T.C. ISTANBUL AYDIN UNIVERSITY INSTITUTE OF SOCIAL SCIENCES



THE EFFECTS OF USING MOBILE AUGMENTED REALITY INTEGRATED MATERIALS ON STUDENTS' MOTIVATION AND ATTITUDE LEVEL IN EFL ACADEMIC WRITING CLASSES

MASTER THESIS

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Department of English Language and Literature

English Language and Literature Program

Thesis Advisor: Dr. Necmiye KARATAŞ

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T.C. İSTANBUL AYDIN ÜNİVERSİTESİ SOSYAL BİLİMLER ENSTİTÜSÜ MÜDÜRLÜĞÜ



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I hereby declare that all information in this thesis document has been obtained and presented in accordance with academic rules and ethical conduct. I also declare that, as required by these rules and conduct, I have fully cited and referenced all material and results, which are not original to this thesis. (/ /2019).

Gayane POZHARINA





To the wisest and most incredible woman on Earth, my mom IRINA TUGUSHEVA



FOREWORD

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<u>June, 2019</u>

Gayane POZHARINA

Lecturer



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ABBREVIATIONS

AR	: Augmented Reality
AWMQ	: Academic Writing Motivational Questionnaire
CG	: Control Group
EFL	: English as a Foreign Language
EG	: Experimental Group
ELAT	: End of Level Achievement Test
ESL	: English as a Second Language
IAU	: Istanbul Aydın University
IMMS	: Instructional Materials Motivation Survey
IT	: Information Technologies
MAR	: Mobile Augmented Reality
SDT	: Self Determination Theory
ZPD	: Zone of Proximal Development



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THE EFFECTS OF USING MOBILE AUGMENTED REALITY INTEGRATED MATERIALS ON STUDENTS' MOTIVATION AND ATTITUDE LEVEL IN EFL ACADEMIC WRITING CLASSES

ABSTRACT

The main purpose of the present study is to determine the impact of Mobile Augmented Reality enhanced materials on students' motivation, attitude level and reflections in EFL academic writing classes. 70 A1 level English Preparatory School students of Istanbul Aydın University participated in this study. The participants of the study were divided into control and experimental groups. Students' previous track scores were taken into consideration and the chosen groups had similar Midterm, ELAT and writing scores. The instruction process was repeated both in 2017-2018 and 2018-2019 academic years. In both academic years, the experimental group was instructed by the same teacher and the instruction process lasted for eight weeks. The experimental group benefited from MAR enriched materials during academic writing classes, whereas the control group used traditional writing materials. In order to understand to what extent MAR adopted writing materials have an impact on learners' motivation and attitudes in EFL writing class, a mixedmethods research design was adopted. The data were provided via Academic Writing Motivation Questionnaire (Payne, 2012), Instructional Materials Motivation Survey by Keller, (2010) and semi-structured interview questions which were adopted from Küçük (2015). The study followed a four-step procedure including (1) application of IMMS and AWMQ pre-tests, (2) implementation of the MAR materials, (3) application of IMMS and AWMQ post-test, and finally (4) interviews with the students. The results of the study indicate that MAR enhanced EFL writing course materials increase students' intrinsic motivation, level of appreciation of the activities, and eagerness to engage in writing activities. Secondly, MAR integrated materials increase students' extrinsic motivation, affect their viewpoints regarding the cruciality of writing, contribute to students' personal recognition. Thirdly, these materials are positively correlated with learners' motivational attitudes as they have a positive impact on their attention, confidence and satisfaction level. Finally, students indicated that MAR integrated materials are more appealing, captivating, satisfying, enjoyable, attention gathering and engaging compared to traditional writing class materials.

Keywords: Mobile Augmented Reality, EFL Writing, Motivation, Attitude



YABANCI DİL OLARAK İNGİLİZCE AKADEMİK YAZMA DERSLERİNDE MOBİL ARTIRILMIŞ GERÇEKLİK İLE ZENGİNLEŞTİRİLMİŞ MATERYALLERİN ÖĞRENCİLERİN MOTİVASYON VE TUTUM DÜZEYİNE ETKİLERİ

ÖZET

Çalışmanın temel amacı Mobil Artırılmış Gerçeklik (MAG) ile zenginleştirilmiş materyallerin yabancı dil olarak İngilizce akademik yazma derslerinde öğrencilerin motivasyon, tutum ve düsüncelerine etkilerini belirlemektir. İstanbul Aydın Üniversitesi İngilizce Hazırlık Okulu'nun 70 A1 seviyesindeki sınıf öğrencileri araştırmaya katılmıştır. Araştırma'nın katılımcıları kontrol ve deney olarak iki gruba avrılmıştır. Öğrencilerin daha önceki kur notları göz önünde bulundurulmuş ve seçilen grupların benzer Midterm, Elat ve yazı dersi notlarına sahip oldukları belirlenmiştir. Öğretim süreci hem 2017-2018 hem de 2018-2019 Akademik yıllarında tekrarlanmıştır. Her iki Akademik yılda deney grubu aynı öğretmen tarafından yönlendirilmiştir ve öğretim süreci sekiz hafta sürmüştür. Deney grubu Akademik Yazma derslerinde MAG ile zenginleştirilmiş materyallerden yararlanırken, kontrol grubu geleneksel yazı materyallerini kullanmıştır. MAG ile zenginleştirilmiş yazma materyallerinin yabancı dil olarak İngilizce yazma derslerinde öğrencilerin motivasyon ve tutumuna ne ölçüde etki ettiğini anlamak için karma yöntem kullanılmıştır. Veriler Payne'nin (2012) Akademik Yazı Motivasyon Anket'i, Keller'in (2010) Öğretim Materyali'ne İlişkin Motivasyon Ölçeği ve yarı yapılandırılmış öğrenci görüşmeleri kullanılarak elde edilmiştir. Çalışmada dört aşamalı prosedür izlenmiştir : (1) IMMS ve AWMQ ön testlerinin uygulanması, (2) MAG materyallerinin uygulanması (3) IMMS ve AWMQ son testlerinin uygulanması ve son olarak (4) öğrencilerle görüşme. Çalışma sonuçları göstermiştir ki yabancı dil olarak İngilizce yazı ders materyalleri MAG ile zenginleştirildiğinde öğrencilerin içsel motivasyonu, etkinlik değerbilirliği, yazma etkinliklerine katılım istekliliği artmıştır. İkinci olarak, MAG ile zenginleştirilmiş materyaller öğrencilerin dışsal motivasyonunu arttırmış, yazının önemine yönelik bakış açılarını etkilemiş ve öğrencilerin kişisel farkındalıklarına katkıda bulunmuştur. Üçüncü olarak, bu materyaller öğrencilerin dikkat, öz güven ve memnuniyet düzeyine olumlu etki ettiğinden dolayı, öğrencilerin güdüsel tutumları ile olumlu ilişkilendirilmiştir. Son olarak, öğrenciler MAG ile zenginleştirilmiş materyallerin geleneksel yazma ders matervallerine göre daha cazip, büyüleyici, memnun edici, zevkli, ilgi çekici ve merak uyandırıcı olduğunu belirtmişlerdir.

Anahtar kelimeler: *Mobil Artırılmış Gerçeklik, Yabancı Dil Olarak İngilizce Yazma, Motivasyon, Tutum*



1. INTRODUCTION

This chapter presents the background of the study, statement of the problem with the research questions, significance and aim of the research, limitations of the study as well as definitions of the terms used in the research.

1.1 Background of the Study

With the development of technology, people's lives, standards, perspectives, needs, desires, the way they are motivated and satisfied have changed. Education has also had its share on this advancement. In our contemporary world, it is more difficult to catch students' attention and make students active participants in the lessons since they got used to being surrounded by various ubiquitous stimulants which make them even more demanding during the learning process. Therefore, technology supported, and integrated materials have become prominent with these changes, and within this scope, information technologies (IT) have gained more importance and took its place in the field of education.

When IT is merged with the educational field it enables learners to learn through inquiry and exploration, fosters collaboration, increases motivation and engagement by creating a brand new student-centered learning culture (Majumdar, 2006). Nowadays, attention gathering materials, engaging and challenging tasks are particularly important in the language learning classes, as Prensky (2001) calls our learners as 'digital natives'. The digital natives of our classes are in need to be fed with updated, trendy, contemporary, and authentic materials that make sense in their digital worlds as well as facilitating their comprehension in EFL classes.

Augmented Reality (AR) technologies are one of the newest fields started to be taken into consideration despite being discovered many years ago. AR is defined as the technology where users can interact with the virtual images integrated into real-world environment synchronously (Azuma, 1997). With the help of AR, the real-world environment can be supported with 2D, 3D images as well as videos, audios and other materials. New opportunities that AR technologies may provide for teaching and learning have highly gained importance (Wu, Lee, Chang & Liang, 2013). This integration of virtual objects on the top of the real-world environment has many advantages for its users such as providing a better understanding of an abstract concept and complex spatial links (Arvanitis et al., 2007). As it was presented in 2010 Horizon Report 'Augmented reality has strong potential to provide both powerful contextual, in situ learning experiences and serendipitous exploration and discovery of the connected nature of information in the real world' (p. 22) and 'potential to facilitate learning through enjoyment over learning tasks, engagement and motivation' (Taşkıran, 2018, p. 122).

Students of this era have grown in a completely different environment, which sometimes creates a clash between teachers and their learners. Students do not need to check their books for the unknown information because they can get the latest news and updates on their computers or handheld devices (Sheehy, Ferguson & Clough, 2014) through which makes access to information easier, quicker and practical. As educational tools have gained importance, these mobile devices started to become inseparable and significant part of our daily lives ,particularly with various educational applications, programs, and software features. As Saran et al., (2009) puts forward, mobile phones offer non-class learning with their portability, individualization and easily reachable characteristics. Furthermore, they 'complement the short-burst, casual, multitasking style of today's 'Digital Native' learners' (Prensky, 2004).

In foreign language classes writing skill is considered as one of the most challenging, and problematical one for both students and teachers as they face many difficulties during its acquisition. Learners' attitudes towards the skill, their motivational levels, willingness to engage in the activities, previous content and cultural knowledge are crucial as well as teachers' methodologies, attitudes, material preferences and the learning environment itself. Writing is a powerful instrument which provides individuals intellectual growth and evolvement besides being a tool for communication (Nunan, 2015). Being able

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to express himself or herself confidently at an advanced level and making use of appropriate strategies will definitely bring students academic and professional success.

1.2 Statement of the Problem

The significance of English as a means of communication is a known fact; however, in Turkish educational settings, English still considered to pose some problems. Students start learning English in the early years of their school education. Despite a long foreign language education, a vast amount of students still feel uncomfortable, and do not see themselves efficient enough to use or especially produce the language orally or in a written form. Preparatory schools of universities provide one year of foreign language education as they aim to prepare their students for their English language medium departments. Education provided in preparatory schools is particularly crucial as the gained proficiency in the foreign language provides students with academic, social and personal benefits.

At the preparatory school of Istanbul Aydin University, where the present research has been conducted, the education aims to enable the learners to sufficiently master reading comprehension, listening and understanding skills, as well as communicate fluently in social and academic settings, and produce different genres of written texts. Successfully graduated students of the preparatory school of IAU are expected to be able to understand textbooks which are written in English, write academic papers, answer questions in the exams, listen and understand the lectures, take an active part in the class discussions, and carry out research related to their fields. They should be able to have acquired the necessary skills to enable them to communicate effectively in their departments both in oral and in written form.

This study primarily focuses on the writing skill because despite being one of the most challenging skills, it is presented in an artificial, and mechanical way with inauthentic materials. Teachers and material designers most of the time are obliged to neglect the need and application of authentic material due to time constraints, the intensity of schedule or curriculum in the writing classes. However, the features of the material design should meet the needs of the 21st -

century language learners. The designed lesson plans should align with the students' expectations because if their needs are not met, they lose their motivation and the lack of motivation will affect the whole learning process.

Teachers of preparatory schools try to engage technology in their main course classes predominantly because of the sufficient amount of time allocated on the course. On the contrary, when it comes to writing lessons and material design, there is an inadequacy in terms of attaining motivation in learners. The lessons may lack pre-task activities, context knowledge or engaging pair and group work tasks, or integrative games. The product of the writing is likely to have more importance than creating a meaningful, engaging, motivating atmosphere which direct students to be more autonomous and self-discovery type of learners. It is a known fact that teachers of writing try their best, put much effort, and time in order to inspire, motivate and engage their learners to start their writings but more importantly to keep them motivated during the whole writing process;however, learners of English as a foreign language find the writing tasks demotivating.

1.3 Purpose of the Study

Even the word writing itself gives goosebumps to some learners. They tend to avoid this compelling process as much as possible based on past life experiences. In the field of EFL, writing is not only unfavorable for the students but also for teachers of writing who do not find it in their hearts because of the difficulties of teaching that productive skill. Covering a concept in the classes does not necessarily mean that students acquire knowledge. It is best understood when the composition process starts, and learners have to put all the learned knowledge on paper, this is the stage when teachers are bombarded with loads of questions related to the topic.

Jerry Blumengarten said that technology could even give the most silent student a voice. Keeping that in mind, in this study students were provided with Mobile Augmented Reality supported writing materials which were available during the lessons in order to work on the given tasks provided by the teacher as well as assisting learners for their after class assignments whenever and wherever it is required. It was aimed to compare the impacts of using MAR adopted writing materials on students' motivational level and attitudes of both the experimental and control group.

1.4 Research Questions

This research aims to examine the impacts of MAR supported writing materials in EFL classes. The research questions are presented below.

- How do MAR supported writing materials affect the level of students' motivation towards writing in EFL course?
- How do MAR integrated materials affect students' attitude in their EFL writing course?
- What are the students' reflections towards integrating MAR supported materials in EFL writing courses?

1.5 Significance of the Study

Integrating new technologies and digital tools during EFL writing is not a brand new concept as many technologies of IT were already integrated into the foreign language writing learning process: Twitter, Blogs, Wikis, Digital portfolios, WhatsApp, Flipped Learning and so on in order to provide digital experiences and new opportunities to its learners. AR technologies are trending topic these days and have a significant role in teaching and learning. However, Kara (2018) in his recent study investigated 145 Augmented Reality Practices conducted between 2010 and 2017 in the field of education and found out that only 13 of the studies were conducted in the field of language education.

