) out of the classroom and studying it via instructional videos in advance of class leave more time for educators to focus on scaffolding learning in the classroom. J. LeCornu (2015, p.17), sharing his experiences in his article, cautions readers indicating "the video content is just the tool that makes flipped learning possible – it is certainly not the focus. The focus is on the use of class time." In an explicit way, N. Hamdan, et al. (2013a, p.8) explain the link between Bloom's taxonomy and *Flipped Learning Model* like this:

> "*In the flipped classroom, the teacher moves lower levels of the taxonomy to outside of the group learning space, where students can then work on mastering concepts on their own time and pace. When using video, for example, students can pause, rewind, and review the lesson at any time. In class, the teacher and students can then focus on the upper levels of the taxonomy (applying, analyzing, and creating). This has potential to allow struggling learners more opportunities to understand and improve their recall before they come to class*."

In addition to this, J. Bergmann (2017) interprets the connection between Bloom's taxonomy and *Flipped Learning Model* as:

> "*In a traditional classroom, the lower tiers of Bloom's Taxonomy are done in class and students are sent home to climb their way to the top of the taxonomy by completing practice problems, projects, and papers on their own time without an expert present to help. In a flipped classroom, the lower tiers of Bloom's Taxonomy are delivered to the individual learner outside of the class, so all students*

can engage in higher-order thinking during class with their peers and an expert present."

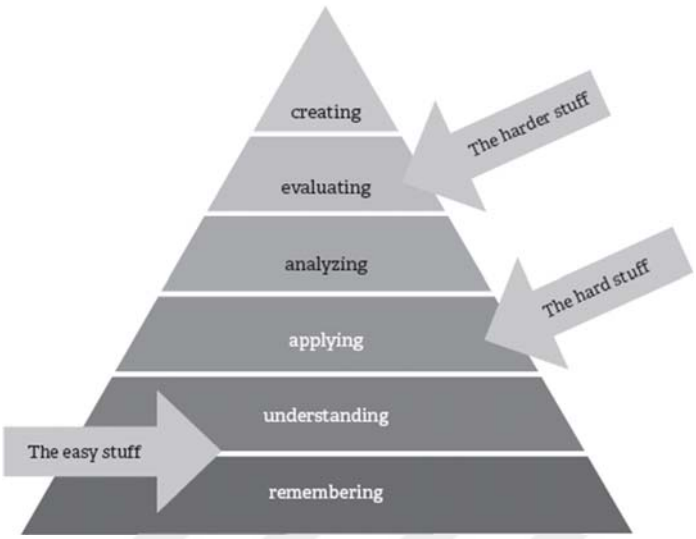

Figure 2.1
Bloom's Taxonomy, Easy / Hard (Anderson 2001; cited in Bergmann, 2017)

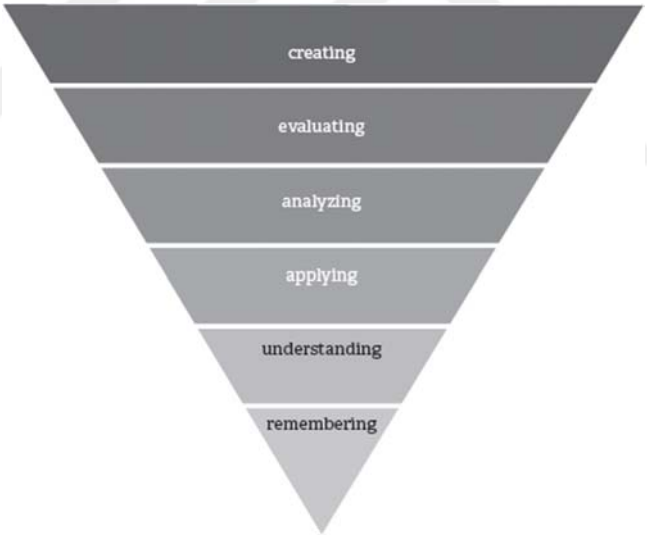

Figure 2.2
Bloom's Taxonomy Inverted (Bergmann, 2017)

As the order of the tiers are reversed and Bloom's taxonomy is turned bottom-up, learners get to be accountable for their own learning, which leads to the emergence of constructivist approach in classroom.

2.3.2 Constructivism

Flipped Learning Model is also based on discovering one's own learning by trial and error on the grounds that "a person's constructions are true to that person but not necessarily to anyone else" (Schunk, 2012, p.230) inasmuch as

“learning becomes more meaningful when students explore their learning environments rather than listen passively to teachers” (Schunk, 2012, p.267) and “when students are engaged in actively processing information by reconstructing that information in such new and personally meaningful ways, they are far more likely to remember it and apply it in new situations” (King, 1993, p.30). This epistemology is called ‘*constructivism*.’

Because “constructivism does not propound that learning principles exist and are to be discovered and tested, but rather that learners create their own learning” (Schunk, 2012, p.230), “knowledge is not imposed from outside people but rather formed inside them” (Schunk, 2012, p.274). Furthermore, “constructivism emphasizes integrated curricula and having teachers use materials in such a way that learners become actively involved” (Schunk, 2012, p. 235) since the theory “contends that learners form or construct their own understandings of knowledge and skills” (Schunk, 2012, p. 276). For the reasons mentioned here, “constructivism requires that we structure teaching and learning experiences to challenge students’ thinking so that they will be able to construct new knowledge” (Schunk, 2012, p.274). With its distinctive features, “the constructivist model,” contrary to the “transmittal model” which is depicted as “lecture-note-taking scenario,” puts the focus and onus on students since they are placed “at the center of the process” to be active participants for their learning to make it meaningful for themselves (King, 1993). Hence “the traditional classrooms are mostly teacher-centered which is in conflict with the constructivist approaches to learning and teaching” (Brooks, 2002; cited in Basal, 2015, p.29).

On this subject matter, J. Piaget and L. Vygotsky have significant roles with their contributions to the theories of learning. While Piaget’s theory of cognitive constructivism “stresses equilibration, or the process of making internal cognitive structures and external reality consistent,” Vygotsky’s sociocultural theory places a heavy emphasis on the role of social factors in learning (Schunk, 2012, p. 276). That is, on one hand, for Piaget “an individual’s reactions to experiences lead to (or fail to lead to) learning” (Prince and Felder, 2006, p.125) because “experiences enable them (learners) to create schemas or mental models in their heads” (Eppard and Rochdi, 2017, p.37). On the other hand, Vygotsky supports the idea that “language and interactions with others –family, peers, teachers– play a primary role in the construction of meaning from experience” (Prince and Felder, 2006, p.125), thus “learning occurs when a student works either with a more skilled adult or peer to solve problems that are just beyond her / his actual abilities” (Eppard

and Rochdi, 2017, p.36) because by this way, “meaning is not simply constructed, it is co-constructed” (Prince and Felder, 2006, p.125).

All things considered, as A. Basal (2015, p.29) suggests, it is quite probable to claim that *Flipped Learning Model* “applies the constructivist approach in which students take responsibility for their own learning; class time is free from didactic lecturing, allowing for a variety of activities, group work, and interactive discussion.” Agreeing, M. T. Jacot et al. (2014, p.24) say that *Flipped Learning Model* “embodies the constructivist ideology, with the classroom emerging as a creative hub for learners engaged in meaningful activities that are focused on achieving mastery of skills and concepts, rather than simply providing coverage of them.”

2.3.3 Learner Autonomy

Another theory that *Flipped Learning Model* depends on is *learner autonomy*, the initiator of which is attributed to Henri Holec who is regarded as the inventor of the phrase ‘*learner autonomy*’ as well. He gives a description of autonomy as “the ability to take charge of one's own learning” (Holec, 1981, p.3; cited in Benson, 2006b, p.22). P. Benson (2006a, p.1) defines autonomy as it is “about people taking more control over their lives – individually and collectively” and additionally, he notes “autonomy in learning is about people taking more control over their learning in classrooms and outside them.” About autonomy in language learning, he states that it is “about people taking more control over the purposes for which they learn languages and the ways in which they learn them.” On the other hand, D. Little (2003) says that ‘*learner autonomy*’ is both “a problematic term because it is widely confused with self-instruction” and “a slippery concept because it is notoriously difficult to define precisely.” He questions it as in the following:

> *“Whether learner autonomy should be thought of as capacity or behaviour; whether it is characterised by learner responsibility or learner control; whether it is a psychological phenomenon with political implications or a political right with psychological implications; and whether the development of learner autonomy depends on a complementary teacher autonomy.”*

D. Nunan (2003, p.196-202) asserts that there are nine steps to learner autonomy and successively these are, presenting clear goals for learners, letting learners determine their own goals, encouraging the use of the second language

outside the classroom setting, making learners aware of their learning processes, supporting learners in finding out their choice of styles and strategies, encouraging learners to decide, enabling learners to develop their tasks, inspiring learners to become educators, and providing learners with confidence to become researchers. Taking these stages into consideration, it can simply be specified that, by its nature, *Flipped Learning Model* supplies learners with the needs for being an autonomous learner. Agreeing, Y. J. Han (2015, p.105) gives a vivid depiction of flipped classroom as its structure "requires students to be actively engaged in learning in parallel with leaner training, the development of learner autonomy could be observed."

A. Sams and J. Bergmann (2013, p.17) enlighten their readers on *Flipped Learning Model* indicating "the pedagogy underlying flipped learning is nothing new" since learners have always been asked to be prepared before attending the lesson, so they include that the model "simply leverages new technology to provide an audio-visual option to students as they prepare for class. More important, it redefines class time as a student-centered environment."

2.3.4 Computer-Assisted Language Learning (CALL) and Technology-Enhanced Language Learning (TELL)

The last primary learning theories that *Flipped Learning Model* originated from are *Computer-Assisted Language Learning* (*CALL*) and *Technology-Enhanced Language Learning* (*TELL*). As M. Webb, et al. (2014, p.54) indicate in their study, "Computer-Assisted Language Learning (CALL) and Technology-Enhanced Language Learning (TELL) are 21st century educational techniques used to improve language learning, involving students in authentic tasks that they use in their daily lives." "Today's students are no longer the people our educational system was designed to teach" (Prensky, 2001, p.1) since they are born into a technological age and grow up in a world that is surrounded by all the devices that, for them, are adequate for many things, such as communicating with their peers around the globe, getting online education, gaining information about or having access to anything and everything and, more importantly, anywhere and everywhere. In this manner, it will not be wrong to bring forward that millennial students, who are also called as "digital natives" (Prensky, 2001)**, "**have been exposed to information technology from a very young age" for their "access to technology, information, and digital media is greater than that of any prior generation" (Roehl, et al., 2013, p.44). At this point, the danger for "digital

immigrants" or "digital immigrant instructors" (Prensky, 2001) cannot be avoided. Because they are "fascinated by and adopted many or most aspects of the new technology" and "struggling to teach a population that speaks an entirely new language," there emerges one tricky question "should the Digital Native students learn the old ways, or should their Digital Immigrant educators learn the new" (Prensky, 2001, p.3)?

It is an obvious fact that "technology plays a very important role in reforming education from conventional to technology-based learning" (Halili and Zainuddin, 2015, p.15) and therefore "if *Digital Immigrant* educators *really* want to reach *Digital Natives* – i.e. all their students – they will have to change" (Prensky, 2001, p.6). C. A. Barone (2003, p.42) gives a depiction of today's children as:

> "*Today's students are accustomed to using technology to organize and integrate knowledge. These students are polite, but also bewildered at first, later disappointed, and often finally disillusioned and dispirited by passive learning experiences.*"

So as to satisfy this new breed of student educators are in search for new models and tools to combine with their preferred teaching strategy in consideration of creating more stimulating and intriguing learning environments for their students as "this digital world calls for changed mind-sets about schooling, teaching, learning, and assessment – and engaged teaching matters more than ever" (Jacobsen, 2010). It can be undoubtedly stressed that "rapid acceptance of, and changes in, information technology are revolutionizing the way educators teach and students learn" (Wells, et al., 2008, p.503) and moreover "with advances in internet and communications technology, it is becoming easier for educators to offer dynamic multi-media educational resources" (Ouda and Ahmed, 2016, p.418). C. A. Barone (2003, p.42) proves it saying "technology enables the design of learning situations that actively engage and guide the learner while allowing the learner to choose the style of the learning experience and to organize the knowledge outcomes."

These result in the urge of technology to be "combined with a new type of pedagogy" (Prensky, 2010, p.17). A. Basal (2015, p.29) calls for the attention specifying that "one method for incorporating technology like videos is the *flipped* or *inverted* classroom, which brings an innovative perspective to traditional lectures." For *Flipped Learning Model* utilizes technology, mostly teacher-created videos, "to leverage learning in a classroom so a teacher can spend more time

interacting with students instead of lecturing" (Overmyer, 2012, p.46), and as a result, this allows "for more individualised instruction in the sessions and will enable students have access to content in the future, for review or other references when needed" (NTU, 2013, p.2). Thus it can be simply pointed out that "technology's power in the flipped classroom provides teachers with constant assessment information on each student's unique needs" (Craven, 2013, p.4).

Considering "three main factors: accessibility, convenience, and synthesis" (Jacot, et al., 2014, p.24) of information technology which *Flipped Learning Model* is premised on, it is not unexpected that the model "takes CALL and TELL one step further – shifting the physical location of the classroom to anywhere an Internet or Wi-Fi connection exists, be it a café, a library, a bus, or even a beach" (Webb, et al., 2014, p.54).

According to B. Honeycutt (2013), FLIP stands for **F**ocusing on your **L**earners by **I**nvolving them in the **P**rocess. Along with this, just as the four elements that form the universe, there are four pillars that are the key principles that make *Flipped Learning Model* emerge. Understanding the base of something thoroughly entails comprehending the constituent of it step by step.

2.4 Four Pillars of Flipped Learning Model

Flipped Learning Model bears nearly no resemblance to the Traditional Learning Model, which requires students to "sit in nice neat rows, listen to an *expert* expound on a subject, and recall the learned information on an exam" (Bergmann and Sams, 2012a, p.6). Yet, a classroom where *Flipped Learning Model* is implemented "may appear chaotic, loud, or even messy at first glance;" however, "the action and collaboration taking place in this non-traditional classroom is a direct result of student learning" (Pappas, 2013). There are a number of distinctive features found that lead *Flipped Learning Model* to be unique.

According to C. J. Brame (2013), reviewing the assigned topic beforehand "provides an opportunity for students to gain first exposure prior to class," some materials for practice, together with the material that teach the topic, supply "an incentive for students to prepare for class," thus the pre-class assignments give an insight to the instructor since it "provides a mechanism to assess student understanding," and more importantly, receiving the first recognition of the knowledge ahead of the class "provides in-class activities that focus on higher level cognitive activities."

Flipped Learning Model does not form a set of rules nor does it yield an explicit methodology, yet the model "establishes a framework that ensures students receive a personalized education tailored to their individual needs" (Bergmann and Sams, 2012a, p.6). In order to avoid misunderstandings, a team of educators, from Flipped Learning Network (FLN), who are experts and experienced in *Flipped Learning Model* came together and classified the main components of the model. By differentiating between a Flipped Classroom and Flipped Learning, they propose that "these terms are not interchangeable. Flipping a class can, but does not necessarily, lead to Flipped Learning," and they exemplify this by explaining "many teachers may already flip their classes by having students read text outside of class, watch supplemental videos, or solve additional problems," yet adopting Flipped Learning necessitates teachers to "incorporate (the following) four pillars into their practice" (FLN, 2014a, p.1).

Figure 2.3 Four Pillars of Flipped Learning Model (Walsh, 2016)

For Flipped Learning Network (FLN, 2014a, p.2), each letter stands for one pillar, that is to say, ***F****lexible Environment*, ***L****earning Culture*, ***I****ntentional Content*, and ***P****rofessional Educator*. As it is specified by Flipped Learning Network (Hamdan, et al., 2013a, p.5; Hamdan, et al., 2013b, p.4-5; FLN, 2014a, p.2), *Flexible Environment* identifies different approaches to learning, which means the educator needs to be flexible in terms of both arranging individual or group work and letting their students decide on the time and place for their own study. With the sharp shift in its *Learning Culture*, the model enables the educators to allot the class time to a better depth of understanding with a rich variety of opportunities, as opposed to the teaching and learning environment in traditional teacher-centered model. In order to "develop conceptual understanding, as well as procedural fluency," the educators are responsible for choosing the materials *Intentional Content* for both pre-class and in-class works. In spite of the fact that in *Flipped Learning Model*, the focus is more on some qualities such as students, videos,

technological devices, and so forth, *Professional Educators* have an undeniably significant role with regard to their reflection in their practice, connection with their peers and students, acceptance of criticism, tolerance for the mess in classroom.

"A flipped classroom really starts with one simple question: What is the best use of your face-to-face class time? Since each teacher will answer that question in a different way, there is no such thing as one definition of the flipped classroom" say A. Sams and J. Bergmann (2013/2014, p.24). In the light of this saying, 'how to apply *Flipped Learning Model* in classes', 'what should be considered before doing so' and 'the steps to follow for it' are a few queries about the model can unavoidably emerge at this point.

2.5 How to Implement Flipped Learning Model in Classes

As *Flipped Learning Model* with its innovative mode of teaching reverses the way classes are introduced, lessons are taught and information is presented radically, the implementation of it in classes must be distinctive in comparison to a more conventional model.

A thorough description of a '*traditional classroom*' is given in the report of Creative Classroom Lab project at University of Minho (2013, p.4), as:

> "*A place where the teacher presents and explains content whilst students listen to and note down all the information provided. The class is usually teacher centered, though one can have a more dialogic approach with the students, depending on one's own perspective. Routinely, in the classroom, all students have to do the same activities, based on the resources available in the classroom and following the same pace and the one established by the teacher. Sometimes, the teacher provides some homework tasks, or asks for exercises to be completed outside the classroom, to reinforce knowledge or elicit further questions*."

When the conventional instruction is inverted, rather than acquiring new knowledge via lecture in the classroom and practicing it at home via homework, students are asked to do the opposite (Hsieh, et al., 2017). Thus, "the classroom becomes the place to *do* the assignments" (Bray, 2013, p.19) by freeing up the time in class in order to use it to "work through problems, advance concepts and engage in collaborative learning" (Tucker, B., 2012, p.82). In this respect, *Flipped Learning Model* contributes to "the traditional lecturing classroom concept, creating

classes where students are highly engaged in an active and participatory learning" (Creative Classroom Lab project at University of Minho, 2013, p.5).

As L. M. Gojak (2012) notes "the question is not whether to flip, but rather how to apply the elements of effective instruction to teach students both deep conceptual understanding and procedural fluency." When plainly put into words, in this model, students are provided with the instructional material, mostly video lectures such as vodcasts and screencasts, in advance of the lesson, and are expected to be prepared for the class they are to attend. In scheduled class time, though, they are given the opportunity to form groups and to practise the thing(s) they learn on their own with their peers and teachers. In this way, they take on the responsibility for their own study, and face-to-face time in class allows a great occasion for the students to establish a strong interaction with their peers and teachers since class work is allocated for more engaging activities that require preparation beforehand. Furthermore, the things that may cause misunderstanding during their isolated study time via, mainly, video lectures, either created by their instructor or supplied online, could be easily resolved by their teacher in the course of class time through several activities, such as discussions, debates, problem-solving and hands-on practices (Baker, 2012; Bennett, et al., 2011; Milman, 2012; Overmyer, 2012; Shimamoto, 2012; Bergmann and Sams, 2013/2014; Bishop and Verleger, 2013; Marshall, 2014; Arnold-Garza, 2014; Webb, et al., 2014; Han, 2015; Harris, et al., 2016; Ouda and Ahmed, 2016; Wang, 2017; Lee and Wallace, 2018).

Table 2.1

Traditional Classroom vs. Flipped Classroom (Bergmann and Sams, 2012a, p.15)

Traditional Classroom		**Flipped Classroom**	
Activity	**Time**	**Activity**	**Time**
Warm-up activity	5 min.	Warm-up activity	5 min.
Go over previous night's homework	20 min.	Q&A time on video	10 min.
Lecture new content	30-45 min.	Guided and independent practice and/or lab activity	75 min.
Guided and independent practice and/or lab activity	20-35 min.		

This way of teaching leads to a better and more productive learning environment since it paves the way for “freeing up class time that used to be spent listening to lectures for hands-on activities and application of knowledge, which used to serve as homework” (Ash, 2012, p.6).

Taking the implementation of *Flipped Learning Model* into consideration, according to A. Miller (2012), before flipping the classroom, the particular things that should be thought about are “need to know, engaging models, technology, reflection, time and place.” He believes that educators must first decide on the content they want to flip regardless of the effects of that content on a test or graduation, they thereupon determine what models should be used to support the flipped content. Then, they need to find out the best use of technology in their classroom so as not to face some difficulties caused by the lack or misuse of it. Reflection must be the following point to be estimated. As the last step, appropriate time and place for learners must be considered.

In the opinion of A. Basal (2015, p.33), educators must follow five steps for the application of *Flipped Learning Model*. In his own words, the points are outlined as:

> “*The first step for teachers is planning in detail what will happen in each environment. The second step is selecting a variety of appropriate activities that address the needs of all learners. Such an approach may provide rich learning opportunities for students with different learning styles. The third step is to determine how to integrate tasks and activities that occur in both environments. This step is especially important since a flipped classroom is intended to be a blended approach. Therefore, no part can be planned or implemented separately. The fourth step is to use a learning management system (LMS), presenting all activities in an organized way. An LMS is an integral part of flipped classroom, because it connects the outside and inside parts like a bridge*.”

Because some of the goals of *Flipped Learning Model* can be counted as to yield an alteration in lessons “from consumption to production” (Tucker, C., 2013, p.10) and to personalize education to “reach for each student” (Bergmann and Sams, 2012a, p.7), utilizing digital technologies to change “direct instruction outside of the group learning space to the individual learning space” (Hamdan, et al., 2013a, p.3) is unpreventable. Touching upon technology, specifically videos, and its use in this model, M. Webb, et al. (2014, p.54) support that “flipping the classroom involves much more than adding technology and out-of-class video

activities to your lessons; it requires both teachers and students to *flip* the way they fundamentally view education." Therefore, evaluating *Flipped Learning Model* basically as a way of bringing technology into classroom may not be a sufficient explanation, seeing that in education technology should be considered "more than a tool;" since "it supports deep and engaged learning, simultaneous articulation, creation, and reflection in participatory social networks and dynamic ecosystems" (Jacobsen, 2010). That is the reason why regarding *Flipped Learning Model* as "all about videos" is not satisfactory, for it is "all about class time" (LeCornu, 2015). Hence, instead of putting a high value on the use of technology; i.e. videos, maximizing the best use in-class time with students must be the focus in this model (Milman, 2012; Bergmann and Sams, 2013; Craven, 2013; Honeycutt and Garrett, 2013). It must be kept in view that *Flipped Learning Model* "is not a synonym for online videos; it is the interaction and the meaningful learning activities that occur during the face-to-face time" (Alsowat, 2016, p.109). In his article, B. Tucker (2012, p.82) advocates this saying "it's not the instructional videos on their own, but how they are integrated into an overall approach, that makes the difference."

Although the model is not only about videos, it has to be admitted that they are quite practical to "present the new topic students must study and explore, as it can be easily distributed online and is accessible from anywhere. In addition, video can be reviewed as often as necessary, at different speeds or in excerpts" (Creative Classroom Lab project at University of Minho, 2013, p.7). The point here is to give students the opportunity "to engage with the new content in a natural way, appealing and motivating their interest" (Creative Classroom Lab project at University of Minho, 2013, p.7).

For the preparation of videos, A. Sams and J. Bergmann (2012a, p.41) mentions four stages: "planning the lesson, recording the video, editing the video, and then publishing the video." For *planning the lesson*, the first thing that comes to mind is to record videos; however, the two high school chemistry teachers warn their readers that '*videos*' are not the most crucial part of the model. To proceed with the following stages, educators should decide on the objective of their lessons and an appropriate instructional tool, i.e. video, to accomplish the educational goal of the lesson, though. With a few devices such as a webcam and a microphone, and some programs such as PowerPoint and Camtasia Studio, educators can simply *record* their lessons on their computer. The most important part that takes more time could be *editing the video* as some adjustments might be necessary in order to make the video better. For the final step, the video must be *published*.

Doing this does not only mean to upload it onto a video channel or blog, but burning the video on a DVD could also be a possibility for the students who do not have internet access. Furthermore, A. Sams and J. Bergmann (2012a) add some valuable tips to make videos attractive; keeping them short, animating voice, creating video with a colleague, adding humour, annotations and callouts, keeping them to the topic, zooming in and out and keeping them copyright friendly are some of them.

According to the initiator of *Flipped Learning Model*, A. Sams and J. Bergmann (2012a, p.47), "despite the attention that the videos get, the greatest benefit to any flipped classroom is not the videos. It's the in-class time that every teacher must evaluate and redesign." By stating so, they call attention to the significance of face-to-face time in classroom. Through this, students can have sufficient time to "create, collaborate, and put into practice what they learned from the lectures they view outside class" (Educause, 2012) "in an open, creative environment" (Murphy, 2011) because "time becomes available for students to collaborate with peers on projects, engage more deeply with content, practice skills, and receive feedback on their progress" (Hamdan, et al., 2013a, p.3). While the purpose that *Flipped Learning Model* is based on is to individualize the education, "it is difficult to appeal to the learning styles of every student in the classroom," this model nevertheless "implements a strategy of teaching that engages a wide spectrum of learners" (Lage, et al., 2000, p.41). D. Spencer, et al. (2011) identify the features of in-class activities as they must be clarified so as to accomplish stated learning objectives, support students to put their work into practice in class and to be both engaging and flexible to help each student for their personalized learning process. They also supply educators with some possible in-class work such as "student created content, independent problem solving, inquiry-based activities and Project Based Learning."

In this manner, the onus on students gets them to take the responsibility for their own learning through watching instructional videos, and for further study visiting course-related websites, listening to recordings or finding some relevant sources (Alsowat, 2016), on the other side, teachers can "provide individualized support" (Hamdan, et al., 2013a, p.4) for each student to ensure their understanding and can "create an interactive inside-classroom environment which enhances pair work, group work, hands-on activities and high-level thinking activities" (Alsowat, 2016, p.109).

In their article, G. Bull, et al. (2012, p.10) remind the readers that magic does not work indicating that “the effectiveness of this approach depends on the skill and pedagogical strategies” and it is not probable to “magically transform an ineffective lecture by transferring it to video.” In addition to that he says “the way a flipped classroom may be most effective depends on the context of a class, so there is not a single flipped classroom method. Use and adoption depends on the instructor.”

2.6 Advantages and Disadvantages of Flipped Learning Model

Opinions about *Flipped Learning Model* may naturally differ from one another, and as in every situation, educators may support different notions of it. Whilst some benefit from its advantageous parts, some may find preparation of the videos and face to face interaction in classroom tiring, or some may be of the view that it is a success, and many others might find it a flop.

2.6.1 Advantages

2.6.1.1 Advantages for the Educators

There can be counted several advantages of *Flipped Learning Model* for the educators, and according to A. Sams and J. Bergmann (2012a), these are:

- *Flipping increases student-teacher interaction*

They briefly consider that “flipping the classroom creates an ideal merger of online and face-to-face instruction that is becoming known as a *blended classroom*”. C. Jenkins (2017) agrees with this statement saying “by taking the lecture portion of the classroom home with them, students are able to utilize their teachers' one-on-one attention more successfully in the classroom.” She thinks doing the actual exercises in classroom with the presence of the educator makes them accessible when students have questions because “teachers are available for more one-on-one interaction with students in a flipped classroom” (Pappas, 2013). A. Sams and J. Bergmann (2013/2014, p.24) make this clearer stating that “moving the direct instruction outside of class time frees up more time for teachers to interact one-on-one or in small groups with students. Ideally, a teacher in a flipped classroom is able to talk to every student in every class every day.” The help of the teacher-created videos should not be underestimated because, as K.

P. Fulton (2012, p.22) says “students like having the voice behind the lesson belong to someone with whom they have a personal relationship. This connection strengthens the teacher-student bond that is so important for learning.”

- *Flipping allows teachers to know their students better*

The idea that A. Sams and J. Bergmann (2012a, p.26) advocate here is that “a good teacher builds relationships with students” for “students need positive adult role models in their lives.” For them, learning atmosphere changes when class is flipped since the importance of the educator is removed and placed on the learner, thus it is a quite good way for the educator to observe the learner “both cognitively and personally” (Bergmann and Sams, 2013/2014, p.25). This advantage gives the educator an opportunity to “structure class time to optimize individualized attention to students” (Muldrow, 2013, p.29). By using in-class time effectively and efficiently, teachers can “make meaningful contact with students, observing, guiding, and helping” (Fulton, 2012, p.22).

- *Flipping allows for real differentiation*

“One of the struggles in today’s schools is accommodating a vast range of abilities in each class” say A. Sams and J. Bergmann (2012a, p.28), and although it is possible “to meet the individual needs of learners” (Bergmann and Sams, 2013/2014, p.25), it might be almost improbable to adjust the classes to meet each learning style of every single student specifically in crowded classrooms; however, “with flipping, the teacher is there looking over shoulders as students work on problems in class, where struggles are obvious, and mistakes can be nipped in the bud” so that “doing *homework* in class gives teachers better insight into student difficulties and learning styles” (Fulton, 2012, p.21-22). In that way, struggling students will get the attention they need for their learning process and the ones who quickly understand the content will be able to move on with the next stage (Bergmann and Sams, 2012a). A. Basal (2015, p.29) expresses his idea about this noting “a flipped classroom frees up class time for teachers and presents learning choices to students rather than just informing them in a sit-and-listen format.”

- *Flipping changes classroom management*

Taking in-class instruction outside of the classroom and giving learners chance to study the content on their own time and in their own pace are helpful for

eliminating the distractions in classroom (Bergmann and Sams, 2012a). This certainly creates an atmosphere where learning, rather than teaching, emerges because “the teacher can help one student drill deeper into a subject while providing another with the appropriate support to become successful” (Bergmann and Sams, 2013/2014, p.25). K. P. Fulton (2012, p.22) gives an explicit definition of a flipped classroom as “in the flipped classroom, teachers spend more actual time teaching and facilitating instead of just lecturing. Students learn by doing, and, in the flipped classroom, the doing is happening within a hand-raise of the teacher.” Since learners do not sit during class hours but engage in activities as active participants of the class, flipped classrooms may seem more disordered or uncontrolled but it is the place where actual learning occurs.

- *Flipping changes the way we talk to parents and educates parents*

“Students and parents alike often suffer frustration during homework sessions because they do not understand the material” (Pappas, 2013). Therefore, it has to be acknowledged that parents “become frustrated when they're unable to help a child who brings home an assignment and gets stuck on a problem,” yet when they have the knowledge of the instruction assigned, they “have a window into the coursework” (Fulton, 2012, p.23). The underlying reason of this is that alongside students, parents can capitalize on the videos since they are easily obtainable. As they get more concerned with the help of the instructional tools or through questioning if this model is beneficial, they can understand the value of it and how their children can get to be better learners (Bergmann and Sams, 2012a).

- *Flipping makes your class transparent*

The flexibility and feasibility of technology in the 21st century and its common use for academic and professional reasons lead to the information to be accessible 24/7 for not only the learners of a flipped classroom but also their parents and even others (Fulton, 2012; Bergmann and Sams, 2012a).

- *Flipping is a great technique for absent teachers*

The absenteeism of an educator can be a serious obstacle to learning process, and yet it is something unavoidable because of several reasons, i.e. disease, professional development, personal excuses, etc. Accordingly, A. Sams and J. Bergmann (2013/2014, p.25) point out “creating instructional videos is a great way to prevent students from getting behind.”