Although Augmented Reality has a significant place in education, only Liu and Tsai in 2013 adopted Mobile Augmented Reality-based materials into writing classes. Despite its accordances and limitations ,which were defined by many researchers, its effectiveness in the field of education is still limited and needs more evidence (Sommerauer and Müller, 2014). Because of that, this study is important as it is going to be one of the prior studies to apply MAR materials to EFL writing classes in Higher Education in Turkey.

1.6 Limitations of the Study

The study has some limitations which are presented below:

- This work has been conducted for two years, as the number of students in classes at the preparatory school was not sufficient enough to accept the data valid and reliable. That is the reason why the experiment was carried out for two years in a row.
- Students who participated in the research were all A1 level students
- Mobile Augmented Reality Materials were integrated into only academic writing lessons.
- Not all students were able to make use of MAR applications to the fullest because of some memory and internet connection problems on their devices. That is why the researcher provided some help in order to overcome these limitations of MAR.
- The other teachers of the preparatory school were introduced the MAR methods and applications; however, they were not able to adequately perform and apply them because of technical difficulties faced and differences among teaching styles, so the researcher did not count on their results and did not include the data in the research.

1.7 Definitions of Terms

AR: Augmented Reality

EFL: English as a Foreign Language

IAU: Istanbul Aydın University

- **IT:** Information Technologies
- MAR: Mobile Augmented Reality

2. LITERATURE REVIEW

2.1 Theoretical Framework

The second chapter includes four parts which provide brief information about the theoretical framework and background of this study. The first part explains the writing skill, its significance in EFL teaching and approaches to teaching writing as a skill. The second part furnishes the importance of motivation during teaching and learning writing skill. In the third part, the theoretical background for the use of Augmented Reality in EFL writing classes is provided as the last part discusses the Augmented Reality technology and its particular place in educational settings.

2.1.1 Writing skill

Richard Bach called a good writer, an amateur who did not quit, and for a good reason. Writing is a long process which requires a lot of effort, knowledge, motivation, willing engagement, and along with these, the writer is obliged to have at least some basic knowledge of vocabulary, grammar, and genre. On top of that, one cannot just succeed immediately in this process due to the stages the writer would go through. As Hadley (2001) remarks mastering and being able to write even in one's mother tongue requires a lot of effort and is more than just writing down the thoughts. As a result, in this process 'unconsciously directed effort and deliberate choice of language' is a must (Rivers, 1975) and the mastery in this skill can only be achieved through thorough and effortful diligence (Breland & Jones, 1982). Being determined, motivated, ambitious and engaged in that process will bring success to the writers.

Various definitions of writing are observed in Linguistics. For instance, Zamel (1982) defines writing as a continuum where the writer creates the meaning by giving importance mainly to revision, generating, formulating and refining instructions during the process. Furthermore, Voltaire used a great metaphor as he identified writing as 'the painting of the voice'. Manalo (2013, p. 67) must

have supported this opinion when she also characterized writing as a form of art and included capabilities such as 'vocabulary, grammar, spelling, sentence construction, discourse organization, paragraphing and cohesion' necessary in this great and toilsome process in which the creator will make an effort in order to create the piece of art.

2.1.2 The significance of EFL writing in language learning

Listening, reading, speaking and writing are four basic skills which one should master in learning a language. These skills are divided into two categories. Listening and reading are categorized as receptive skills, whereas speaking and writing are productive (Harmer, 2006). All of these skills are interrelated and one's foreign language development is dependent on his or her competence and high level of achievement in possessing them. Chomsky (1965, p.4) propounded that linguistic competence and performance were two distinctive terms. The learner's knowledge of rules and structure is different from his or her performance. Krashen (1982) posited the idea that development and competence in using receptive skills will bring competence in productive skills, and that is why receptive skills are the ones which should be focused on more. According to that point of view, when students gain more knowledge in listening and reading, they express themselves better in an oral and written form. This idea may seem acceptable to a certain degree, but frankly speaking, this idea causes delays in speaking and writing, in other words, the production of the language is postponed. Not feeling confident while expressing themselves, learners may feel more anxious and frustrated; thus, determination and motivation might drop; these are vital elements in language learning (Yi, 2007). That is being said, both receptive and productive skills should be given equal importance since they are interrelated. However, writing is seen by many of the foreign language students as a skill which will not be utilized after completion of a particular course or their graduation. This is the reason why it is being neglected by students and it is not given deserved attention. On the contrary, students' full awareness, mental involvement, and while doing that being able to apply all the essential components at every step of the way of this multi-staged mechanism is required which can be an obstacle for them.

Although speaking and writing skills are both productive skills and used to communicate, convey a message in an oral or written form, because of its particular features, writing is much more difficult. These differences should be taken into consideration by teacher and learners. Rivers (1981, p. 291-292) supports the idea that writing as a skill is more difficult than speaking and compares writing to 'communication into space' because during the oral communication the receiver is known and depending on the situation, the appropriate, required tone or mood can be chosen by the speaker, an instant feedback received by the audience. Moreover, the interlocutor will also help and show the speaker if the message he or she wants to convey has been comprehended. These features of oral communication will obviously simplify the speakers' job. The concept of 'web of context' that exists in oral communication, as a supportive feature, is missing in the written communication (Bruning & Horn, 2000). Due to all the reasons mentioned above, the written piece has to be understood by its reader without a chance of clarification, since the text lacks the tone or voice which cannot be relied on (Nunan, 1999). Therefore, Nunan (1999) puts forward that the creation of the fluent, coherent and extended written piece is the hardest thing in language.

A writer is in a disadvantageous condition because of the missing features of oral communication such as 'gesture, body movement, facial expression, pitch and tone of voice, and stress' (Rosen, 1969). While speaking the speaker has chances to make mistakes, correct himself, ask for clarification, read the audience's mind from their face, gestures, posture; however, a writer 'requires such as a high degree of organization, accuracy, the use complex grammatical devices, a careful choice of vocabulary, paragraph structure, cohesive devices, grammatical patterns, and sentence structures' (Hedge, 1988, p. 5).

The writing skill was not given importance on a large scale as much as others by researchers and instructors earlier due to the fact that it was depicted as a reinforcement tool for learners' acquisition of grammar and vocabulary knowledge (Leki, 2002). As Hubert (2014) pointed out, the effort devoted to improving learners' writing skills was not sufficient. However, the writing was differentiated from the speaking skill in the last 50 years and the way writing specialists and applied linguist see it has changed as the connection between

'the writer, the reader, the text and reality' is inconstantly evolving (Hubert, 2014).

2.1.3 Difficulties of writing

Allen and Corder (1974) claim that developing the ability to writing skill is acknowledged among the most challenging skills for EFL learners. They have to learn a new set of sentence constructions and structures to use in a more sophisticated pattern in language learning (Bruning & Horn, 2000). Especially newly beginners find writing challenging (Boscolo & Hidi, 2007) and because of that, they tend to develop a negative attitude towards the subject. Another obstacle was mentioned by Byrne (1988), writing as a skill was not accepted as a significant communicative tool out of educational settings by learners. Although learners put much effort and spend some time, a high number of L2 learners are not able to reach to the level of the novice L1 writers (Celce-Murcia, 2001).

While second and foreign language learners learn how to write, they require to gain two types of skill knowledge; composing skills and transcription skills (Sedita, 2013). Composition skills include stages such as pre-writing, planning, drafting and revising as well as genre knowledge, in other words, knowledge of text structure. Before writers start to write, they need to spend some time on the first three stages of composition skills because these are the most critical steps of the writing process. On the other parts, proficiency in punctuation, capitalization, spelling, handwriting/keyboarding are the components of transcription skills and easy application of these skills allows students to allocate time on their composition skills. Besides, simultaneous use of both skills is essential, but sometimes students experience difficulty in applying even the basic skills, in this case, teachers may determine with which skill their students struggle and help them to focus either on the quality of the content or the writing mechanics (Sedita, 2013).

2.1.4 Advantages of writing

Although the acquisition of the writing skill is a challenging process for the learners, there are numerous advantages that it provides. First and foremost, knowing how to express oneself in a written form in English is a necessity for college students and this capability of being able to express is an 'asset' for the learners and their future careers (Glazier,1994, p. 3). Sedita (2013) also defines writing as the predictor of academic success. Besides, while writing, students consolidate grammatical structures, vocabulary, and idioms and this enables them to learn in the process (Raimes,1983). By Scott and Ytreberg (1990) writing is defined as a 'useful, essential, integral and enjoyable part of the foreign language lesson.' They support the idea that another physical dimension is added to the learning as learners use their hands besides eyes and ears.

Moreover, when students produce a written piece, they have a chance to monitor what is written because they come across with the structures more frequently than they do while performing other skills and this is a chance to revise the production and as a result creates a conscious learning environment. If students have a problem with a specific part, they can observe and diagnose these areas (Hedge, 1988). Furthermore, Krashen and Lee (2004) state that through writing, one may be more intelligent. The reason behind this argument is that when a person tries to write down his or her thoughts the brain feels in need to come up with better cognitive structures and this development of cognitive structures is called the real learning. Because of all these benefits, it is not just a tool in order to communicate, but there is a great contribution to the students' language learning process (Judy & Judy, 1981, p. 13). Students may be involved in a writing process in and outside the class. First of all, compared to an authentic conversation, writing involves more 'thinking time'. This time includes more 'language processing' which makes students think about the language while they study new things or are involved in an active language learning process (Harmer, 2006).

2.1.5 Features of strong and weak writers

In order to accomplish the inclusion of the communicative goal of problem solution and strategy implementation are essential and that is why writing is a complicated cognitive movement (Deane et al. 2008). Two distinctive writing strategies called 'knowledge telling' and 'knowledge transforming' are introduced by Bereiter and Scardamalia (1987), which are utilized while writing. Novice learners focus on knowledge 'telling approach' while more experienced ones use the 'knowledge transforming' strategy. Novice authors focus only on writing down their thoughts on the paper. When writing is done, they think that they have managed to put their ideas on paper. While skilled learners go through a repetitive writing process since they try to refresh their thoughts and use expressions as they plan before writing, they are not just organizing their thought but also take part in an active process of reasoning, research and rethought. As it was stated by Deane et al. (2008) generated writing is not acknowledged as an end product but is bound up with regulated assessment and examination considering the significance of the examination of the context and its efficiency taking into account the author's rhetoric purposes. In addition to that Rijlaarsdam et al. (2010) supported the idea that similar cognitive activities which are perusal of sources, generation, organization and transformation of ideas, putting ideas down on paper, then revising the written product and evaluation are utilized by both weak and strong writers but with some differences. Firstly, weak writers' focus is on the final product rather than the process while more skilled writers try to make use of varied activities and are inclined to work on the production and think on it more. In addition, experienced writers tend to be 'more adaptive' while dealing with the tasks. Finally, the way both writers see the written product is different from each other. Whereas the weak ones see it as 'a series of words', for stronger ones, it is a tool for communication' (Rijlaarsdam et al., 2010). As can be understood from the reasons mentioned above, awareness of writing strategies is essential for EFL learners, without a doubt. If learners experience difficulties, they need to consider their competence in using these strategies because they may lack some knowledge.

During the writing process, learners come across with many difficulties such as organization, lack of content knowledge, lack of richness of vocabulary, accuracy, fluency, and even instruction comprehension. This challenge can be overcome by the provided practice opportunities, various activities, techniques and instructions which they may easily apply to their writing pieces. In a traditional writing class, providing such chances are quite limited and can be ineffective because of the limited amount of time, schedule, motivational problems, time restrictions, availability of necessary materials as well as teaching environment. appropriate There should also be constant

communication and interaction between the teacher and students in order to strengthen the learning process and provide sufficient feedback.

2.1.6 Approaches in teaching writing

In the field of foreign language writing, there is no joint idea of the purpose of writing curriculum, which is one of the most vital problems and still a controversial issue (Reichelt, 2001). There are numerous L2 writing teaching settings and these various teaching environments cause differences in goals and the way instructors teach (Kroll, 2001). After writing had been recognized as a significant part of language teaching, the need for a proper method and approach arose. There should be thorough, measured and comprehensible planning of writing instruction before teaching starts, since efficient writing instruction heartens students, affect their motivation, and participation levels. In order to make writing teaching an effective pedagogical practice, many approaches were adopted because writing is a complex process for the learners' cognitive capability (Harmer, 2006) and is not like other skills and needs to be taught in a logical order as it is leaned and developed by doing and practicing. However, each teaching environment is a unique atmosphere which has its dynamic and there are many factors affecting the choice of the approaches such as students' needs, learning styles, ages, backgrounds, teaching preferences, teaching styles and so on. Raimes (1983) suggested that there was not only one specific answer to the question of how to teach writing. There would be as plentiful answers to that question and approaches as there is a vast diversity of teachers and their teaching styles and learners and learning styles.

Silva (1990, p.11) puts forward that teachers of writing skills need to be qualified in the teaching process;

To be effective teachers of writing, English as a second language (ESL) composition professionals need an understanding of what is involved in the second language (L2) writing. They need coherent perspectives, principles, models-tools for thinking about second language writing in general and ESL composition in particular and for analyzing and evaluating competing views.

Many approaches are available in L2 writing. The teachers of the skill should choose the appropriate one depending on the goals, needs and other factors they

want to focus on in the course or they could use eclectic method to meet their needs; however, Zebroski (cited in Johns in 1990) put forward that there is a need for a theory of writing by its very nature if we write and teach writing). Furthermore, Raimes (1983) provided a diagram which presents the features writers have to deal with while producing a written product. The features of the writing piece that are presented in the diagram introduce several approaches for teaching writing depending on which part teachers emphasize on.

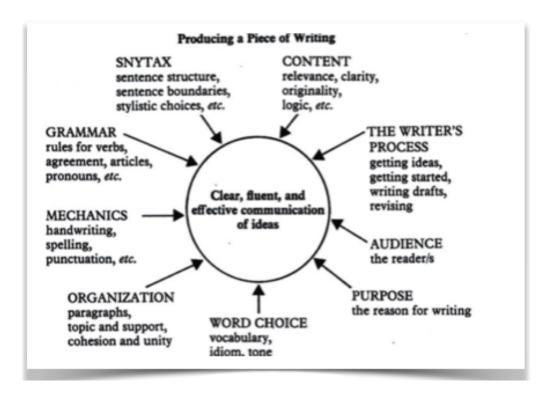


Figure 2.1. Producing a piece of writing

Source: (Raimes, 1983, p.6)

2.1.6.1 The controlled-to-free approach

During the 1950s and 1960s, the dominant approach was the Audio-Lingual Approach in the field of second language learning and in this period the importance was mainly attached to speaking since writing was considered as a reinforcer for grammatical and syntactic forms in the production of speech. Three features of the provided diagram are emphasized within this approach, which are grammar, syntax and mechanics rather than fluency of the writers or originality of the written piece. This approach was considered consecutive (Raimes, 1983) and this approach would be more suitable for ESL high

beginners to low intermediate level students until they learn to express themselves confidently in a written form (Sastoque, 2010).

There are quite strictly controlled practices. The duty of the ESL teachers is to provide students with exercises where they first start with the sentence level and move to a paragraph level. They need to change the structures of the sentences, and statements need to be changed to questions, manipulate tenses of the sentences and so on. By the time students achieve high intermediate or advanced level, they may produce freer compositions. Till this stage writing teachers try to leave little space for grammatical mistakes in students' writings with the controlled materials. It can be said that teachers' job is easier since the marking of the papers would take less time consuming and easy (Raimes, 1983).

2.1.6.2 The Grammar-Syntax-Organization approach

In this approach besides working on grammar and syntax, the significance of organization dimension was taken into consideration due to the fact that writing could not be seen as a combination of skills that are acquired one by one separately (Raimes,1983). That is why during writing there is a need to organize the composition and use appropriate words, verbs such as linking words, sequence words and necessary structures to combine the ideas, so there occurred a connection between the written piece and forms which are required to deliver the writers message. (Raimes,1983).

2.1.6.3 The Free-Writing approach

With this approach, the accentuates the quantity of the produced text rather than the quality of it. Teachers' job here is to provide students with a topic, keep the error correction at minimum and allow them time to focus on the content and fluency rather than accuracy because representation of thoughts on paper is more vital, and it is believed that on other stages accuracy of grammar, organization and other features will be developed stepwise (Raimes,1983). It is also suggested that at the beginning of the lesson, teachers may ask students to write freely about any subject they want regardless of grammatical or spelling mistakes for some time which can be challenging in the first instance, but once they get used to it and do regularly, students will not see writing as a frightening activity (Raimes,1983). Sastoque (2010) mentions two advantages that this approach provides for the intermediate to advanced learners. Firstly, it is a frequently confronted situation when students of a high level feel anxious or fearful of making grammatical mistakes while writing and thanks to that approach, they may overcome that fear. Secondly, grammatical improvement is achieved even if there is no feedback from the teacher due to the comprehensive practice.

2.1.6.4 The Paragraph-Pattern approach

The Paragraph-Pattern Approach puts emphasis on the organization rather than fluency, accuracy, purpose or the audience. According to that approach it is assumed that communication in each culture is built and organized in particular ways (Raimes,1983), that is why students of writing classes are provided with many activities because even if students have this ability to express themselves easily in their first language does not necessarily show that they have the same ability in another language. Teachers supply model paragraphs, sentences and students need to analyze them in order to expand awareness of the model paragraphs. They identify the topic sentence, supporting ideas, concluding sentences, and other components of an essay which will help them to gain a better insight of organizational steps they need to go through in production of a written piece.

2.1.6.5 Communicative approach

The aim of the writing and the audience are the key elements of this approach. The writers need to consider the following facts as they write; the targeted audience and their aim (Raimes, 1983). Students did not have a real, purposeful target reader who would make the writing activity a communicative task before the communicative approach was presented. The teacher may furnish students with real readers by asking other students to read, respond and interact with their friends' texts or real-life situations and appropriate audience (Raimes, 1983).

2.1.6.6 Product-Oriented approach

This approach was introduced in the 1960s and 1970s and focused on the final product rather than the strategies students go through or steps of the writing process. It was believed that to be confident in paragraph writing students first

of all need to be competent at writing coherent sentences, that is why students' activities were more sentence level ones where they imitated, copied and transformed correct language models, included more grammar-based exercises and sentence formation (Nunan,1991). As it was put forward by Gabrielatos (2002, p.5) students are given a sampler text at the beginning of the lesson which is presented, analyzed and, finally it is students tasks to create a similar text. In the class, when students are supplied with a model sample, they are actually expected to follow certain standards while composing their written piece.

According to Steele (2004), familiarization, controlled writing, guided writing, and free writing are four stages of this approach.

The First Stage: In this stage, model texts are supplied, and the characteristics of model texts are highlighted with the help of the teacher.

The Second Stage: As the features of the model text are highlighted, students practice highlighted structures that focus more on grammar and related vocabulary in a controlled way.

The Third Stage: Students organize their ideas and compose a written text which is similar to the model. This stage was seen as the most vital one since it was believed that the organization of the ideas was more important than the ideas themselves.

The Fourth Stage: As the last chain of the learning process, learners choose a task and by using acquired grammatical structures, targeted vocabulary and features of the covered text produce a piece of writing freely.

To sum up, since this approach primarily focused on the final product, grammar, and students' writing skills were evaluated depending on the justifiability of the grammar, vocabulary range, punctuation and accurate spelling (Hedge,1988), it was criticized by many scholars.

2.1.6.7 Process approach

According to Caudery (1995) process approach appeared as a reaction to the Product-Oriented Approach in the 1970s. The most important characterizing feature of this approach is that the final written product is not accepted as the final form of a written piece but rather a beginning point of students' writing process in which focus is more on various class activities that promote brainstorming, group discussion and rewriting for language use development (Hasan & Akhand, 2010). White and Arndt (1991) provide a diagram showing that the writing process is not linear but is a cycle of generating ideas, structuring, drafting, reviewing, focusing and evaluating and signifies the cynical nature of writing.

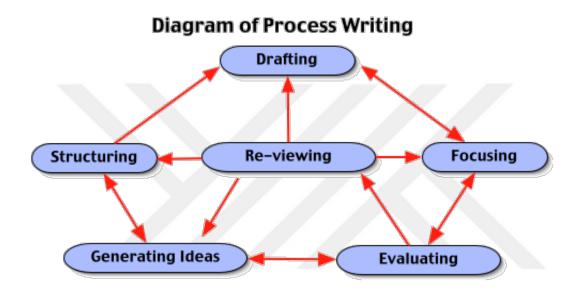


Figure 2.2: White and Arndt's Writing Process Model

Source: (White and Arndt 1991, p. 5)

Tribble (1996) also suggested that writing consists of four stages: (1) prewriting, (2) composing/drafting, (3) revising, and (4) editing because of that producing a written text is an act of discovery (O'Brien, 2004). It is also a timeconsuming activity and a journey of discovery. Students may interact with each other, gain awareness of their learning process, see their strengths and weaknesses and start to feel more confident in written production because they do not focus on the flawless outcome. As they receive feedback from their teachers and each other, they may want to go back to previous stages at any time they feel in need to revise some ideas, make some changes, be more creative, constructive applying this more student-centered approach and develop their final drafts in that way. Kroll's (2001) definition of the writing provides a better understanding for teachers: scaffolding term for various writing courses. The term may be defined as follows: students' writing activities involve more a cyclical process rather than a single step one. Students will go through several stages before having submitted final drafts their piece of writing consecutively, such as drafting, peer feedback, teacher feedback and revision.

Steele (2004) highlighted eight stages of this approach:

Stage one (Brainstorming): Brainstorming and discussion is the starting point.

Stage two (Planning/Structuring): Students exchange opinions, write them down, decide on efficiency and quality of these ideas at this stage.

Stage three (Mind mapping): Students organize their ideas by making use of mind map, spidergram or linear forms.

Stage four (Writing the first draft): The first drafts are written as an in-class activity in pairs or groups.

Stage five (Peer feedback): Students swap their drafts with their classmates. This activity helps them to be more aware of their writing process. As they become readers of other drafts, gain insight into the production process and develop their ability to improve the drafts.

Stage six (Editing): As students receive feedback from their peers, they make necessary changes and improvements.

Stage seven (Final draft): Students write their final drafts.

Stage eight (Evaluation and teachers' feedback): Teachers assess and furnish feedback on students' papers.

There are some advantages of this approach. When students spend more time on pre-writing activities, they develop a better attitude towards writing. Making an outline, planning and working collaboratively on the ideas creates a frame for students and eases their job during composing. Submitting more than one draft also provides students a more flexible learning environment with the purpose of the task prominent.

Although the Process Approach provides excellent benefits to students and the learning environment, it fell upon in criticism. One of the criticisms is that it is

time-consuming. Harmer (2001, p. 258) posited that in order to come up with the best ideas, organizing the thoughts, making several drafts, reviewing and editing them over and over again in a limited classroom time brainstorming might be a challenge. Besides, teachers may want to use writing as a short communicative game and ask students to write something rapidly to activate their background information. Following this approach may not be appropriate in that case (Harmer, 2001). While this is true, some students are required to write in different discourse types and with time constraints in academic contexts, this approach would not meet those students' needs (Hedge, 2000, p.319). Badger & White (2000) claim that it ignores the social context variations of the writing process.

Process Writing	Product Writing		
Text as a resource for comparison	Imitate model text		
Ideas as starting point	Organization of ideas are more important than ideas themselves		
More than one draft	One draft		
More global, focused on purpose, theme, text type i.e., reader is emphasized	Features highlighted including controlled practice of those features		
Collaborative	Individual		
Emphasis on creative process	Emphasis on end product		

Table 2.	1:	Product	and	process	writing:	Α	comparison
				F			

Source: (Steele, 2004 as cited in Hasan and Akhand, 2010, p. 80)

2.1.6.8 Genre-based approach

The notion of 'genre' first emerged in the 1980s in the field of English for specific purposes (ESP) (Paltridge, 2004). Swales (1990, p. 58) defined the term 'genre' as a set of communicative events in which a number of communicative objectives are shared by the members. The genre-based approach is accepted as one of the most effective approaches amongst the post-process ones to teach writing (Polio and Williams, 2009). The primary consideration of this approach

is to teach students the necessary genre knowledge which they will benefit in specific situations throughout academic careers and future lives.

The emphasis is given on the text and the context relationship as it cannot be underestimated in the writing process (Hyon, 1996). In order to realize these goals, the writing activities aim to provide the context of the text and the context knowledge in which the writing occurs. According to Paltridge (2004) for social communicative attainment learners need to have knowledge of particular genres. On top of that, Munice (2002) also highlights the significance of the reader and the layout which needs to be followed in order to be understood and approved by the audience.

Due to several similarities it shares, the genre-based approach might be called an extended version of the product approaches (Badger & White, 2000). The most predominant similarity is that writing is perceived as a linguistic creation but in that approach, it is emphasized that writing is produced in various social contexts and this creates diversity in writing. According to Cope and Kalantzis (1993, p120), the genre-based approach of writing consists of three steps. In the first step, the target genre is modeled with some examples. Then, students and teacher construct a text together. Finally, students work individually and construct texts independently.

Hyland (2004 p.10-16) summarized briefly the positive sides of the genre-based pedagogy which are being explicit, systematic, needs-based, supportive, empowering, critical and consciousness-raising. He also adds that 'genre pedagogies are more complex and demanding for teachers than earlier approaches to writing instruction; they also offer more possibilities for informed intervention through greater direction and social focus' (Hyland, 2007, p.155). Along with advantages, there come some negative aspects of the approach. To begin with, in the opinion of Paltridge (2004) genre knowledge covers textual and socio-cultural knowledge and the identification of the specific genre knowledge, which needs to be transmitted to the learners, might not be easily done by the teachers. Another point that this approach has faced criticism was its effect on students' creativity. Since this approach paid a lot of attention on the reader, more than the writer Badger & White (2000, p.157) stated that this approach limited learners' creativity related to content and in the process of

writing the necessary natural stages of the learning process has been overlooked. In that approach as students focus more on the models and examples of the texts and its linguistic features, they might not discover their own way of learning which is more important for their language and skill development in a foreign language. In agreement with Byram (2004, p.236), the self-efficiency principle and the essential skills that are needed to generate content have been undervalued.

Attribute	Process	Genre		
Main Idea	Writing is a thinking process concerned with the act of writing	Writing is a social activity concerned with the final product		
Teaching Focus	Emphasis on creative writer How to produce and link	Emphasis on reader expectations and product		
	ideas	How to express social purposes effectively		
Advantages	Makes processes of writing trans parent	Makes textual conventions transparent		
	Provides basis for teaching	Contextualizes writing for audience and purpose		
Disadvantages	Assumes L1and L2 writing similar	Requires rhetorical understanding of texts		
	Overlooks L2 language difficulties Insufficient	Can result in prescriptive teaching of texts		
	attention to product Assumes all writing uses	Can lead to over attention to written products		
	same processes	Undervalue skills needed to produce texts		

Table 2.2: Process approach versus genre approach	Table 2.2:	Process	approach	versus	genre	approach
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Source: (Hyland, 2003, p.24 as cited in Hasan & Akhand, 2010, p. 81)

2.1.6.9 Process Genre Approach

It has been discussed by the experts of the field that the dominance of only one chosen approach would not be sufficient enough in the language learning process. The previously explained approaches are criticized in some ways due to their limitations and disadvantageous features. Considering the flaws of the former approaches a new approach was adopted by Badger and White (2000, p.157-158) as in product and genre approaches one should have knowledge of the language, the contextual knowledge, a writing purpose and language using skills in or set to be able to perform a written piece. Advancement in writing ability occurs when a learner's strength is forced out and an input which triggers a learner is supplied as in product and genre approaches.

As the steps of the genre and process approaches in this joined new approach alternate with each other, they are called complementary (Neupane, 2017, p.145). By the time learners are acquainted with the necessary knowledge such as the organization of the text, structure and genre knowledge, stages of the process writing approach step in and students practice prewriting, drafting, revision and editing stages continuously.