2.6.1.2 Advantages for the Learners

Not only the educators but also the learners benefit from *Flipped Learning Model*. According to A. Sams and J. Bergmann (2012a), the advantages for the learners are:

- *Flipping speaks the language of today's students*

Growing up with many different kinds of digital resources, today's kids "can typically be found doing their math homework while texting their friends, IMing on Facebook, and listening to music all at the same time" (Bergmann and Sams, 2012a, p.20). Moreover, being instructed through videos is not something astonishing for them (Bergmann and Sams, 2012a).

- *Flipping helps busy students*

A. Sams and J. Bergmann (2012a, p.22) indicate that "because the main content is delivered via online videos, students can choose to work ahead." By means of the technology and listening to the lecture anywhere and anytime, "absent students in a flipped classroom never miss direct instruction. They will miss out on the engaging in-class activities, but the main content will have been covered on an asynchronously accessible video" (Bergmann and Sams, 2013/2014, p.25).

- *Flipping helps struggling students*

Flipped Learning Model changes the role of both the educator and the learner, and according to D. Berthold (2016), the model "allows the teacher to take a step back, and enhances student discovery by putting the responsibility on the students." In this way, even the struggling students of traditional lecturing will be ready for in-class activities to put what they have studied ahead of the class into practice, which means a more effective learning. Hence, when "the student is struggling with what was traditionally sent home as homework, the teacher is present to help because this higher-order thinking is done in class" (Bergmann and Sams, 2013/2014, p.24).

- *Flipping helps students of all abilities to excel*

This is specifically beneficial for the students with special needs because "all the direct instruction is recorded," by this means "students with special needs

can watch the videos as many times as they need to learn the material" (Bergmann and Sams, 2012a, p.23).

- *Flipping allows students to pause and rewind their teacher*

Expecting learners understand the content within a specific time does not always prove to bring success since educators may move too fast for some and too slowly for others or quick learners could comprehend the points fast and get bored, while the struggling ones take more time to digest (Bergmann and Sams, 2012a). In order to eliminate the risk, through watching instructional videos and getting ready for the class at home, "a strong student can breeze through; others can watch it over and over as needed until the concepts become clear" (Fulton, 2012, p.21). Taking the control of the remote and "giving students the ability to pause their teachers is truly revolutionary" according to A. Sams and J. Bergmann (2012a, p.24). C. Jenkins (2017) states that "students are able to approach material and take it in at their own speed" and this eases the "worry of peers noticing them moving slower or faster," in addition to that, she adds "students can stop, pause, rewind, and fast forward material so that they can examine things in their own way." Watching videos is not only about pausing and rewinding the teacher, it is also about accessing "the course materials as often as needed," so that "they can return to reflect upon the materials while building (scaffolding) more difficult concepts later in their course" (Harris, et al., 2016, p.325).

- *Flipping increases student-student interaction*

A. Roehl, et al. (2013, p.47) state that "due to the structural differences of the flipped classroom model, students become more aware of their own learning process than do students in more traditional settings," for this reason, "instead of relying on the teacher as the sole disseminator of knowledge" (Bergmann and Sams, 2012a, p.27), "students begin to take more and more ownership of their own learning" (Bergmann and Sams, 2013/2014, p.25). In the light of this, "if students take ownership for their own learning, they are no longer passive recipients of knowledge but active learners" (Bergmann and Sams, 2013/2014, p.25). In this type of student-centered class, students are in charge of their own learning in a peer-assisted learning environment where peer-tutoring and cooperative learning are possible (Schunk, 2012).

2.6.2 Disadvantages

D. Waddell (2012, p.7) points out that “we need to adjust the way we think about education, not just the way it looks. We need to move education *forward*, not *sideways*.” The drawbacks of *Flipped Learning Model* vary according to different points of views. To start with, technology can be taken into account since not every student can afford a personal computer or internet access. However in order this model to be successful, utilizing technological devices can be counted as mandatory. For this, students might need to use public computers at a library or school but that will prevent them from getting personal and private experience of taking in the lecture and in that situation some limitations of time and access may cause problems. Touching upon technology, students who can afford necessary stuff for *Flipped Learning Model* may spend an excessive amount of time in front of a computer screen, which may result in some diseases in the future. Furthermore, on one hand, there is no guarantee that students will attend the class prepared, or even if they are, it may not be certain that they have watched the instructional video in advance of the class. On the other hand, students might watch the videos to be ready for in-class activities, yet they could view the video under some circumstances which are not the best for learning, i.e. they may text to their friends and watch the video at once. Because the educator is not present and there is no one to ask just-in-time questions at the time of the study, even if the video is watched properly, the content may not be comprehended thoroughly, and therefore students may be prepared for the class insufficiently. The burden on educators’ shoulders is too heavy because of the preparation of the instructional videos. For preparing good quality videos, educators may have to spend a considerable amount of time which may be perceived as time-consuming. And last but not the least is the value put on videos. The thing that should be kept in mind is that maximizing class time must be the focus (Bergmann and Waddell, 2012; Milman, 2012; Pappas, 2013; Jacot, et al., 2014; Jenkins, 2017).

2.7 The Educator and the Learner

The existence of a student and an adult who serves (teaches) him / her is the most essential factor for physical education to occur. Their distinctive roles in this model, and the effect and downsides of it on both of them are vital to look through.

2.7.1 The Role of the Educators and the Learners in Flipped Learning Model

M. Prensky (2010, p.12) refers to educators as “rocket scientists”, and naturally, students as “rockets”, he states that rocket scientists “need new fuel, new designs, new boosters, and new payloads” “to build into the rockets enough intelligence to get the job done with minimum outside help.” Agreeing, J. LeCornu (2015, p.16) identifies it as “in this era the teacher can and should be so much more than simply a lecturer of information.” With *Flipped Learning Model* the educator changes his / her conventional function to a more modern one. Therefore, as claimed by S. Murphy (2011) “the teacher’s role is flipped as well” but “teachers are not replaced in a flipped classroom” (Baker, 2012). To put it differently, the educator does not waste time on lecturing the class during class hour, in order to “guide more in learning rather than teaching” (Halili and Zainuddin, 2015, p.17), he / she, instead, fosters the learners’ understanding acting as a facilitator “who orchestrates the context, provides resources, and poses questions to stimulate students to think up their own answers” (King, 1993, p.30). That shift “alters the instructor’s role to that of setting the stage, not being on it” (Restad, 2013, p.14), so that “the teacher becomes the guide off to the side” (Pappas, 2013). When in-class time is freed from the presentation of the information, the educator functions as either a *guide on the side* rather than a *sage on the stage*, or a *learning coach* more than a *presenter of content*, or a *mentor or coach* instead of a *disseminator of knowledge* (King, 1993; Bergmann and Sams, 2012b; Bergmann and Waddell, 2012). Being so, educators can “devote more time to coaching their students, helping them develop procedural fluency if needed, and inspiring and assisting them with challenging projects that give them greater control over their own learning” (Hamdan, et al., 2013a, p.3).

At that point A. Sams and J. Bergmann (2013, p.16) address the question “where in the learning cycle do your students most need you face-to-face? When you're introducing the subject matter in a lecture? Or after they've taken in this information and are struggling to understand and apply it?” The necessity of modification the model of teaching arises since “young people (students) need to focus on using new tools, finding information, making meaning, and creating” (Prensky, 2010, p.10). As “at its core, the flip means shifting the focus from the instructor to the student” (Honeycutt and Glova, 2014, p.19), the classroom setting must be transformed “from a space where students are passive observers and consumers to a space where they are actively engaged in the learning process”

(Tucker, C., 2013, p.11) because, in the way that B. Honeycutt and S. Glova (2014, p.19) add, “the real flip is not about where activities take place – it’s about flipping the focus from you to your students.” When “students take ownership of their learning” (Lage, et al., 2000, p.37), their function is shifted “from passive note-takers to self-directed active learners” (Jacot, et al., 2014, p.24). C. Tucker (2013, p.10) emphasizes that “if the conversation focuses on students watching videos, then we restrict students to the role of consumers.” Nonetheless “if we shift the conversation to engagement around the content and collaboration with other students, then we prioritize their role as producers.”

2.7.2 The Effect for the Educators and the Learners of Flipped Learning Model

“The flipped classroom constitutes a role change for instructors, who give up their front-of-the-class position in favor of a more collaborative and cooperative contribution to the teaching process” (Educause, 2012). Utilizing this model in classes enables educators to change the direction of teaching moving it from instruction-based classroom to a more cooperative one, to discover the most effective style of teaching that may lead to the success of students by observing their performance and comprehension carefully, to build awareness of students’ skills, problems, difficulties and approaches to learning through increased interaction, to use more quality time in face-to-face setting for engaging in-class activities at students’ readiness level, and to have a permanent archive of videos (Lage, et al., 2000; Bergmann and Waddell, 2012; Overmyer, 2012; Creative Classroom Lab project at University of Minho, 2013; Roehl, et al., 2013; Jacot, et al., 2014; Jenkins, 2017).

According to A. King (1993, p.31) “active learning simply means getting involved with the information presented – really thinking about it (analyzing, synthesizing, evaluating) rather than just passively receiving it and memorizing it.” Studying the content beforehand gives students motivation, hence, by virtue of individualized education provided by *Flipped Learning Model*, timid students may feel courageous enough to ask their questions. Moving at own pace, rewinding to review the lecture, skipping clear parts of the instruction, repeating lessons as much as needed, taking on the responsibility of learning, participating the process of learning actively, taking in the information for and by themselves, working collaboratively, cooperatively and actively with peers and instructors for solving problems, completing work, constructing meaning, accomplishing the top tiers of

Bloom's taxonomy and improving the interaction through pair and group works can be counted as the impacts of this model on students (King, 1993; Bergmann and Waddell, 2012; Educause, 2012; Creative Classroom Lab project at University of Minho, 2013; Hamdan, et al., 2013a; Hamdan, et al., 2013b; Honeycutt and Garrett, 2013; Restad, 2013; Roehl, et al., 2013; Harris, et al., 2016; Schmidt and Ralph, 2016; Sale and Cheah, 2017).

2.7.3 The Downsides for the Educators and the Learners of Flipped Learning Model

To implement *Flipped Learning Model* in class successfully, thorough research before provision of the instruction, recognition of distinctive learning styles, careful preparation for effective and appropriate sources, complete integration of out-of-class and in-class elements, arrangement of interesting course content, attempt to hold students' interests alive, decision about the assessment design are in control of the educator. The model could be regarded as a cause of the conflict between the educator and technology; however, it is not obligatory for educators to prepare their own videos, they can, preferably, utilize materials already exist since the internet has a wide range of resources. As clarified, incorporating *Flipped Learning Model* into class imposes many requirements, which may be costly in the matter of time, money and effort (Educause, 2012; Tucker, B., 2012; Bray, 2013; Kostka and Lockwood, 2015; Harris, et al., 2016; Schmidt and Ralph, 2016).

Students, on the other hand, may find instructional videos less important than face-to-face instructions owing to the confusion and frustration caused by the model and this may lead them to complain about the implication, or they might not get ready ahead of the class which is required for the contribution to in-class activities, or they might underestimate the merit of hands-on learning environment, perhaps they may skip classes and feel studying the online content would be enough for learning, and more importantly, their equipment and access might not be sufficient for the delivery of the video (Educause, 2012; Davies, 2013; Harris, et al., 2016).

2.8 Foreign Language Classes

There have been a considerable amount of researches to find out and apply 'the best' approach to learning a language throughout the history. What

language means, how it should be taught, and whether it should be taught or acquired have been common concerns of linguists at all times.

2.8.1 Language Learning

A coherent depiction of language is given by L. Bloom and M. Lahey as “a code whereby ideas about the world are represented through a conventional system of arbitrary signals for communication,” and a more detailed one by R. E. Owens, Jr. (1988, p.3) as “a socially shared code or conventional system for representing concepts through the use of arbitrary symbols and rule-governed combinations of those symbols.” and R. E. Owens, Jr. (1988, p.6) also claims that “language should not be seen, though, as a set of static rules: it is a process of use and modification within the context of communication.” For H. D. Brown (2000, p.31), “competence is one's underlying knowledge of the system of a language-its rules of grammar, its vocabulary, all the pieces of a language and how those pieces fit together.”

In the light of these, L. Bloom and M. Lahey (1978) split language into three parts as *form*, *content* and *use*. In the article written by L. Bloom (1980), language *form* can be defined as “systematic, regular, and consistent,” which means, learning it “depends on learning the units and the rules for the combination of units that provide for both the creativity and regularity of language.” However, language *content* is “the meaning or semantics of messages – what we talk about,” hence learning the content is not that simple since understanding the meaning of the message necessitates having an idea about the world of objects, events and relations in order to “discover the systematic and invariant ways in which objects and events are related to one another.” As for the language *use*, “the functions or purposes of language; and the ways in which the context needs to be taken into account in order to achieve those functions” need to be learned. And for L. Bloom (1980), learning a language is consisted of *language form*, which is related to drawing inferences about the underlying rules of that language and the regularities of the sounds, the words and sentence structures, *language content*, which is identified with the inferences about the connections established between the objects and their functions, and *language use*, which is about the recognition of similarities in different contexts. Agreeing, R. E. Owens, Jr. (1988, p.29) states that “language learning is based on modelling, imitation, practice and selective reinforcement.”

Learning a second language or acquiring it, on the other hand, has been one of the most controversial issues of all time. Many linguists have made remarkable contributions to this matter by explaining these two confusing terms. Giving far more importance to *acquisition*, for S. D. Krashen (1981, p.1), “adults have two independent systems for developing ability in second languages, subconscious language acquisition and conscious language learning, and that these systems are interrelated in a definite way.” For this reason, S. D. Krashen (1981, p.1) asserts that second language acquisition “requires meaningful interaction in the target language -natural communication- in which speakers are concerned not with the form of their utterances but with the messages they are conveying and understanding.” And admitting “adult second language learning should involve at some stage a conscious knowledge of structure,” he confirms that for adults learning a second language does not happen the same way as it does when a child acquires it. Even though “puberty” is believed to be of the utmost importance in acquiring a language, “the ability to *acquire* language naturally does not disappear at puberty” says S. D. Krashen (1981, p.77).

As it is signified by H. D. Brown (1972, p.263), “language teaching can be a very discouraging business at times: there appears to be no end to the number of linguistic and psychological controversies,” and more importantly, “the more we *know* about our field, the fewer actual solutions we seem to be able to offer for our problems,” but still “at various times throughout the history of language teaching, attempts have been made to make second language learning more like first language learning” (Richards and Rodgers, 2001, p.11).

2.8.2 Learning Processes

The changes in the proficiency needs of learners or the goal of language study have led to the improvements in theories of language learning throughout the history of language teaching (Richards and Rodgers, 2001). In this respect, a wide range of distinctive approaches and methods to language learning have been devised accordingly. The movement commenced with the *Grammar-Translation Method*, which dominated foreign language teaching from 1840s to 1940s. As its name implies, the aim of the method is to learn how to read its literature through detailed analysis of grammar structures and translation of texts into or out of the target language. Since the memorization of vocabulary and grammatical rules is given the priority in this method, rote learning of language is seen substantial. It is followed by the *Direct Method*, which emerged in the mid- to late-nineteenth

century. On the contrary to the Grammar Translation Method, excluding deductive grammar teaching, the Direct Method, also known as ‘natural’ method, placed more emphasis on oral skills within a syllabus of limited grammar rules and everyday vocabulary items (Krashen, 1982; Thornbury, 1999; Brown, 2000; Richards and Rodgers, 2001; Cao and Yang, 2017).

The extent of time from the 1950s to 1980s is accepted as the most effective period for the methods era, which started with the emergence of the *Audiolingual Method* and the *Situational Method*, which were the foundations of the Communicative Approach as they both regarded oral skill as the most important. Since the basis of Audiolingualism is thought to be ‘behaviourist psychology’, which takes the language as a set of correct habits, the syllabus of the Audiolingual Method is comprised of grammatically classified sentence patterns, which pattern-practice drills are based on. The theory lies behind the Situational Method, on the other hand, is ‘structuralism’. Regarding speaking as the basis of the language, the model is used to teach students new vocabulary items and the text in the plot through stimulation of the real life communication by reducing the texts and creating related atmosphere in the classroom (Krashen, 1982; Thornbury, 1999; Brown, 2000; Richards and Rodgers, 2001; Cao and Yang, 2017).

During the period between 1960s and 1980s, there seems a move towards fluency in speaking through more communicative based approaches, which aims at shifting the focus from grammar to the production of the target language. The *Total Physical Response*, for instance, is a method designed to teach language through physical activities with a reflection on grammar-based view. Also, the *Silent Way* allows learners to discover their own learning since educator remains silent in class as much as possible, so that encouraged learners are guided for freer communication. The next method, called *Community Language Learning*, meanwhile, redefines the terms the teacher as ‘the counsellor’ and the learner as ‘the client’ utilizing the theory of Counselling-Learning. By so doing, the model attempts to include the emotions and feelings as well as linguistic knowledge and behavioural skills into the process of learning. With its facilitating environment through music in class, the theory underlying *Suggestopedia*, also known as *Desuggestopedia*, is to help learners to eliminate their fear of being unsuccessful or their negative associations toward studying, so that the model aims at supporting learners to overcome their barriers for learning. The *Whole Language* has a focus on teaching learners how to read and write naturally

emphasising real communication and reading and writing for their enjoyment. The theory of *Multiple Intelligences* supports the idea that human intelligence consists of multiple dimensions that distinguish one from another, and they must be developed in education, as such. As 'neuro' is related to the functions of the brain, 'linguistic' is about a theory of communication which clarifies verbal and nonverbal information processing and 'programming' is associated with observable behaviour, in the field of language teaching, the *Neurolinguistic Programming* refers to developing one's sense of self-actualization and self-awareness. The *Lexical Approach*, as its name suggests, brings lexis, which means words and word combinations, into the spotlight rather than grammar, functions and notions, so that it gives attention to lexicon, language learning and language use respectively. The *Competency-Based Language Learning*, on the contrary to all approaches explicated above, emphasises the outcomes instead of the inputs of learning defending the idea to define educational objectives to be possessed at the end of a course of study. Due to the lack in the production of the target language, the *Communicative Language Teaching* method is developed to promote communicative proficiency in lieu of learning the structure in a language. The *Natural Approach* (not the Natural Method used for Direct Method) underlines the exposure to the target language instead of practising it. In other words, just as second language acquisition, which is the basis of the Natural Approach, in this model, teachers are given less importance and learners are put in the central attention and they are expected to produce the language when they feel ready. The *Cooperative Language Learning*, or Collaborative Learning, is an approach that includes an excessive use of cooperative activities such as pair and group works since it emphasises the importance of peer-tutoring and peer-monitoring. While for *Content-Based Instruction* the syllabus must be designed around the content or information that learners are to possess, the *Task-Based Language Teaching* takes the use of tasks to plan the core unit into account. Thereof, the former finds text and discourse based language more purposeful, the latter yet considers lexical units as the centre in language learning and language use. By the end of searching for newer and better approaches to teach a language, the linguists discovered that there was no use in so doing, hence they began to look for various possibilities to comprehend the nature of language teaching at that time, which is called *post-methods era* (Thornbury, 1999; Brown, 2000; Richards and Rodgers, 2001; Cao and Yang, 2017).

2.8.3 Flipped Learning Model in Foreign Language Classes

As J. Overmyer (2012, p.46) reports in his article, “the model has proved most popular in science, mathematics, and foreign language classes, where content is usually more technical and linear.” By this way, during the class time, language learners are given the opportunity for “having more conversation, reading literature, and writing stories, all in the target language.” In addition to these, A. Basal (2015, p.28) suggests that “in foreign language classes, such an approach may offer great benefits for both the teachers and students since classroom time can be applied to more interactive tasks.” P. J. Yang (2014, p.78) explains this in other way:

> “*Interactivity is vital for language learning because interaction (communication) in the language is not only the most effective approach to language learning but also its ultimate goal. The ‘one-to-one’ relationship, embedded pedagogical features, and the learner centered nature of multimedia applications support the presentation of tailored interactions to learners and reinforce communicative approaches to language learning.*”

“Multimedia applications involve learners by offering them rich, integrated audio-visual information” (Yang, 2014, p.77), and being highly audio-visual, “language learners appreciate this kind of learning environment which is considerably more realistic than text based learning” (Yang, 2014, p.77). P. J. Yang (2014, p.76-77) defines the learning environment which is combined with multimedia as, it “attracts language learners to enjoyable activities and pleasantly engages them in watching, reading, listening, and speaking.” This kind of learning setting and the absence of teacher during the process of learning can be a great help for overcoming “initial linguistic and psychological barrier” and can also give language learners the insight that “they are *independent* and in complete control of their learning” (Yang, 2014, p.77). In terms of one of the leverages of *Flipped Learning Model*, ‘*studying at own pace’*, language learners “replay videos several times if they need to, pause to look up the meaning of a word, and / or look up a topic in other sources if they need more clarification” (Kostka and Lockwood, 2015, p.3).

A. Sams and J. Bergmann (cited; Marshall, 2014) specifies the learning cycle that instructors must follow for teaching ELs (English Learners) as *instructional videos, in-class collaboration*, and *observation-feedback-assessment*. With regard to *instructional videos*, despite the fact that *Flipped Learning Model* is

believed to be about the effectiveness of in-class time rather than the use of videos, for English Learners, “it is equally about the videos and the in-class portion because the videos provide comprehensible input that students might otherwise not be able to access.” In respect of *in-class collaboration*, exercises that are traditionally called as homework are, in *Flipped Learning Model*, in-class activities which are done with peers so that the hardships caused by ‘*homework’* can easily be removed. “Observing students to ensure on-task attention and equal participation of all learners; assessing how well each student is doing based on contributions and questions; dealing with confusion or misconceptions about material in the videos, and encouraging higher level thinking” are the points that are related to the last step of learning cycle *observation-feedback-assessment*.

P. J. Yang (2014, p.76) summarizes this stating “the advantages of multiple media, controllability, and interactivity make media based language learning a new, powerful form of instruction.”

2.9 Grammar Teaching

No matter which technique or model is utilised to discover how to teach a language to meet the needs of learners, such as improving skills, overcoming negative factors or enhancing the study of language, there is only one point that is central to all kinds of approaches: *grammar teaching*. “Traditionally, grammar teaching has been conducted by means of activities that give learners opportunities to produce sentences containing the targeted structure” (Ellis, 1995, p.87). However, due to a vast array of reasons, regardless of the fact that learners are exposed to rote learning of the target language, putting it into use in different situations or for various purposes results in problems as said by Albert Einstein “in theory, theory and practice are the same. In practice, they are not.” D. Larsen-Freeman (2014, p.255) hereby states that “if they knew all the rules that had ever been written about English but were not able to apply them, we would not be doing our jobs as teachers” simply because “teaching grammar means enabling language students to use linguistic forms accurately, meaningfully, and appropriately” (Freeman, 2014, p.256).

2.9.1 Meaning of Grammar

“Language is a generative system” says R. E. Owens, Jr. (1988, p.11), and he adds, “language is a productive or creative tool. A knowledge of the rules permits speakers to generate, or form, meaningful utterances” thus “from a finite

number of words and a finite set of rules, speakers can create an almost infinite number of sentences" (Owens, 1988, p.11). In addition to that, V. Fromkin, et al. (2011, p.294) assert that "every human being who speaks a language knows its grammar" basing on the idea "the shared knowledge—the common parts of the grammar—makes it possible to communicate through language." R. E. Owens, Jr. (1988, p.9), in a nutshell, defines grammar as "a finite set of underlying operational principles or rules that describe the relationships between symbols that form the structure of a language." Affirming this opinion, S. Thornbury (1999, p.13) says that grammar is "a description of the rules for forming sentences including an account of the meanings that these forms convey." As L. Garrett (2003, p.36) confirms for *effective*, *meaningful* and *efficacious* communication to occur, there must be a set of principles of the language spoken by group members of the society; these principles consist of grammatical rules. More explicitly, N. Akar (2008, p.1) gives a depiction of grammar as such, "grammar is all the rules that explain the way the words of a language change themselves (morphology), the way they come together to form sentences of different types (syntax), and the way these sentences convey meaning and social function (semantics)." An elaborate definition is given by V. Fromkin, et al. (2011, p.294) as:

> "*the grammar is the knowledge speakers have about the units and rules of their language—rules for combining sounds into words (called phonology), rules of word formation (called morphology), rules for combining words into phrases and phrases into sentences (called syntax), as well as the rules for assigning meaning (called semantics). The grammar, together with a mental dictionary (called a lexicon) that lists the words of the language, represents our linguistic competence.*"

2.9.2 Approaches to Teaching Grammar

Although there are three prospects of grammar to be considered, i.e. which points, which order and which way, the question of the methodology draws the most attention. To develop *the best* or mildly *the better* style that might fit teaching grammar has been quite conceiving since there is no *one way* to accomplish it. For this reason, "over the centuries, second language educators have alternated between two types of approaches to language teaching: those that focus on analysing the language and those that focus on using the language" (Larsen-Freeman, 2014, p.251). While *analysing the language* helps learners understand the elements of language, *using the language* gives them confidence to apply their knowledge to use so as to acquire it (Larsen-Freeman, 2014, p.251). According to L. Ortega (2013, p.79), "for successful grammar acquisition, attention

to form is probably necessary," yet forms can either "be externally achieved by instruction" or "internally sought by self-study and self-directed analysis of the linguistic material available in the environment." By admission of grammar being about form which can be taught through the rules given to students, D. Larsen-Freeman (2014, p.251), on the contrary, continues that "grammar is about much more than form, and its teaching is ill served if students are simply given rules." At this point J. Schneider (2005, p.299) indicates that;

> *"in order to make language focus effective in a community-oriented lesson, it is necessary to go beyond the decontextualized, sentence-level presentations of grammar that dominate many pedagogic materials, because if students are going to understand the place of language in real discourse situations—i.e. local situations—they have to begin seeing how speakers' and writers' grammatical choices reflect and construct those situations."*

On account of the explanations made above, H. D. Brown mentions an important matter that (1972, p.263-264) instead of *rote* teaching, which "is a process of acquiring and storing items as relatively isolated entities," adopting a *meaningful* teaching, which "is a process of relating and anchoring new items into an established conceptual hierarchy," can correspond with the goal of ideal language teaching-learning procedure.

2.9.2.1 Deductive Teaching

S. Thornbury (1999, p.47) plainly illustrates deductive (rule-driven) approaches to grammar as it is about providing students with the rules and employing them in exercises. D. Larsen-Freeman (2014, p.264) specifies that "if practicing a deductive approach, the teacher would present the generalization and then ask students to apply it to the language sample," and she sets forth her view of deductive approach as "in a deductive activity, the students are given the rule and they apply it to examples." While the approach can be advantageous since "it is direct, no-nonsense, and can be very efficient, and it respects students' intelligence, expectations, and learning style," it can have quite many disadvantages as "it can be seen as dull, over-technical, and demotivating, certain kinds of learners, including younger ones, may react negatively, and it encourages the belief that learning a language is simply a case of knowing the rules" (Thornbury, 1999, p.47).

2.9.2.2 Inductive Teaching

“Inductive (rule-discovery) approaches, where the rule is discovered by generalising from examples” is the clarification given by S. Thornbury (1999, p.47). S. D. Krashen (1982, p.113) acknowledges that “proponents of inductive teaching argued that the best way to insure learning was for the student to work out the rule himself.” Likening *inductive teaching* to *rule-writing* in linguistics, he, furthermore, exemplifies his idea saying “the learner is given a corpus and has to discover the regularities” (Krashen, 1982, p.113). With the provision of the discovery of rules by and for learners, this approach can be counted as propitious because “the mental effort involved ensures a greater degree of cognitive depth, students are more actively involved in the learning process, rather than being simply passive recipients, they are therefore likely to be more attentive and more motivated,” and moreover “working things out for themselves prepares them (students) for greater self-reliance and is therefore conducive to learner autonomy.” These all, undoubtedly, will “make the rules more meaningful, memorable and serviceable” (Thornbury, 1999, p.54). However, every rose has its thorn, so to some extent, this approach can be unfavourable for the reason that “working out rules may mislead students into believing that rules are the objective of language learning, the time taken to work out a rule may be at the expense of time spent in putting the rule to productive practice, students may hypothesise the wrong rule,” further to these, “it can place heavy demands on teachers in planning a lesson, and their personal learning style or their past learning experience (or both), would prefer simply to be told the rule” (Thornbury, 1999, p.54).

2.9.2.3 Deductive Teaching vs. Inductive Teaching

Explaining that the deductive approach happens when “the grammar rule is presented and the learner engages with it through the study and manipulation of examples,” and through inductive approach “without having met the rule, the learner studies examples and from these examples derives an understanding of the rule,” S. Thornbury (1999, p.49) puts forward his idea as “both approaches can, of course, lead on to further practice of the rule until applying it becomes automatic.” On the other hand, as an acquisition defender, S. D. Krashen, (1982, p.113) touches upon a significant point that “both inductive and deductive learning are learning” for “neither have anything directly to do with subconscious language acquisition.” H. D. Brown (1972, p.267) summarizes this dispute as “there is little value in raising the age-old debate over inductive versus deductive learning in a

second language" because he says "it is hardly a question of 'all or nothing'; some degree of both kinds of learning is clearly necessary. The important matter here is that neither kind of learning guarantees success." Additionally he signifies that;

> "*both types of learning can lead to boredom and failure: our deductive explanations are often too long, abstract and unclear; our classroom discussions sometimes centre about one small detail which interests only one or two students; or perhaps our carefully planned inductive drills lack that bit of zest that is needed to keep things lively and fresh. What emerges of crucial importance, then, is finding approaches in the classroom that make maximum appeal to meaningful learning sets within the learners*" (Brown, 1972, p.267).

2.9.2.4 Contextualized Teaching

"Contextual information plays a key role in our interpretation of what a speaker means" (Thornbury, 1999, p.69), this is because "language is context-sensitive," which means "in the absence of context, it is very difficult to recover the intended meaning of a single word or phrase" (Thornbury, 1999, p.69). In other words, "an utterance becomes fully intelligible only when it is placed in its context" (Thornbury, 1999, p.69). For these reasons, S. Thornbury (1999, p.90) propounds the idea that "grammar is best taught and practised in context." He advocates the benefits of using texts as they "allow learners to deduce the meaning of unfamiliar grammatical items, show how the Item is used in real communication, and provide vocabulary input, skills practice, and exposure to features of text organisation" (Thornbury, 1999, p.90). He also warns readers about the potential drawbacks of using texts since they "may give a misleading impression as to how the language item is naturally used, may not be of equal interest to students," and "students who want quick answers to simple questions may consider the use of texts to be the 'scenic route' to language awareness, and would prefer a quicker, more direct route instead."

2.9.3 Flipped Learning Model for Teaching Grammar

In their book, A. Sams and J. Bergmann (2012a, p.48) inform their readers as "in foreign language classes, teachers are recording grammar lessons and conversation starters so as to create time in class to use the language more practically." It may be because assessing grammar would yield more objective results rather than that of productive skills (speaking / writing) since the results may

be misleading. Looking at some current studies conducted in the field will shed light on this topic.

2.9.3.1 Related Studies in this Field

There are several researches carried out in the field of implementing *Flipped Learning Model*. As mentioned before, the model is found most effective and beneficial for teaching more linear subjects, as such Maths and Science. English is counted as one of those, hence, the use of the model in English teaching, specifically for grammar input, has been identified favourable by many researchers or teachers. The research studies conducted in the last five years on the effectiveness of *Flipped Learning Model* for grammar teaching are listed in the following tables. While the first three studies, as stated show quantitative results, the rest signify both quantitative and qualitative studies. The findings of these experiments are discussed subsequent to the tables.

Some abbreviations used in the tables are as in the following:

FLM : Flipped Learning Model

TC : Traditional Classroom

EG : Experimental Group

CG : Control Group

LL : Language Learners

ICT : Information and Communication Technologies

Table 2.2

A Review of Related Studies – Quantitative Researches

	CITATION	PLACE	LENGTH	PURPOSE	PARTICIPANTS
1	(Li, Z., et al., 2017)	not given (*Middle School A*) – China	2017 one-semester period	to promote the application of FLM in grammar teaching	*a sample of 87 students in Grade 8* EG: 42 students CG: 45 students
2	(Meléndez, L. and Iza, S., 2017)	Language Center of the Technical University of Ambato – Ecuador	2017 six-week period	to investigate if the use of the FLM influences the teaching of grammar in B1+ level	*a sample of 30 students in B1+ level* EG: 30 students
3	(El-Bassuony, J. M., 2016)	Port Said Military Secondary School for Boys – Port Said Governorate	2015-2016 one-semester period	to investigate the effectiveness of FLM in English grammatical performance in speaking and writing	*a sample of 49 – first year secondary stage students* EG: 18 normal, 6 underachieving LLs CG: 18 normal, 7 underachieving LLs

	DESIGN	INSTRUMENTS	LIMITATIONS	OUTCOMES
1	Non-random Selection Pre-test, Post-test Design	Pre-tests and Post-tests	not given	FLM improved classroom efficiency and made outstanding contribution to education.
2	Pre-test, Post-test Design	Pre-tests and Post-tests for five units	Spatial, temporal and practical	FLM does have significant and positive effects on students' grades.
3	Random Selection Pre-test, Post-test – Quasi-experimental Design	Verbal intelligence test and Pre-Post grammatical performance in speaking and writing tests	Sample size, subjects, length of the study and selected grammatical points	FLM was found effective in developing grammatical performance in speaking and writing.

Table 2.3

A Review of Related Studies – Both Quantitative and Qualitative Researches

	CITATION	PLACE	LENGTH	PURPOSE	PARTICIPANTS
1	(Çavdar, Ö., 2018)	Artvin Coruh University – Turkey	2018 seven-week period	to see which approach worked better for effective learning; FLM or TC, and the perceptions of the students about FLM	*a sample of 96 students in a tertiary level EFL class* EG: 52 students CG: 44 students
2	(Karakurt, L., 2018)	Başkent University School of Foreign Languages – Turkey	2015-2016 seven-week period	to provide more promoting grammar instruction to EFL learners by employing teacher-created video lectures and multimedia tools	*a sample of 40 students of B1 level in a tertiary class* EG: 20 students CG: 20 students

	DESIGN	INSTRUMENTS	LIMITATIONS	OUTCOMES
1	Mixed-method Research Pre-test Post-test – Quasi-experimental Design	Pre-tests, post-tests, questionnaire, semi-structured interviews, check-lists, focus group interview and teaching journal	Time, sample size, the course, and unwilling students in both groups	FLM had no significant difference in both groups; but the questionnaire and interviews showed students' positive attitude towards FLM.
2	Mixed-method Research Random Selection Pre-test Post-test – True Experimental Design	Pre-test, post-test, ICT literacy survey, questionnaire and semi-structured follow-up interview	Time, sample size, length of the experiment, sample selection type and place	FLM allowed the students in the EG to outperform that of the control group and almost all of the students hold positive attitudes towards the model.

Table 2.3 (continued)

A Review of Related Studies – Both Quantitative and Qualitative Researches

	CITATION	PLACE	LENGTH	PURPOSE	PARTICIPANTS
3	(Al-Harbi, S. S. & Alshumaimeri, Y. A., 2016)	A Private School – Riyadh, Saudi Arabia	2016 eight-week period	to examine its impact on secondary school students' performances, perceptions, and attitudes toward learning English	*a sample of 43 students in the second year of secondary school* EG: 20 students CG: 23 students
4	(Çalışkan, N., 2016)	Mersin Cag University – Turkey	2015-2016 one-semester period	to examine the influences of FLM on students' performance of English, and the students' perspectives on the FLM	*a sample of 22 students of B1 level* EG: 22 students

	DESIGN	INSTRUMENTS	LIMITATIONS	OUTCOMES
3	Non-random Selection Post-test Only – Quasi-Experimental Design	Placement test, post-test, questionnaire and semi-structured interview	not given	FLM enhanced the grammar performance; questionnaire and interviews indicated a positive attitude towards FLM.
4	Mixed-method Research Pre-test, Post-test Design	Pre-tests, post-tests, semi-structured interviews and observational field notes	Sample size, the level of the subjects and the use of technology	Learners tend to experience rather high level of performance both in the classroom setting and in their exam results.

Table 2.3 (continued)

A Review of Related Studies – Both Quantitative and Qualitative Researches

	CITATION	PLACE	LENGTH	PURPOSE	PARTICIPANTS
5	(Löfnertz, E., 2016)	An Upper Secondary School – Gothenburg	2016 two-week period	to investigate the benefits of the FLM in general, and specifically in grammar teaching	*a sample of 40 students who are 17-18 years old* in two EG classes
6	(Sağlam, D., 2016)	Bülent Ecevit University Foreign Languages School – Turkey	2015-2016 one-semester period	to investigate the effect of FLM on students' learning a new grammar structure and their attitudes towards the English course	*a sample of 56 students – in five prep classes* EG: 29 students CG: 27 students
7	(Warden, A., 2016)	British Council Milan – Italy	2016 seven-week period	to explore if using FLM for grammar input would be effective in current teaching context	*a sample of 21 students* in two EG classes

	DESIGN	INSTRUMENTS	LIMITATIONS	OUTCOMES
5	Convergent Parallel Mixed-method Research	Quantitative questionnaires and semi-structured qualitative interviews	Time and organization	Implementing FLM gained positive attitudes, and may lead to increased learning of grammar.
6	Non-equivalent Pre-test, Post-test Design	Achievement Test (as Pre-Post Test) Attitude Scale (as Pre-Post Test)	Time, sample size, selected grammatical points, pre-test, post-test design and questionnaire, and FLM	FLM is significantly and positively more effective on students' academic achievements and attitudes than TC.
7	Mixed-method Research	Pre-tests, post-tests, speaking assessments, teacher's diary, a Likert-scale questionnaire and semi-structured interviews	Proficiency level of the sample, pre-test, post-test design, the use of technology	FLM produced positive perceptions for grammar input, and students considered studying grammar at home as an effective approach.

2.9.3.1.1 Quantitative Research Studies

Li, Z., et al. (2017) carried out their study at a middle school in China with the purpose of improving Flipped Learning Model implementation in grammar teaching. Non-randomly selected, 87 students eighth graders, 42 students from one experimental group and 45 from one control group, participated the application, and they were observed during one semester. The data were collected form pre-tests and post-tests both showed the efficiency of the model and made great contributions to the education in China.

Aiming at investigating the influences of FLM on teaching grammar, Meléndez, L. and Iza, S. (2017) utilized one experimental group of 30 B1+ level students to gather data from the results of pre-tests and post-tests for five different units. They did their research at Language Center of the Technical University of Ambato in Ecuador throughout six weeks, at the end of which they discovered some significant and positive effects of the model on students' grades despite spatial, temporal and practical limitations.

The research El-Bassuony, J. M. (2016) undertook was completed within one semester at Port Said Military Secondary School for Boys. He analysed the effectiveness of Flipped Learning Model in English grammatical performance of both normal and underachieving students in speaking and writing skills using a quasi-experimental research design. In their first year of secondary stage, one experimental group consisting of 18 normal and 6 underachieving language learners and one control group of 18 normal and 7 underachieving language learners were randomly selected. Even though the researcher had several limitations, such as sample size, subjects, length of the study and selected grammatical points, the data collected through verbal intelligence tests and pre-post grammatical performance in speaking and writing tests proved the effectiveness of Flipped Learning Model in developing grammatical performance in speaking and writing.

2.9.3.1.2 Both Quantitative and Qualitative Research Studies

Çavdar, Ö. (2018) observed a sample of 96 students in a tertiary level EFL class at Artvin Coruh University during seven weeks with her intention to determine the better approach for effective learning; Traditional Classroom Teaching or Flipped Learning Model, and the students' reflections on the model. 52 students in experimental group and 44 in control group joined this mixed-method research, the design of which was quasi-experimental. She collected her data through various instruments which are pre-tests, post-tests, a questionnaire, three semi-structured interviews, three weekly check-lists, a focus group interview and a teaching journal. Time, sample size, the course of English, and unwilling students in both groups caused the researcher some advantages; however, her study revealed that Flipped Learning Model had no significant difference in both groups; but the questionnaire and interviews showed students' positive attitude towards it.

With the aim of providing EFL learners with more supportive grammar teaching by using teacher-created instructional videos, Karakurt, L. (2018) utilized a true experimental design for her mixed-method research study which lasted seven weeks. In spite of time, sample size, length of the experiment, sample selection type and place related limitations, she obtained a great amount of comprehensive data through a pre-test, a post-test, an ICT literacy survey, a questionnaire and a semi-structured follow-up interview for this investigation which was conducted on a sample of randomly selected 40 students of B1 level in a tertiary class at Başkent University School of Foreign Languages. As the findings of the study verified, both the high grades and positive perceptions of the 20 students in the experimental group confirmed the benefits of using Flipped Learning Model.

Their quasi-experimental designed research took Al-Harbi, S. S. & Alshumaimeri, Y. A. (2016) eight weeks to carry out this study on non-randomly selected 43 students, 20 in the experimental group, in the second year of secondary private school in Saudi Arabia. He used quite a few instruments, such as a placement test, a post-test, a questionnaire and a semi-structured interview to examine the influence of Flipped Learning Model on the performances, perceptions, and attitudes of the secondary school students. The results not only proved that the model enhanced the grammar performance, but also the

questionnaire and interviews showed a positive impact. No limitations are mentioned in the study, though.

Çalışkan, N. (2016) took one-semester period for her observations about the effects of Flipped Learning Model on students' English grammar performance, their attitudes towards the model. Her mixed-method research study was conducted on one experimental group that consisted of 22 students of B1 level at Mersin Cag University. Pre-tests, post-tests, semi-structured interviews and observational field notes were employed to gather data for the experiment. Notwithstanding limitations caused by the sample size, the level of the subjects and the use of the technology, the findings indicated that students achieved a high level of performance not only in the classroom but also in their exams.

During two weeks, Löfnertz, E. (2016) used two experimental groups formed by 17-18 year-old 40 students at an upper-secondary school in Gothenburg in order to examine the benefits of the Flipped Learning Model in general, and specifically in grammar teaching. Despite processual and organizational limitations, she carried out a convergent parallel mixed-method research study to acquire data through quantitative questionnaires and semi-structured qualitative interviews from which she drew the conclusion that Flipped Learning Model implementation gained positive attitudes, and this, in the future, may improve grammar proficiency of students.

The purpose of the non-equivalent designed study that was undertaken by Sağlam, D. (2016) throughout one semester was to estimate the influence of students on learning a new grammar structure with Flipped Learning Model and their reflections on it. For the experimental group 29 volunteer students and for the control group 27 were selected from five preparatory classes at Bülent Ecevit University Foreign Languages School. An achievement test and an attitude scale were administered to 59 students as pre-tests and post-test for each The comparison between these two classes signified that Flipped Learning Model has more significant and positive impacts on students' both success and perception than Traditional Classroom Teaching albeit some drawbacks such as time, sample size, selected grammatical points, pre-test, post-test design and questionnaire.

The mixed-method research investigation that Warden, A. (2016) conducted at British Council in Milan lasted seven weeks. She collected her data using pre-tests, post-tests, speaking assessments, teacher's diary, a Likert-scale questionnaire and semi-structured interviews of 21 students in two experimental

group with the aim of determining if the implementation of Flipped Learning Model for grammar input would be effective. Even though the proficiency level of the sample, pre-test, post-test design and the use of technology caused some limitations, her study proved that Flipped Learning Model is beneficial for grammar input as students found studying grammar at home as an effective approach.

The researcher noticed a lack in the field as the implementation of Flipped Learning Model has not been conducted on high school students. To shed light on this course and present a report to the principal about the possible benefits and drawbacks of the model, she decided to carry out her research at the high school where she worked between the years of 2016 and 2018.

CHAPTER THREE

METHODOLOGY

The discovery of something comes along when you search for it, research is the result of the rediscovery of it, though. Hence, in order to bring our '*rediscovery*' into focus, a comprehensive '*research methodology*' of this thesis is presented in this chapter, which, overall, covers six sections. The initial section introduces the ***research design*** employed in the study, a thorough description of ***setting and participants*** follows as the next section, in the subsequent section, the ***collected data***, both the instruments and materials utilized during the research, are given explicitly, afterwards, the ***procedure of the data collection*** is explained in detail, later the ***data analysis*** of both quantitative and qualitative data is clarified and closing remarks are made in the last section, ***ethical considerations***.

3.1 Research Design

When a need or lack arises in the system, a proper precaution must be taken instantly to avoid it, which is the exact reason that lies behind this research. The principal of the high school where the researcher worked devised a structure called 'DPD', and that commenced the whole story. For him, each letter of the model stands for one backbone of teaching-learning principles, which are 'defining-practising-discussing'. In this regard, for the first step *defining*, learners are given the basic concepts and are required to study them on their own, by this way, they come to class prepared for the following step *practising*. Learners are then taught how to put their knowledge into practice. The last step *discussing* trains learners to enquire about and to comment on the things they learn. All these considered, this structure can be regarded as a brief version of Bloom's taxonomy since the principles of it are closely akin to the tiers in the taxonomy, which is one of the essential bases for '*Flipped Learning Model*'. Even though, for many years, the structure has been proved to succeed in all the fields it is applied in, implementing it in English lessons has never been a subject for the teachers working there. Her curiosity about using a contemporary model and that necessity of the school has, therefore, motivated the researcher to carry out the research in her classes in order to gather data for finding out the effectiveness of the model with respect to the achievement and attitude of the learners.

On that account, the following steps are followed respectively. First, the form of ethical committee approval for working on a research study at 'Denge Academy of Science and Art Anatolian High School' is filled out and presented to Ufuk University Research Ethics Committee. Then, with the approved request (see Appendix A), a permission letter for conducting a questionnaire is submitted to the principal of the high school where the study is carried out. Confirming the letter, the principal allows the researcher to send out the permission form (see Appendix B) that contains a thorough and explicit explanation of the study to the parents of the students, who are under the age of eighteen, for the implementation of '*Flipped Learning Model*'. With this purpose, since the researcher is the teacher of two Intermediate level classes, the students in both classes (one is for experimental group, the other is for control group) are requested to participate in the study. Agreeing and being volunteer participants, the students in the experimental group are informed about the general framework of '*Flipped Learning Model*'. Hence, the teacher / researcher avoids giving too much information so as not to influence students' attitude towards the model with positive and / or negative bias.

For the application of the model in the experimental group, teacher-created videos (see Appendix I) are recorded by a screencast program called Camtasia Studio 7 using different teacher-prepared PowerPoint slide shows. For arranging slide shows, diverse sources are utilized and given on each video to protect the copyright of them. The researcher creates a blog page on EduBlog (see Appendix J) and asks her volunteer students to sign up so as to have an online platform where they could discuss and share their opinions right after watching the instructional videos. The students are given a pre-test and then asked to view and study the video lecture at home to come to class prepared. The first five to ten minutes of the in-class time are devoted to peer learning and just-in-time teaching and the rest is allocated to more engaging and intriguing activities with which they can put what they learn into practice. At the end, they are given a post-test which includes same type of activities within similar forms as pre-test. At the end of the process of the implementation, the students in this group are required to fill out a Likert scale questionnaire to find out their reflection on '*Flipped Learning Model*' and with the volunteer ones, a semi-structured interview is held.

On the other hand, the control group is taught the same grammar points in a traditional way. They are given pre and post tests for each point before and after the teaching. In order not to cause inequality, to practise the grammar points, the same in-class activities used in experimental group are done.

Collecting more objective data leads the researcher to evaluate the success of the learners in terms of their achievement in learning English grammar. Furthermore accomplishing triangulation, with the purpose of accessing multiple data samples that are more reliable and valid, forces the researcher to use a mixed methods research design to collect quantitative data so as to gauge the success and qualitative data to provide a remarkable insight into the perception of the learners. In accordance with this objective, pre- and post-tests for five different grammar points are prepared, and a questionnaire to seek for the learners' attitude towards '*Flipped Learning Model*' is conducted for quantitative data, for qualitative data, the questionnaire is supported with a Checklist type Multiple Choice Question and two open ended question items in the questionnaire, and a semi-structured interview. Thus, the obtained qualitative data could certify the validity and reliability of quantitative data.

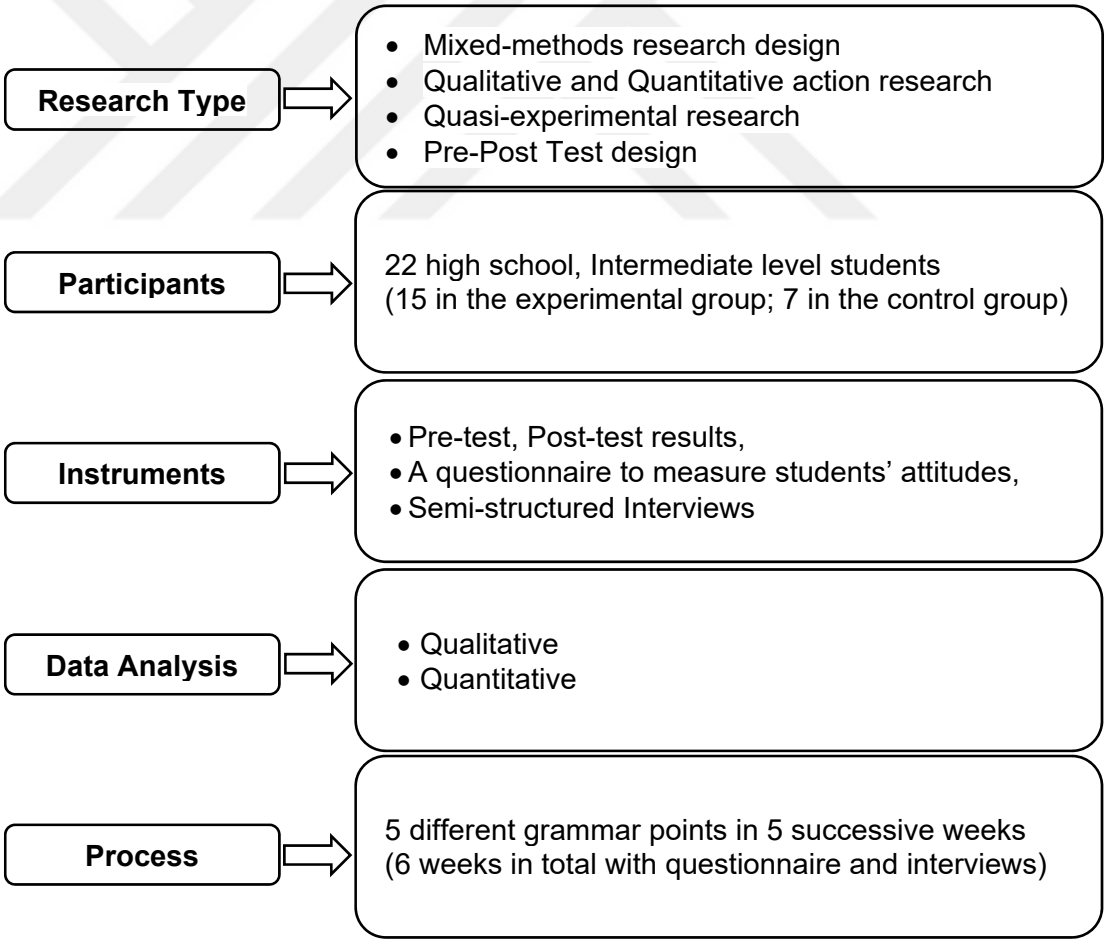

Figure 3.1 Research Design of the Study

Turning the traditional instruction of teaching grammar into a contemporary one by switching the roles of *homework* and *lecturing*, and providing students with different instructional video lectures and in-class activities with the help of the advanced technological utilities, the researcher expects more positive results in this implementation.

3.2 Setting and Participants

The current study is conducted in the spring semester of 2017-2018 school year at a private high school, named Denge Academy of Science and Art Anatolian High School.

Denge Academy of Science and Art Anatolian High School is a small-sized private high school, so that there are only two Intermediate-level classes. That's why, in total, the number of the participants is 22 students aged 15-16 years old. 15 students are in experimental group and 7 of them consist of control group. Students who enrol in the school are first expected to do well in two different examinations which are prepared by the school administration and the English teaching department, and then, they are invited for an interview to prove how determined they are and how much they want to get education at that high school. For this reason, it seems patently obvious that most of these students have a broad educational background.

Because the school is administered with a great strict discipline, both at home and at school the students are used to having extra hours of study for their tuition. They have, moreover, no difficulty adapting technology to not only their lives but also their education as they are millennials and born into a technological age. Last but not least, because of the compulsory school attendance, there is no lack of participation in the study.

3.3 Data Collection

As mentioned before, in order to start collecting the data needed, an approval from ethical committee, a permission for conducting a questionnaire, a permission for implementing the study from parents and a permission for using the survey and the semi-structured interview in S. Quarato's (2006) advanced study thesis were taken.

3.3.1 Instruments

Throughout the study, several instruments of data collection including a *Proficiency Level Test*, *Grammar Proficiency (Pre-Post) Tests*, an *Attitude towards Flipped Learning Model Questionnaire* and a *Semi-Structured Interview* are used.

A ***Proficiency Level Test*** that consisted of 100 contextual vocabulary and grammar questions of which the degree of difficulty is cumulative was administered at the beginning of the 2017-2018 school year to test the proficiency levels of the students, and they were placed in their classes accordingly. The test was prepared by the English teaching department in advance of the aforesaid school year. Before performing the proficiency level test, a pilot study was carried out on a few former advanced-level students of the school. Since the results were reliable, the test was made to be ready-in-use for 2017-2018 school year.

Having determined the grammar points to implement '*Flipped Learning Model*' in, the researcher prepared the **Grammar *Proficiency (Pre-Post) Tests*** (see Appendix D) for each topic. Each of these tests were diverse in context but similar in forms, to explain this in detail, both tests consisted of two different sections with same type of activities within different 10 questions. In order to make the learning more meaningful, grammar proficiency of students was evaluated in sentences, texts or dialogues, and to provide an objective assessment, Multiple Choice Question type was chosen. For the provision of validity and reliability, the tests were checked by a competent colleague and checked and approved by the supervisor of the researcher. The fundamental aim of this Pre-Post Test design was to get proof if there was a significant difference between the success of the experimental and control groups, and more importantly, to make deductions on the results gained after the implementation of '*Flipped Learning Model*'.

Quarato (2016, p.42) states "because the researcher generated the questions, a pilot test was conducted to check the reliability and validity of the study prior to conducting the survey," and she clarifies the progress of piloting as such:

> "*Five eighth grade students were chosen to pilot test the survey. Each student was given a copy of the survey and asked to respond to the survey and make notes about the process and questions. After the responses were collected, the comments and responses were read in order to look for unanswered or unexpected answers, as well as any misinterpretations. Based on the information gathered, the survey was modified and given to the same five students*

again. The same process was used to pilot test the interview questions,"

For this reason, the researcher asked her permission (see Appendix C) to use the ***Survey on the Perceptions of Students on the Flipped Classroom*** (see Appendix E) that consists of 25 items in total, and with the formal approval, she turned the first 22 Open Ended type of items into the form of Likert Scale Multiple Choice Questions (strongly agree, agree, quite agree, disagree, strongly disagree), the 23rd item remained as Checklist type Multiple Choice Question and the 24th and 25th items remained as Open Ended Question type as in the original version. The researcher, moreover, translated the questionnaire into the mother tongue of her students to ensure its comprehensibility, and she got two experts in their fields to check and approve the final form of the survey (see Appendix F). The main purpose of the questionnaire was to supply data for the attitude of the students in experimental group.

For the ***Semi-Structured Interview***, the researcher adapted the questions of ***Focus Group Discussion Questions on the Perceptions of the Flipped Classroom by Students*** (see Appendix G) by Quarato (2016) with permission. While the original form of the discussion, which was generated and piloted by Quarato (2016), included 6 Open Ended type of items, it was rearranged by the researcher and she added two more items after translating it into the mother tongue of her students and having two experts check its translated form (see Appendix H). Using the data obtained through the interview provided the triangulation and helped the researcher get more valid and reliable data for her research.

3.3.2 Materials

Prensky (2001, p.1) likens today's students to "digital natives" and he describes the situation as "our students today are all *native speakers* of the digital language of computers, video games and the Internet." Correspondingly, integrating technology into educational world must come as no surprise since satisfying the needs of today's students is not as simple as it was in the early time of teaching. They are more in need of being active in the technological world with their peers playing games, socializing, sharing things online, etc.

In the light of these, the researcher decided on incorporating her teaching into online platforms to promote the quality of instruction through '*Flipped Learning*

Model'. For this, she, in the very first place, prepared her own PowerPoint slide shows on computer, using these slide shows, she, then, recorded her videos by Camtasia Studio 7, a screencast program. She tried her best to make the videos attractive by adding them humour, annotations, illustrations, keeping them as short as possible and copyright friendly as A. Sams and J. Bergmann (2012a) suggest.

Having finished capturing the videos, she uploaded one in every week of the study first on YouTube and then on EduBlog on which the students had the chance to share their experiences with their peers, have conversations about the video, make comments on their learning and ask their peers or lecturer for information.

For the first 10 minutes of the in-class time, the researcher allowed the students to have a conversation and to share the things they learned through the video, and the rest of the class was devoted to interactive activities through which they could put their knowledge into practice.

3.4 Data Collection Procedure

In this section, the procedure followed is described with precise details. The steps in both experimental and control groups are explained respectively and a timeline for both groups is given at the end.

3.4.1 Experimental Group Phase

3.4.1.1 The Procedure

Having received an oral permission for the treatment from the principal of 'Denge Academy of Science and Art Anatolian High School', the researcher started her preparation a few months in advance in order to make provision against any fundamental flaws in the process. For the first step she opened a new Gmail account at the end of December in 2017, just then, she created her own YouTube channel using her name. Starting a blog on Edu Blog succeeded these steps.

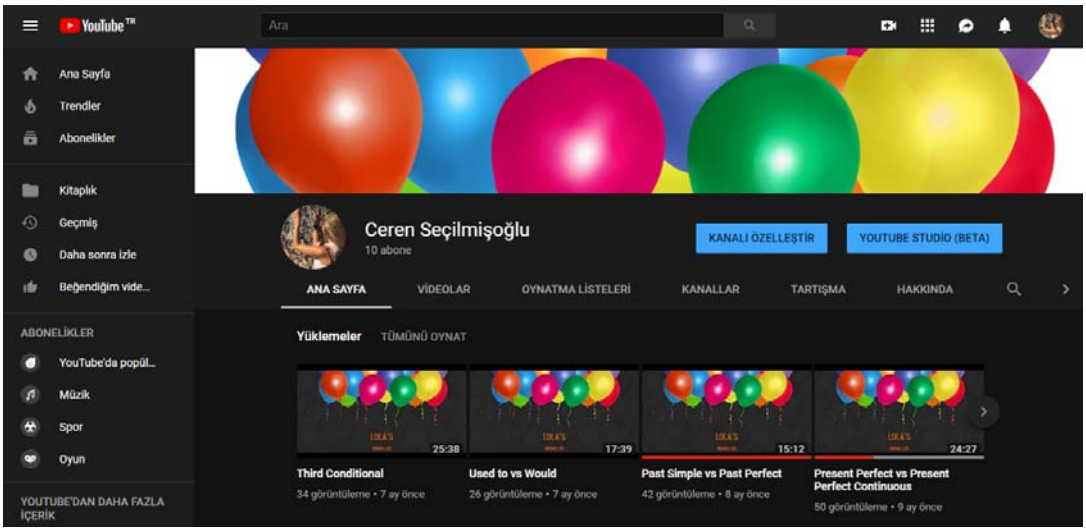

Figure 3.2 YouTube Channel Page

Figure 3.3 Main Page of EduBlog

At the beginning of the second semester, in January, the researcher used a fake account and tested the functionality of her channel and blog. She detected one or two defects and corrected them appropriately. Using the fake account enabled the researcher to determine and compose the basic steps for the students to follow so as to register for the blog. As she assured herself that it was serving the purpose accurately, she submitted the approved request from Ufuk University for carrying out this research study at 'Denge Academy of Science and Art Anatolian High School' to the principal and a written permission for the conduct of the study and the questionnaire was taken. Straight after that, for commencing the implementation of '*Flipped Learning Model*', the permission forms that contained an explanation of the study in detail were sent to the parents. As soon as the

permission forms were sent back to her, the researcher started frame her introduction of the model.

Having specified the instructions she was going to give her students for the procedure, in February, the researcher put one of her students in charge to collect the Gmail addresses of all students. In spite of the tardiness, in a couple of days, she had all the addresses, created student users on Edu Blog and for everyone set one single password which could be changed later. The other day the students were given their usernames and passwords, and were asked to try their pages on Edu Blog. The problems due to their username-password mismatch that four students encountered were solved on the computer the school had provided the day after the explanation. On that day in class, the researcher ensured that every single student had access to her YouTube channel and the blog page created for them.

In the first two weeks of March, in one of her classes with the experimental group, the researcher, initially, mentioned that she was conducting a research study in two groups and they would be experimented as explained to them and their parents before. At that point, she told them about the ethical procedure she followed. She also informed them that the experiment would begin in a few weeks as the principal and their parents approved and they agreed. Later the researcher introduced the '*Flipped Learning Model*' using a PowerPoint slide show she had prepared. She told all the necessary information they needed to know before experiencing the model such as what it is, who initiated it, why it is used, what the advantages and disadvantages are, the role of technology, educator and learner in it. So as not to have an impact on students' viewpoints, the researcher was quite cautious about expressing these with a neutral language without too many details, so that she could avoid conveying her ideas subjectively. To make the explanation reasonable for the students, she stated that even though the model was mostly used for courses with linear contents such as STEM courses (science, technology, engineering and mathematics), according to the studies in the field, it was indicated that since *language teaching* had a linear content as well as the others, it became pretty favoured in this field, too. Furthermore, she reminded them that this study would cover 5 different grammar topics in 5 different units (units 4, 5, 6, 7 and 8) of their course book, *New Total English Intermediate* by Rachael Roberts, Antonia Clare and JJ Wilson, and that the points they would get from pre- and post-tests would never affect their general scores of the year. In addition, the researcher notified them that taking the tests and watching the videos are compulsory for the

study to supply her with more reliable and valid data, in the case of not watching the videos for any reason, they were advised to acquaint the researcher with this fact, so that she could provide them with a laptop and give them time to watch the instructional video. She proceeded the last part of her class with question and answer method. At the end of the lesson, she was convinced that everything was explicit for her students.

3.4.1.2 The Timeline

Table 3.1

Timeline of the Study on Experimental Group

	EXPERIMENTAL GROUP		
	Pre-Test	**Video Teaching**	**Post-Test**
UNIT 4 **Modals of Obligation and Prohibition**	23.03.2018	25.03.2018	26.03.2018
UNIT 5 **Present Perfect vs. Present Perfect Continuous**	30.03.2018	02.04.2018	04.04.2018
UNIT 6 **Past Simple vs. Past Perfect**	06.04.2018	10.04.2018	11.04.2018
UNIT 7 **Used to vs. Would**	04.05.2018	08.05.2018	09.05.2018
UNIT 8 **Third Conditional**	18.05.2018	20.05.2018	21.05.2018
Survey on the Perceptions of Students on the Flipped Classroom		25.05.2018	
Focus Group Discussion on the Perceptions of the Flipped Classroom		01.06.2018	

3.4.2 Control Group Phase

3.4.2.1 The Procedure

The control group was also informed about the whole process in the first two weeks of March. They were notified about the pre-tests and post-tests they would take at the beginning and end of each session of 5 grammar points in 5 different units (units 4, 5, 6, 7 and 8) of their course book, *New Total English Intermediate* by Rachael Roberts, Antonia Clare and JJ Wilson. They were, moreover, given information about the marks of these tests would never affect their general score. With their approval, the researcher was qualified enough for starting her study.