Yan (2005) asserted six stages of process genre approach, which respectively 'preparation, modeling and reinforcing, planning, joint constructing, are independent constructing, and revising.' In the first stage, teachers aim to activate students' previous background knowledge by providing a specific situation in which students will come across with the targeted genre. As students get ready for a certain genre, they also get an insight into the necessary structural knowledge that they need to utter while writing. Then, students see a model text where the genre is introduced as an example. This model text helps them to comprehend its social function and purpose as well as the possible audience of this specific genre. Together with the students, the teacher creates a discussion environment where they talk about the construction of the text, grammatical features, and organization in order to see how the goals are achieved. The next vital step is planning in which the teacher's preparation for the task plays a big role. In order to catch students' attention, motivate and engage them about the topic, relate the covered topic with the students' own experiences, the teacher uses brainstorming, discussion and reading based materials. After that, students and the teacher compose a sample text of the taught genre together. Students are not passive during this stage. They also make a contribution to the process with their opinions and various ideas, and the teacher writes down on the board so that students also benefit while composing

their own writing. Penultimately, students are asked to compose a text individually; however, they may ask for assistance when it is needed. The text that they write will be their first draft. At the last stage of this approach, the previously written draft is going to be edited, revised and undergone some certain developments. This might be done by the teacher or the students might collaborate, get feedback from their peers and as a result, come up with a final draft (Yan, 2015. These stages are illustrated below:

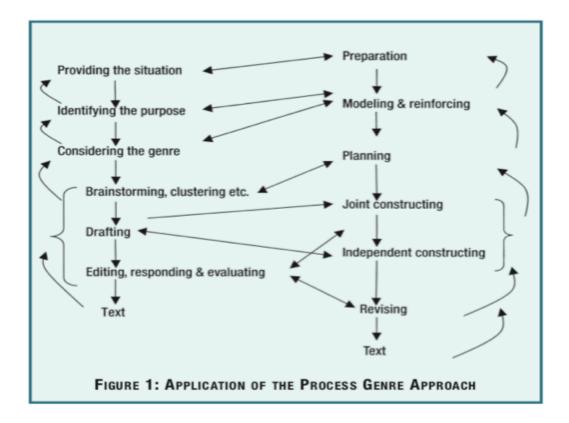


Figure 2.3: Steps of Process Genre Approach

Source: (Yan, 2005, p.21)

This final approach has the advantage of inholding affordances of both genre and process approach. In agreement with Belbase (2012) by being a part of the process of learning, students improve their awareness level of writing and the writing process itself. Besides, the activities provided are not isolated and are presented in a context and situations which are not artificial for the students by which they can get an insight into the genre. Another advantage is that when the stages of writing are internalized by the students, they feel more relaxed and motivated to write and when discussion, assessment and analysis are done in that motivating atmosphere students obviously produce their piece of writing more confidently and in a less threatening way.

2.2 Motivation

2.2.1 Foreign language learning and motivation

In every aspect of life, humans need a drive, a goal, motivational factors, and consistency in order to reach the desired level of achievement in career or personal life. Thus, it can be said that motivation is the cornerstone and the driving force for achievements in all of these circumstances. Brown (1987, p.114) described motivation as a person's 'inner drive, impulse, emotion or desire that moves one to a particular action'. During the second language learning the vital role of motivation is non-negligible because it works as a prime stimulation which promotes learning as well as permanence through becoming more skilled in the target language (Oxford & Shearin, 1994). In educational settings, in order to become successful, the teacher generally has to provide external motivating factors to the learners in the classroom settings, which is generally a hard task. If in educational settings students are enthusiastic, motivated, willing, persistent, and goal oriented, they would obviously participate, spend more time, make an effort on the tasks, derive pleasure from the lessons and as a result, produce a better and a higher level of output while learning.

In the field of the second language learning, Dörnyei (2001, p.8) correlated motivation with why one resolves to do something, how long he or she is eager to maintain the activity and how hard the person is going to pursue it. That is the drive, energy, determination, and persistence, which is exerted into an activity. Furthermore, according to Dörnyei and Otto (1998, p.64) motivation is 'the dynamically changing cumulative arousal in a person that initiates, directs, coordinates, amplifies, terminates, and evaluates the cognitive and motor processes whereby initial wishes and desires are selected, prioritized, operationalized and (successfully or unsuccessfully) acted out'. This shows that it is not a stable situation, during foreign language learning, but an alteration, which affects the whole learning process.

Oxford and Shearin (1994) as cited in Huang, 2007 signified the importance of motivation in the foreign language classes as it allows learners to surmount the arduousnesses they might meet during the second language acquisition as well as framing the teaching methodologies. Besides, it is also highlighted by McDonough (1983, p.142) that students' success or inability to succeed while learning a language is profoundly affected by their motivational level.

All things considered, if the motivation and attitudes of students can be understood appropriately, the awareness will be helpful. Midraj et al. (2008) suggested that a better understanding would contribute material designers for their material creation as well as teachers during selecting the appropriate activities and tasks that give access to students' motivation and attitudes.

Robert Gardner and Wallace Lambert have a substantial position in FL learning regarding the learners' motivation as they propounded a distinctive theory which became the foundation stone of the field. Socio-educational Model proposed by Gardner and Lambert (1972) alleged the dissimilarity of language learning from learning other subjects at school. Language learning process basically entails practice in social environments, which shows that language does not consist of only grammatical rules at its lexical level but also requires the social and cultural context aspects of it. Dörnyei (1994) supports this argument as second language learning goes much more beyond specializing in provided information or knowledge, the cognitive and environmental elements of educational psychology but highlights the fact that it includes many personal traits and social components.

2.2.2 Gardner's motivation theory

In foreign language learning Gardner's motivation theory is one of the pioneering ones, in which the second language learning process was investigated from a socio-psychological perspective (Gardner Lambert, 1972), and still maintains its importance in the field. Instrumental and interactive orientations are two kinds of motivations that were proposed by Gardner and Lambert (1972). Mori (2002) stated that the socio-psychological side of the second language acquisition was highlighted within the scope of the socio-educational model. During language learning, there are some essential factors

which may either contribute to language learners' learning process in a right way or limit the second language learning process as it causes the loss in the learner's language competence. Contributing determiners are the student's 'attitudes, his views of foreign people and cultures, and his orientations toward the learning process' (Gardner and Lambert, 1972 p.3). If one has positive beliefs of the target culture, its language and other patterns of the targeted culture, this would obviously affect the learning process because this curiosity arouses interest and thus the learner will exhibit a positive attitude. Gardner and Lambert (1972) attached importance to attitudes and ethnocentric tendencies of the second language learners and believed that success was a result of the positive attitude towards the other community. In a nutshell, Gardner and Lambert (1972) mainly support in that theory that

The learner's ethnocentric tendencies and his attitudes toward the members of the other group are believed to determine how successful he will be, relatively, in learning the new languages. His motivation to learn is thought to be determined by his attitudes toward the other group in particular and toward foreign people in general and by his orientation toward the learning task itself. (p. 3)

According to Gardner (1985), as cited in Dörnyei (2001), second language acquisition motivation includes three elements which are motivational intensity or effort, one's willingness to learn the target language, and his approach towards language learning itself. The theory is based on motivation and orientation. Gardner defines an individual's goal as orientation (Gardner,1985 cited in Dörnyei, 2001). Ellis (2003, p. 509) defines students' underlying causes for learning a second language as their orientations and their guided effort during language learning as motivation. Two types of orientations which were mentioned earlier (integrative and instrumental) increase motivation and prompt the learners to reach their goals (Dörnyei, 2001).

2.2.2.1 Instrumental motivation

One's willingness or desire to benefit from the economic advantages and to be recognized socially via his knowledge of the foreign language is called instrumental orientation (Gardner and Lambert, 1972, p.14). This type of motivation includes pragmatic gains and using the target language as a means to reach goals such as earning a high income, getting a good job, reaching technical and scientific information, getting high marks on the exams or becoming more prestigious in the society for the personal satisfaction. In other words, the foreign language is uttered as a kind of a tool by the learners of that language to reach their pre-set goals.

2.2.2.2 Integrative motivation

An individual's positive attitude, willingness to be a part of the target culture, having a high level of interest in the language as well as other components of it, being open to the new community will help the language learner develop positive behavior and thus to be successful in the second language. Gardner and Lambert (1972, p.12) define an individual's 'willingness to become a member of another ethnolinguistic group' as integrative motivation. In another article Gardner (2012, p.216) asserted that 'Integrative motivation is multi-dimensional, involving affective, cognitive, and behavioral components comprising four broad categories of variables, motivation, integrativeness, attitudes toward the language situation, and language anxiety'.

Integratively motivated learners will have positive feelings towards the learning environment and the learning process (Gardner, 2001). It is important because language classes are different from other subject classes. While acquiring other subjects, students do not usually learn cultural and contextual background which language learning conveys.

In addition to the socio-educational model, the social-context model, which was proposed by Clement (1980), emphasizes the importance of integrative motivation as well. However, it emphasizes the vital role of the existence of social context during second language learning. When the learner experiences positive practice with the target culture and the language, self-confidence is promoted as he feels confident and does not experience anxiety. Consequently, it can be interpreted that the confidence that an individual has fostered the integrative motive (Clement et al. 1994).

This type of motivation came in for criticism by some scholars. According to Graham Crookes and Richard Schmidt (1991, p.469), for instance, the theory of Gardner puts an overemphasis on the social side and students' attitudes so that not enough attention was paid to the other essential components of second language motivation.

2.2.3 Self-Determination theory (SDT)

The cognitive dimension of motivational psychology has gained importance in the second language acquisition in the 90s and self-determination theory is one of the influential ones. According to Deci and Ryan (1985), there are two types of motivations; extrinsic motivation in which learners participate in an activity in order to get the desired outcome, to reach an instrumental end or a reward, and intrinsic motivation which is related to enjoyment or joy that the individual gets while engaging in the activity. Both types engender a self-determined learner. This theory counts among other theories as it yields psychological mechanisms, self-determination and perceived competence, which in their turn, declare a relation of learning outcomes to orientations (Noels et al. 2000).

Deci and Ryan (2008) in his article stated that SDT is a 'macro-theory of human motivation, personality development, and well-being' and added that social, cultural circumstances that assist 'volitional or self-determined' response are the focal points of this theory. SDT includes some mini-theories such as Cognitive Evaluation Theory, Organismic Integration Theory, Causality Orientations Theory and finally, Basic Needs Theory. Coherence and integrability are existing between these theories (Deci and Ryan, 2002).

Despite cultural and developmental background, SDT assumes a number of psychological needs, such as autonomy, competence, and relatedness which are supposed to be of great importance for healthy human functions (Ryan, 2010).

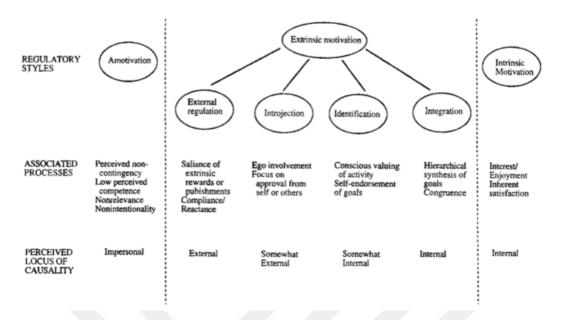


Figure 2.4: Intrinsic and Extrinsic Motivations: Classic Definitions and New Directions

Source: (Deci and Ryan, 2000, p.61)

2.2.3.1 Intrinsic motivation

Intrinsic motivation is defined by Ryan and Deci (2000) as the will to do something just because of the fact that it is entertaining and pleasurable inherently and one gets satisfaction from finishing an activity without getting any external reward. There is a desire within the learner and he or she completes the task or participates in an activity for the sake of the feeling of worthiness (Williams& Burden, 1997). Accordingly, intrinsically motivated students would work very hard, set themselves goals, concentrate on the given assignments and overcome the difficulties (Gilakjani et al., 2012). When students possess motivation endogenously, they do not need any other external stimulant, price, teacher's assistance to engage, being motivated or more time spent to encourage them. They will voluntarily take part in the process because the task and the challenge while working on it is amusing itself, enthusiastic and satisfactory.

Intrinsic motivation to learn, intrinsic motivation to achieve and intrinsic motivation to experience inducing are the three proposed components of this type of motivation (Vallerand et al.,1992). Intrinsic motivation to know is related to one's feeling of pleasure and contentedness from discovering and

earning new knowledge. Secondly, intrinsic motivation to accomplish refers to taking part in an activity in order to feel satisfied and pleased from attempting to being more skillful or completing a task ably. Finally, intrinsic motivation to experience stands for participating in an activity to stimulate feelings of excitement, joy, and entertainment, which is derived from the activity itself. If students decide to take part in the activities willingly, they tend to have a positive attitude while learning and as a result become much more involved in the process (Brown, 2001; Raffini, 1996).

2.2.3.2 Extrinsic motivation

Willingness to achieve something due to its benefits such as getting a good mark on a course, earning a high income, or to be promoted is called external motivating factors for a person. Some external rewards like money, prize, and grades are the reasons why people perform an act (Brown, 1994). Various definitions were provided concerning extrinsic motivation; for instance, Ryan and Deci (2000) defined the term as 'the performance of an activity in order to attain some separable outcome'. In addition, Noels et al., (2000) added that getting an award and abstaining from punishment are other instrumental factors that play a significant role in this type of motivation. Students perform a behavior, not because of the pleasure they take but instead for a reward they get after completing it (Keller, 2010, p.17).

Intrinsic motivation does not always take part in the classroom setting. Especially in educational settings, some tasks may not be interesting or enjoyable enough for the students and this may cause a lack of intrinsic motivation (Ryan & Deci, 2000). However, in second language learning, both kinds of motivation are necessary because of their interrelation (William &Burden, 1997). It is vital for educators, and especially for the language instructors to discover and then improve the self-awareness of external factors, and their students' preferences. Internal and external motivation are interrelated as both of them engage students for learning. Language learning itself is a challenging task and during this process, students should be surrounded by some engaging materials, environment and various tasks to make them more eager, excited and meet their needs. Depending on instructional aims, observations,

and instruction design, instructors should have awareness for when to focus on which type of motivation (Song, 1998).

Learners with intrinsic motivation and the ones with extrinsic motivation are different from each other. According to Shin and Zhou (2003), a person who is extrinsically motivated is willing to partake in multiple experiments, not afraid of taking risks, and show high levels of mastery. On the other hand, Kawachi (2002) disagrees with that idea because the eagerness of getting the reward prevents one from reaching ingenuity in practice as it is not necessary all the time to master a behavior to get a reward. Furthermore, Deci and Ryan (2000) put forward that this sort of motivation has adverse effects on learning because students' creativity and discovery are debilitated as they are directed a lot on the materialistic side of education (Brown, 2001).

Extrinsic motivation includes four types of motivation; external, introjected, identified, and integrated regulation (Deci & Ryan, 1985), which are categorized according to their level of internalization.

They proposed a theory named organismic integration in order to explain the diversified forms of extrinsic motivation and contextual factors which may contribute to or inhibit the process of internalization and integration of regulation in details.

External regulation is the first type of extrinsic motivation. People perform an act to obtain a concrete reward which can be money or a good grade in a particular course or abstain from punishment such as parents' scolding. In the continuum, this kind of motivation takes place at the nonself-determined side because it is the least autonomous one. In this type of regulation, the outside demand is tried to be satisfied (Vallerand & Ratelle, 2002).