3.4.2.2 The Timeline

Table 3.2

Timeline of the Study on Control Group

	CONTROL GROUP		
	Pre-Test	**Traditional Teaching**	**Post-Test**
UNIT 4 **Modals of Obligation and Prohibition**		06.03.2018	
UNIT 5 **Present Perfect vs. Present Perfect Continuous**		27.03.2018	
UNIT 6 **Past Simple vs. Past Perfect**		18.04.2018	
UNIT 7 **Used to vs. Would**		02.05.2018	
UNIT 8 **Third Conditional**		24.05.2018	

3.5 Data Analysis

The researcher implemented a mixed-methods research design to gather data in order to respond to her research questions about the effectiveness of *Flipped Learning Model*. She collected the quantitative data from pre- and post-

tests of five grammar structures and the first twenty-two items in a Likert scale questionnaire of attitude, the qualitative data, on the other hand, were obtained through the twenty-third checklist type multiple choice question and last two open ended questions of the questionnaire, and a semi-structured interview of learners' reflection.

Having received the required official approvals such as ethical committee approval, permission letter and parent consent form, the researcher commenced her preparation for her online materials and the outline of her lessons for both experimental and control groups. The proficiency test which was prepared and piloted by the English teaching department indicated the levels of students and placed 15 students in one B2 level class (experimental group) and 7 students (control group) in the other one based on their ages. These classes were asked if they would be volunteer to participate in the study and with their agreement, the researcher began her research.

***The Analysis of Quantitative Data*:**

Pre- and post-tests were administered in both groups to check on the differences in their success, but the attitude questionnaire, of which the first twenty-two items were included as quantitative, was given merely to the experimental group to discover their reflection on the implementation.

For the analysis of the data from the tests, Statistical Package for Social Science (SPSS) Statistics Base 22.0 was used. At the outset, descriptive statistics of research variables were investigated to determine their mean and standard deviation for each test of each group. In reference to the normality, as the second step, Kolmogorov-Smirnov and Shapiro-Wilk tests were applied to identify if the grammar proficiency pre- and post-tests were normally distributed or not. In the view of these, *two independent samples t-test* and *paired samples t-test* were employed in order to investigate the significance level of the tests *between the groups* and *within the groups* respectively.

Subsequently, the first twenty-two items of the questionnaire were first categorized, and then analysed via SPSS, into which numbers 1-5 (1 for strongly agree, 2 for agree, 3 for quite agree, 4 for disagree and 5 for strongly disagree) for the answers of students to each question were entered so as to transfer the data to numerical codes for getting frequency percentages. To illustrate these, bar

charts for each item were drawn, too. The reports of the quantitative data analysis results are given in the succeeding chapter.

***The Analysis of Qualitative Data*:**

In the course of evaluation of the data acquired through the last three items of the questionnaire and the semi-structured interview, the researcher made interpretations on each item of both. Initially, the assessment of checklist type multiple choice question (the 23rd item in the questionnaire) was done using a bar chart, and next, the last two open ended questions (the 24th and the 25th items in the questionnaire) about participants' recommendations and comments on *Flipped Learning Model* were evaluated. Later, volunteer students' responses to the questions in the semi-structured interview were transcribed and reported in succession. The reports and comments of these are given in the following chapter.

3.6 Ethical Procedure

Every step taken to conduct this research study was planned cautiously so as not to violate ethical considerations. For this, an approval form of ethical committee of Ufuk University was obtained for carrying out the study at 'Denge Academy of Science and Art Anatolian High School' and a permission letter for conducting a questionnaire, and these two documents were both submitted to the principal of that high school. A permission form that covered detailed information about the process of the study was sent to the parents of the students in the experimental group since they were under the age of eighteen. Students in both experimental and control groups were asked if they would be volunteer to participate in the study. Giving too much information was avoided in case they would be affected by the researcher's subjective point of views. During questionnaire, students were asked not to write their names on the paper if that would affect their answers. As for the interview, specifically volunteer students were required to join, and before the interview they were told that their voice would be recorded but be in the responsibility of the researcher that they wouldn't be used for any different purpose by anyone. The PowerPoint slide shows and videos were respectively prepared using materials from different sources that were mentioned on each page of the slides in order to grant the copyright.

CHAPTER FOUR

FINDINGS AND DISCUSSION

In furtherance of an explicit delineation of the contributions of *Flipped Learning Model* to learners' achievement and perception, this chapter aims at clarifying the findings collected from a variety of instruments through this study and interpreting them thoroughly. Initially, the ***description of research variables*** are presented with regard to the indexes, that is, mean and standard deviation with the minimum and maximum scores of each pre- and post-test from every unit for both groups. In terms of the ***normality*** of variables, Kolmogorov-Smirnov and Shapiro-Wilk tests are used, and the results are shown. In order to answer each research question from which the study was originated, ***statistical analysis*** of pre- and post-tests and the first 23 items in the questionnaire is done and demonstrated by tables and charts. The last three items of the questionnaire and semi-structured interview are examined so as to analyse the ***attitudes*** of students to *Flipped Learning Model*.

4.1 Description of Research Variables

Table 4.1

Descriptive Statistics of Research Variables

Variables	Condition	Groups	n	Min	Max	Mean	Std. Dev.
4th Unit	pre-test	Experimental	15	4	10	9.27	1.66
		Control	7	9	10	9.86	0.37
	post-test	Experimental	15	7	10	9.53	0.91
		Control	7	9	10	9.43	0.53
5th Unit	pre-test	Experimental	15	6	10	8.60	1.29
		Control	7	6	10	8.86	1.67
	post-test	Experimental	15	8	10	9.40	0.63
		Control	7	7	10	8.86	0.90
6th Unit	pre-test	Experimental	15	7	10	8.67	0.90
		Control	7	7	9	8.14	0.69
	post-test	Experimental	15	8	10	9.27	0.88
		Control	7	8	9	8.29	0.48
7th Unit	pre-test	Experimental	15	4	10	7.47	1.80
		Control	7	2	10	6.57	2.76
	post-test	Experimental	15	7	10	9	0.92
		Control	7	4	9	7.57	1.90
8th Unit	pre-test	Experimental	15	1	10	7.67	2.92
		Control	7	3	10	7.71	2.43
	post-test	Experimental	15	7	10	9.27	1.03
		Control	7	7	10	8.71	1.11

In table 4.1 a descriptive statistics of research variables (pre-test and post-test) including maximum and minimum scores, mean and standard deviation for experimental and control groups are reported.

Since the mean of the 4th unit is higher than the others, the reason of it can simply be stated that it is either because of the students' familiarity with the unit or the easiness of it. Moreover, the difference between mean and standard deviation, which results in high variance, proves that in some units, students' test scores are remarkably different from each other.

4.2 Normality of Research Variables

Table 4.2

The Results of Kolmogorov-Smirnov and Shapiro-Wilk Tests

Variables	Condition	Groups	K-S Z	p Value	Shapiro-Wilk	p Value
4th Unit	pre-test	Experimental	1.27	0.08	0.88	0.06
		Control	1.33	0.06	0.84	0.10
	post-test	Experimental	0.90	0.38	0.94	0.43
		Control	0.95	0.32	0.95	0.80
5th Unit	pre-test	Experimental	0.74	0.63	0.87	0.18
		Control	0.85	0.45	0.92	0.48
	post-test	Experimental	1.14	0.15	0.88	0.06
		Control	1.11	0.16	0.94	0.43
6th Unit	pre-test	Experimental	0.91	0.36	0.95	0.80
		Control	0.78	0.57	0.84	0.10
	post-test	Experimental	1.27	0.08	0.88	0.06
		Control	1.15	0.14	0.92	0.48
7th Unit	pre-test	Experimental	0.52	0.94	0.95	0.80
		Control	0.38	0.99	0.88	0.06
	post-test	Experimental	0.90	0.38	0.84	0.10
		Control	0.80	0.54	0.87	0.18
8th Unit	pre-test	Experimental	1.06	0.20	0.94	0.43
		Control	0.63	0.80	0.92	0.48
	post-test	Experimental	0.78	0.57	0.87	0.18
		Control	0.45	0.98	0.88	0.06

In table 4.2 the results of Kolmogorov-Smirnov and Shapiro-Wilk Test to investigate the normality of research variables are shown. According to this table, the K-S Z value for values for all variables are not significant at 0.05 alpha level. Also Shapiro-Wilk values for all variables are not significant at 0.05 alpha level. These outcomes indicate that the hypothesis of '*the distribution of the research variables is not normal*' fails to be rejected. Thus, it could be concluded that, the

distributions of three research variables are normal and we can use parametric test such as the independent-samples (two-sample) t-test.

4.3 Statistical Analysis of Pre- and Post-Test Results

Research Question 1. *Is there a statistically significant difference in the pre- and post- test results of the students in the experimental group after the treatment of Flipped Learning Model*?

In order to examine the impact of *Flipped Learning Model* in the experimental group, the findings are analysed implementing paired samples t-test. Descriptive statistics for this question are presented in table 4.3 and the finding of t-test are reported in table 4.4.

Table 4.3

Descriptive Statistics of the Experimental Group

Variables	Condition	n	Mean	S.D	Std. Error of Mean
4th Unit	pre-test	15	9.27	1.66	0.43
	post-test	15	9.53	0.91	0.23
5th Unit	pre-test	15	8.60	1.29	0.33
	post-test	15	9.40	0.63	0.16
6th Unit	pre-test	15	8.67	0.90	0.23
	post-test	15	9.27	0.88	0.22
7th Unit	pre-test	15	7.47	1.80	0.46
	post-test	15	9	0.92	0.23
8th Unit	pre-test	15	7.67	2.92	0.75
	post-test	15	9.27	1.03	0.26

Table 4.3 shows mean scores of pre-test for 4th, 5th, 6th, 7th and 8th units are (9.27), (8.60), (8.67), (7.47) and (7.67) respectively. These values for post-test are (9.53), (9.40), (9.27), (9) and (9.27).

Table 4.4

The Results of t-Test to Investigate the Differences of Pre-test and Post-test in the Experimental Group

Variables	Mean Differences	t Statistic	df	p Value
4th Unit	-0.26	-1.16	14	0.26
5th Unit	-0.80	-3.05	14	0.009
6th Unit	-0.60	-3.15	14	0.007
7th Unit	-1.53	-3.52	14	0.003
8th Unit	-1.60	-2.74	14	0.01

As can be seen in table 4.4, there are significant differences between pre-test and post-test marks of 5th unit (t= -3.05, p= 0.009), 6th unit (t= -3.15, p= 0.007), 7th unit (t= -3.52, p= 0.003) and 8th unit (t= -3.05, p= 0.01) in the experimental group (*Flipped Learning Model*). However, there is not any significant difference between pre-test and post-test scores of 4th unit (t= -1.16, p= 0.26) in the experimental group (*Flipped Learning Model*).

In the light of this, it can plainly be stated that the significance of pre- and post-test results is observed in the experimental group after the treatment of *Flipped Learning Model* in 5th, 6th, 7th and 8th units. Nonetheless, the model does not play a fundamental role in the 4th unit since students are more familiar with the grammar point in this unit than those of the other units, and therefore finding it easier. For this reason, *Flipped Learning Model*, in general terms, can be said to have a positive effect on learning grammar in the experimental group.

The column charts that demonstrate the pre- and post-test grades of each student in every unit are as follows:

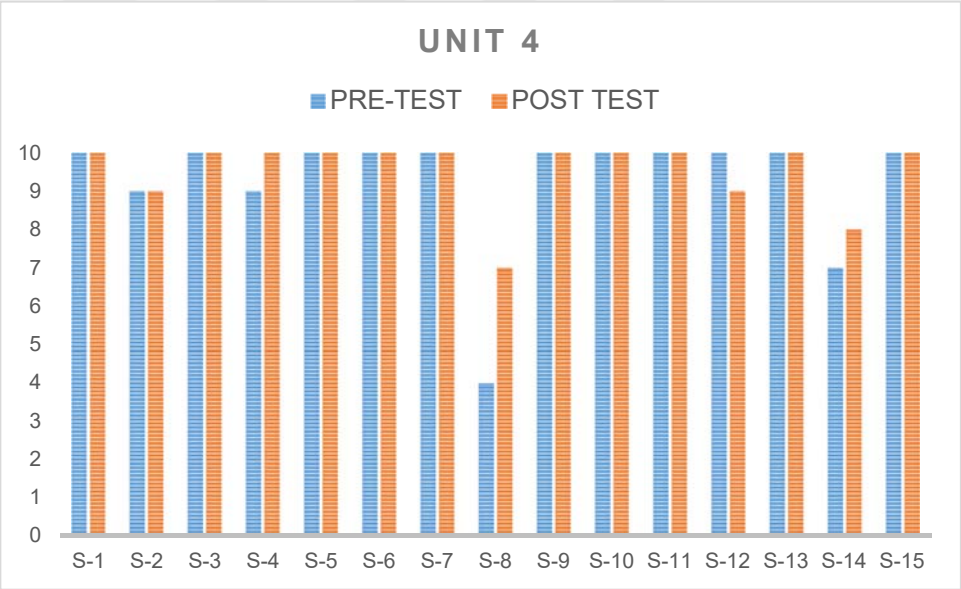

Figure 4.1 Experimental Group Students' Pre- and Post-test Grades in Unit 4

As illustrated in column chart 1, while the pre- and post-test scores of eleven students remain the same after the implementation of the model, three students do better and one student performs worse in post-test of unit 4.

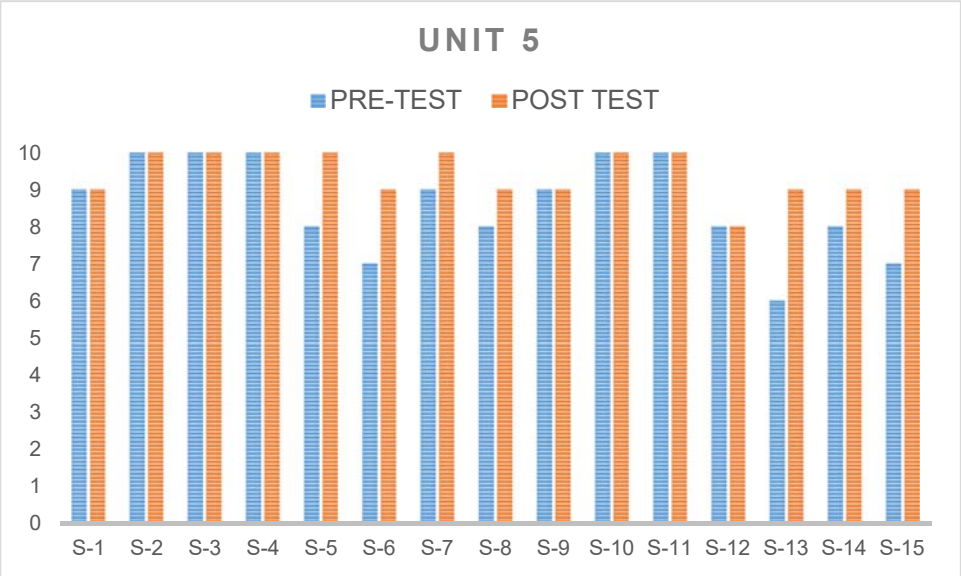

Figure 4.2 Experimental Group Students' Pre- and Post-test Grades in Unit 5

Seven students' pre- and post-test grades are improved but the rest of the class perform the same in both tests in unit 5 as it is observed in the column chart.

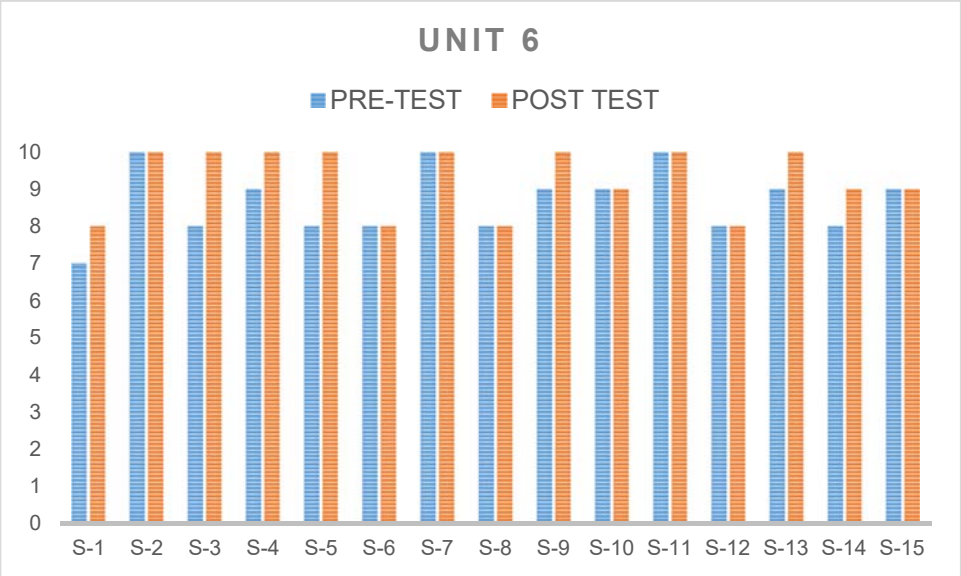

Figure 4.3 Experimental Group Students' Pre- and Post-test Grades in Unit 6

Looking at the chart 3, it can be deduced that in unit 6, seven students of the experimental group show improvement in their grammar proficiency level, yet the results of eight students remain the same.

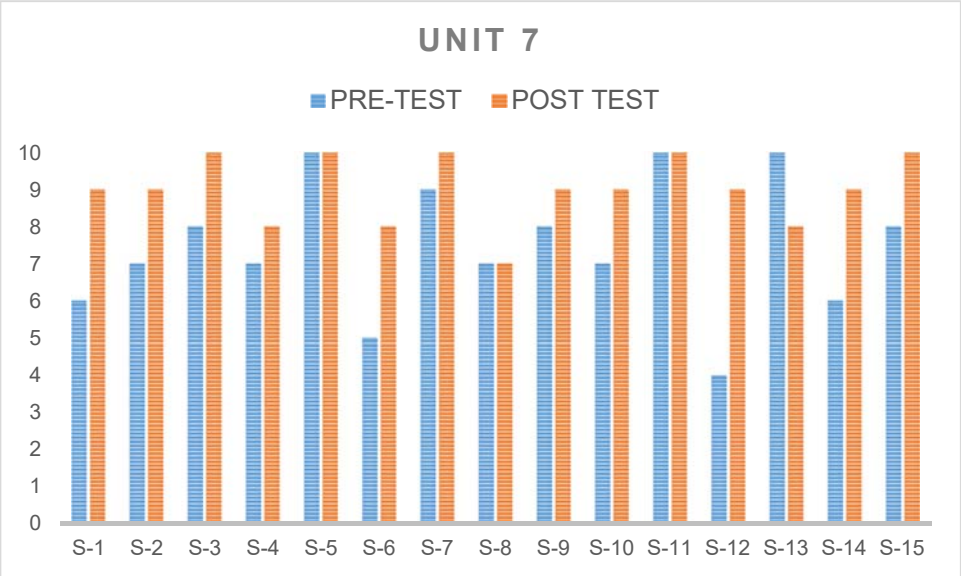

Figure 4.4 Experimental Group Students' Pre- and Post-test Grades in Unit 7

The column chart 4, except for two students that have the same grades in both tests and one student who misses two points in his/her post-test score, proves that eleven students have remarkable improvement in unit 7.

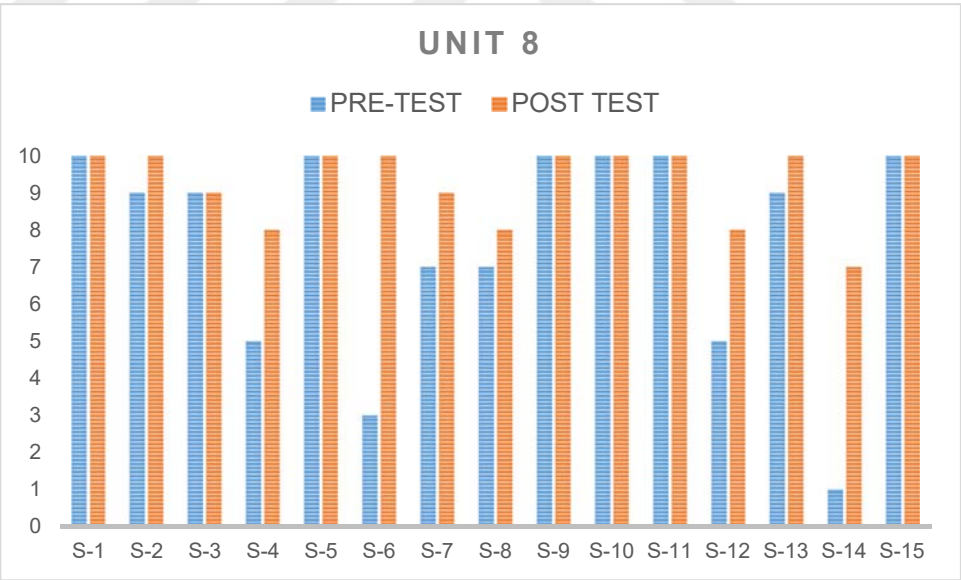

Figure 4.5 Experimental Group Students' Pre- and Post-test Grades in Unit 8

As it is obvious in column chart 5, in unit 8, eight students get better results in post-test after the implementation of the model and half of which show great performance since their post-test grades are much higher than that of pre-test.

Research Question 2. *Is there a statistically significant variation in the pre- and post- test grades of the students in the control group after teaching grammar in a traditional way*?

The effect of traditional teaching was gauged using a paired samples t-test, and the analysis are shown in two tables; table 4.5 is for descriptive statistics and the findings of t-test are given in table 4.6

Table 4.5

Descriptive Statistics of the Control Group

Variables	Condition	n	Mean	Std. Dev.	Std. Error of Mean
4th Unit	pre-test	7	9.86	0.37	0.14
	post-test	7	9.43	0.53	0.20
5th Unit	pre-test	7	8.86	1.67	0.63
	post-test	7	8.86	0.90	0.34
6th Unit	pre-test	7	8.14	0.69	0.26
	post-test	7	8.29	0.48	0.18
7th Unit	pre-test	7	6.57	2.76	1.04
	post-test	7	7.75	1.90	0.71
8th Unit	pre-test	7	7.71	2.43	0.91
	post-test	7	8.71	1.11	0.42

According to table 4.5, mean scores of pre-test for 4th, 5th, 6th, 7th and 8th units are (9.86), (8.86), (8.14), (6.57) and (7.71) respectively. These values for post-test are (9.43), (8.86), (8.29), (7.75) and (8.71).

Table 4.6

The Results of t-Test to Investigate the Differences of Pre-test and Post-test in the Control Group

Variables	Mean Differences	t Statistic	df	p Value
4th Unit	0.42	2.12	6	0.07
5th Unit	0.01	0.01	6	1
6th Unit	-0.14	-0.54	6	0.60
7th Unit	-1	-1.08	6	0.32
8th Unit	-1	-1.32	6	0.23

The analysis indicated in table 4.6 explains that there is not any significant difference between the scores of pre-test and post-test results of 4th unit (2.12, p=0.07), 5th unit (t= 0.01, p= 1), 6th unit (t= -0.54, p= 0.60), 7th unit (t= -1.08, p= 0.32) and 8th unit (t= -1.32, p= 0.23) in the control group (*traditional teaching*).

The conclusion drawn from this table is that there is not a statistically significant variation in the pre- and post-test grades of the students in the control

group after teaching grammar in a traditional way. So it is ascertained that instructing in a traditional classroom does not have a positive effect on learning grammar in the control group.

The pre- and post-test points of each student in the control group for every unit are displayed in the following column charts that render more valuable data to support the analysis presented in the tables above:

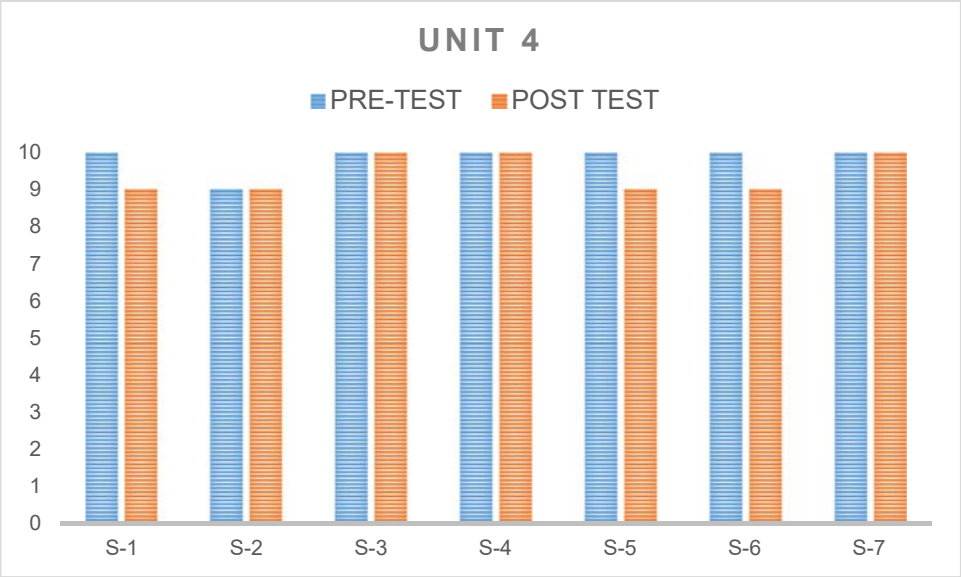

Figure 4.6 Control Group Students' Pre- and Post-test Grades in Unit 4

The column chart 6 indicates that except for four students who keep their grades the same after the lecture-based learning, the three students lower their scores.

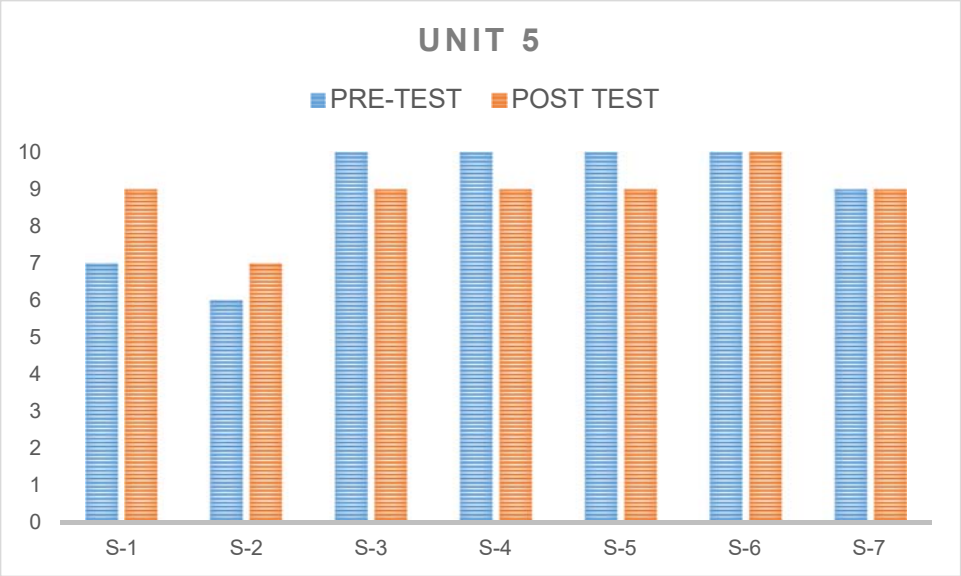

Figure 4.7 Control Group Students' Pre- and Post-test Grades in Unit 5

On one hand, as it is clarified in column chart 7, the points that two students get from each test remain the same, two of them increase it in unit 5. On the other hand, three students' results are lower than that of pre-test.

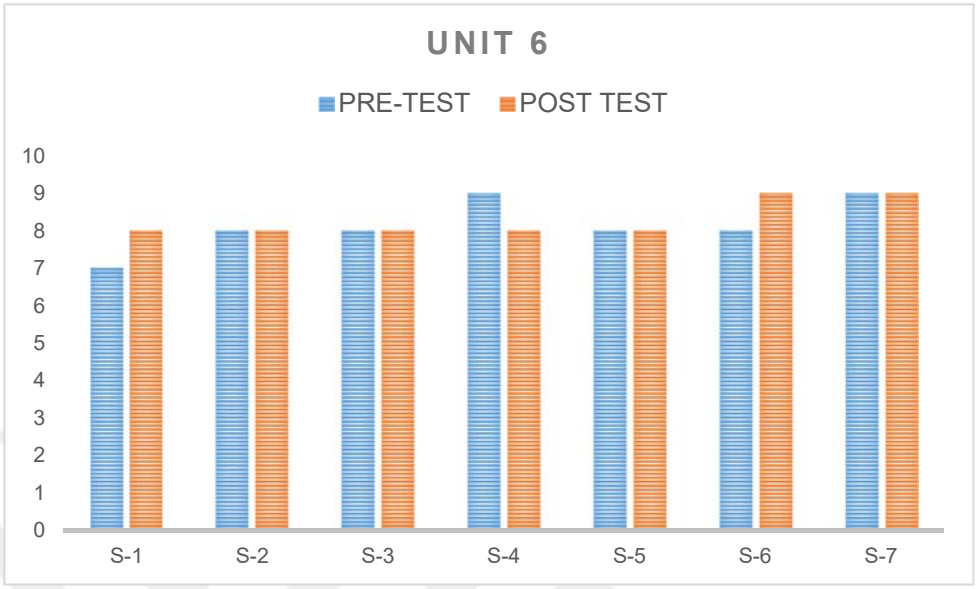

Figure 4.8 Control Group Students' Pre- and Post-test Grades in Unit 6

As stated in column chart 8, in unit 6, two students perform better in post-test, four of them get the same grades as in those of pre-test, but the point that one student gets from post-test is lower than his/her pre-test.

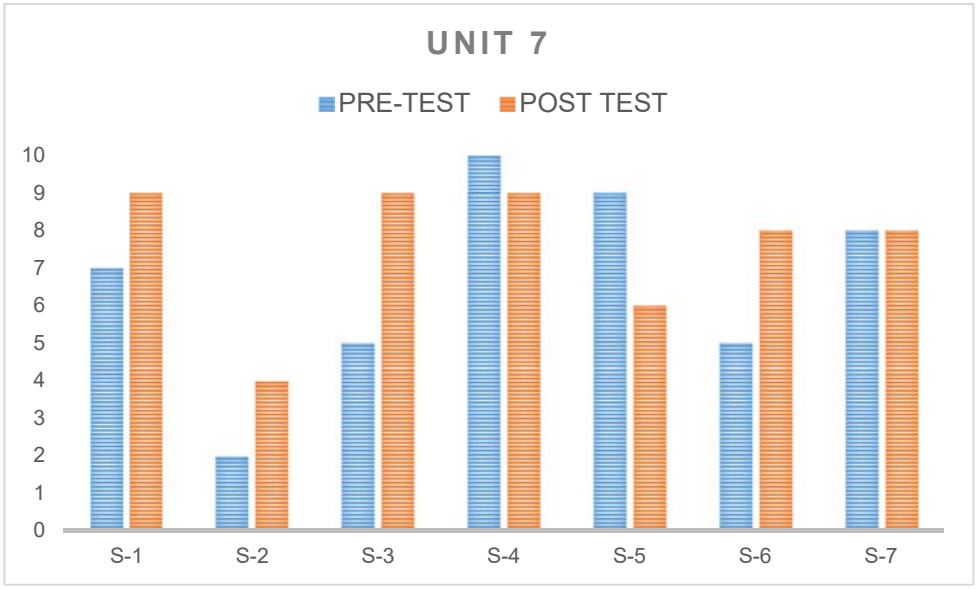

Figure 4.9 Control Group Students' Pre- and Post-test Grades in Unit 7

Except for one student who gets the same results from both tests, for the rest of the class, there seems to be some changes as demonstrated in column

chart 9; while four students get better grades, the scores of two of them are lower in unit 7.

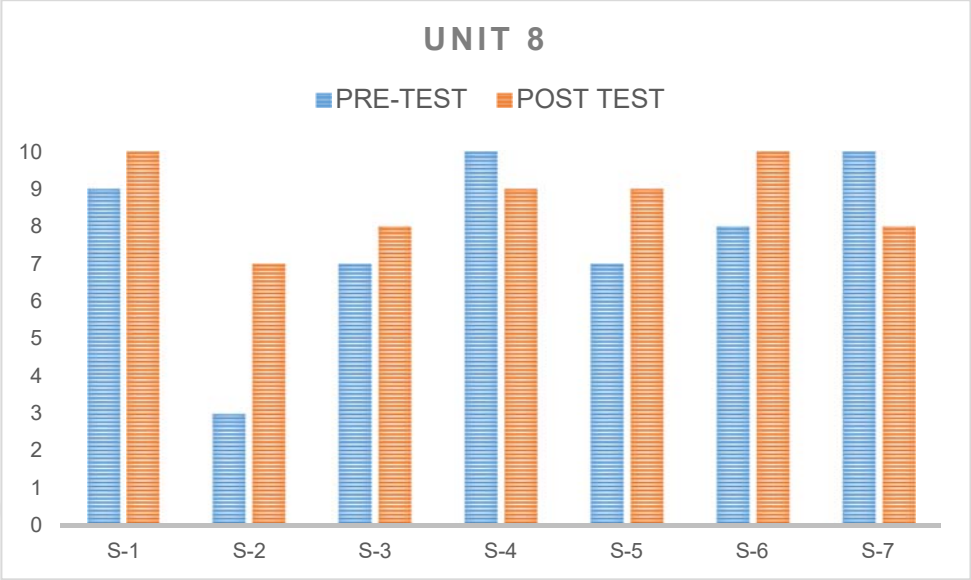

Figure 4.10 Control Group Students' Pre- and Post-test Grades in Unit 8

After the face-to-face instruction in unit 8, five students get better grades, and yet two of them worsen their marks as seen in column chart 10.

Research Question 3. *Is there any significant difference in the scores of the students in the experimental and control groups before and after applying Flipped Learning Model in teaching grammar*?

Table 4.7

Descriptive Statistics of the Scores of the Students in the Experimental and Control Groups

Variables	Condition	Groups	n	Mean	Std. Dev.	Std. Error of Mean
4th Unit	pre-test	Experimental	15	9.27	1.66	0.43
		Control	7	9.86	0.37	0.14
	post-test	Experimental	15	9.53	0.91	0.23
		Control	7	9.43	0.53	0.20
5th Unit	pre-test	Experimental	15	8.60	1.29	0.33
		Control	7	8.86	1.67	0.63
	post-test	Experimental	15	9.40	0.63	0.16
		Control	7	8.86	0.90	0.34
6th Unit	pre-test	Experimental	15	8.67	0.90	0.23
		Control	7	8.14	0.69	0.26
	post-test	Experimental	15	9.27	0.88	0.22
		Control	7	8.29	0.48	0.18
7th Unit	pre-test	Experimental	15	7.47	1.80	0.46
		Control	7	6.57	2.76	1.04
	post-test	Experimental	15	9	0.92	0.23
		Control	7	7.57	1.90	0.71
8th Unit	pre-test	Experimental	15	7.67	2.92	0.75
		Control	7	7.71	2.43	0.91
	post-test	Experimental	15	9.27	1.03	0.26
		Control	7	8.71	1.11	0.42

Conducting two independent samples t-test enabled the researcher to answer this question with statistical figures. Descriptive statistics of experimental and control groups for this question are given in table 4.7.

The result of independent sample that shows the investigation of the differences between the scores of the students in the experimental and control groups can be viewed in table 4.8.

Table 4.8

The Results of t-Test to Investigate the Differences of the Scores of the Students in the Experimental and Control Groups

Variables	Levene's Test (F)	p	Mean Differences	t Statistic	df	p Value
4th Unit (pre-test)	2.99	0.10	-0.59	-0.91	20	0.37
4th Unit (post-test)	0.76	0.39	0.10	0.27	20	0.78
5th Unit (pre-test)	0.62	0.43	-0.25	-0.39	20	0.69
5th Unit (post-test)	0.02	0.88	0.54	1.64	20	0.11
6th Unit (pre-test)	1.70	0.20	0.52	1.35	20	0.18
6th Unit (post-test)	1.62	0.25	0.98	2.72	20	0.02
7th Unit (pre-test)	2.13	0.16	0.89	0.91	20	0.37
7th Unit (post-test)	1.15	0.30	1.42	2.40	20	0.02
8th Unit (pre-test)	0.84	0.36	-0.48	-0.03	20	0.97
8th Unit (post-test)	0.01	0.93	0.55	1.14	20	0.26

According to table 4.8, Levene's Test for Equality of Variances of students' scores is not significant at 0.05 alpha level. That means, in terms of proficiency in grammar, there is not a statistically significant difference between the experimental and control groups. According to this non-significant result, it may be concluded that the variances of these variables were equal across groups.

As demonstrated in table 4.8, there is not significant difference between experimental and control groups in pre-test of 4th (t=-0.91, p=0.37), 5th (t=-0.39, p=0.69), 6th (t=1.35, p=0.18), 7th (t=0.91, p=0.37) and 8th units (t=-0.03, p=0.97) at 0.05 alpha level. These findings are purported to be in accord with the outcomes of proficiency test administered to determine the levels of students at the beginning of the term since looking at the results, it can be interpreted that the levels (B2) of both groups are not distinctive.

In addition to these, the differences between experimental and control groups in post-test of 4th (t=0.27, p=0.78), 5th (t=1.64, p=0.11) and 8th units (t=1.14, p=0.26) prove that they are not significant at 0.05 alpha level. Concerning these non-significant distinction, the conclusion may be drawn as there is not any considerable difference between the experimental and control groups in above variables. However, as the mean differences observed in the 5th and 8th units are not major, it can be stated the treatment of *Flipped Learning Model* has more effect than that of traditional teaching.

On the other hand, at 0.05 alpha level, the differences between experimental and control groups in the post-test of 6th (t=2.72, p=0.02) and 7th (t=2.40, p=0.02) units are rather conspicuous. As this is certified in table 4.7, the mean scores of experimental group in post-test of 6th (9.27) and 7th (9) units are significantly higher than control group, yet the mean scores of control group in these variables are (8.29) and (7.57) respectively.

Research Question 4. *What are the students' attitudes towards Flipped Learning Model in learning grammar in the experimental group?*

The main objective of this question is to gain an insight into the overall attitudes of students. With this purpose, the researcher used a survey and a semi-structured interview. First the following column chart that shows all graphs for the first 22 items in the questionnaire is given and then each item is categorized and the description of them is presented with tables and bae charts. Then for the 23rd item of the survey a bar chart of its multiple choice check list items is displayed. Consequently, the transcript of the interview for each interview question is typed and discussed.

4.4 Survey on the Perceptions of Students on the Flipped Learning Model

4.4.1 Likert scale Items

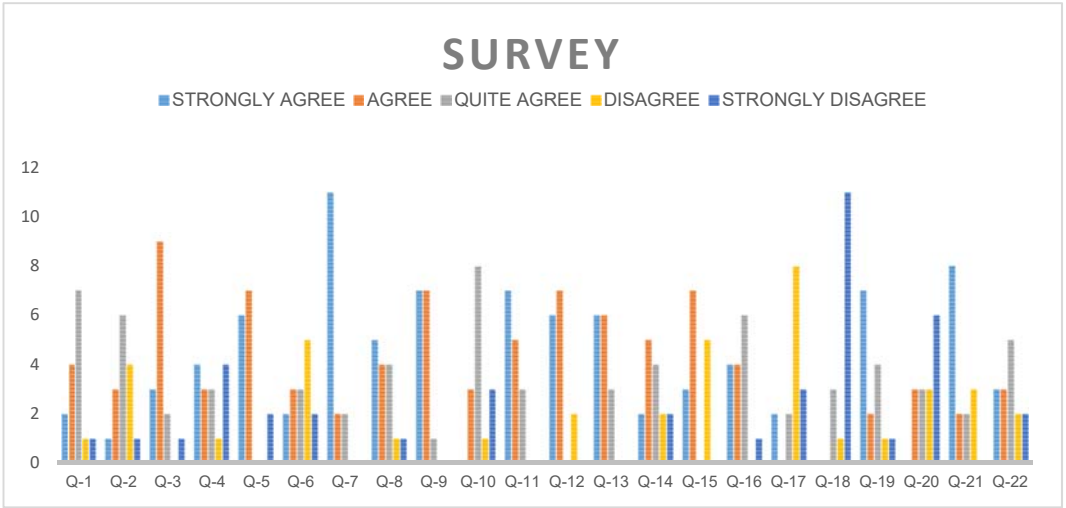

Figure 4.11 Experimental Group Students' Responses to Likert scale Items in the Survey

***On Flipped Learning Model*:**

Item 1. I feel more engaged in the flipped classroom versus a traditional classroom.

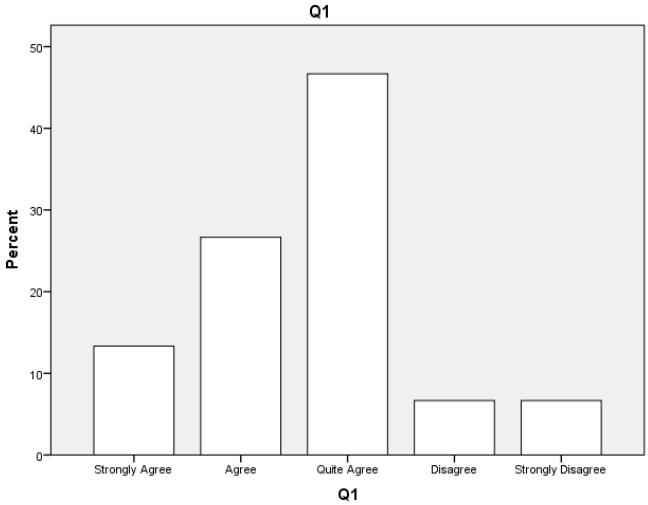

Figure 4.12 Experimental Group Students' Responses to Item 1

Item 19. I feel like the flipped classroom helped to improve my understanding in English (from watching the videos, having them available all of the time, to the class activities that followed the lesson).

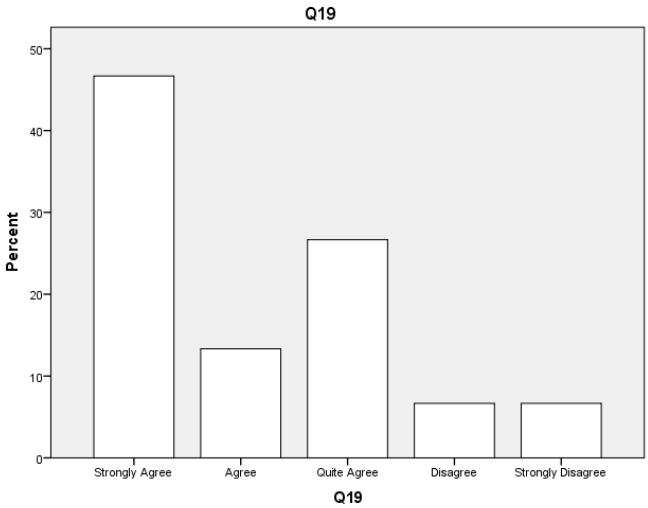

Figure 4.13 Experimental Group Students' Responses to Item 19

Item 22. The flipped lesson gave me more confidence to complete other homework assignments that practiced the same skill.

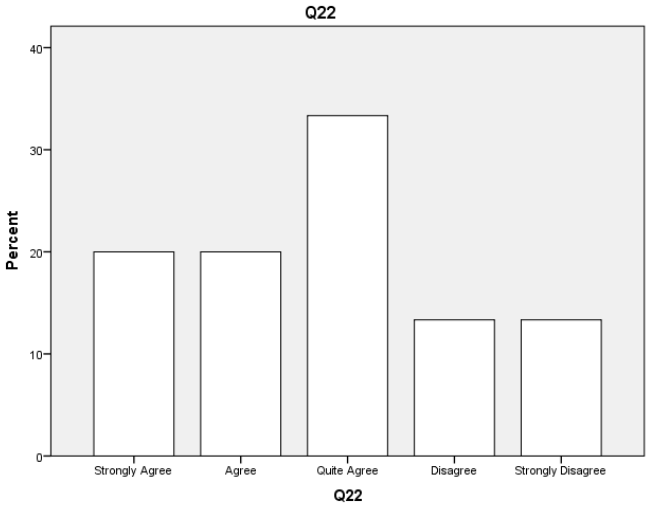

Figure 4.14 Experimental Group Students' Responses to Item 22

Table 4.9

Frequency Table for Items 1, 19 and 22

		Strongly Agree	Agree	Quite Agree	Disagree	Strongly Disagree	TOTAL
Item 1.	**f**	2	4	7	1	1	15
	%	13.33	26.67	46.67	6.67	6.67	100.00
Item 19.	**f**	7	2	4	1	1	15
	%	46.67	13.33	26.67	6.67	6.67	100.00
Item 22.	**f**	3	3	5	2	2	15
	%	20.00	20.00	33.33	13.33	13.33	100.00

Looking at the figures 4.12, 4.13, 4.14 and percentages of students' answers to the items 1, 19 and 22 in the table 4.9, it can clearly be concluded that they particularly find *Flipped Learning Model* as beneficial as traditional teaching; however they acknowledge the effects of the model on their English learning, yet they mostly do not relate the model to doing other homework assignments.

***On Educator Role in Flipped Learning Model*:**

Item 7. If I did not have a computer or the Internet available to me, the teacher made sure I still learned the lesson by providing notes ahead of time or allowing me to review the video prior to class.

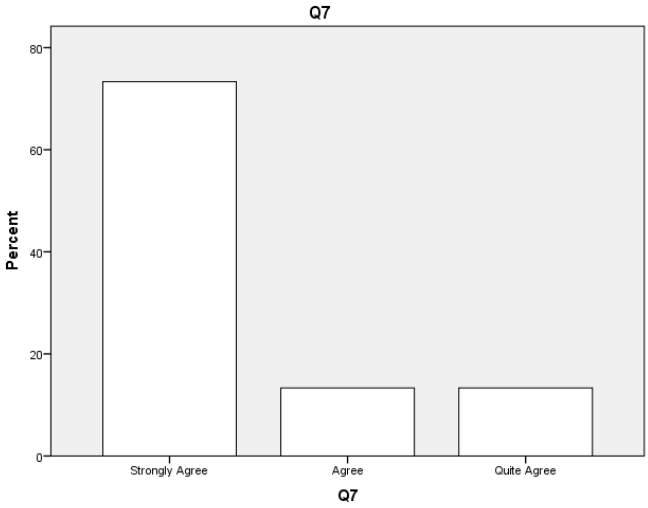

Figure 4.15 Experimental Group Students' Responses to Item 7

Table 4.10

Frequency Table for Item 7

		Strongly Agree	Agree	Quite Agree	Disagree	Strongly Disagree	TOTAL
Item 7.	**f**	11	2	2	0	0	15
	%	73.33	13.33	13.33	0.00	0.00	100.00

As demonstrated both in the figure 4.15 and the table 4.10, students' responses to that question is highly positive since eleven of them *strongly agree* with the statement.

***On Videos*:**

Item 2. I like watching the lesson on videos rather than listening to the lesson through a class period.

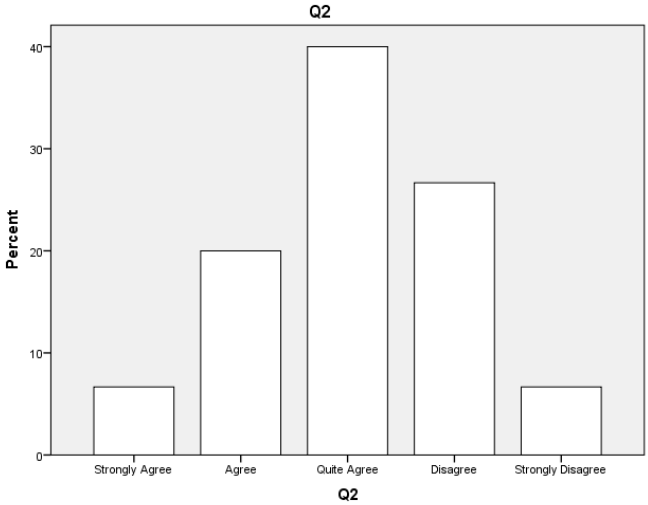

Figure 4.16 Experimental Group Students' Responses to Item 2

Item 3. When assigned a flipped lesson, I usually watch the videos rather than use the textbook to learn the lesson.

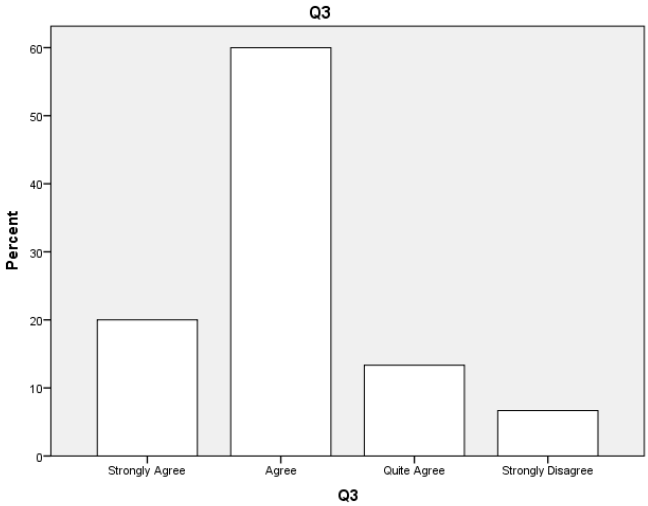

Figure 4.17 Experimental Group Students' Responses to Item 3

Item 5. While watching the video lesson, I pause or rewind the video when I need to write notes or review a part that I was not sure about.

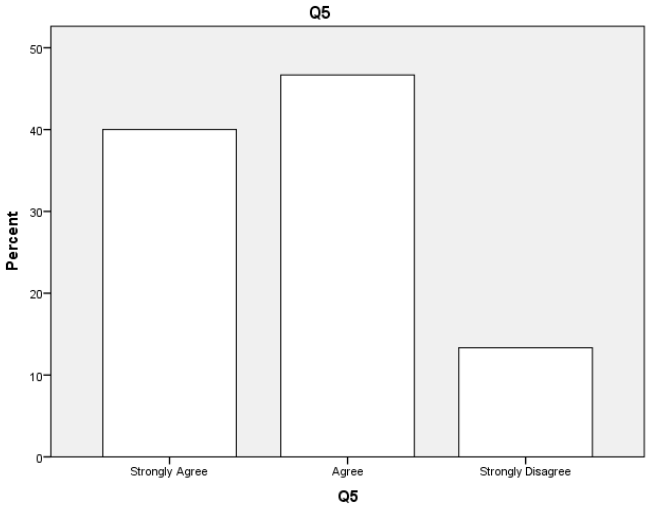

Figure 4.18 Experimental Group Students' Responses to Item 5

Item 6. I find it more helpful than the textbook to be able to go back and re-watch the videos when I need to review for a quiz or a test.

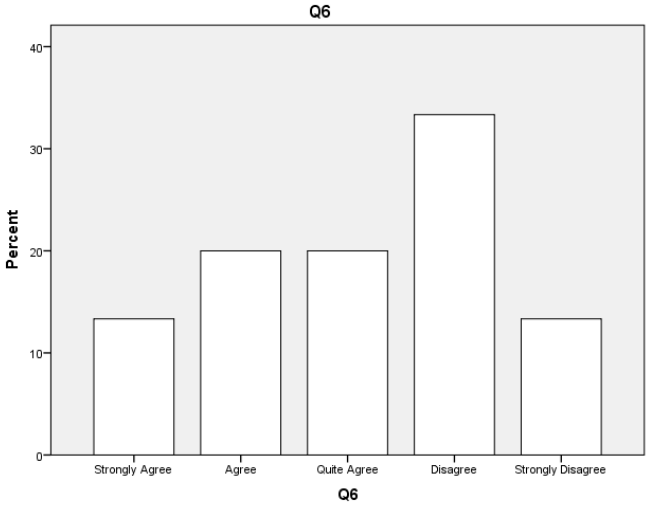

Figure 4.19 Experimental Group Students' Responses to Item 6

Item 8. I liked how I was able to pace myself while watching the video lessons so that I could spend more time understanding the lesson.

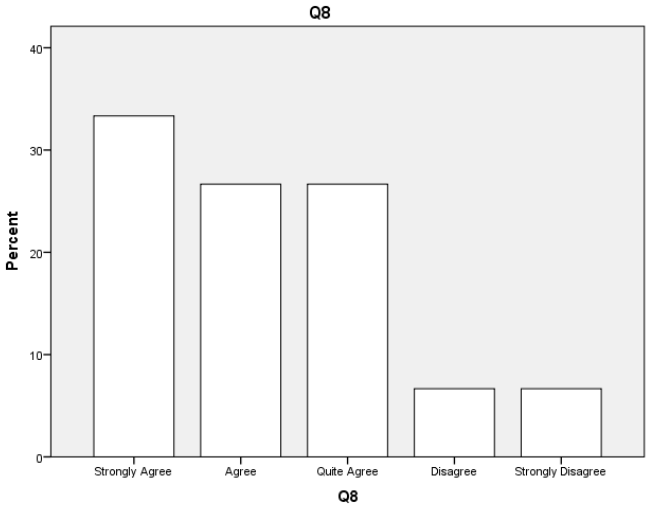

Figure 4.20 Experimental Group Students' Responses to Item 8

Item 15. The video lessons helped prepare me for the class activities.

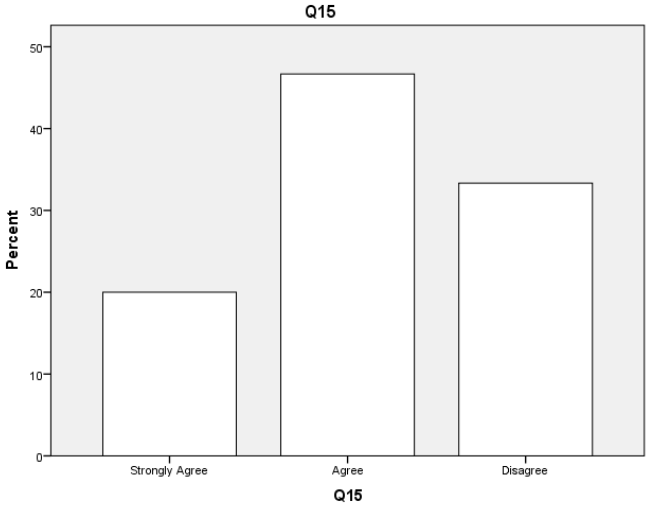

Figure 4.21 Experimental Group Students' Responses to Item 15

Item 16. I feel that the video lessons provide more information on the topic than the textbook provides.

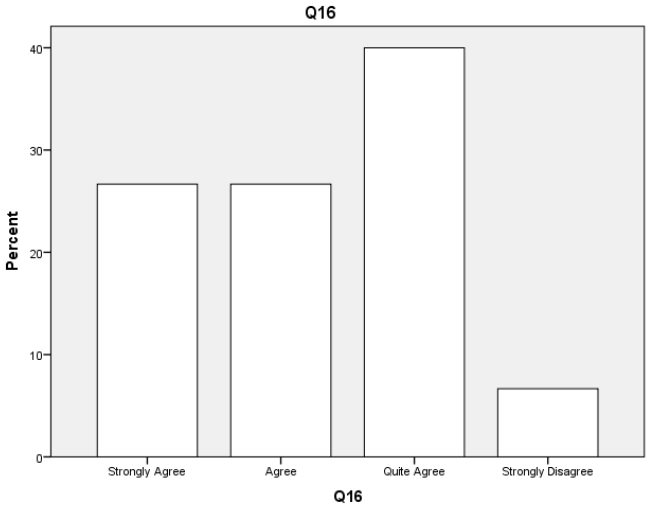

Figure 4.22 Experimental Group Students' Responses to Item 16

Item 17. I often re-watch the video lessons before taking a quiz or a test.

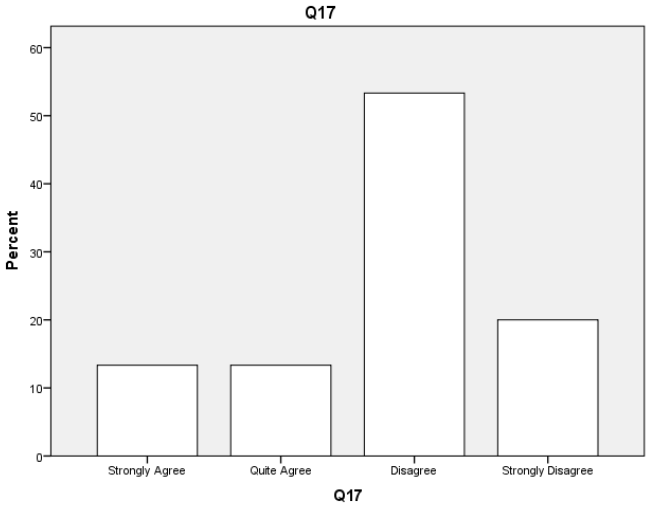

Figure 4.23 Experimental Group Students' Responses to Item 17

Students' reflections on items 2, 3, 5, 6, 8, 15, 16 and 17 are shown in the table 4.11, and the figures 4.16, 4.17, 4.18, 4.19, 4.20, 4.21, 4.22 and 4.23. With regard to these findings, in general, it can be specified that students find face-to-face lectures as important as video lectures since they quite agree with the statement in item 2, moreover, as they are millennials, watching videos for learning a grammar structure is more enjoyable for them than reading it through a book as

most of them agree with item 3; however for exams, they prefer books to videos because they predominantly disagree with item 6 and 17. Despite this, they still admit that the information provided by the video lectures is more than that of the book as is seen in item 16. Item 15 displays that the ones who disagree with the effectiveness of video lectures for in-class activities are half as many as the ones who agree with it. More importantly, as can be observed in items 5 and 8, nearly all students consider that lectures through videos are practical since they can not only determine their own pace of learning, but also stop and rewind the videos while watching them.

Table 4.11

Frequency Table for Items 2, 3, 5, 6, 8, 15, 16 and 17

		Strongly Agree	Agree	Quite Agree	Disagree	Strongly Disagree	TOTAL
Item 2.	**f**	1	3	6	4	1	15
	%	6.67	20.00	40.00	26.67	6.67	100.00
Item 3.	**f**	3	9	2	0	1	15
	%	20.00	60.00	13.33	0.00	6.67	100.00
Item 5.	**f**	6	7	0	0	2	15
	%	40.00	46.67	0.00	0.00	13.33	100.00
Item 6.	**f**	2	3	3	5	2	15
	%	13.33	20.00	20.00	33.33	13.33	100.00
Item 8.	**f**	5	4	4	1	1	15
	%	33.33	26.67	26.67	6.67	6.67	100.00
Item 15.	**f**	3	7	0	5	0	15
	%	20.00	46.67	0.00	33.33	0.00	100.00
Item 16.	**f**	4	4	6	0	1	15
	%	26.67	26.67	40.00	0.00	6.67	100.00
Item 17.	**f**	2	0	2	8	3	15
	%	13.33	0.00	13.33	53.33	20.00	100.00

***On Drawbacks of Videos*:**

Item 4. I find it difficult to stay focused to the videos because of other Internet disruptions (such as checking email or social media sites).

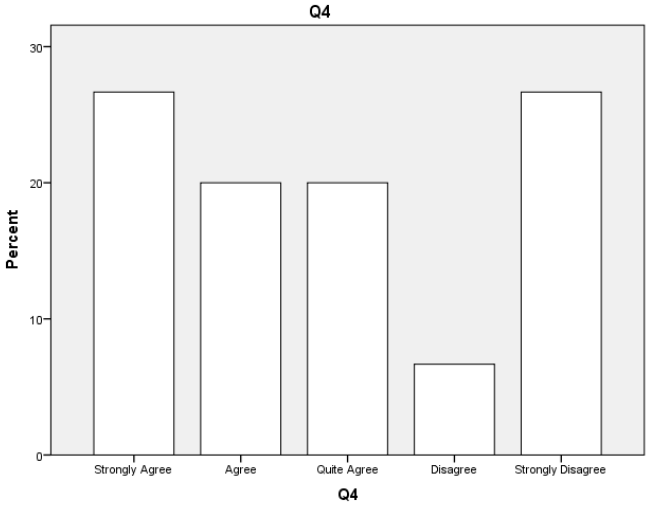

Figure 4.24 Experimental Group Students' Responses to Item 4

Item 18. It was difficult for me to find a computer or Internet access to watch the video lessons.

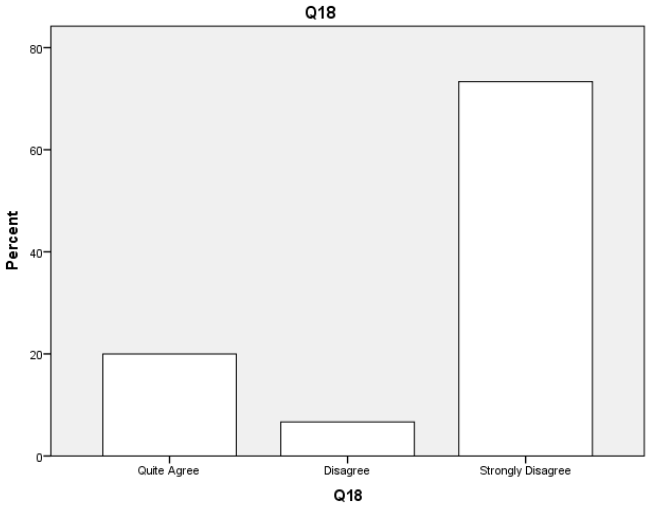

Figure 4.25 Experimental Group Students' Responses to Item 18

Table 4.12

Frequency Table for Items 4 and 18

		Strongly Agree	Agree	Quite Agree	Disagree	Strongly Disagree	TOTAL
Item 4.	**f**	4	3	3	1	4	15
	%	26.67	20.00	20.00	6.67	26.67	100.00
Item 18.	**f**	0	0	3	1	11	15
	%	0.00	0.00	20.00	6.67	73.33	100.00

Items 4 and 18 ask students for their reflections on the downsides of videos and the results are demonstrated in the table 4.12 and figures 4.24 and 4.25. On that account, their responses of item 4 show that they either strongly agree or agree with the statement that they are interrupted during video lectures due to some reasons, such as social media sites. And although a few students quite agree with item 18, the rest of the class could find the necessary tool to watch lectures online.

***On In-class Time of Flipped Learning Model*:**

Item 9. I believe that the flipped lesson allowed for our class to have extra time to practice topics.

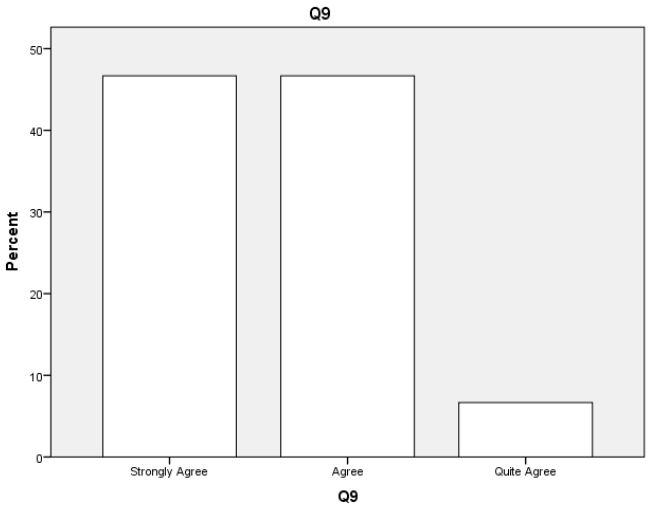

Figure 4.26 Experimental Group Students' Responses to Item 9

Item 10. I participated more in the activities following a flipped lesson than I did in activities completed after a traditional lecture.