The second type of motivation is interjected regulation. An individual may adopt his or her behavior or practice to prevent the feeling of shame, guilt or anxiety. This type of motivation is regarded as the first stage of the internalization. The person acknowledges the pressure that would be experienced and as a result, consciousness is internalized. Uncompleted assignment and consequently the feeling of guilt that the person has will extrinsically motivate the student. There occurs the need for internalization not because of the individual's self-determination but because of the outside factors that create the feeling of internal pressure (Vallerand & Ratelle, 2002).

The third type of extrinsic motivation is called regulation through identification. The individual personally internalizes the reasons behind the behavior and values its significance. Thus, the performance is accepted and viewed as valuable by the performer (Deci& Ryan, 2000). There are willing participation and quite self-determined motivation. Regulated identification occurs if a student chooses to wake up earlier in the morning with the purpose of revision for the upcoming exam because he or she cares about it (Vallerand & Ratelle, 2002).

Integrated regulation is the last type of extrinsic motivation, which is also the most self-determined one. Although in this kind of motivation, one performs an act for a particular outcome, instead of feeling joy or satisfaction, it holds similar features with intrinsic motivation (Deci & Ryan, 2000). There is a harmony between the self and the choices of the individual while performing the behavior. For instance, if a ballet dancer does not go outside with his friends late at night in order not to feel tired for his or her morning class the integrated regulation can be observed (Vallerand & Ratelle, 2002).

2.2.3.3 Amotivation

The last type of motivation that is included Self-determination theory is amotivation, which is the lack of motivation. The individual neither has intrinsic nor extrinsic motivation (Dörnyei & Ushioda, 2011). Deci and Ryan (1985) define this type of motivation as a state in which one is not able to comprehend the relationship between his or her behavior and the outcome of this performed behavior. As the individual cannot link the activity and its consequences, the performance is acted because of the outside forces. Poulsen et al., (2006) state that the lack of contextual support, not seeing any correlation between the performance and its outcome, the missing extrinsic and intrinsic motivation cause unwillingness in performance.

Besides, amotivation was likened to the notion of learned helplessness (Abramson, Seligman & Teasdale, 1978) in which performers will try to discontinue the act as soon as possible (Noels et al., 2000). According to

Vallerand and Ratelle (2002), an unmotivated person does not have selfdetermination, and this causes boredom, lack of concentration (Vallerand et al., 1993) and high level of stress during studies and at school environment (Baker, 2004).

2.2.4 Writing motivation

In Turkish educational settings, most of the writing takes place in classroom settings, which isolates learners from their own learning process. They experience difficulties in language use since a lot of attention is given to grammar. As it was mentioned in the previous chapter, the nature of writing is a big challenge. It is more than writing down the thoughts but requires a broad knowledge of composing and transcription skills (Sedita, 2013). Toilsome steps of the process should be followed by the students which are necessary for prewriting, while writing, and post-writing stages. All this knowledge is enough to make a language learner lose his motivation, develop negative beliefs, feel anxious or frustrated. According to Bruning and Horn (2000) motivation does not only depend on an individual's intrinsic motivation, but also can be supported by the teachers or instructors who prepare the writing tasks and check students' writings.

In order to develop motivation Burning and Horn (2000) suggested four conditions that will increase the level of students' motivation which are the following; improving learners' beliefs about the function of writing, promoting participation in writing by making use of authentic materials, supporting learners with a contextual knowledge, establishing a favorable atmosphere in the learning environment. Motivated writers tend to have a positive attitude towards the efficiency of writing.

2.3 Theoretical Background of the Use of Augmented Reality in Language Learning

2.3.1 Constructivism

Constructivist though has its origins in the Western culture for at least three hundred years and in the Eastern culture for two hundred years, so the word constructivism is not a nascent term but goes a long way back into the history (Pritchard and Woollard, 2010). From very early philosopher Heraclitus who said 'Much learning does not teach understanding' to spiritual leader Gautama Budda who supported philosophical construction to the other contributors of this thought.

The development of constructivist approach starts in the late twentieth century and psychologist Piaget (1970) was accredited with being the father of constructivist theory. He proposed that knowledge and meaning are constructed on the top of one's experiences; therefore, reflection on experiences and interaction with the environment are the vital elements of learning and construction of knowledge. Despite individuals' similar experiences while forming new concepts, because of distinctive interpretations, their previous knowledge, and different level of participation, one's learning outcome might be completely different from the others' (Pritchard and Woollard, 2010). This highlights the individual and personal feature of the construction process. According to Larochelle et al., (1998) knowledge 'is constructed, negotiated, propelled by a project and perpetuated for as long as it enables its creators to organize their reality in a viable fashion'.

Lev Vygotsky, the Russian psychologist, brought another dimension to the constructivist approach as he highlighted the importance of language, social and cultural interactions in social constructivism. Learning is constructed through interactions with others in a specific socio-cultural context. In constructivist and socio-constructivist theory, instead of acquiring the existed rote knowledge from the outside world, the importance was shifted to the 'sense-making' in learning (Oldfather et al., 2011). In a socio-constructivist learning environment in order to enable learners to construct meaning effectively, there needs to be discussion, negotiation and sharing. Thus, they will develop and maintain a more sophisticated mental process and strategies which refer to higher mental functions. Vygotsky (1978) pointed out two main principles in his theory. The first one is 'more knowledgeable other'. The significance of the dialogue and relationship between the learner and the other is highlighted since it refers to a person who has more knowledge or a better understanding of a concept, topic, task knowledge or so on than the learner. The second principle is called 'Zone of Proximal Development' ZPD in short. The term was defined by Vygotsky (1978, p.86) as the interval between the stage of ability to solve problems independently and the stage of personal growth which is specified with solving problems under the instruction of an adult or with the cooperative work with more skillful students. Learning takes place at ZPD.

Bruner, who was influenced by Vygotsky, is another important figure for his contributions to educational and psychological theory. He highlighted the importance of language, instruction, curriculum design and role of the teacher in the social interaction. The dominant belief was that learning and meaning construction was an active and social process which is built on one's current and pre-existing knowledge (Pritchard and Woolard, 2010).

The role of the teacher is more of a facilitator since the learning theory is shaped around a student-center approach (Matthew et al., 2009). Brooks and Brooks (1993) define constructivist teachers as mediators of pupils and the learning environments as they neither administrate learners' behaviors nor provide knowledge directly to their students. If teachers successfully manage to create necessary environments to direct their learners to build their personal experiences, provide them some time to go through a developmental process and experience spontaneous learning students will be motivated intrinsically in the class (Oldfather, 1993). Teachers who follow the socio-constructivist theory during teaching, raise awareness of their learners to be co-constructors of their knowledge, guide them to get to the heart of the knowledge, and with that assistance, students realize that they have the strength to search for the knowledge (Old father et al., 1999). Old father et al. (1999) also highlights another problem that students have in the schools. Students sometimes may not know for what purpose they are in some particular learning environments because they may not relate to the environment with who they are. However, socio-constructivist teachers place great importance to the discovery of students' passions, their interests, and in order to help them to create their learning agendas.

Brooks and Brooks (1993) provided a group of descriptors for constructivist teachers as their roles that are presented below:

• Provoking and allow learner autonomy and initiative

- Utilizing coarse data, principal resources as well as manipulative, interactive and physical materials
- Making use of cognitive terminologies as they are classification, analysis, prediction and creation while designing tasks
- Allowing students' feedback to authorize lessons, change instructional strategies that were planned to be used or modify the content
- Making inquiries about learners' perception of content before expressing his or her knowledge
- Supporting teacher-student interaction along with student-student interaction
- Motivating learners to make inquiries with reasonable, open-ended questions, allowing them some space to communicate with their peers and ask questions to each other
- Discovering chances to elaborate on students' initiative thoughts
- Creating discussion environments which will reveal contradictions between students and motivating them to discuss their prior hypotheses in a discussion environment
- Giving students thinking time after addressing some questions
- Allowing some time for learners to build relationships besides creating metaphors
- Making use of a learning cycle model in order to nourish students' curiosity

As the characteristic features of constructivist teachers are mentioned above Mobile Augmented Reality applications may bring another dimension that traditional academic writing classes lacked where discussion, discovery type of learning, or students' experiences were not taken into consideration. When applications of AR are uttered as supportive language learning materials in writing classes, learning can be shaped more around learners with the constructive learning approach. Wang (2012) also asserted that Augmented Reality 'is well aligned with constructivist notions of education where learners control their learning, through active interactions with the real and virtual environments'.

2.3.2 Situated language learning

Jean Lave and Etienne Wenger (1991) developed situated learning as an instructional approach. The main idea that this approach brings forward is that a learner is likely to build meaning naturally from the social context when he or she is an active participant of this process. The responsibility of the teacher is to provide real-life experiences with authentic materials in a meaningful context which will lead collaboration and interaction among students; as a result, as learners get involved in the practice, they will construct their own knowledge naturally. Learning is not a transmission of the knowledge which passes from one individual to another but a social process in which meaning is co-constructed (Lave and Wenger, 1991).

In Situated Cognition, two notions are underlined; cognitive apprenticeship and enculturation (Brown, Collins and Duguid, 1989). Cognitive apprenticeship is an important notion since it promotes acquisition, development and making use of cognitive tools in authentic activities that take place in authentic domains as apprentices are in social interaction with each other they help each other to construct meaning through collaboration. Brown, Collins and Duguid (1989) asserted that when there is an opportunity for observation or practice on the spot, necessary jargon may be learned quickly, as the person starts to behave in concordance with the norms of the culture progressively. The 'situatedness' can be promoted and expended thanks to Augmented Reality in learning and education in different ways because of its beneficial uses (Liestol, 2011).

2.3.3 Mobile learning

Technologies that are used today are becoming more ubiquitous and intelligently equipped day by day. In any aspect of life, isolation from this development is impossible. Improvements and new changes in the field of technology led curriculum designers, teacher trainers, language instructors, teachers and other people who take part in education area for adoption and update within themselves since learners of the 21st century are entirely different with their expectations and characteristic features. Crompton (2013) suggested that mobile technologies were woven into students' very existences and because of that instead of rejecting this fact, more strategies and theories ought to be

considered for integration into the educational setting. Today's technology allows learners to have more individualized, situated learning environments in which they are not limited in terms of temporal and spatial constraints (Crompton, 2013).

Various definitions are available for mobile learning. In the article called 'Making Mobile Learning Work: case studies of practice' Traxler and Wishart (2011) defined mobile learning simply as 'learning with mobile devices which are smart-phones, games consoles, media players, netbooks and handheld computers'. Besides, it has been stated that learning activity and the notion might be enhanced, extended and enriched utilizing mobile learning. O' Malley et al. (2005) identified m-learning as an occurrence when students do not participate in a fixed or predetermined location or as learning that happens when students benefit from the advantages of mobile technologies. Traxler and Wishart (2011) claimed five major achievements of m-learning. First of all, learning and teaching opportunities are not determined beforehand because they take place in an environment in which learners operate and act in response to their experiences. Secondly, mobile learning enables learners to acquire knowledge through meaningful situations which support the idea of situated learning. Thirdly, authentic materials provided during the learning process help learners to achieve immediate goals as they work on meaningful and authentic tasks. Another achievement is related to a context-aware learning environment that m-learning provides as a particular location and venue support learning. The last but not the least, learners' needs, preferences, interests, and abilities are taken into consideration and learning is customized accordingly.

In foreign language learning, mobile devices are also very significant. As Steel and Levy (2013) put forward, learners are equipped with these handheld devices. They utilize these devices in the classroom settings as well as outside.

2.4 Augmented Reality Technology

Virtual reality, Augmented Reality, Mobile Augmented Reality and Mixed Reality are popular terms many people have become familiar with during the last decade. Due to the advantages it provides in numerous fields such as engineering, architecture, medicine, entertainment, advertisement, and education, it became a new trend and a current research topic. These technologies have occurred to be a part of our lives in many public places, tourist attractions, books, magazines, brochures, products and vehicles.

As people easily started to come across with either Virtual or Augmented Reality materials, its function and importance have been discovered by big masses. Thanks to this experience people may get a better understanding of an abstract context, spend less afford on carrying a task, or get visualized awareness about any theoretical concept; however, Augmented Reality and Virtual Reality are two different terms which are sometimes misinterpreted. Augmented Reality was defined by Carmigniani and Furth (2011) 'as a realtime direct or indirect view of a physical real-world environment that has been enhanced/augmented by adding virtual computer-generated information to it' (p.3) whereas, in Virtual Reality environment users are engaged in the artificial world (Milgram et al., 1994). Neither AR nor VR technologies sound unfamiliar anymore. As these innovative technologies bring virtual information to its users in a direct or indirect way, their lives have become more manageable as it has changed their perception of the real and unreal world (Carmigniani and Furth, 2011). Milgram et al., (2014) in the 'Reality-Virtuality (RV) continuum' distinguished and shed light on two frequently misidentified concepts as shown below.

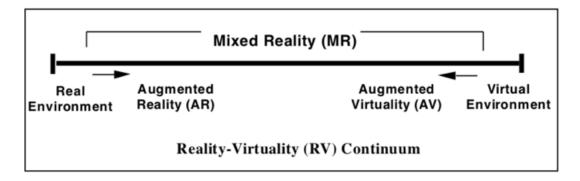


Figure: 2.5: Reality-Virtuality Continuum

Source: (Milgram et al., 1994)

The environment organized by real objects, i.e., anything which can be viewed by people in a real world is described on the left side of the presented continuum. On the contrary, the environment represented on the right side is only a synthetic world designed as 'computer graphic simulations, either monitor-based or immersive' (Milgram et al., 1994). Mixed Reality shown in the very center of the continuum is a blend of a real world and a virtual world described on a single display.

Azuma (1997) highlights three features of AR systems: 1) bringing real and virtual together, 2) enabling real-time interactivity and 3) being registered in 3D. There are numerous studies conveyed in various fields in order to identify the effectiveness of AR. The popularity of smartphones and other handheld devices, their affordable price and downloadable applications caused Mobile Augmented Reality applications gain importance.

Johnson, Levine, Smith and Stone (2010) defined AR as marker-based and markerless. Marker-based applications require a particular visual indicator to be used for the software to retrieve the data needed, whereas marker fewer applications work with the help of spatial input as GPS, compass or image recognition in which entry to the camera is collocated with a mass of other images in order to find a perfect match. Markerless applications can be considered more useful in terms of feasibility as they are able to operate everywhere even in the absence of particular tagging or add another point.



Figure 2.6: Example of a marker label

Source: (Cheng & Tsai, 2012, p.452)

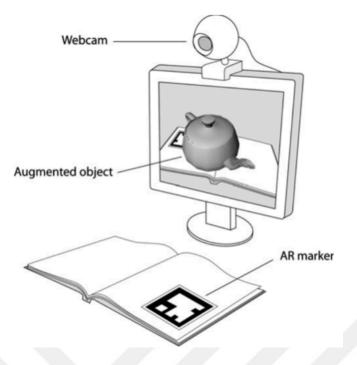


Figure 2.7: Example of an AR book

Source: (Cheng & Tsai, 2012, p.451)

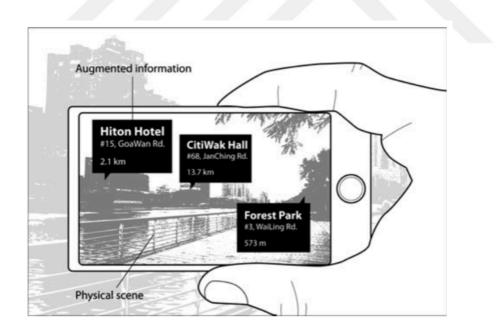


Figure 2.8. Example of Markerless AR

Source: (Cheng & Tsai, 2012, p. 452)

2.4.1 History of Augmented Reality

Although people got introduced with the term Augmented Reality not long ago, its history goes back to 1960s. The public was not familiar with the technology itself many decades ago but discoveries in this field had been already made. Morton Heilig, a farsighted and pioneer cinematographer, created a simulated cinema system in 1962, which is accepted as the first example of Augmented Reality technology. Heilig described his discovery 'Sensorama' as 'The Cinema of the Future' (Carmigniani and Furth, 2011). The films that were shown in this simulator were supported with the smell, sound, vibration and even the wind in order to stimulate all the senses and create a 3D effect for the viewer. Ivan Sutherland, who was a professor at Harvard University, developed the first head-mounted display with his student Bob Sproull in 1968 (Isberto, 2018). The display was called 'The Sword of Damocles' which hung from the ceiling and enabled the user to see plain wireframe drawings.

In 1974, an artificial reality laboratory, named Videoplace, was developed by Myron Krueger. Thanks to this technology video cameras and projectors were integrated and were able to put forth silhouettes, and this enabled the users to feel like they were a part of an interactive surrounding (Isberto, 2018). In 1990, finally, Tom Caudell conceived the term 'Augmented Reality,' and the first studies were given a start. Ronald Azuma (1997) published his paper 'A Survey of AR' and provided a clear definition for the term, its current state, limitations, its applications, characteristics, and future directions to improve these new technologies. 'ARQuake' which was the first outdoor portable game and designed by Bruce Thomas was introduced in 2000 (Carmigniani and Furth, 2011). ARToolKit, which is an extensively used software today, was demonstrated by Hirokazu Kato in 2000. By utilizing this software, it is possible to capture and merge real-world actions with interactions of virtual objects (Isberto, 2018). AR technology took its place in print media in 2009, for the first time as Esquire Magazine made trigger images their audience could scan and experience AR (Infographic: The History of Augmented Reality, 2016). Google Glass technology was revealed in 2014, which provide its users with a wearable AR experience. After that, Microsoft also produced another wearable AR product; HoloLens. Since then, many mobile phone applications have also been developed thanks to advanced smartphones technology. These applications are downloadable for IOS or Android software phones and are very easy to use.

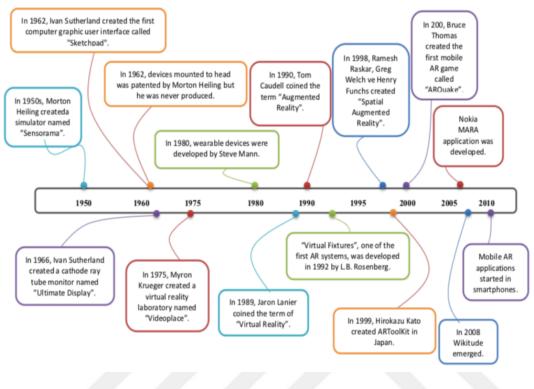


Figure 2.9: Historical Development of AR

Source: (Yılmaz and Göktaş, 2018)

The term AR has gained recent popularity, especially with the game 'Pokemon Go.' It created a sensational awareness among people towards AR. Players were driven into the real world, interacting with their handheld devices as they were chasing the imaginary Pokemon characters located in their real-life environment. Nowadays, it is a trending theme for the films, TV series and game developers. Currently shot South Korean TV series 'Memories of Alhambra' simply unrolls the possible upcoming status of the Augmented Reality for our future lives. All the features of Augmented Reality, which continue to be imaginary these days will become a reality in the near upcoming future.

2.4.2 Mobile Augmented Reality in the field of education

In the developing world, it is impossible to imagine a life without hand-held devices such as mobile phones or tablets anymore as they are much more than a

communication tool. Especially in the form of smartphones, as they are our personal computers, compasses, game consoles, advisors who have all the answers to the unknown notions, mobile libraries, friends in need and inseparable devices of our lives with many more functions. These portable devices provide users a great chance to practice AR indoor and outdoor because they are equipped with rapid processors, graphics hardware, big touchscreens, and built-in sensors; camera, GPS, compass and accelerometers (Billinghurst and Dünser, 2012). Prensky (2005), in his outstanding article 'What Can You Learn from a Cell Phone? Almost Anything!' states that mobile phones which are generally seen as disruptive items in the learning environment cannot be considered disruptive indeed. He supports the idea that these small, portable and affordable devices have become the learners' personal computers and may become powerful learning devices are consonant to our 21st-century learners who are short burst, casual and occupied with multitasking manners.

When these technologies are used in the field of education, they provide several benefits to its users. Craig (2013) highlighted some positive effects that MAR applications present. First of all, students can use these applications in any location they want especially where it is more meaningful for them. Secondly, the hardware which is necessary for the use of AR will already be with the students at any time anywhere. Furthermore, users will have a chance to learn anywhere at any time, which is the main principle of ubiquitous learning. Another advantage of mobile technologies is being affordable when they are compared to more lasting or particular purpose ones. Finally, many people already own the required hardware that means there are a lot of current potential users of that technology.

Johnson, Levine, Smith and Stone (2010) also defined that with AR it is possible to 'provide both powerful contextual, in situ learning experiences and serendipitous exploration and discovery of the connected nature of information in the real world' and added that particularly with the 'applications that convey information about a place open the door to discovery-based learning'. In addition, Wu et al., (2013) suggested five beneficial uses of AR for educational purposes which support that 'AR could enable (1) learning content in 3D perspectives, (2) ubiquitous, collaborative and situated learning, (3) learners' senses of presence, immediacy, and immersion, (4) visualizing the invisible, and (5) bridging formal and informal learning'. The last but not the least, as cited by Wu et al., (2013) Sotirious and Bogner (2008) in their study discovered that it is possible to improve learners' motivation and level of interest via AR settings.

Besides its positive effects, Craig (2013) grouped limitations of MAR applications under two categories: technological and environmental. Technological constraints are correlated with not having enough memory or space on the mobile device, which was a common problem that the researcher came across during the implementation of the study as well. Secondly, environmental limitations are related to lighting, sounds, and other factors affecting the efficiency of the application, which exists in the environmental settings where the user utilizes the application.

2.4.3 Applicable MAR applications for education

2.4.3.1 QR Codes

When QR codes entered people's lives, it was difficult to comprehend the function of this new little square shape images as they did not look like the regular barcodes or other developed 2d barcodes. Later on, it was understood that there was a need for an application downloadable on a handheld device in order to scan the image and see what is hidden beyond this technology. Indeed, these lately discovered codes have not been recently developed, actually the creation of these codes dated back to 1994. Quick Response codes with its abbreviated form QR codes were developed by Masahiro Hara from the Denso Wave company. Despite being developed with industrial purposes nowadays, this technology is adapted in various fields since many mobile devices have already been equipped with cameras that can scan the codes without any need for other applications. The necessary information may be provided to the audience via QR Code Generators as it is possible to create a web link, send a number, an email, SMS, attach a video, photo, audio, a file, and many others on cards, brochures, books, magazines, posters, labels, products, banners, vehicles, websites, lesson materials, or anything that you can ever imagine QR codes can be oriented to educational settings as well. Grantham (2017) in his article,

displayed some ways to use these little codes in the classes. First of all, they can be used in the libraries to attach reviews, trailers, some useful information about the books even before the reading process starts, which will foster pre-reading phase. After students finish their books, they may be asked to shoot their own trailer, prepare posters, write a blog or wiki and place all these created materials in the book via a QR code. This will enable learners to use technology as well as deliver their work to a broad audience. It will also foster the post-reading phase, and students will feel the benefit of the book read. This will require considerable effort and time; however, it will obviously bring enjoyment and fun (Grantham, 2017). In addition to this, teachers may use technology to create QR treasure hunts. By doing that they will be able to make use of technology, which is a motivational factor for the 21st-century learners, activate them physically and help them to improve their problems solving skills. Thirdly, the material that is going to be used in the lessons can be modified and enriched with the codes. This will reduce the amount of printed material, help educators to fully digitize the textbooks and worksheets as multimedia content is added (Grantham, 2017). For instance, the periodic table, which is a troublesome topic in the chemistry lesson, was modified and each element was replaced with a QR code. When students scanned the code, they were directed to the Youtube video that helped them to visualize the particular element.

In the classroom

Period Table of Elements – QR Style – Links to Videos

Figure 2.10: QR Codes in Education

Source: (Cirino, 2012)

Justin Marquis (2012) also stated that QR codes had great potential for education as teachers can create resources, provide instructions, create virtual scavenger hunts, integrate media, presentations, and reports, engage learners during the learning process by providing multiple choice questions, questionnaires or other activities via these codes. All in all, it can be said that applying these new technologies in teaching educators may benefit from them in all lessons; however, thorough preparation is required.

2.4.3.2 HP Reveal (Aurasma)

HP Reveal, with its former name Aurasma, is one of the common world-widely used MAR applications nowadays with its user-friendly display. The users can create their Augmented Reality experiences by creating auras. Auras are digital contents: videos, photos, 3D images that are attached to the trigger images. The auras can be created on mobile devices or computers and viewed on mobile devices such as tablets or mobile phones. Aurasma enables teachers to add another dimension to the teaching process. It makes the learning environment more enjoyable and motivates learners to engage in the tasks as active participants. With the help of this Augmented Reality program, teachers may scan some parts of the pale lesson materials; worksheets, handouts, pictures, photos or any other object as trigger images and overlay a 3D image, a video, a photo, a quiz, some topic explanation, or an answer key to auras. When the lesson material is supported with meaningful and purposeful tasks students will probably have a chance to be more creative, collaborate with their peers, take part in the group work, communicate, analyze, and produce their own products freely. As a result, with this technology, it would be possible to reach three benefits of Augmented Reality, namely 'motivated students, more interactive classes and faster learning' (Zsolt, 2017).

Maloney (2016) suggested various distinctive ways to benefit from the Aurasma application. Some of them are listed below:

- Auras may be created to provide more information about the school to its visitors.
- Especially problematical abstract concepts of science and mathematics can be supported with auras as teachers can show how to solve these problems with the videos.
- The instructions about how to utter protective, technological and scientific equipment can be given.
- Some brief information about the well-known figures from history can be provided via some dramatic performances.
- Famous paintings may come alive.
- Lesson materials may include some questions and exercises in order to revise the academic subjects learned.
- Interactive worksheets can be created.
- Students may present their projects via auras attached to their project.



Figure 2.11: Auras from HP Reveal Application

Source: https://www.hpreveal.com/products/index.html

2.4.3.3 Blippar

Blippar is another AR application which can be used for educational settings since it has a separate section named Blippar Education. The application can be downloaded from Google Play and App Store to the handheld devices. Educators who are wishing to create their own markers and content need to get a Blippbuilder account first; however, students do not have to sign up in order to see the blipps, downloading the app would be enough. Educators and teachers need to request an account which they can get for free.

Blippar provided some free prototype scannable markers under the case studies in the Education section of the Blippar website in 2015 that can come alive and be used in the classes. The activities were the Solar System Blipp, the Sunflower Grower Blipp, the Butterfly Blipp, and the Volcano Activity. When students scan the Solar System marker, they find themselves in the center of the solar system as the planets start to orbit around them. They can click on each planet and get more information about it. In the Volcano activity, students may see how a volcano erupts from a 3D model. They can see all the phases and discover different parts of a volcano. Besides, the activity provides some exercises to the learners to practice newly acquired items (Blippar Showroom: See what's possible with Blippar, 2015).



Figure 2.12: Solar System from Blippar Education

Source: (Blippar, 2018)

2.4.3.4 Other applications

There are numerous applications available on Google Play and Apple Store, which can be integrated into the lessons, bring different dimensions and dynamics to the classroom environment. When lessons are planned, objectives are set, necessary tasks are prepared and supported with the MAR applications both students and teachers will have a chance to find themselves in a more fruitful and enjoyable atmosphere. Teachers of all skills can make use of these applications as many of them are developed for particular subjects. Anatomy 4D, Humanoid AR+, AnatomyX, Virtual Skeleton, Humanoid, Elements 4D, Quiver, Layar, Google translate with AR features, Virtuali-Tee, AR-3D science, Chromville, ARSolarSystem, SketchAR, ARFlashCards, Animal4D and solAR are some of the other applications that have been developed for the educational purposes. However, some of them require unique cards or markers which need to be purchased by the user.

2.4.4 Related studies

In order to overcome the difficulties faced during teaching and learning, numerous studies were conducted in the field of education. Terregrosa et al. (2015) designed a study aiming to investigate the impacts of ARBOOK that was developed for the anatomy lesson. 221 university students participated in the study. Results of the study revealed that students of the experimental group who made use of AR book during their studies were more motivated than the control group.

Boonbrahm, Kaewrat and Boonbrahm (2015) examined the potential of Augmented Reality assisted materials for primary school students in English language classes. Three distinctive AR experiences were designed for the students, which focused on writing, reading and conversation aspects of the language. The study showed that participants enjoyed and showed eagerness to take part in the learning process.