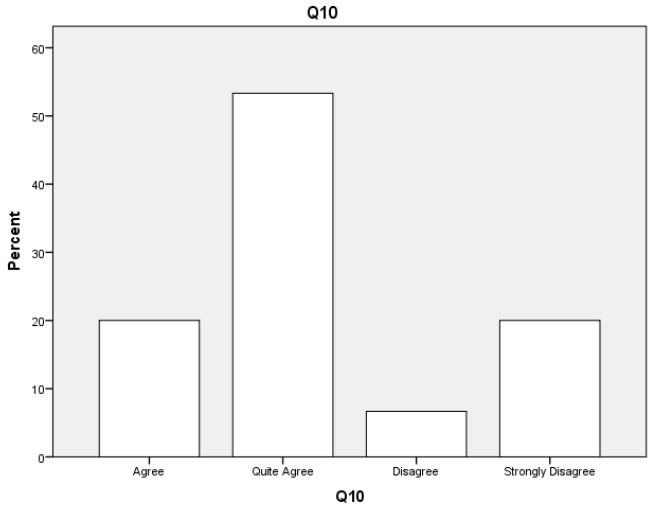

Figure 4.27 Experimental Group Students' Responses to Item 10

Item 11. The flipped classroom allows students to spend more time collaborating and having discussions about the topic with each other in the classroom.

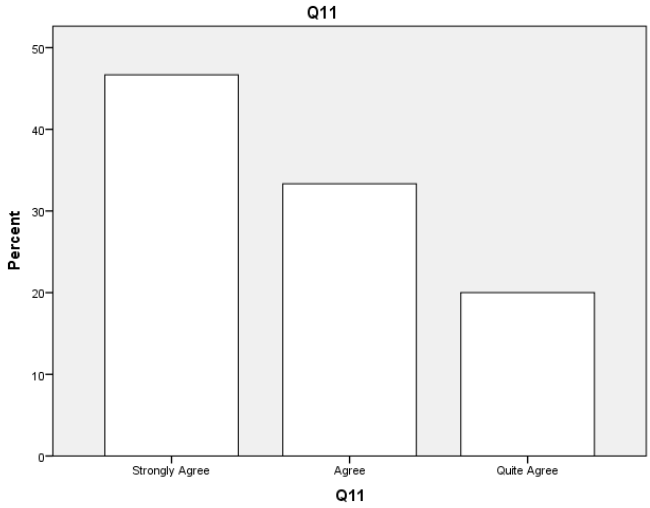

Figure 4.28 Experimental Group Students' Responses to Item 11

Item 12. The activities that we completed in the classroom following a flipped lesson were beneficial with improving my understanding of the topic.

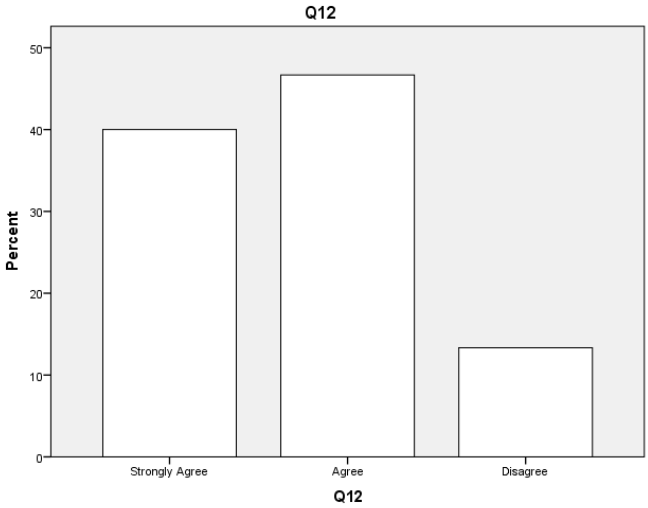

Figure 4.29 Experimental Group Students' Responses to Item 12

Item 21. In class I didn't face hardships when I practised the lesson that I learned through videos at home.

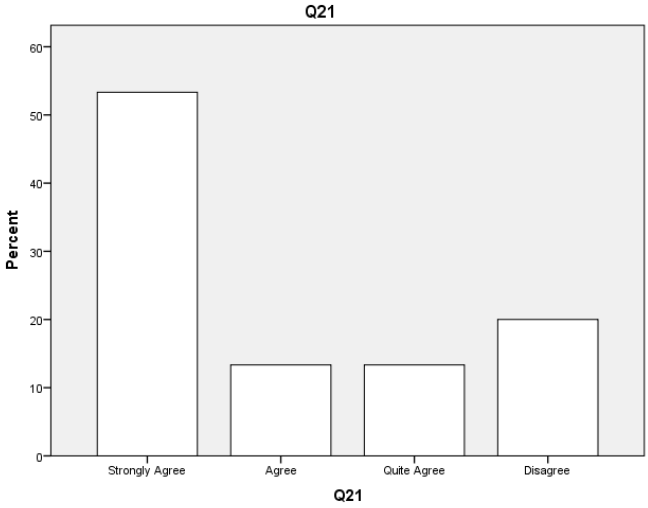

Figure 4.30 Experimental Group Students' Responses to Item 21

Table 4.13

Frequency Table for Items 9, 10, 11, 12 and 21

		Strongly Agree	Agree	Quite Agree	Disagree	Strongly Disagree	TOTAL
Item 9.	**f**	7	7	1	0	0	15
	%	46.67	46.67	6.67	0.00	0.00	100.00
Item 10.	**f**	0	3	8	1	3	15
	%	0.00	20.00	53.33	6.67	20.00	100.00
Item 11.	**f**	7	5	3	0	0	15
	%	46.67	33.33	20.00	0.00	0.00	100.00
Item 12.	**f**	6	7	0	2	0	15
	%	40.00	46.67	0.00	13.33	0.00	100.00
Item 21.	**f**	8	2	2	3	0	15
	%	53.33	13.33	13.33	20.00	0.00	100.00

In terms of in-class time in *Flipped Learning Model*, items 9, 10, 11, 12 and 21 are presented to students and their answers to these are displayed in the table 4.13, and figures 4.26, 4.27, 4.28, 4.29 and 4.30. According to the main points of these, students either strongly agree or agree with the statements in items 9, 11 and 12 since they think the implementation of the model enables more time for valuable and effective practice through discussions and collaborative works with their peers. Moreover, they also strongly agree with item 21 as they believe they face nearly no hardships during in-class activities thanks to video lectures viewed at home. Nonetheless, as seen in the table above and figure 4.27, for item 10, they quite agree with the efficiency of activities done both after *Flipped Learning Model* and traditional classroom.

***On Educator Role in the Class of Flipped Learning Model*:**

Item 13. The teacher had more time to answer questions about the topic after a flipped lesson than she did in a traditional lecture.

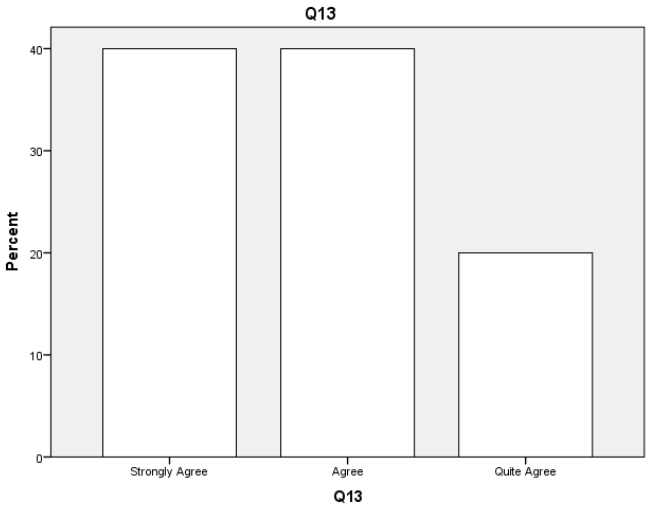

Figure 4.31 Experimental Group Students' Responses to Item 13

Table 4.14

Frequency Table for Item 13

		Strongly Agree	Agree	Quite Agree	Disagree	Strongly Disagree	TOTAL
Item 13.	**f**	6	6	3	0	0	15
	%	40.00	40.00	20.00	0.00	0.00	100.00

The results displayed in the table 4.14 and figure 4.31 point that students find educator more effective in *Flipped Learning Model* than in a traditional lecture as they mostly strongly agree and agree with the statement in item 13.

***On Traditional Classroom*:**

Item 14. I would rather learn through a traditional lecture than learn from the flipped classroom.

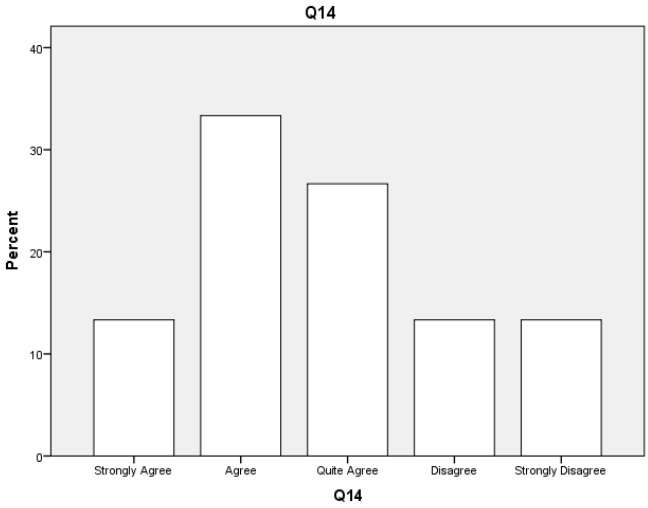

Figure 4.32 Experimental Group Students' Responses to Item 14

Table 4.15

Frequency Table for Item 14

		Strongly Agree	Agree	Quite Agree	Disagree	Strongly Disagree	TOTAL
Item 14.	**f**	2	5	4	2	2	15
	%	13.33	33.33	26.67	13.33	13.33	100.00

For item 14, the table 4.15 and figure 4.32 show us students' perceptions of *Flipped Learning Model*. As a consequence, it can clearly be concluded that, most of them prefer learning in a traditional classroom to learning in a flipped classroom.

***On Drawback of Traditional Classroom*:**

Item 20. When I complete a regular homework assignment (solving problems after learning a lesson in class), I sometimes get confused working on the problems by myself.

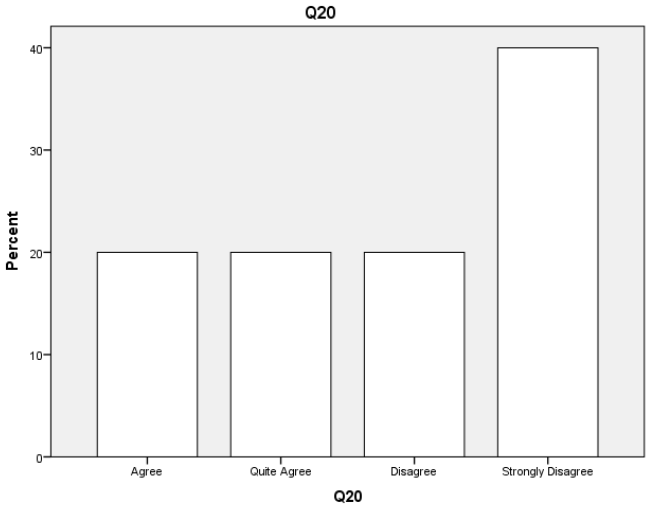

Figure 4.33 Experimental Group Students' Responses to Item 20

Table 4.16

Frequency Table for Item 20

		Strongly Agree	Agree	Quite Agree	Disagree	Strongly Disagree	TOTAL
Item 20.	**f**	0	3	3	3	6	15
	%	0.00	20.00	20.00	20.00	40.00	100.00

Students strongly disagree with the statement in item 20 since they do not find traditional learning ineffective as seen in table 4.16 and figure 4.33.

4.4.2 Multiple Checklist Items

Item 23. Which (if any) did you enjoy about the flipped classroom (you may pick more than one):

O **a)** The availability and access to the video lessons

O **b)** Being able to pause and rewind the video when I was confused or missed something important

O **c)** The collaboration and discussions in class (as a whole class or group)

O **d)** The amount of time the teacher had to review a topic

O **e)** The amount of time we had to practice the skill learned through the flipped lesson

O **f)** Working on the class activities after learning the lesson

O **g)** Being able to pace myself while learning the lessons

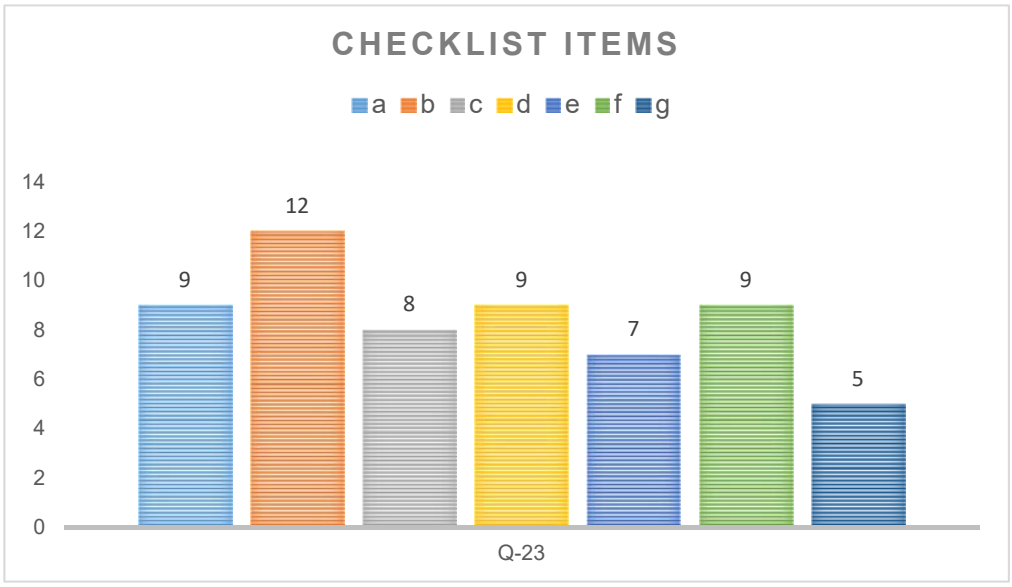

Figure 4.34 Experimental Group Students' Responses to Multiple Checklist Items

The figure 4.34 reveals that students like the ability to pause and rewind the video lectures for the parts they do not understand or get confused the most and for them determining on their own pace of learning is the least preferred feature of *Flipped Learning Model*.

4.4.3 Open Ended Items

Students' answers to items 24 and 25 are as follows:

Item 24. *What did you like most about the flipped classroom*?

Student A: "Both having the opportunity to review the video when I miss or do not understand a point while watching it, and practising the grammar structure in class with activities are great features of the model."

Student B: "That every student can study lessons from videos at his/her own pace as much as and whenever she/he wants without asking the teacher for a revision is the most effective qualification of the model for me."

Student C: "Instead of wasting two or three hours on teaching one grammar structure in a traditional way, that within twenty minutes the point can be taught in detail by the videos which provide more particular information on the topic than a book does is the thing I like the most about the model."

Student D: "What I like about the model is that I comprehend the meaning of each grammar structure through great explanations."

Student E: "Rewinding and reviewing the video when I do not understand a point helps me to improve my English grammar."

Student F: "The best point of the model for me is that it provides us with information at home, which does not tire us."

Student G: "That the videos can be reviewed is the most important feature of the model for me. As it is uploaded to *YouTube*, accessible and the video format of the lessons provide me with practicality."

Student H: "I like the thing that I study the grammar structure at home on my own, and at times I ask my parents for some help, too."

Student J: “Watching the videos in advance of class time enables us to be ready for the activities based on discussions and related practices during class time, and moreover the whole thing is accomplished in an organized way.”

Student K: “That it is easily accessible and simply repeatable is what I like about the model”

Item 25. *If you could provide any suggestions towards improving the flipped classroom, what would it (they) be and why*?

Student D: “So as to improve *Flipped Learning Model*, more visual information can be used and the quality of the video can be enhanced.”

Student E: “Videos and contents are efficient; however the low volume of the videos make them difficult to understand.”

Student I: “Videos can be prepared shorter. Since students can understand one structure through one or two sentences, there is no need to give lots of different examples.”

Student J: “The diversity of the videos and the interactivity can be developed to improve the model.”

Student L: “In my opinion, if there is interactivity in *Flipped Learning Model*, it will be more efficient and remarkable.”

It can be deduced from these comments that they mostly look for more visuality, quality, brevity, diversity and interactivity in the videos. Besides they find the model efficient and effective in many points since videos can be paused, rewound, reviewed and accessed.

4.5 Semi-Structured Interview

Students' answers to the questions in the interview are as follows:

1. *During the flipped lesson, did you read the textbook, watch the video, or both? Which did you find the most helpful / least helpful and why*?

Student A: "We mostly used the videos, because the information given in the book was barely adequate so we could find many more things in detail, which also helped us for the preparation of exams."

Student B: "We mainly watched the videos since it was quite helpful for us to rewind the videos and take our notes down by ourselves."

Student C: "I used both the videos and the textbook but mostly the textbook. However, videos were effective to help me detect my mistakes and correct them. As they can be watched on a video platform, and they are reviewable and accessible, videos were also very practical for me."

Student D: "I benefited from both during the process of my studies. Videos were superior to the textbook, though, because they contained several examples, which helped me significantly to understand the grammar points thoroughly."

Student E: "During the implementation of *Flipped Learning Model*, I used both the textbook and the related videos. While the text book provided me with all the information I needed, the videos contained more brief knowledge on the grammar topics so it was pretty functional."

2. *Think about both a flipped classroom lesson and a traditional lecture lesson. What are the pros and cons about each of them*? *Are the lessons any different*? *How*?

Student A: "Compared to traditional teaching, we saved more time in *Flipped Learning Model* since instead of wasting three class hours on one grammar structure, the point was given within twenty-minute instructional videos. That we could rewind when we did not understand a point enabled us to improve our English."

Student B: "*Flipped Learning Model* ensured that we could comprehend the grammar structure both through activities in class and detailed examples on videos."

Student C: “For me its accessibility is one of the most important features of *Flipped Learning Model*. Traditional teaching must be done only in a classroom environment; however, since this model can be done anywhere and everywhere, and reviewed easily, it was a really practical model.”

Student D: “I do like both approaches in all their parts. That is to say, *Flipped Learning Model* has an advantage that we can review the videos and take our own notes, but on the other hand, although it takes a long time, through traditional teaching, more interactivity makes the lesson more enjoyable and catchy.”

Student E: “The missing point of traditional teaching is about exams since the opportunity to show our success may cause us some problems. I do not think *Flipped Learning Model* has a disadvantage as its accessibility everywhere has helped me a lot.”

3. *How many of you feel less stressed completing practice problems for homework when you learn from the flipped lesson*?

Student A: “Doing homework in class saved time instead of doing it at home. Moreover, we had more time for ourselves and for revision of our lessons, which made us feel less stressed.”

Student B: “Practising the grammar points with our friends after watching the videos was helpful for our comprehension.”

Student C: “Even though I did not feel stressed during any of the activities we did in class, this model made me feel more fluent in English and more relaxed.”

Student D: “Considering the fact that we cannot access our textbooks all the time but we keep our mobile phones in our pockets, the model made it convenient to reach videos whenever we feel stuck on something.”

Student E: “I did not feel more stressed. The reason of it was the videos taught the points in a nutshell as they were both brief and available.”

4. *What (if anything) makes you stressed when working on traditional worksheet / textbook homework*?

Student A: “There is a huge possibility that we may not understand the grammar structure in class, so when we get home, if we feel lost in the middle of nowhere, we do not have a chance to ask our teacher just in-time. At that point videos save us.”

Student B: “I do not think there is.”

Student C: “I did not have any stressful situation or something like that in traditional teaching. With *Flipped Learning Model*, I gained speed in doing homework.”

Student D: “In traditional teaching, since the lessons were taught with careful consideration of every single student’s pace of learning, we did not have any stressful situation, I guess.”

Student E: “I did not have any stressful moments in both models.”

5. *What (if anything) makes you stressed when completing a flipped lesson*?

Student A: “I did not because everything was explained clearly on the videos, and the grammar structure was taught with all explanations but briefly so there were not any factors that caused us to be stressed after the treatment of the model.”

Student B: “Since we discussed every point with our friends ahead of the activities, I did not have any trouble.”

Student C: “I do not think I had problems.”

Student D: “I did not have any trouble, either.”

Student E: “As I stated earlier, I did not have any problems, instead, it helped me grasp the significance of the points I had not understood and by this way take active roles in in-class activities.”

6. *What do you think are the advantages and disadvantages of a flipped classroom*? *Why*?

Student A: “Since it saves time, teaches the points a lot better and in more detail than a traditional lesson does, reduces our stress level and helps us comprehend everything on the videos, I do not think *Flipped Learning Model* has disadvantages.”

Student B: “The examples given on the video lectures provided valuable information on the topic for us. Besides this, the activities and its being reviewable are the other advantages of the model.”

Student C: “For me, the most distinguishing feature of this model is that it is accessible anywhere and anytime.”

Student D: “The only disadvantage of the model can be counted as the interactivity that we have in an actual class is missing; however, that it saves time and can be viewed again and again are absolutely its advantages.”

Student E: “I have not faced any disadvantage of *Flipped Learning Model* yet. The advantage of it is that it can be accessed anywhere and anytime.”

7. *Are there any improvements that you believe can be made towards a flipped classroom*? *If so, what do you think they are*?

Student A: “I do not think it needs to be improved.”

Student B: “I do not find any problems with the model.”

Student C: “If you do not take it personally, I would like to say that the videos can be shortened since we are students and we can run out of credits of our internet package.”

Student D: “I do not know if this model can be implemented only through YouTube, but if not, an application which does not allow students sign out or blocks all the notifications from other social media applications during a class in order to prevent students from being distracted could be developed.”

Student E: “The only thing I can add could be that it does not have to be limited to grammar teaching. I would be glad if there were more videos based on skills.”

8. *Is there anything else that you would like to add regarding the flipped classroom*?

The do not give any specific answers to this question.

The interview supplies the researcher with the insight into their attitude towards *Flipped Learning Model*. As seen above, their overall perception proves that they have a positive reflection on the model. Put it in a nutshell, the advantages of the model are the videos save time, and can be rewound, reviewed, accessed anywhere-anytime, students decide on their own lecture notes and pace of learning, and they practise the point through in-class activities with their peers. However, the interactivity of students through which students can practise English, more enjoyable lessons and catchy interpretations are also preferable in traditional teaching for them. Three students (C, D and E) offered some improvements for the model; shorter videos, an application for it and skill based video lectures.

CHAPTER FIVE

CONCLUSIONS AND SUGGESTIONS

So as to put in a nutshell, a *summary* of the study that mentions which procedures were followed, the *results* of the differences between the success scores of students and their perceptions that emerged from the research, the *limitations* on many things faced and some *recommendations* that may be beneficial for further studies are presented in this chapter. As Shakespeare says "all is well that ends well."

5.1 A General View of the Study

That the advent of improvements in technology urges the use of it in foreign language classes has aroused a strong interest among language teachers and changed their conventional approach to teaching into a more modern one. Since teaching grammar is of the utmost importance for especially second language teachers, attempting to bring new horizons to it has been inevitable. On account of this, several approaches, methods and techniques have been used to make improvements and adjustments in this field for grammar teaching. In this respect, a buzzword, *Flipped Learning Model*, which blends the use of technology outside of the classroom for the independent study of students with face-to-face learning through interactive and engaging activities during in-class time, has come into light.

To shed light on this topic, this study aimed at enquiring into the contributions of *Flipped Learning Model* to teaching grammar to foreign language learners, who are not exposed to the authentic use of the target language as their surrounding provides them with limited context. Deciding to conduct a study to examine the effectiveness of this model at Denge Academy of Science and Art Anatolian High School, where she worked, the researcher, at the outset, collected all the necessary documents; an approval from ethical committee, a permission for conducting a questionnaire, a permission for implementing the study from parents and a permission for using a survey and an interview. For the next step, the proficiency levels of the students were determined by the English teaching department of the school, and at the beginning of 2017-2018 school year, they were placed in their classes accordingly. In the spring semester of the aforesaid year, the researcher selected two classes of B2 level Intermediate students for the

study to produce more valid results in examining if the model would have an effect on students' achievements and attitudes. She, then, with an objective manner, tried to parry all the questions they had by informing them about the procedure of the model. To commence her preparations for the study, the researcher chose five units in their course book, *New Total English Intermediate*, and one grammar structure in each unit, prepared her own PowerPoint slide shows on computer, recorded her videos by Camtasia Studio 7, and uploaded one video in every week of her study first on her YouTube channel and then on her EduBlog page.

These two randomly selected samples formed the experimental and control groups from which qualitative and quantitative data were gathered. In terms of quantitative data, pre- and post-tests were administered to both groups for each unit during the implementation of *Flipped Learning Model* that lasted six weeks. At the end of the treatment, to find out their attitudes towards using the model, the experimental group was given a questionnaire, the first twenty-two questions of which supplied the quantitative data and the data from the last three questions were used as qualitative data, and the volunteer students in that group were asked to join a semi-structured interview so as to collect more qualitative data.

5.2 Discussion of the Findings

With the purpose of seeking the effectiveness of *Flipped Learning Model*, the researcher proposed four research questions:

- Is there a statistically significant difference in the pre- and post- test results of the students in the experimental group after the treatment of Flipped Learning Model?

- Is there a statistically significant variation in the pre- and post- test grades of the students in the control group after teaching grammar in a traditional way?

- Is there any significant difference in the scores of the students in the experimental and control groups before and after applying Flipped Learning Model in teaching grammar?

- What are the students' attitudes towards Flipped Learning Model in learning grammar in the experimental group?

So as to come up with answers to these queries and put forward her idea on *Flipped Learning Model*, the researcher needed some valid and reliable evidence which she obtained from her quantitative and qualitative resources. Thus, the grammar proficiency of students in both groups were tested before and after the implementation of the model, and the attitudes towards learning English in a flipped classroom were checked through a questionnaire and an interview. The results are reviewed below these titles.

5.2.1 The Impact of Flipped Learning Model on Proficiency

Pre- and post-tests were administered to both experimental group before and after the treatment of *Flipped Learning Model*, and the control group before and after the traditional teaching.

The results gathered from the pre-test scores of each group demonstrated that the variation between groups is not statistically significant, in other words, this finding proves that the results of pre-tests for each grammar point are in accordance with the outcomes of the proficiency level test given at the beginning of the school year, and that the levels of both groups are similar to each other.

Besides this, the data collected through post-tests of the experimental group students yielded the result that while in the 6th and 7th units the effect of *Flipped Learning Model* on the proficiency is rather observable, in the 5th and 8th units, the model is also noticed to be quite effective; however, in the 4th unit, due to the students' familiarity with the grammar point and the simplicity of it, the outcomes did not produce conspicuous results that would prove the effectiveness of *Flipped Learning Model*.

With regards to the data obtained from the post-test results of the control group students, it can be stated that traditional instruction did not have a profound effect on students' proficiency in learning grammar. Several reasons might have caused this outcome, such as the boredom or insufficient time for both teaching and practising the grammar structure.

Taking these facts into consideration, it can be concluded that the performance of the experimental group students is more outstanding than that of students in control group who were instructed by traditional teaching since it lacks in some features provided by *Flipped Learning Model*. For instance, while the model allocates precious in-class time for more practice of the grammar point

which is prepared as video lectures to be watched at home, students may not be given adequate time for doing exercises to practise the structure in traditional teaching. Whereas students are given the opportunity for having discussions with their teachers or peers and getting immediate feedback from their teachers in *Flipped Learning Model*, for so doing in traditional instruction, catching up with the school curriculum may be a major issue owing to insufficient time. As a more distinguishing aspect, unlike traditional teaching, the model, anywhere and anytime, supports students' learning with instructional videos, which can be paused, rewound and reviewed. Therefore, the analysis signified the proficiency of experimental group is surpassing since the students in that group outstripped the control group in post-tests.

5.2.2 The Impact of Flipped Learning Model on Attitudes

A questionnaire which contains twenty-two Likert scale items, one multiple checklist item and two open-ended questions and a semi-structured interview that is consisted of eight items are administered to the students in the experimental group to gain an insight into their attitudes towards using *Flipped Learning Model* in learning English.

According to the data gathered from these instruments, students are mostly in favour of the model; however, after the experiment, a few of them still preferred traditional teaching to *Flipped Learning Model* because they had to spare more time and use technological devices to get ready for the activities done during the lesson.

The rest of the students found the model quite effective as they stated that it provided them with anywhere-anytime accessible instructional videos that they could pause, rewind and review, and also with collaborative and engaging in-class activities. For them, moreover, the model substantially improved learner autonomy, their time and pace management, and motivation for learning English out of the classroom environment. In addition to these, most of them agreed that the model is more enjoyable, yet less interactive comparing to the traditional way of learning since it enabled them to have more time for practice through discussions and cooperative works with their peers without any hardships thanks to their readiness with the video lectures viewed prior to class. A considerable amount of students shared their opinions through open-ended questions and semi-structured interview about how to promote it indicating that the model could be developed by making it more diverse and interactive. They even offered to make an application for the

model that could limit and/or block social media applications, notifications, or some other interruptions tech-related causes that might prevent them from studying efficiently.

5.3 Conclusions of the Study

In the light of the analysis of the statistical results and findings inferred from these, it can explicitly be concluded that *Flipped Learning Model* is notably more beneficial in both promoting and enhancing learning since it recuperates the class time to make it conducive to contemporary English learning by embracing technology.

The comparison drawn between the pre-test results of both experimental and control groups revealed that there is not a distinctive difference between the levels of them; which means that the outcomes of the pre-tests are equivalent to the proficiency level test. However, unlike traditional lectures, the outcomes obtained through post-tests proved an overall effectiveness of *Flipped Learning Model* in terms of the advancements in the success of students in experimental group.

Besides its advantages observed in their learning processes and achievements in the target language, throughout the experiment, the students in the experimental group discovered their own pace and style, and individual preferences in learning English. Furthermore, they noticed how to take more responsibility, what is more important to know about the target language, and which ways can be used for being more active for their own learning.

As it is indicated through the data gathered from both quantitative and qualitative instruments that *Flipped Learning Model* is mainly preferred by a significant amount of students since it provides students with several distinctive features. It does not only promote learning with regard to success, it also enhances learning with the help of the advancements in technology, improves their self-study and motivation for learning English, supports students' learning with collaborative and engaging activities done during in-class time, provides students with active learning environment where they take charge of their own learning with their peers through discussions and hand-on practises, and arouses interest in English classes when it is compared to traditional teaching.

5.4 Suggestions for Further Studies

There are some recommendations the researcher proposes for the further researches that can be carried out in this field.

I. For the commencement of the study, a reasonable amount of time must be devoted since the provision of *Flipped Learning Model* necessitates a great deal of hard work prior to applying it. The stages should be organized well enough to prevent any deficiencies in the implementation of the model. Herein, that the in-class time is more of significance must be used as the base of this model.

II. For the first step, who is the sample that the study will be worked on, which instruments will be gauged during the study and what ways the model will be implemented in must be designed respectively. As determining and preparing all of these in advance of the study will be useful for the official process, and this will take the researcher one step forward at the outset.