Wang (2017) conducted a study during Chinese language teaching in writing lessons in which thirty twelfth-grade high school students participated. The results of the experiment showed that Augmented Reality supported materials helped intermediate-level language learners most as these materials enabled them to have a better 'content control, article structure and wording' (Wang, 2017). On the other hand, low achiever students also benefited from AR-based materials but less than the intermediate level ones. It worked in a way that they could start writing their initial paragraphs faster and enhance their ideas with the help of adopted material.

Erbaş (2016) examined the impacts of mobile Augmented Reality applications on students' academic achievement and motivation. The participants of the research were 40 ninth grade students of a private high school. MAR applications were implemented during the Biology lesson. The academic achievement of the control and experimental group differ significantly is observed but motivational belief results were greater than the control groups' results.

In another study, Sarıkaya (2015) used Augmented Reality materials in order to study effects on students' achievement, misconceptions and course engagement.

To implement in the Science and Technology lesson, an application named 'UzayAR' was developed. The participants of the study were 118 seventh grade students. According to the results, the participants of the experimental group were higher achievers, had fewer misconceptions, experienced less new misconceptions, showed a great difference in terms of engagement scores, and skills engagements compared to control group. Interview answers gathered from students disclosed that materials used also had positive impacts on students' course interest motivation, comprehension and participation levels.

Çakır, Solak and Tan (2015) implied AR technologies in their study to teach English vocabulary. Students of the experimental group were presented the new words with the help of AR supported materials while the control group used the traditional ways of learning. 60 undergraduate students took part in the study. The results showed that the experimental group benefited from the AR materials since they achieved higher achievement scores and showed an increase in their motivation towards the learning environment.

Doğan (2016), in his study, proved the effectiveness of AR enriched materials on vocabulary learning and retention in EFL classes. He aimed to discover learners' opinions and carried out a study that included 40 elementary level students who studied at Erzincan University. The experimental group benefited from classroom material, which was supported with the Layar application for five weeks.

Another related study was conducted by Delello (2014). The study aimed to identify the benefits and obstacles of an AR platform called Aurasma. The participants of the study were 31 pre-service students taking the science methodology course. After presenting the lessons with Aurasma application, the finding of the research showed that the platform helped students to hold their attention longer, increase the engagement level and motivation. Besides, when teachers were asked about their experiences, they also reflected that it increased their enthusiasm towards the lesson. Despite having positive impacts; however, some obstacles of AR were also observed. It could be time-consuming; some teachers may not be efficient enough to make use of this technology or infrastructure problems that may occur during the application of the technology.

In Kuwait, Safar, Al-Jafar and Al-Yousefi (2017) in their experimental research, utilized AR enhanced materials for kindergarten children to teach the English alphabet. 21 students of the experimental group benefited from 'AR Flashcards Animals-Alphabet' as well as 'AR Alphabet Flashcards' which were purchased from App Store and integrated into English classes for several weeks in the second semester of 2015-2016. On the other hand, 21 students of the control group continued their lessons with traditional materials. The results of the study revealed three results; there was a considerable difference between the groups in terms of interaction with the learning material, experimental group's Alphabet test scores were also significantly different, and finally, the correlation between interaction and scores was observed by the researcher.

Küçük's study (2015) is one of the prior studies of Turkey, which proved the effectiveness of MAR materials and signified the prominence of MAR materials in the field of education. 70 medical studies department students from Atatürk University, Erzurum have taken part in the research. Materials of Anatomy class were supported with MAR application for 36 students of the experimental group; whereas, 34 students of the control group benefited from usual paper-based material which included 2D visuals. The findings of the experimental group displayed a higher academic achievement, less cognitive load and favorable perception towards the learning material.

Geography classes also had its share from these developments. Turan, Meral and Sahin (2018) investigated the impact of MAR enhanced materials on students' achievement, cognitive load and perceptions. 95 Freshman students of Social Sciences Education Department participated in the study. The tools used for data collection were achievement test a cognitive load scale and semistructured interviews. This study revealed similar results with Küçük's (2015) study. When materials were enhanced with AR technologies in Geography class, particularly in geomorphology students of the experimental study displayed a higher academic success on the achievement test, lower cognitive load and positive attitude towards the course.

3. METHODOLOGY

3.1 Introduction

The third chapter discusses the methodology of the research with its design, which was used to collect data. Furthermore, the information about the participants of the study and tools utilized for data collection were provided. Lastly, the procedure of the research and analysis of data was presented.

The research questions aimed to be answered are itemized below:

- How does MAR supported writing materials affect the level of students' motivation towards writing in EFL course?

- How do MAR integrated materials affect students' attitude in EFL writing course?

- What are the students' reflections towards integrating MAR supported materials in EFL writing courses?

3.2 Research Design

In order to understand to what extent MAR adopted writing materials have an impact on learners' motivation and attitudes in EFL writing class, a mixedmethods research design has been adopted. In mixed-methods research design with both quantitative and qualitative data gathered, the researcher can obtain diverse information which is easily strengthened compared to only one type of design (Creswell, 2014).

The study followed a four-step procedure including (1) application of IMMS and AWMQ pre-tests, (2) implementation of the MAR materials, (3) application of IMMS and AWMQ post-test, and finally ended with (4) interviews with the students. The participants of the study were divided into control and experimental groups. Their previous track scores were taken into consideration and the chosen groups had similar Midterm, ELAT and writing scores. After

that, the IMMS and AWMQ were administered at the beginning of the spring semester, of 2017-2018 and 2018-2019, which is the beginning of the third track. The third track is the time of the year when preparatory school students of IAU start taking EFL essay writing classes. In the first week to both control and experimental groups, the surveys and questionnaires were administered. In the second material implementation phase, the experimental group used MAR supported materials in their EFL writing classes while control group lessons were run with regular writing materials, the writing pack, only. The duration of the application lasted for six weeks until the end of the third track. Finally, the post-tests were administered to the groups. Some students were randomly chosen from the experimental group to be interviewed.

3.3 Participants and Research Context

70 English Preparatory School students of Istanbul Aydın University (IAU) participated in this study. Students who are going to study in English medium departments have to take IAU English Proficiency exam, Placement Test, which includes 5 levels; from beginner to upper-intermediate. Students who reach the upper intermediate level or get 70 from TOEFL IBT are exempted and are able to start their university education in their departments. Those who are not able to meet the requirements attend English Language Preparatory School in order to reach the proficiency level.

After taking the placement test at the beginning of the academic year, students are grouped according to their level of English which are; A1, A2, B1, B2 and C1 levels in the Common European framework. The participants of this study were A1 level students who started as zero beginners and had completed two tracks of language education and reached the pre-intermediate level by the time this study was conducted.

Preparatory school education is delivered in four tracks education consisting of two semesters. Each semester includes two tracks. Two pop-quizzes, a Midterm exam, an ELAT exam, a project, online assignments, teacher's assessment and writing portfolios are components of every track and define the track scores of the students. In the third track, having total 28 hours in a week, students have 18 hours of main course, 2 hours of reading, 3 hours of listening and speaking, 2 hours of ESP and 3 hours of writing lessons. Writing lessons were particularly chosen for the implementation of MAR based tasks and activities as the writing skill is one of the most important ones which contributes learners' language learning process but at the same time can be the most challenging, demotivating skill.

3.4 Tools for Data Collection

The data were provided via Academic Writing Questionnaire (Payne, 2012), Instructional Materials Motivation Survey by Keller (2010) and semi-structured interview questions which were adopted from Küçük (2015).

3.4.1 Instructional Materials Motivation Survey (IMMS)

The purpose of the design of the Instructional Materials Motivation Survey (IMMS) is to gauge how motivated students are towards the self-instrumented instructional materials and to determine their motivational reactions (Keller, 2010). The survey involves 36 items with four different subscales; Relevance, Confidence, Satisfaction and Attention. There are nine items for both the Relevance and Confidence scale, six items for the Satisfaction scale, and 12 items for the Attention scale in the survey. Students need to rate the statements from 1 to 5; 1: Not true, 2: Slightly true, 3: Moderately true, 4: Mostly true and 5: Very true.

3.4.2 Academic Writing Motivation Questionnaire (AWMQ)

Payne (2012) developed an Academic Writing Motivation Questionnaire (AWMQ) which assesses students' writing motivation towards the skill in writing classes. The main aim was to help the instructors of the skills in college to determine writing motivation of the students. The questionnaire is Likert-type and includes 37 items in which distinctive features of writing were considered. The items of the questionnaire include eight distinctive factors of writing; however, six of them are categorized and others were not included in any category.

3.4.3 Semi-structured interviews

Semi-structured interviews enable interviewees to express themselves without constraint in an encouraging environment with open questions which is flexible for the researchers (Drever, 1995). When it is compared to structured interviews where the questions are prepared beforehand, with this type of interviews, participants, do not feel overwhelmed. The researcher starts with a broad question and detailed questions are emerged according to the interviewee's answers, which is more natural and creates a stress-free environment, thus enables the researchers to gather needed data.

In order to gather qualitative data to substantiate collected quantitative data, 10 students from the experimental group were chosen randomly, and a semistructured interview was utilized as an evaluation form. Some of the interview questions designed by Sevda Küçük (2015) (appendix 3) were used as the starting point, but necessary adaptations were made. As students felt limited and uncomfortable in expressing themselves in English in order not to miss any information and get more appropriate replies, students were interviewed in Turkish, which was their mother tongue.

3.5 Data Collection Procedure

As the first step, the necessary permissions were received in order to conduct the study from the university administration. The participants of the study and the teachers were informed about the process, procedures, significance, and confidentiality of the answers provided. Then, for the experimental group writing class materials and tasks were designed accordingly with HP Reveal application, QR Codes, and Blippar application for six weeks.

The study was carried out between control and experimental groups. Two control groups and two experimental groups participated in the study. The first study was carried out in the 2017-2018 academic year and the same study was repeated in the 2018-2019 academic year settings.

Preparatory students use an extra pack which is prepared by the teachers of that level and suitable for learners of this level. The pack is black and white and that is the reason why students sometimes say that it looks dry and unappealing. This was a general comment received from students since in the second track students also benefited from a similar pack. In the previous track, paragraph writing was introduced to the classes. The types of paragraphs were descriptive, opinion, cause and effect, compare and contrast.

In order to prevent the boredom and lack of motivation, the researcher of this study tried to modify the pale pages of the writing pack by adding some attention gathering colorful charts, videos, and photos. During the pre, while and post parts of the writing process the researcher also tried to create tasks by making use of some MAR applications. As well as adopting the black and white photocopy pages of the pack, the writing papers on which students were asked to compose their essays were also modified.

3.5.1 Pre-test administration

At the beginning or the third track, the IMMS and AWMQ were distributed to both the control and experimental groups. The students could understand the provided statements in the questionnaires; however, the researcher guided and translated some of the critical items in order to get more accurate student responses. After the pre-test administration, both the control and experimental group of the study started taking writing courses, which lasted for eight weeks.

3.5.2 Instructional process

The third track of the 2017-2018 and 2018-2019 academic year was the beginning of the study. Each year one control and one experimental group were chosen according to their end of the second track scores, and the study started to be carried out in the first week with the participants of the groups. It included six weeks of instruction. Following the principles of genre-based writing approach, students were brainstorming, planning, generating ideas, writing, editing, and rewriting. Before moving to each essay genres, the instructor introduced new principles, rules, and essential phrases of each essay type to the learners. After that, the exercises in the pack were completed, and each week, students were asked to write one in-class essay during one or two hours of their lesson. When the essays were collected, the teacher checked each paper and corrected the mistakes by using the corrections codes. Then, students were

asked to edit their drafts and create their writing portfolios. Thus, each students' writing process was followed by the teacher.

• The First Week:

In the first week, the main concern was to make an introduction to essay writing. The hook sentence, background information, thesis statement, topic sentences, the sequence of the body paragraphs, guidelines for the conclusion paragraph, in short mechanics of essay writing were introduced.

The student pack included various essay examples and exercises for practice. The newly learned sentences such as discovering the difference between fact and opinion, writing a proper thesis statement, a hook sentence, adding background information to the given topic and other useful techniques were presented. The control group made use of the writing pack and the teacher's instruction as supporting materials before composing their essays in the following weeks.

The experimental group students were asked to download the necessary application, HP Reveal with its previous name Aurasma, and bring their headphones. Before the class, the writing class pack was designed accordingly for the present study. Some videos, photos, notes, and the answer key were attached to the paper content. Colorful stickers were pinned on students' writing packs in order to catch their attention and show them where the MAR materials were provided.

Task: Before the mechanics of essay writing was explained by the instructor, students were divided into groups of four or five. Each group member had to watch one of the videos and take notes of the critical points. Besides the videos, there were also some colorful photos showing and highlighting the key phrases taught, which helped the learners internalize and visualize the abstract concept of academic writing rules. The time limit was set and after the time was over each group had to come to the board and present the information they have watched and learned. Instructor supplied necessary information when it was missing or forgotten. On top of that, after that activity, the exercises were completed from the pack and students used HP Reveal pack to see the answer key. The answer keys of the exercises were added as Auras on the top of the trigger images.

• The Second Week:

The second-week classes introduced guidelines for a descriptive essay, sentence construction, prepositional phrases, adding details to sentence, similes, metaphors, comparisons, adjective order, which are essential components of this genre. The pages of the black and white writing pack were enhanced with some images and various videos which were added with the help of HP Reveal application. In order to activate the pinned materials, students downloaded the QR Code reader application on their smartphones for the lesson.

Firstly, in order to activate, encourage to participate in the learning process, process and raise awareness on descriptive language, students were asked to work in groups of five or six. On the wall of the class, some images were distributed. Each group was also given a lemon and a knife, under the control of the instructor. Each group had to work on a different trigger image that was attached to the walls of the class. On top of each trigger image, tasks were replaced as Auras and students needed to accomplish them with their team members. After the tasks were completed, each groups' spokesperson presented their answers. The instructor at this stage acted as a guide and inductively taught vital vocabulary, phrases, and structures to describe an object, a person, a place, an event, or a memorable event. After students gained an insight into the features of the descriptive essay and worked on the essential parts of this particular genre, the teacher spread in-class writing paper (see Appendix 6).

During the in-class writing process, students were asked to work with their partners sitting next to them before they started writing. Each student paper included QR Codes on it. As the discussion process finished, the teacher summarized the necessary vocabulary, phrases, keywords on the board and students started to compose their compositions.