III. Since today's students, no matter how old they are, are born into a world equipped with technology, blending it with learning is an urge so as to integrate students into learning more. Hence, which technological tools will be used for the model should be considered thoroughly. Curating a blog, starting a YouTube channel, opening a web page or creating a mail group are some of the ideas that can be fundamental to share the instructional videos and to use as online discussion platform.

IV. The contents of the videos must be chosen carefully to prepare the curriculum of the class for the next step. The selection of relatively simple grammar structures may not yield reliable results, thus, in order to reduce the familiarity of the students with the topic and increase the reliability of the study, slightly difficult ones should be selected on the basis of the level of students.

V. Because "there is no single technological solution that applies for every teacher, every course, or every view of teaching" (Koehler, et al., 2004, p.31), the slide shows supplied on the Internet can be a practical alternative for many. In order to avoid misunderstandings, clarify subtle points and provide meticulous details, teacher-created PowerPoint presentations, nevertheless, can also be preferred. The content must be kept quite short and interesting for the presentation to attract students, and for so doing, some entertaining items, such as relevant gifs or funny anecdotes can be used.

VI. Later, instructional videos must be recorded via an appropriate screencasting program, and uploaded on the online platform. Sending videos all at once is an option for Flipped Mastery Model; however, if the study is on *Flipped Learning Model*, releasing the video related to the grammar structure a short time ahead will ensure the control to be established by the researcher.

VII. More importantly, although "flipping the class is not the end-all solution to finding the *best use* of class time, but it does allow for varied forms of instruction" (Bennett, 2012), the activities and practices done during in-class time must be cautiously designed and organised so as to maximise learning in class.

VIII. To collect valid and reliable data, control group must be included in the study to make comparison between groups. If the study is merely on the students' attitudes towards using *Flipped Learning Model*, it is probable to have one experimental group throughout one year to examine the differences between two terms one of which is for traditional-based lecture and the other one is for the implementation of *Flipped Learning Model*.

IX. The study can be conducted by the teacher as the researcher; however, it can be carried out in different classes using different teachers' perspectives. The former option may seem more proper since the teacher can be in charge of checking if the instructional videos are watched every day before class, encouraging and motivating students throughout the process and assess students' success and attitudes more objectively.

X. It should be remembered that, at the start, the stages must be checked by the researcher using fake accounts in order to detect the defects if there are any. Additionally, an orientation may be necessary to make the students aware of the significance of the video lectures and in-class activities together.

XI. Ultimately, that "there is no one-size flip to fit all" (Jacot, et al., 2014, p.27) must be borne in mind, so "the flipped classroom should not just be a band wagon that all teachers jump on to use in their classrooms" because "it is vital that teachers approach the flipped classroom with care and knowledge" (Schmidt and Ralph, 2016, p.2).

XII. For the further studies, the researcher highly recommends that for generalizing the research, sample size might be increased, and the study could be conducted on developing vocabulary or writing skills.

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APPENDICES

APPENDIX A

APPROVED FORM OF ETHICAL COMMITTEE

T.C.
UFUK ÜNİVERSİTESİ

Sosyal Bilimler Enstitüsü Müdürlüğü

Sayı : 96064710/421 21.02.2018

Konu: Ceren SEÇİLMİŞOĞLU/ Çalışması İzni Hk.

ÖZEL DENGE EĞİTİM BİLİM & SANAT ANADOLU LİSESİ

Üniversitemiz Sosyal Bilimler Enstitüsü İngiliz Dili Eğitimi **140770046** numaralı tezli yüksek lisans öğrencisi Ceren SEÇİLMİŞOĞLU, "**The Effects of Flipped Learning Model in Teaching English Grammar on High School Students**" konulu tez çalışmasını **Prof. Dr. Gülsev PAKKAN** yönetiminde yürütmektedir. Adı geçen öğrencimiz uygulamalı çalışmasını okulunuz öğrencilerine uygulamak istemektedir.

Alan çalışmasını gerçekleştirmek için kendisine gerekli iznin verilmesini uygun görüşlerinize saygılarımla rica ederim.

Prof. Dr. Mehmet TOMANBAY
Enstitü Müdürü

EK:

1) 5 Konu İçin Konu Anlatımı Öncesinde ve Sonrasında Uygulanacak Testler (10 Sayfa),
2) Uygulama Sonunda Deney Grubuna Verilecek Anket (1 Sayfa)
3) Uygulama Sonunda Deney Grubuyla Yapılacak Röportaj Soruları (1 Sayfa)

ADRES : Ufuk Üniversitesi, Mevlana Bulvarı (Konya Yolu), No:86-88 06520 / Balgat - ANKARA
Tel : (0 312) 204 44 00 (101 Port) **Faks** : (0 312) 287 23 90
WEB : www.ufuk.edu.tr **e-mail** : ufukuni@ufuk.edu.tr

APPENDIX B

PARENT CONSENT FORM

Tarih: 19/02/2018

Sayın Veli,

Ufuk Üniversitesi Sosyal Bilimler Enstitüsü İngiliz Dili Eğitimi Bölümünde yüksek lisans öğrencisiyim. Başkent Üniversitesi Mütercim Tercümanlık bölümü öğretim üyesi Prof. Dr. Gülsev PAKKAN tarafından desteklen yüksek lisans projem kapsamında okulumuz Intermediate seviyesindeki öğrencilerde '***Ters-Yüz eğitim modelinin lise öğrencileri üzerinde İngilizce dil bilgisi öğretimindeki etkisi***' adlı çalışmanın uygulanması hedeflenmektedir. Bu mektubun yollanış amacı okulumuz Intermediate seviyesindeki öğrencilerimizin velilerinden çocuklarının bu çalışmaya katkıda bulunmalarına izin vermelerini talep etmektir.

Uygulama Total English-Intermediate kitabındaki beş ünitenin birer dil bilgisi konusunu (toplamda beş dil bilgisi konusunu) kapsamaktadır. Proje dâhilinde öğrenciler öncelikle internette sınıfları için oluşturulmuş bir ***blog sayfası***na üye yapılacaklar, ardından her bir konu anlatılmadan önce on soruluk, okul notlarını etkilemeyecek '***konu öncesi testi***'ne tabi tutulacaklar. Sonrasında, hafta sonu zaman diliminde o konu için hazırlanmış ***konu anlatım videoları***nı üye oldukları blog sayfasındaki ***youtube*** linklerinden seyredip konu hazırlıklarını evde tamamlayacaklar. Pazartesi günü öğrencilerin seyredip hazırlandıkları konunun anlaşılmış olduğu birkaç sınıf içi aktivitesiyle desteklendikten sonra, öğrencilere konu ile ilgili konu öncesi testinin benzeri olan bir '***konu sonrası testi***' uygulanacak. Şayet her konu için konu öncesi ve sonrası testlerin sonuçları öğrencilerden alındıktan sonra konu hala anlaşılmamışsa, öğrencilere konular sınıfta ve/veya etüt saatlerinde tekrar tekrar anlatılacak ve böylece uygulamanın yol açabileceği '***öğrencinin konuyu anlayamaması***' riski tamamen ortadan kaldırılacak. Beş dil bilgisi konusunun her biri için ayrı ayrı yapılan bu uygulamanın sonunda öğrencilere '***ters-yüz eğitim modeli***' ile ilgili düşüncelerinin ölçüldüğü bir anket verilecek. Son olarak toplanan verilerin güvenirliğinin sağlanması açısından uygulamanın yapıldığı sınıftan rasgele seçilmiş beş öğrenci ile ***sözlü röportaj*** yapılacak ve sonrasında çıkarılacak olan notların güvenirliği açısından röportaj esnasında öğrencilerin ***ses kaydı*** alınacaktır.

Çocuğunuza uygulanacak test, anket ve röportajlardan alacağımız cevaplar tamamen gizli tutulacak ve sadece araştırmacılar tarafından değerlendirilecektir. Elde edilecek bilgiler yalnızca bilimsel amaçla (yayın, konferans sunumu, vb.) kullanılacak, çocuğunuzun ve/veya sizin isminiz ve/veya kimlik bilgileriniz hiç bir şekilde kimseyle paylaşılmayacaktır.

Yapılacak olan bu uygulama gönüllüdür. Çocuğunuzun geçerli bir sebep belirtildiği takdirde çalışmadan ayrılmasında bir sakınca yoktur.

Bu araştırma ile ilgili herhangi bir sorunuz veya endişeniz varsa, lütfen iletişime geçiniz:

tel: 05536016113
e-mail: cerensec@hotmail.com

Teşekkür ederim

Ceren SEÇİLMİŞOĞLU

Yukarıda açıklamasını okuduğum çalışmaya, oğlum/kızım _____'nin katılımına izin veriyorum.

Ebeveynin:

Adı, soyadı : _____

İmzası : _____

Tarih : _____

İmzalanan bu formu lütfen _____ aracılığı ile _____'e ulaştırın.

Herhangi bir sorunuzda Ufuk Üniversitesi Etik Kurulu'na (**0312) 2044449** telefon numarasından ulaşabilirsiniz.

APPENDIX C

PERMISSION LETTER FOR THE QUESTIONNAIRE

16.02.2018

Name : Ceren Seçilmişoğlu
Institution : Ufuk University
Department : MA in English Language Teaching
Address : Mevlana Bulvarı (Konya Yolu) No: 86-88
City/State/Zip : Balgat-ANKARA

Dear Ms Quarato,

I am an MA postgraduate student from Ufuk University writing my dissertation titled "*The Effects of Flipped Learning Model in Teaching English Grammar on High School Students*", under the direction of my dissertation committee chaired by Prof. Dr. Gülsev PAKKAN, who can be reached at +905323423422. Ufuk University Committee Chair can be contacted at +903122044449 or by mail at Mevlana Bulvarı (Konya Yolu) No: 86-88 Ankara-TURKEY.

I would like your permission to use "*the Survey on the Perceptions of Students on the Flipped Classroom*" in my research study. I would like to use and print your survey under the following conditions:

- I will use the surveys only for my research study and will not sell or use it with any compensated or curriculum development activities.
- I will include the copyright statement on all copies of the instrument.
- I will send a copy of my completed research study to your attention upon completion of the study.

If these are acceptable terms and conditions, please indicate so by replying to me through e-mail: cerensec@hotmail.com

Sincerely,

Ceren SEÇİLMİŞOĞLU

APPENDIX D

PRE- AND POST-TESTS

T.C. MEB
Özel DENGE EĞİTİM
BİLİM & SANAT ANADOLU LİSESİ

MODALS (OBLIGATION & PROHIBITION)
PRE-TEST

NAME: _____ DATE: ___ / ___ / ___ SCORE: _____

I. Circle the correct option to complete the sentences.

1. I'm going to the library because I _____ study for my exams.
a) shouldn't **b)** don't have to **c)** must

2. Visitors _____ pay anything to get in because the museum is free.
a) don't have to **b)** mustn't **c)** shouldn't

3. Parents _____ let their kids do whatever they want.
a) must **b)** shouldn't **c)** don't have to

4. _____ wear a uniform in her job too? That must be challenging!
a) Should your mum **b)** Does your mum have to **c)** Can't your mum

5. Passengers _____ talk to the driver while the bus is in motion.
a) mustn't **b)** don't have to **c)** have to

II. Underline the correct alternative to complete the dialogue between Bill and his dad.

Dad : You look really tired. You (**1**) ***shouldn't*** / ***should*** go to bed.
Bill : I can't go to bed yet. I (**2**) ***have*** / ***must*** to learn my French vocabulary first.
Dad : Your French test isn't tomorrow, it's on Friday. You (**3**) ***don't have to*** / ***mustn't*** learn the vocabulary tonight. You can learn it another day.
Bill : No, I (**4**) ***shouldn't*** / ***must*** do it tonight, because I'm busy for the rest of the week. And if I fail the test, I'll repeat the class, so I (**5**) ***don't have to*** / ***mustn't*** get a bad mark!
Dad : No need to worry so much. Tonight, sleep is more important than the test!

T.C. MEB
Özel DENGE EĞİTİM
BİLİM & SANAT ANADOLU LİSESİ

MODALS (OBLIGATION & PROHIBITION)
POST-TEST

NAME: _____ **DATE: ___ / ___ / ___** **SCORE: _____**

I. Circle the correct option to complete the sentences.

1. This boy is very fat! He _____ eat between meals for his health.
a) doesn't have to **b)** shouldn't **c)** must

2. Everything on the menu looks wonderful! What _____ have?
a) should we **b)** do we have to **c)** can't we

3. Paul _____ get up early tomorrow because he has the day off.
a) shouldn't **b)** mustn't **c)** doesn't have to

4. I don't have any clean clothes left, so I _____ do the laundry today.
a) don't have to **b)** must **c)** shouldn't

5. You _____ tell anyone the thing I've told you, it's a secret!
a) have to **b)** don't have to **c)** mustn't

II. Mr Jackson talks about the advantages and disadvantages of working from home. Underline the correct alternative to complete the text.

"I love working from home. The best advantage of it is that it's not compulsory to get dressed in the morning – I can wear my pyjamas all day. In fact, I (**1**) ***don't have to*** / ***shouldn't*** get up in the morning at all! If I like, I can work all night. It's all up to me.

There's nobody to tell me, 'You (**2**) ***should*** / ***must*** be at work on time. You (**3**) ***mustn't*** / ***don't have to*** make personal phone calls. You can't do your shopping online, etc.'

There are only a couple of downsides. I (**4**) ***have to*** / ***shouldn't*** phone somebody if I want a chat or a gossip, and I can't blame anything on anybody else – I'm the only person here!

If you wish to spend more time with your family, you (**5**) ***mustn't / should*** try this! It's a great opportunity to understand the value of every moment you live!"

T.C. MEB
Özel DENGE EĞİTİM
BİLİM & SANAT ANADOLU LİSESİ

PRESENT PERFECT vs. PRESENT PERFECT CONTINUOUS

PRE-TEST

NAME: _____ DATE: ___ / ___ / ___ SCORE: _____

I. Underline the correct form to complete the dialogue between Tom and Ana.

Tom: Hi Ana. I (**1**) ***have tried*** / ***have been trying*** to ring you several times today but I couldn't reach you. Are you OK?

Ana : There's nothing to worry about. I (**2**) ***have cleaned*** / ***have been cleaning*** the house all day, so maybe I didn't hear the phone ring.

Tom: Is everything finished now?

Ana : I'm afraid not. I (**3**) ***haven't tidied up*** / ***haven't been tidying up*** the kitchen yet. But why are you here?

Tom: Don't you remember? Jane (**4**) ***has invited*** / ***has been inviting*** us to her birthday party and we need to buy a present for her.

Ana : Oh, that's right. Do you have any clues about what she wants?

Tom: Well, she (**5**) ***has learned*** / ***has been learning*** Spanish for the past year and wants to spend her next holiday in Mexico. Maybe we could get her a guide book.

Ana : That's a good idea. There is a good bookshop in the big shopping centre. I (**6**) ***have seen*** / ***have been seeing*** some nice books about Mexico there recently.

II. Circle the alternative that has a similar meaning to the sentence given.

1. My daughter's learning how to make Japanese food. She started her course in April.

a) She learned how to cook Japanese food in April.

b) She's been learning how to cook Japanese food since April.

c) She's already learnt how to cook Japanese food.

2. Sophie's planning to buy souvenirs. It's on her to-do list.

a) Sophie's already bought souvenirs.

b) Sophie's just bought souvenirs.

c) Sophie hasn't bought souvenirs yet.

3. Emily's very busy writing her book. Only 30 pages of the book is complete now.

a) Emily's written only 30 pages of her book so far.

b) Emily's just completed writing all her book.

c) Emily's been writing only 30 pages of her book.

4. Ollie seems out of breath. His heart keeps beating really fast.

a) Ollie ran for a couple of hours.

b) Ollie's been running for a few hours.

c) Ollie hasn't started running yet.

T.C. MEB
Özel DENGE EĞİTİM
BİLİM & SANAT ANADOLU LİSESİ

PRESENT PERFECT vs. PRESENT PERFECT CONTINUOUS
POST-TEST

NAME: _____ DATE: ___ / ___ / ___ SCORE: _____

I. Underline the correct form to complete the dialogue between Sally and her mother.

Sally : Mum, Jane (**1**) ***has just phoned*** / ***has just been phoning*** to ask if I will go to the cinema with her. May I?

Mother: Is your homework finished?

Sally : Well, I (**2**) ***have done*** / ***have been doing*** it for about 2 hours now, but it's not over.

Mother: School comes first. Remember, you (**3**) ***have promised*** / ***have been promising*** me to study harder this year.

Sally : But mum, I (**4**) ***have worked*** / ***have been working*** really hard this year and I (**5**) ***have already improved*** / ***have already been improving*** in Maths and Chemistry.

Mother: What can I say? Congratulations! However, that doesn't mean you can leave home before completing your tasks for school.

Sally : But I also need a break some time. Look, I (**6**) ***haven't been to*** / ***haven't been being to*** the cinema for two months. May I go? Just this once.

III. Circle the alternative that has a similar meaning to the sentence given.

1. Calvin Klein made his first cosmetic products when he was 55.
a) Calvin Klein hasn't sold any cosmetic products since he was 55.
b) Calvin Klein hasn't started selling his cosmetic products yet.
c) Calvin Klein's been selling his cosmetic products since he was 55.

2. My children don't know what octopus tastes like!
a) They haven't been trying octopus.
b) They've tried octopus before.
c) They've never tried octopus.

3. Leo's in his kitchen now and something here smells delicious.
a) Leo hasn't cooked any delicious meals yet.
b) Leo's been cooking this delicious meal for a long time.
c) Leo's never tried cooking his delicious meal before.

4. Adam started waiting for Amy 40 minutes ago, and Amy hasn't arrived yet.
a) Adam's been waiting for 40 minutes.
b) Adam waited for Amy for 40 minutes.
c) Adam's going to wait for 40 minutes.

T.C. MEB
Özel DENGE EĞİTİM
BİLİM & SANAT ANADOLU LİSESİ

PAST SIMPLE vs. PAST PERFECT
PRE-TEST

NAME: _____ DATE: ___ / ___ / ___ SCORE: _____

I. Underline the correct alternative to complete the text.

It was a cold and rainy Sunday, so I decided to finish the essay that I (**1**) ***started*** / ***had started*** writing a few days before. I switched on the computer and (**2**) ***opened*** / ***had opened*** the document. Then I began looking for my notes that I (**3**) ***wrote*** / ***had written*** on a sheet of paper. But the notes were not on my desk and I could not remember where I (**4**) ***put*** / ***had put*** them. I turned the whole house upside down. And where (**5**) ***did I find*** / ***had I found*** my notes? I had left them in the sitting room, under a huge pile of papers and magazines. When I found my notes, I wanted to continue writing my essay. First I (**6**) ***didn't know*** / ***hadn't known*** what to write but then I had lots of ideas. I had almost completed my essay when my computer suddenly crashed and I noticed that I (**7**) ***forgot*** / ***had forgotten*** to save the document. So I had to start all over again! What a day!

II. Circle the alternative that has a similar meaning to the sentence given.

1. The students just started the test and the teacher told them the time was over.
a) They hadn't even started the test when the teacher told them the time was over.
b) The teacher told them the time was over and after that the students started the test.

2. Marianne cleaned the whole house on her own, so she got really tired.
a) Marianne had got really tired because she cleaned the whole house on her own.
b) Marianne got really tired because she had cleaned the whole house on her own.

3. When I came to the office, I realised that I'd forgotten my keys at home.
a) Before I came to the office, I realised I'd forgotten my keys at home.
b) After I'd come to the office, I realised I'd forgotten my keys at home.

T.C. MEB
Özel DENGE EĞİTİM
BİLİM & SANAT ANADOLU LİSESİ

PAST SIMPLE vs. PAST PERFECT
POST-TEST

NAME: _____ DATE: ___ / ___ / ___ SCORE: _____

I. Underline the correct form to complete the dialogue between Deb and Joe.

Deb : So tell me, why did you take the train from Moscow to Beijing?
Joe : Because it was my dream to ride the Trans-Siberian Railway. It was something I (**1**) ***always wanted*** / ***had always wanted*** to do.
Deb : How long (**2**) ***did the trip take*** / ***had the trip taken***?
Joe : Seven days. It was about 4735 miles.
Deb : (**3**) ***Were you ever*** / ***Had you ever been*** on such a long ride before that one?
Joe : No, never. Before this, the longest train ride (**4**) I ***ever took*** / ***had ever taken*** was only six hours long.
Deb : What did you do during those seven days? Did you ever get bored?
Joe : No, not at all. It was fun on the train, and I (**5**) ***had*** / ***had had*** many conversations and (**6**) ***made*** / ***had made*** many new friends. In fact, one of them went to my high school, but I (**7**) ***never met*** / ***had never met*** her before!

II. Circle the correct alternative that has the similar meaning of the sentence given.

1. Celine hadn't done any revision for her English exam, so she was worried.
a) Celine had been worried about her English exam because she didn't revise for it.
b) Celine was worried about her English exam because she hadn't revised for it.

2. When we arrived home, the house was empty. No one was at home.
a) When we arrived home, everyone had gone out.
b) When we arrived home, everyone went out.

3. After we had drunk all our water, we realised there wasn't any left.
a) We realised there wasn't any water left before we drank all of it.
b) We drank all our water, and then we realised there wasn't any left.

T.C. MEB
Özel DENGE EĞİTİM
BİLİM & SANAT ANADOLU LİSESİ

USED TO vs. WOULD
PRE-TEST

NAME: _____ **DATE: ___ / ___ / ___** **SCORE: _____**

I. Underline the correct alternative to complete the text.

I never cared about the weather. What is more, I (**1**) ***used to*** / ***would*** believe that any weather condition could be good for playing outside. Autumn… There was something special about it, much more special than it seems to be now. The air, light, smell, rain – all this (**2**) ***used to*** / ***would*** feel different. Every day I (**3**) ***use to*** / ***used to*** spend ages just playing with leaves. I (**4**) ***use to*** / ***would*** collect them, bury my face in them, and even read them. All toys in the world (**5**) ***used to*** / ***would*** seem foolish compared to them. (**6**) ***Did you used to*** / ***Would you*** play outside with your friends in autumn in your childhood, too?

II. Circle the correct option.

a) In his first job, my dad used to really get on with his boss.
b) In his first job, my dad would to get on with his boss.

a) Ken would be able to communicate in German but he's forgotten it all.
b) Ken used to be able to communicate in German but he's forgotten it all.

a) Terry and I went to our local pub on the first day we met.
b) Terry and I would always go to our local pub on the first day we met.

a) My son would always play tennis during the week when he was at school.
b) My son uses to play tennis during the week when he was at school.

T.C. MEB
Özel DENGE EĞİTİM
BİLİM & SANAT ANADOLU LİSESİ

USED TO vs. WOULD
POST-TEST

NAME: _____ **DATE: ___ / ___ / ___** **SCORE: _____**

I. Underline the correct alternative to complete the text.

We kids had a wonderful time when our family lived by the ocean. We (**1**) ***use to*** / ***would*** walk to the beach after school. We (**2**) ***used to*** / ***wouldn't*** quickly put on our swim suits. Then, we (**3**) ***use to*** / ***would*** swim our worries away. We really loved those days with our feet in the sand and our faces in the saltwater. When I was fourteen, my father accepted a new job. We had to move to a city inland. Our days changed. We (**4**) **use to** / **would** walk to the beach, but after our move, it was too far away. So instead, we walked to a nearby leisure center to swim. The pool (**5**) ***used to*** / ***would*** seem big, long, clean and very flat. We (**6**) **used to** / **would** think it was boring because it had no action like the waves. Shortly after our move, we kids joined the swim team and learned to swim competitively. After a while, we did not miss the beach so much.

II. Circle the correct option.

a) Sarah used to be shy when she was young but she seems to have changed now.
b) Sarah would always be shy when she was young but she seems to have changed now.

a) I was surprised to see Danny smoke. He didn't used to smoke before.
b) I was surprised to see Danny smoke. He wouldn't smoke before.

a) Tess took a course in theatre studies when she was at university.
b) Tess use to take a course in theatre studies when she was at university.

a) I would never really like going to school when I was around ten.
b) I never really liked going to school when I was around ten.

T.C. MEB
Özel DENGE EĞİTİM
BİLİM & SANAT ANADOLU LİSESİ

THIRD CONDITIONAL
PRE-TEST

NAME: _____ DATE: ___ / ___ / ___ SCORE: _____

I. Underline the correct alternative to complete the dialogue between Meg and Pete.

Meg : Is there anything you regret, Pete?

Pete : Unfortunately, yes. There are loads! Sometimes I think about my current career. If I (**1**) ***had listened*** / ***listened*** to my parents when I was young, I ***became*** / ***might have become*** a famous violinist. And if I (**2**) ***give*** / ***had given*** more importance to their advice, I ***will choose*** / ***could have chosen*** a different path in my career. What about you?

Meg : Actually I wish I could speak Japanese. I might like to work in Japan one day. If I (**3**) ***could learn*** / ***had learned*** Japanese when I was at university, I ***will move*** / ***would have moved*** to Japan after my graduation. It might have been worse, though. (**4**) I ***might not have met*** / ***won't be able to meet*** you if I ***lived*** / ***had lived*** in Japan.

Pete : Thank goodness you're my first colleague and best friend! And don't worry, you still have time to learn Japanese.

Meg : Yeah, you're right! Hey, do you remember your ex, Amy?

Pete : How can I forget her? She's another regret of mine I wish I hadn't spent much money on her. If I (**5**) ***knew*** / ***had known*** that she didn't want to marry me, I ***wouldn't have wasted*** / ***didn't waste*** my time with her.

Meg : Poor you!

II. Choose the alternative that has a similar meaning to the sentence given.

1. Emily drove too fast last night so she got a speeding ticket.
   a) Emily wouldn't get a speeding ticket if she didn't drive too fast.
   b) Emily wouldn't have got a speeding ticket if she hadn't driven too fast.

2. You didn't bring your smartphone and you couldn't find the way home.
   a) If you had brought your smartphone, you could have found the way home.
   b) If you bring your smartphone, you'll be able to find the way home.

3. George stayed in the sun too long yesterday and got sunburnt.
   a) If George hadn't stayed in the sun too long, he wouldn't have got sunburnt.
   b) If George didn't stay in the sun too long, he wouldn't get sunburnt.

4. We were there, and Sally and Mark didn't have an argument.
   a) Sally and Mark couldn't have had an argument if we had been there.
   b) Sally and Mark could have had an argument if we hadn't been there.

5. Because I wore my warmest clothes before we went out, I didn't get sick.
   a) If I didn't wear my warmest clothes before we went out, I might not get sick.
   b) If I hadn't worn my warmest clothes before we went out, I might have got sick.

T.C. MEB
Özel DENGE EĞİTİM
BİLİM & SANAT ANADOLU LİSESİ

THIRD CONDITIONAL

POST-TEST

NAME: _____ DATE: ___ / ___ / ___ SCORE: _____

I. Underline the correct alternative to complete the dialogue.

Steve : What was wrong the other day, Ben? You looked terrible!

Ben : Well, you (**1**) ***could have looked*** / ***looked*** terrible, too if you ***have*** / ***had had*** a day like mine yesterday. My car slid into a tree, because the roads were icy.

Steve : Oh? I was driving on the icy roads, and I didn't have such trouble. What happened?

Ben : Well, I think it wasn't just because of the roads. I was driving very fast, too.

Steve : Icy roads and speed don't mix. If drivers speed on ice, they're likely to spin their car in a circle.

Ben : I know. But unfortunately I had one more problem. I didn't have my driving license with me. If I (**2**) ***have*** / ***had had*** it, I ***didn't have to*** / ***wouldn't have had to*** pay an extra fine.

Steve : Why were you driving without your license?

Ben : Well, I lost my wallet some days ago. It slipped out of my pocket while I was riding the bus to work.

Steve : Oh, Ben! If you (**3**) ***hadn't lost*** / ***didn't lose*** your wallet, you ***would have*** / ***would have had*** your driving license with you when you hit the tree. If you (**4**) ***have*** / ***had had*** your driver's license with you, you ***wouldn't have had to*** / ***won't have to*** pay a big fine. And of course, if you (**5**) ***didn't drive*** / ***hadn't driven*** so fast, you ***might not have run into*** / ***might not run into*** a tree, and you wouldn't be in this mess now. If I were you, I would take it easy for a while and would just stay home where you are safe.

Ben : Enough about me! How about you?

II. Choose the alternative that has a similar meaning to the sentence given.

1. Dan spent all his money on clothes and CDs and couldn't pay his rent.
- **a)** Dan could pay his rent if he didn't spend all his money on clothes and CDs.
- **b)** Dan could have paid his rent if he hadn't spent all his money on clothes and CDs.

2. Because Robert drank so much coffee last night, he couldn't sleep.
- **a)** If Robert hadn't drunk so much coffee, he could have slept.
- **b)** If Robert doesn't drink so much coffee, he'll be able to sleep.

3. Susan didn't forget to take her umbrella with her so she didn't get wet.
- **a)** If Susan had forgotten to take her umbrella with her, she might have got wet.
- **b)** If Susan forgot to take her umbrella with her, she might get wet.

4. You gave me some good advice and I didn't lose a lot of money.
- **a)** I wouldn't have lost a lot of money if you had given me some good advice.
- **b)** I would have lost a lot of money if you hadn't given me some good advice.

5. Mel didn't get a high score in TOEFL, so he didn't get a promotion at work.
- **a)** If Mel got a high score in TOEFL, he might not get a promotion at work.
- **b)** If Mel had got a high score in TOEFL, he might have got a promotion at work.

APPENDIX E

A SURVEY ON THE PERCEPTIONS OF STUDENTS ON THE FLIPPED CLASSROOM (Quarato, 2016)

1) I feel more engaged in the flipped classroom versus a traditional classroom.

2) I like watching the lesson on videos rather than listening to the lesson through a class period.

3) When assigned a flipped lesson, I usually watch the videos rather than use the textbook to learn the lesson.

4) I find it difficult to stay focused to the videos because of other Internet disruptions (such as checking email or social media sites).

5) While watching the video lesson, I pause or rewind the video when I need to write notes or review a part that I was not sure about.

6) I find it more helpful than the textbook to be able to go back and re-watch the videos when I need to review for a quiz or a test.

7) If I did not have a computer or the Internet available to me, the teacher made sure I still learned the lesson by providing notes ahead of time or allowing me to review the video prior to class.

8) I liked how I was able to pace myself while watching the video lessons so that I could spend more time understanding the lesson.

9) I believe that the flipped lesson allowed for our class to have extra time to practice topics.

10) I participated more in the activities following a flipped lesson than I did in activities completed after a traditional lecture.

11) The flipped classroom allows students to spend more time collaborating and having discussions about the topic with each other in the classroom.

12) The activities that we completed in the classroom following a flipped lesson were beneficial with improving my understanding of the topic.

13) The teacher had more time to answer questions about the topic after a flipped lesson than she did in a traditional lecture.

14) I would rather learn through a traditional lecture than learn from the flipped classroom.

15) The video lessons helped prepare me for the class activities.

16) I feel that the video lessons provide more information on the topic than the textbook provides.

17) I often re-watch the video lessons before taking a quiz or a test.

18) It was difficult for me to find a computer or Internet access to watch the video lessons.

19) I feel like the flipped classroom helped to improve my understanding in math (from watching the videos, having them available all of the time, to the class activities that followed the lesson).

20) When I complete a regular homework assignment (solving problems after learning a lesson in class), I sometimes get confused working on the problems by myself.

21) When I complete a flipped homework assignment, I don't get as confused when working on the practice problems by myself.

22) The flipped lesson gave me more confidence to complete other homework assignments that practiced the same skill.

23) Which (if any) did you enjoy about the flipped classroom (you may pick more than one):

____ The availability and access to the video lessons

____ Being able to pause and rewind the video when I was confused or missed something important

____ The collaboration and discussions in class (as a whole class or group)

____ The amount of time the teacher had to review a topic

____ The amount of time we had to practice the skill learned through the flipped lesson

____ Working on the class activities after learning the lesson

____ Being able to pace myself while learning the lessons

24) What did you like most about the flipped classroom?

25) If you could provide any suggestions towards improving the flipped classroom, what would it (they) be and why?

APPENDIX F
ADAPTED QUESTIONNAIRE ITEMS

YÖNERGE

Bu anket Ufuk Üniversitesi Sosyal Bilimler Enstitüsü İngiliz Dili Eğitimi Bölümünde yüksek lisans öğrencisi olan Ceren SEÇİLMİŞOĞLU'nun '*Ters-Yüz eğitim modelinin lise öğrencileri üzerinde İngilizce dil bilgisi öğretimindeki etkisi*' konulu yüksek lisans tezi için uygulanmaktadır. Anketin amacı beş ayrı konu kullanılarak uygulanan 'Ters-Yüz' eğitim modeli hakkında lise öğrencilerinin düşüncelerini araştırmaktır.

Anket kapsamında 25 adet soru bulunmaktadır. İlk 22 soru için "kesinlikle katılıyorum, katılıyorum, kararsızım, katılmıyorum, kesinlikle katılmıyorum" seçeneklerinden yalnızca biri işaretlenecektir. 23. soruda, sizden, belirtilen yedi seçenekten size uygun olan bir ve/veya birden çok seçeneği işaretlemeniz istenmektedir. 24 ve 25. sorularda ise fikirlerinizi belirtmeniz için boşluklar bırakılmıştır.

- Araştırma bilimsel bir nitelik taşıdığından derlenen kişi bilgileri gizli tutulacaktır.
- Sorulara nesnel ve samimi cevaplar veriniz ve lütfen soruları tam olarak okuduktan sonra kendinize en uygun olan cevabı işaretleyiniz.

1. Okul Adı : **_____**

2. Sınıfınız : **_____**

3. Cinsiyetiniz : ( ) Erkek ( ) Kız

Katkılarınız için teşekkür ederim.
Ceren SEÇİLMİŞOĞLU

TERS-YÜZ EĞİTİM UYGULAMASI ANKETİ

MADDELER	Kesinlikle Katılıyorum	Katılıyorum	Kararsızım	Katılmıyorum	Kesinlikle Katılmıyorum
1. Klasik eğitime kıyasla *ters-yüz eğitim uygulamasında** derslere ilgim arttı.					
2. Dersi sınıfta dinlemek yerine videolarla öğrenmeyi daha çok sevdim.					
3. Ters-yüz eğitim modeli uygulandığında konuyu öğrenmek için ders kitabını kullanmak yerine videoları seyrettim.					
4. İnternetteki ilgiyi dağıtan farklı unsurlar (elektronik postayı veya sosyal medya sitelerini kontrol etmek gibi) yüzünden videolara odaklanmak konusunda zorluk yaşadım.					
5. Video derslerini seyrederken notlar almam veya emin olmadığım kısımları tekrarlamam gerektiğinde videoları durdurdum veya başa aldım.					
6. Farklı düzeydeki sınavlar için ders tekrarı yapmam gerektiğinde videolara dönüp onları yeniden seyretmeyi ders kitabından çalışmaktan daha yararlı buldum.					
7. Bilgisayarım ve/veya internetim olmadığında öğretmenim önceden bana notlar vererek ve/veya ders başlamadan videoyu seyretmemi sağlayarak konuyu öğrendiğimden emin oldu.					
8. Video derslerini seyrederken kendi öğrenme hızımı ayarlayabilmekten memnun kaldım ve bu sayede konuyu anlamaya daha çok zaman ayırabildim.					
9. Bence, "ters-yüz" eğitim uygulaması, konuların alıştırmasını yapmak için sınıfımıza fazladan zaman sağladı.					
10. Klasik bir ders anlatımının ardından yapılan etkinliklerden daha çok, "ters-yüz" uygulamasından sonra yapılan etkinliklere katılım sağladım.					
11. Ters-yüz eğitim uygulaması, öğrencilerin sınıf içinde birlikte çalışmaları ve konular hakkında birbirleriyle tartışmaları için onlara daha çok zaman sağladı.					
12. Ters-yüz eğitim uygulamasından sonra yaptığımız etkinlikler konuyu anlamam açısından oldukça yararlıydı.					

13. Öğretmenimizin, klasik bir derste olanın aksine ters-yüz eğitim uygulamasından sonra konu hakkında öğrencilerin sorularını cevaplaması için daha çok zamanı oldu.					
14. Konuları, ters-yüz eğitim uygulaması yerine klasik bir derste öğrenmeyi tercih ederim.					
15. Video dersleri, sınıf etkinliklerine hazırlanmama yardımcı oldu.					
16. Bence, video dersleri, konular hakkında bize ders kitabından daha çok bilgi sağladı.					
17. Çoğunlukla herhangi bir sınavdan önce video derslerini tekrar izledim.					
18. Video derslerini izlemek için bir bilgisayar veya internet erişimi bulmak bana çok zor geldi.					
19. Ters-yüz eğitim uygulamasının, videoları izlemek ve onlara her daim ulaşabiliyor olmaktan ders sonrası sınıf etkinliklerine kadar her yönüyle İngilizcemi geliştirmemde bana yardımcı olduğunu hissettim.					
20. Klasik bir derste öğrendiğim konunun alıştırmasını evde kendi başıma yaparken bazen zorluk yaşadım.					
21. Evde videodan öğrendiğim konunun alıştırmasını sınıfta yaparken hiç zorluk yaşamadım.					
22. Ters-yüz eğitim uygulaması sayesinde diğer ödevlerimi de yaparken özgüvenim arttı.					

**ters-yüz eğitim uygulaması: flipped classroom*

23. Ters-yüz eğitim uygulaması hakkında aşağıdakilerden hangisini ve/veya hangilerini eğlenceli buldunuz? (Bir ve/veya birden çok seçeneği işaretleyebilirsiniz.)

O Video derslerine erişilebilir olması

O Anlamakta zorlandığımda veya önemli bir noktayı kaçırdığımda videonun durdurulup başa alınabiliyor olması

O Derste bütün sınıf veya gruplar halinde öğrencilere birlikte çalışma ve tartışma olanağı sağlamış olması

O Öğretmenin konuyu tekrar edebilmesi için zamanının olması

O Ters-yüz eğitim uygulamasıyla öğrenilmiş konunun pratiğinin yapılması için zamanımızın olması

O Konuları videolardan öğrendikten sonra sınıf etkinliklerimizin olması

O Konuyu öğrenirken videolar sayesinde kendi hızımı ayarlayabilme imkânımın olması

24. Ters-yüz eğitim uygulaması ile ilgili en çok neyi beğendiniz?

_____
_____
_____
_____
_____
_____

25. Ters-yüz eğitim uygulamasını geliştirmek için herhangi bir öneride bulunsanız ne ve/veya neler söylerdiniz?

_____
_____
_____
_____
_____
_____

APPENDIX G

FOCUS GROUP DISCUSSION QUESTIONS ON THE PERCEPTIONS OF THE FLIPPED CLASSROOM BY STUDENTS (Quarato, 2016)

1. During the flipped lesson, did you read the textbook, watch the video, or both? Which did you find the most helpful/least helpful and why?
2. Think about both a flipped classroom lesson and a traditional lecture lesson. What are the pros and cons about each of them? Are the lessons any different? Does the structure of each lesson benefit you in any way? How?
3. How many of you feel you are less stressed completing practice problems for homework when you learn from the flipped lesson? What (if anything) makes you stressed when working on traditional worksheet/textbook homework? What (if anything) makes you stressed when completing a flipped lesson?
4. What do you think are advantages of a flipped classroom? Disadvantages? Why?
5. Are there any improvements that you believe can be made towards a flipped classroom? If so, what do you think they are?
6. Is there anything else that you would like to add regarding the flipped classroom?

APPENDIX H
ADAPTED INTERVIEW QUESTIONS

RÖPORTAJ SORULARI

1. Ters-yüz eğitim süresince, ders kitabını mı okudunuz, o konuyla ilgili videoyu mu seyrettiniz yoksa her ikisini birden mi yaptınız? Bunlardan hangisini en yararlı / yararsız buldunuz? Neden?

2. Hem ters-yüz eğitim uygulamasını hem de klasik eğitimi düşündüğünüzde ikisinin de artı ve eksileri nelerdir? Bu iki yöntem birbirinden farklı mıdır? Nasıl?

3. Ters-yüz eğitim uygulamasından sonra ödev için alıştırma yaparken hanginiz kendinizi daha az stresli hissetti?

4. Klasik bir ders sonrası ödev yaparken size kendinizi stresli hissettiren şeyler oldu mu? Varsa nedir?

5. Ters-yüz eğitim uygulaması sonrası çalışma yaparken size kendinizi stresli hissettiren şeyler oldu mu? Varsa nedir?

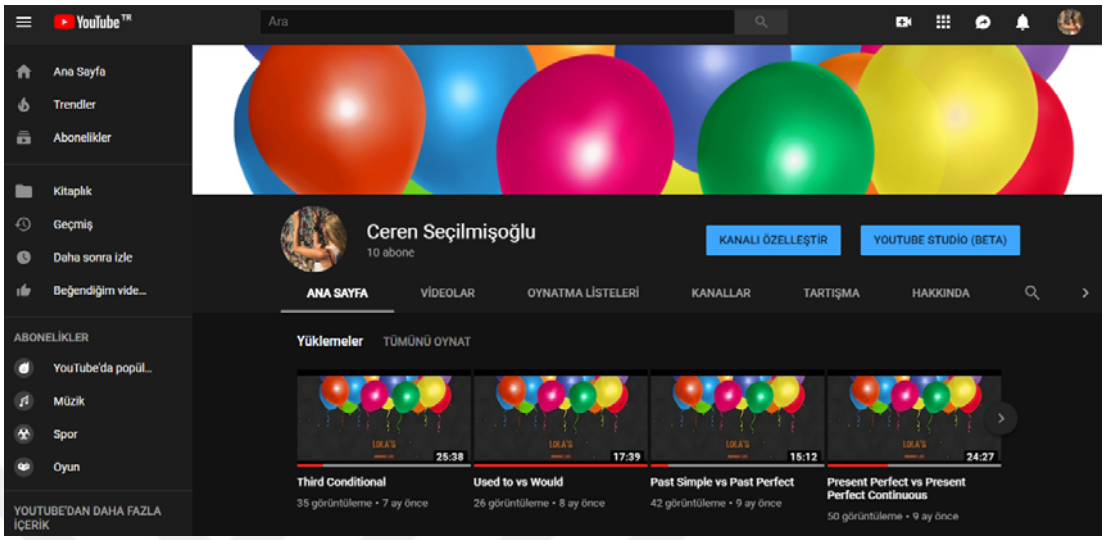
6. Ters-yüz eğitim uygulamasının olumlu ve olumsuz yönleri nelerdir? Neden?

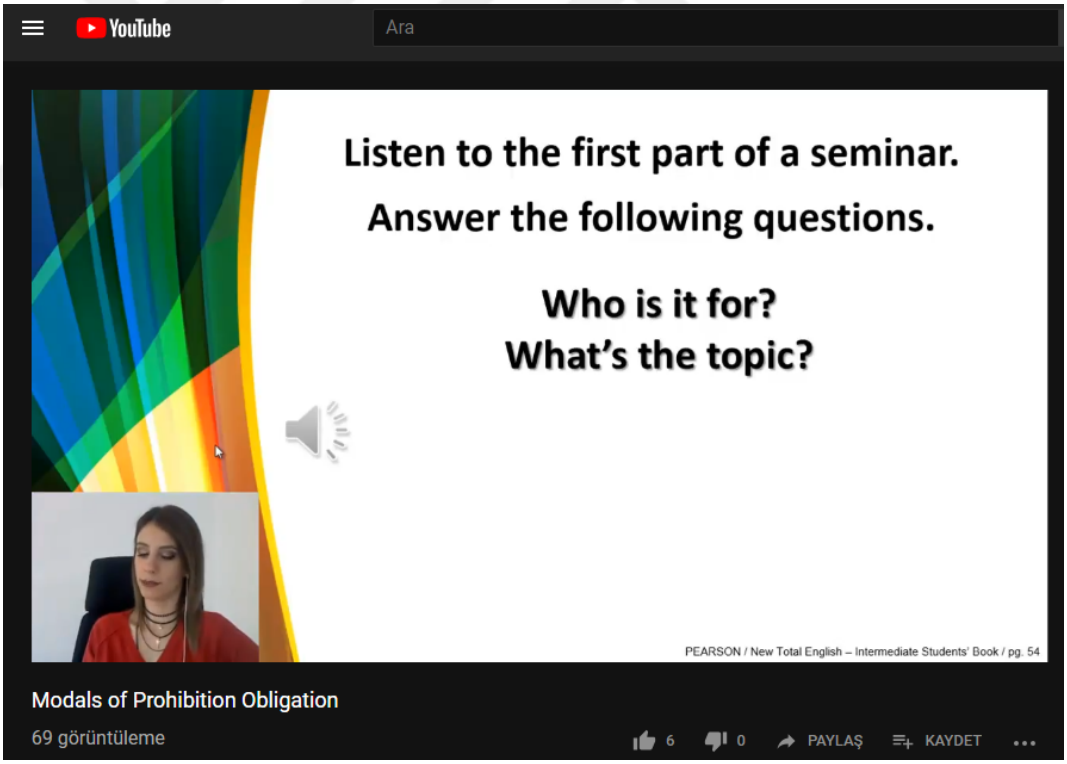
7. Ters-yüz eğitim uygulaması için herhangi bir geliştirme veya iyileştirme yapılabileceğine inanıyor musunuz? Eğer öyleyse ne yapılabilir?

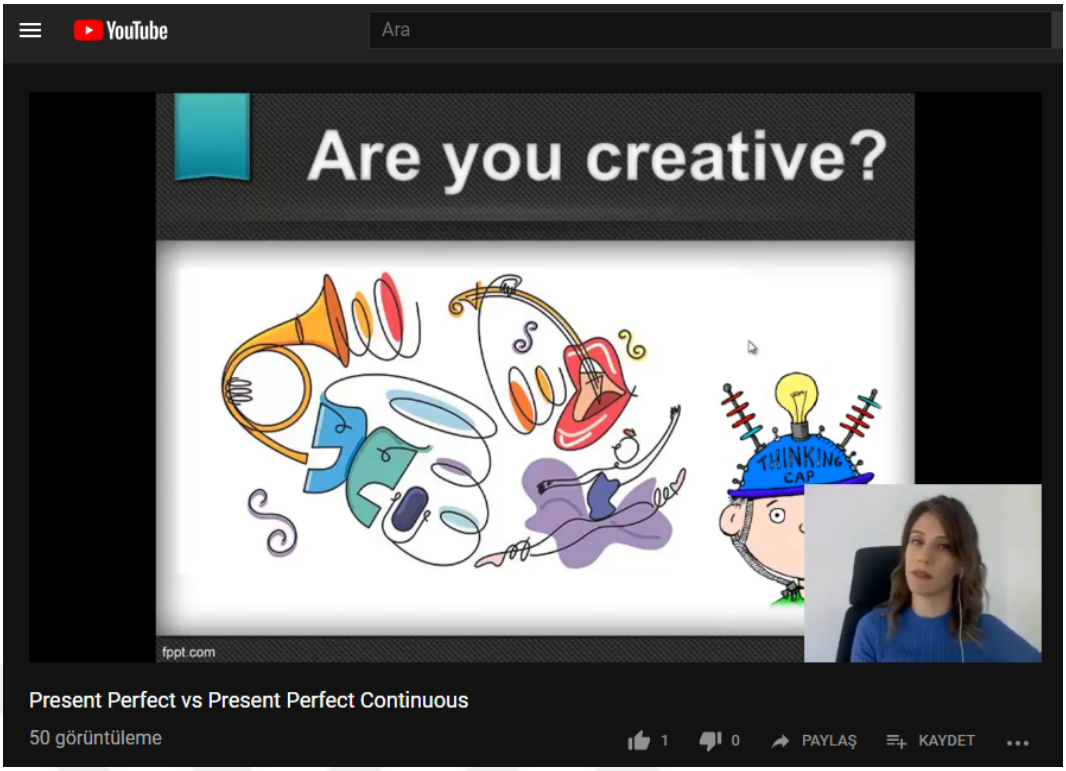
8. Ters-yüz eğitim uygulamasına ilişkin eklemek istediğiniz bir şey var mı?

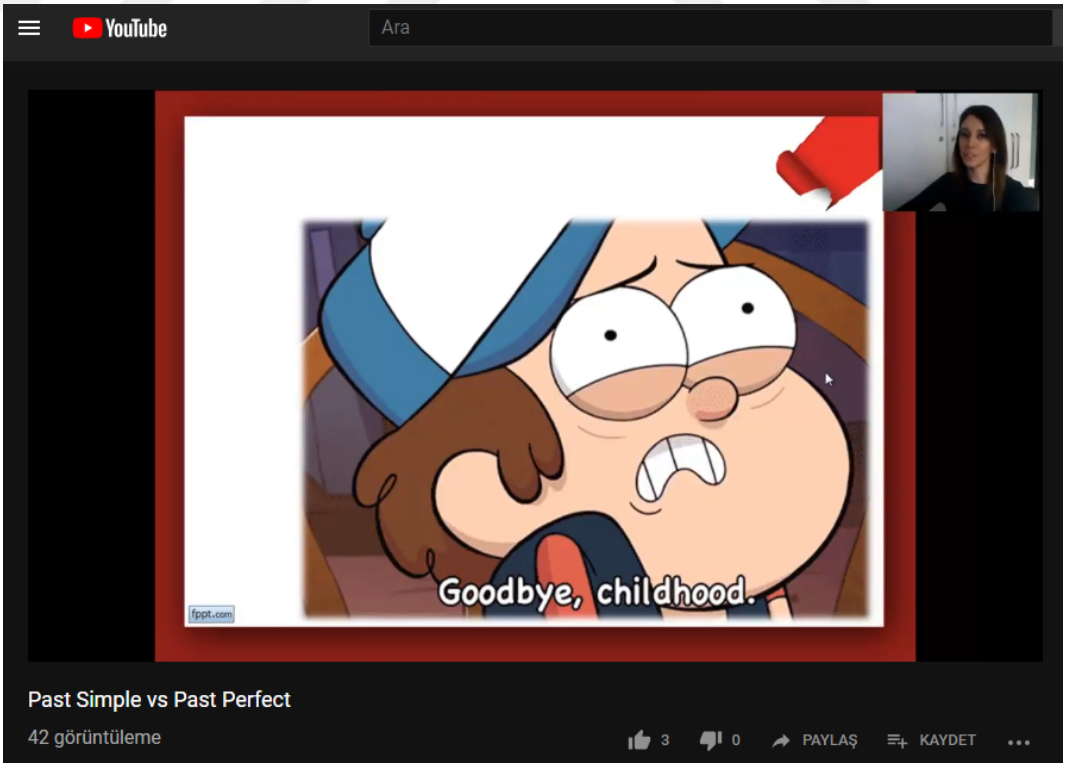
APPENDIX I

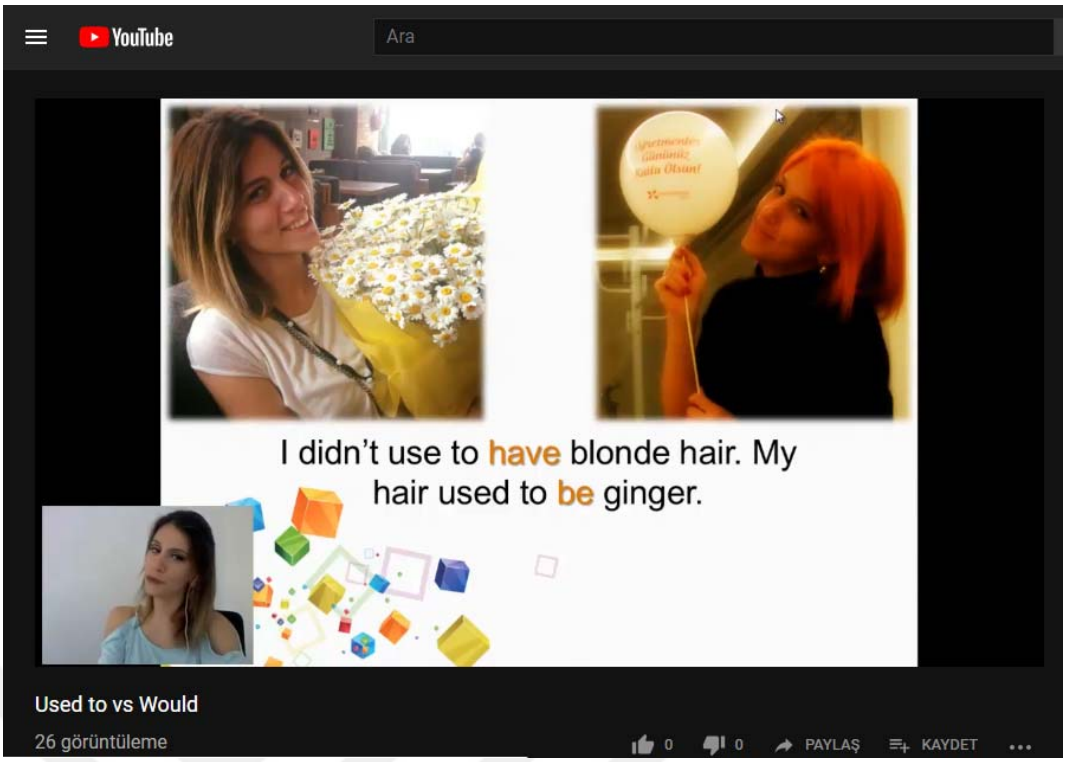
SCREENSHOTS OF VIDEO PAGES






YouTube
Ara
Are you creative?
THINKING CAP
fppt.com
Present Perfect vs Present Perfect Continuous
50 görüntüleme
1
0
PAYLAŞ
KAYDET

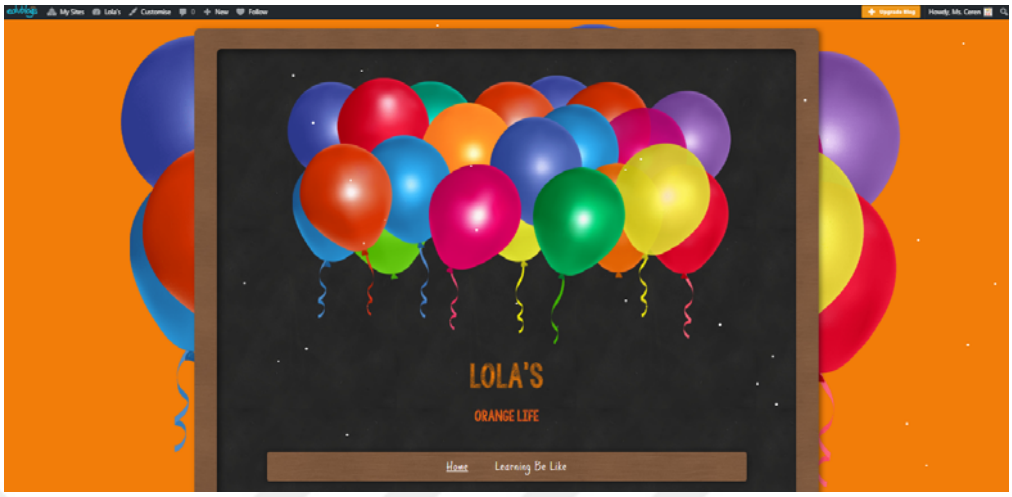

YouTube
Ara
Goodbye, childhood.
fppt.com
Past Simple vs Past Perfect
42 görüntüleme
3
0
PAYLAŞ
KAYDET

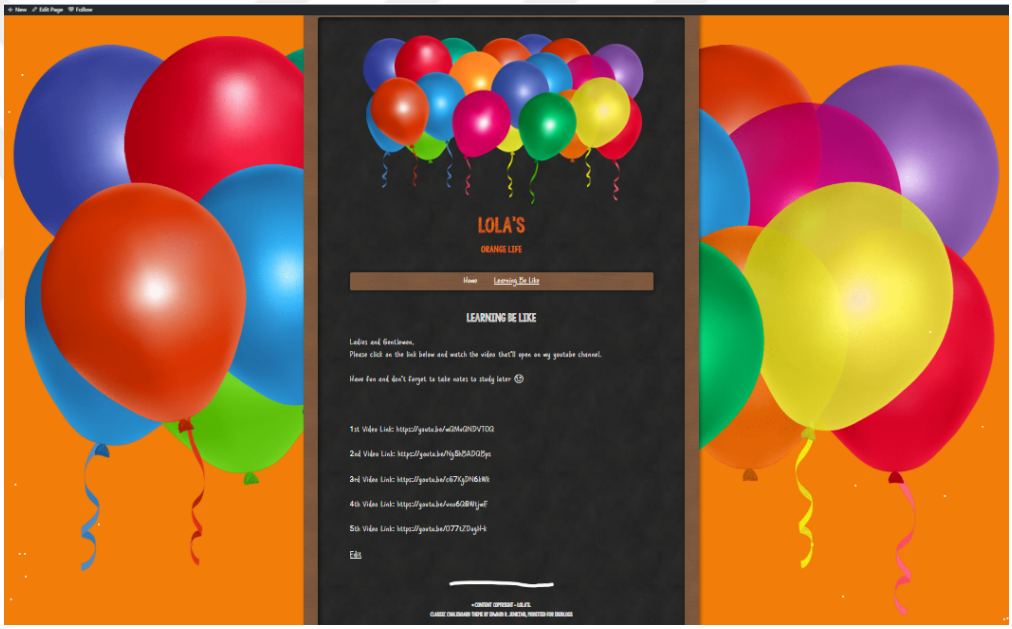

YouTube
Ara
I didn't use to have blonde hair. My hair used to be ginger.
Used to vs Would
26 görüntüleme
0
0
PAYLAŞ
KAYDET

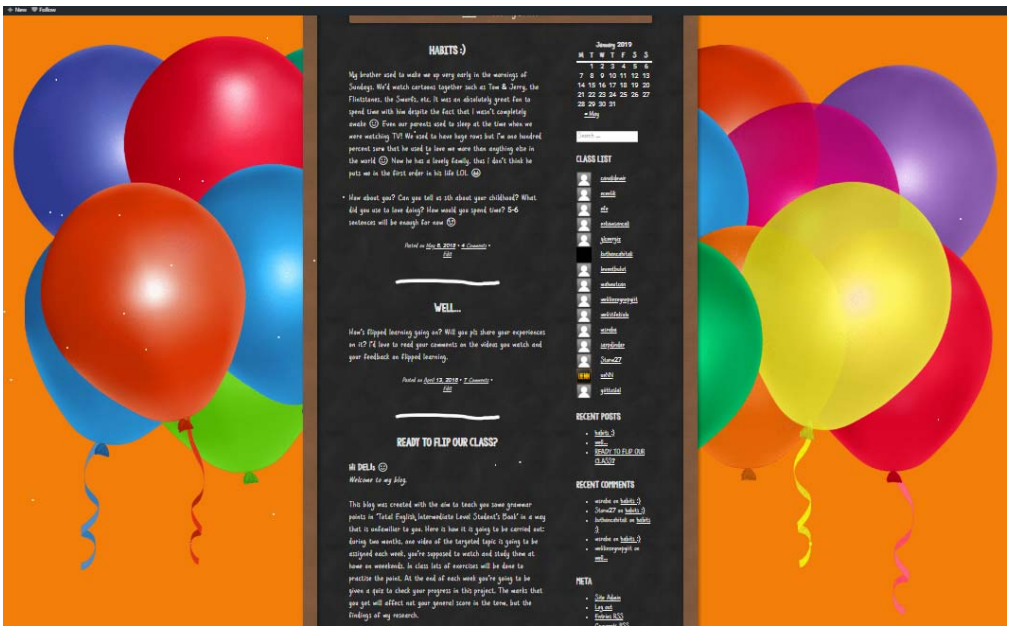

EDUCATION
security
happiness
love
$$$
FUN
Logical
way
use your head
Follow your heart
Protection
... good or bad at making decisions?
Third Conditional
35 görüntüleme
0
0
PAYLAŞ
KAYDET

APPENDIX J

SCREENSHOTS OF EDUBLOG PAGES







APPENDIX K

EXPERIMENTAL GROUP – PRE- AND POST-TEST SCORES

	4th UNIT		5th UNIT	
	PRE-TEST (10)	POST TEST (10)	PRE-TEST (10)	POST TEST (10)
S-1	10	10	9	9
S-2	9	9	10	10
S-3	10	10	10	10
S-4	9	10	10	10
S-5	10	10	8	10
S-6	10	10	7	9
S-7	10	10	9	10
S-8	4	7	8	9
S-9	10	10	9	9
S-10	10	10	10	10
S-11	10	10	10	10
S-12	10	9	8	8
S-13	10	10	6	9
S-14	7	8	8	9
S-15	10	10	7	9

	6th UNIT		7th UNIT		8th UNIT	
	PRE-TEST (10)	POST TEST (10)	PRE-TEST (10)	POST TEST (10)	PRE-TEST (10)	POST TEST (10)
S-1	7	8	6	9	10	10
S-2	10	10	7	9	9	10
S-3	8	10	8	10	9	9
S-4	9	10	7	8	5	8
S-5	8	10	10	10	10	10
S-6	8	8	5	8	3	10
S-7	10	10	9	10	7	9
S-8	8	8	7	7	7	8
S-9	9	10	8	9	10	10
S-10	9	9	7	9	10	10
S-11	10	10	10	10	10	10
S-12	8	8	4	9	5	8
S-13	9	10	10	8	9	10
S-14	8	9	6	9	1	7
S-15	9	9	8	10	10	10

** each test has 10 question items*

APPENDIX L

CONTROL GROUP – PRE- AND POST-TEST SCORES

	4th UNIT		5th UNIT	
	PRE-TEST (10)	POST TEST (10)	PRE-TEST (10)	POST TEST (10)
S-1	10	9	7	9
S-2	9	9	6	7
S-3	10	10	10	9
S-4	10	10	10	9
S-5	10	9	10	9
S-6	10	9	10	10
S-7	10	10	9	9

	6th UNIT		7th UNIT		8th UNIT	
	PRE-TEST (10)	POST TEST (10)	PRE-TEST (10)	POST TEST (10)	PRE-TEST (10)	POST TEST (10)
S-1	7	8	7	9	9	10
S-2	8	8	2	4	3	7
S-3	8	8	5	9	7	8
S-4	9	8	10	9	10	9
S-5	8	8	9	6	7	9
S-6	8	9	5	8	8	10
S-7	9	9	8	8	10	8

** each test has 10 question items*

APPENDIX M

EXPERIMENTAL GROUP – QUESTIONNAIRE RESULTS

	STRONGLY AGREE	AGREE	QUITE AGREE	DISAGREE	STRONGLY DISAGREE		
Q-1	2	4	7	1	1		
Q-2	1	3	6	4	1		
Q-3	3	9	2	0	1		
Q-4	4	3	3	1	4		
Q-5	6	7	0	0	2		
Q-6	2	3	3	5	2		
Q-7	11	2	2	0	0		
Q-8	5	4	4	1	1		
Q-9	7	7	1	0	0		
Q-10	0	3	8	1	3		
Q-11	7	5	3	0	0		
Q-12	6	7	0	2	0		
Q-13	6	6	3	0	0		
Q-14	2	5	4	2	2		
Q-15	3	7	0	5	0		
Q-16	4	4	6	0	1		
Q-17	2	0	2	8	3		
Q-18	0	0	3	1	11		
Q-19	7	2	4	1	1		
Q-20	0	3	3	3	6		
Q-21	8	2	2	3	0		
Q-22	3	3	5	2	2		
	a	**b**	**c**	**d**	**e**	**f**	**g**
Q-23	9	12	8	9	7	9	5

** Likert scale type is used for the first 22 items.*

** The 23rd item is a multiple choice type of question.*