The Third Week:

The third week's target essay type was opinion essay. In that week, students were asked to work in groups of four or five. Each group was given a poster on

which different photos, quotes, images were attached. By using the Aurasma application, they were supposed to watch the videos, see the attached messages with the photos and then collaborate, come up with ideas, discuss and find the link between each of the Aura. The main aim of the researcher here was to activate students before the writing process starts, catch their attention, guide them to think critically and get all the group members engaged in the activity. After students watched and worked on the given materials, they needed to report and present the covered materials. After the presentation phase, the teacher explained the topic of the writing, which was about the importance of being able to read the body language of people.

• The Fourth Week:

Cause essay was aimed to be covered in the fourth week. Before the teacher's instruction, students were asked to discover this week's MAR enhanced the material on the writing pack by following the stickers on the pack. The teacher attached necessary phrases, words, sample essays with images that included some thesis statement, topic, and concluding sentence examples. After working on the MAR adopted materials, the teacher introduced the essay type by eliminating some answers from the students.

Task: Students' in-class writing papers included QR codes. Students were asked to work with a partner and watch different videos. As they finished watching them, they reported the information they got from the videos. The aim was to activate students' previous knowledge, make a connection between the topic and their experiences and brainstorm with different people to come up with new ideas.

• The Fifth Week:

The target essay type of this week was the effect essay. The dynamics of the essay were discussed with the students since it was very similar to the cause essay. The exercises on the pack were completed in order to practice new specific vocabulary, phrases and grammar points.

Task: The essay topic was about being able to read someone's body language and its impacts on a person's life. Students were divided into four groups. The instructor prepared different posters for each group. By using Aurasma application group members checked the auras and prepared a group report which was presented to other groups at the end of the lesson. The Art of Lying, the Body Language of Leaders, non-verbal communication were some of the topics students worked on. After the discussion session, students were given the in-class writing paper. They watched a video, did a quiz to find out if they were good at lying or detecting lies, checked their answers, and discovered more about secrets of decoding facial expressions. These steps were beneficial for the students because each QR code presented some new information. As they coconstructed some new knowledge with their peers, they felt more confident to write about the given topic.

• The Sixth Week:

In the sixth week, the students were introduced with the mechanics of compare and contrast essay, necessary structures and phrases. Students were asked to download Blippar Augmented Reality application on their mobile phones. The teacher placed a scalable marker, which was downloaded from the Blippar's website, on different parts of the classroom. The chosen activity for this lesson was Solar System, as students scanned the markers, they found themselves in the center of the solar system and planets started to orbit around them. They could click on each planet and get more information about them. After students completed this activity, they shared the discovered information with their friends. Students were asked to choose two planets, read the information provided by the application then compose a compare and contrast essay discussing the similarities and differences of the particular planets.

In regular writing classes, mostly the teacher of the course provides the topic at the beginning of the class and asks students to come up with some ideas which leave no room for kinesthetic activities, visual or auditory learners or interpersonal activities. By using MAR applications students of various learning styles may benefit from the activities and engage in the activities most. In the Solar System Blipp activity students were highly engaged.

3.5.3 Post-test administration

At the end of the third track, both control and experimental groups were administered the same Academic Writing Motivation Questionnaire (Payne, 2012) together with Keller's (2010) Instructional Materials Motivation Survey to see how the applied materials affected students' motivation and attitude regarding the writing course. Finally, ten randomly chosen students from the experimental groups were interviewed.

3.6 Data Analysis

After post-tests were distributed and collected from both the control and experimental groups, both the AWMQ and IMMS results were analyzed using Statistical Package for Social Sciences, SPSS 24 program. Moreover, the general descriptive data about the participants were collected via descriptive statistics. Distribution of each variable (sub-scale) has been tested for normality by using One-Sample Kolmogorov-Smirnov Test and it was observed that all variables were normally distributed. So, parametric tests have been used for comparisons. To test the difference between control and experimental group in terms of the mean scores of each sub-scale, an independence samples t-test and paired samples t-test have been used. Finally, ten students from the experimental group were chosen randomly for the interview in order to reveal reflections of students on MAR materials in EFL writing classes.

4. FINDINGS

4.1 Introduction

This chapter aims to present the findings of the data analysis. The research questions of the current study aimed to answer whether there is any impact of MAR enhanced EFL writing materials on students' attitude and motivation as well as students' reflections in EFL Academic Writing classes.

4.2 Participants' Characteristics

In the following tables, the distribution of students according to their gender and group type is given. In total, there were 43 male students and 27 female students from control and experimental groups. 38,6% of students were female, whereas 61,4% were male.

		Frequency	Percent	Valid	Cumulative Percent
				Percent	
Valid		27	37,5	38,6	38,6
	Female				
	Male	43	59,7	61,4	100,0
	Total	70	97,2	100,0	
	Missing	2	2,8		
	Total	72	100,0		

Table 4.1: Gender Distribution

When both control and experimental study groups were compared in terms of student numbers, the proportion of students is observed as 50%.

		Frequency	Percent	Valid Percent	Cumulative Percent		
				1 er cent	Ι ει τεπι		
Valid	Control	36	50,0	50,0	50,0		
	Experimental	36	50,0	50,0	100,0		
	Total	72	100,0	100,0			
Table 4.3: Age Statistics							
	Mean		Ν	Std. Deviation			

Table 4.2: Group Type

 Mean
 N
 Std. Deviation

 Control
 19,3333
 36
 1,74028

 Experimental
 19,6500
 40
 2,50691

 Total
 19,5000
 76
 2,16949

The approximate means of the age of the participants were 19 for the control group and 20 for the experimental group. When standard deviations are evaluated, it is visible that they are very low, and students are homogeneous in terms of their age.

4.3 Results of Academic Writing Motivation Questionnaire

Research Question 1: How do MAR supported writing materials affect the level of students' motivation towards writing in EFL course?

The Academic Writing Motivation Questionnaire includes 37 items consisting of five subscales (Enjoyment, Self-efficacy, Instrumentality, Recognition, and Effort). It is a five-point Likert Scale where 5 is strongly agree, 4 is agree, 3 is neither agree nor disagree, 2 is disagree and 1 is strongly disagree. Each subscale is calculated as the mean of corresponding items out of 5. Then, the variables of the research are represented by each subscale. Distribution of each variable (subscale) is tested for normality by using One-Sample Kolmogorov-Smirnov Test, and it is observed that all variables are normally distributed. So, parametric tests are used for comparisons. To test the difference between control and experimental group in terms of the mean scores of each subscale, an independence samples t-test is used, and findings are given in Table 4.4.

		Ν	Mean	Std.	Std.	t	р
				Deviation	Error		
					Mean		
Enjoyment	Control	36	2,64	0,64	0,11	3,62	0,001
Pre-test	Experimental	36	2,13	0,61	0,09		
Enjoyment	Control	36	2,93	0,74	0,12	0,31	0,760
Post-test	Experimental	36	2,66	0,58	0,10		
Self-efficacy	Control	36	3,12	0,63	0,10	-	0,025
Pre-test	Experimental	36	3,08	0,54	0,08	2,28	
Self-efficacy	Control	36	3,20	0,72	0,12	-	0,031
Post-test	Experimental	36	3,54	0,52	0,09	2,20	
Instrumentality	Control	36	3,62	0,96	0,16	-	0,043
Pre-test	Experimental	36	4,09	0,85	0,13	2,06	
Instrumentality	Control	36	3,84	0,73	0,12	3,62	0,001
Post-test	Experimental	36	4,24	0,87	0,15		
Recognition	Control	36	3,60	0,72	0,12	0,31	0,760
Pre-test	Experimental	36	3,97	0,77	0,12		
Recognition	Control	36	3,66	0,82	0,14	-	0,025
Post-test	Experimental	36	4,13	0,55	0,10	2,28	
Effort Pre-test	Control	36	2,64	0,74	0,12	-	0,031
	Experimental	36	3,01	0,81	0,13	2,20	
Effort Post-test	Control	36	3,31	0,84	0,14	-	0,043
	Experimental	36	3,80	0,61	0,11	2,06	

According to Table 4.4, the statistical results of the control and the experimental groups in terms of enjoyment scale's pre-test mean scores differ significantly which are 2,64 and 2,13 respectively (p=0,001<0,05). Enjoyment level of the

control group is higher. On the other hand, when the mean scores of the enjoyment scale's post-test are compared, it is seen that the difference is not significant (p=0,760>0,05).

Besides, the statistical results of the control and the experimental groups in terms of self-efficacy scale's pre-test mean scores differ significantly (p=0,025<0,05). Mean scores of self-efficacy pre-test are respectively 3,12 and 3,08, which illustrate that the control group's self-efficacy level is higher. There is also a statistically significant difference between the control and the experimental group in terms of self-efficacy scale's post-test mean scores (p=0,031<0,05). Mean scores of self-efficacy post-test are respectively 3,20 and 3,54, which display that the experimental group's self-efficacy level is higher.

The mean scores of the control and the experimental groups in terms of instrumentality scale's pre-test (p=0,043<0,05) differ significantly. Means are, respectively 3,62 and 4,09. Then, the experimental group's instrumentality level is higher on the pre-test. When the mean scores of instrumentality Post-test are compared, it is seen that the difference is significant (p=0,001<0,05). Means are, respectively, 3,84 and 4,24. Then, the experimental group's instrumentality level is higher on the Post-test.

There is not a statistically significant difference between the control and the experimental groups in terms of recognition scale's pre-test mean scores (p=0,760>0,05). When the mean scores of recognition post-test are compared, it is seen that the difference is significant (p=0,025<0,05). Means are, respectively, 3,66 and 4,13. It represents that the experimental group's recognition level is higher on the post-test.

The control and the experimental groups in terms of effort scale's pre-test mean scores (p=0,031 < 0,05) differ significantly. Means are, respectively 2,64 and 3,01. It asserts that the experimental group's effort level is higher on the pre-test. When the mean scores of effort Post-test are compared, it is seen that the difference is significant (p=0,043 < 0,05). Means are, respectively, 3,31 and 3,80. Then, the experimental group's effort level is higher on the Post-test.

In table 4.5 Paired Samples t-Test results are given, which show the difference between pre-test and Post-test-test scores for each subscale.

		Mean	N	Std. Deviation	Std. Error Mean	t	р
Control	Enjoyment Pre-test	2,64	36	0,64	,10596	-	0,039
	Enjoyment Post-	2,93	36	0,74	,12414	2,15	
	test Self-efficacy Pre- test	3,12	36	0,63	,10469	- 1,09	0,284
	Self-efficacy Post- test	3,20	36	0,72	,11989	1,09	
	Instrumentality	3,62	36	0,96	,16023	- 3,80	0,001
	Pre-test Instrumentality Post-test	3,84	36	0,73	,12216		
	Recognition Pre- test	3,60	36	0,72	,12046	- 0,72	0,474
	Recognition Post- test	3,66	36	0,82	,13662		
	Effort Pre-test	2,64	36	0,74	,12318	-	0,711
	Effort Post-test	3,31	36	0,84	,14062	0,37	
Experimental	Enjoyment Pre-test	2,13	36	0,66	,11665	- 3,60	0,001
	Enjoyment Post- test	2,66	36	0,58	,10225	-	
	Self-efficacy Pre- test	3,04	36	0,53	,09284	- 0,49	0,630
	Self-efficacy Post- test	3,54	36	0,52	,09196		
	Instrumentality Pre-test	4,15	36	0,82	,14564	- 5,21	0,000
	Instrumentality Post-test	4,24	36	0,87	,15312		
	Recognition Pre- test	3,98	36	0,80	,14152	- 3,54	0,001
	Recognition Post- test	4,13	36	0,55	,09785		
	Effort Pre-test Effort Post-test	3,00 3,80	36 36	0,77 0,61	,13636 ,10778	- 1,09	0,285

Table 4.5: Comparison of Pre-test and Post-test (AW)	MQ)
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For each subscale, the control group's pre-test scores are compared to the posttest scores. The enjoyment subscale difference is significant (p=0,039<0,05). Means are respectively 2,64 and 2,93. It remarks that enjoyment increased for the control group.

For instrumentality subscale, difference is significant (p=0,001<0,05). Means are respectively 3,62 and 3,84. It remarks that the instrumentality level increased for the control group.

Other differences are not significant since p values are greater than 0,05.

For the experimental group means of enjoyment pre-test and post-test scores are respectively 2,13 and 2,66 and the difference is significant (p=0,001<0,05). Then, enjoyment increased.

Means of instrumentality pre-test and post-test scores are respectively 4,15 and 4,24 and the difference is significant (P=0,000<0,05). Instrumentality level increased.

Other differences for the experimental group are not significant since p values are greater than 0,05.

4.4 Results of Instructional Materials Motivation Survey

Research Question 2: How do MAR integrated materials affect students' attitude in EFL writing course?

The IMMS is a 36-item scale consisting of four subscales (Attention, Relevance, Confidence, and Satisfaction). It is a five-point Likert Scale where 5 is strongly agree, 4 is agree, 3 is neither agree nor disagree, 2 is disagree and 1 is strongly disagree. Each subscale is calculated as the mean of corresponding items out of 5. Then, the variables of the research are represented by each subscale. Distribution of each variable (subscale) is tested for normality by using one-Sample Kolmogorov-Smirnov Test and it is revealed that all variables are normally distributed. So, parametric tests are used for comparisons. An independence sample t-test is used to reveal the difference between the control and the experimental group means scores. The findings are given in Table 4.6.

		N	Mean	Std.	t	р
				Deviation		
Confidence Pre-	Conrol	36	3,35	0,61	-0,35	0,726
test	Experimental	36	3,40	0,76		
Confidence Post-	Conrol	36	3,27	0,47	-5,80	0,000
test	Experimental	36	4,10	0,70		
Attention Pre-test	Conrol	36	3,16	0,92	1,49	0,141
	Experimental	36	2,88	0,64		
Attention Post-test	Conrol	36	3,27	0,87	-4,20	0,000
	Experimental	36	4,00	0,55		
Satisfaction Pre-	Conrol	36	3,45	0,64	-0,09	0,932
test	Experimental	36	3,46	0,73		
Satisfaction Post-	Conrol	36	3,51	0,80	-2,73	0,008
test	Experimental	36	3,96	0,55		
Relevance Pre-test	Conrol	36	3,45	0,42	-2,39	0,019
	Experimental	36	3,74	0,60		
Relevance Post-	Conrol	36	3,33	0,56	-4,29	0,000
test	Experimental	36	3,87	0,49		

Table 4.6: Comparison of CG and EG (IMMS)

According to Table 4.6, a statistically significant difference is not observed between the control and the experimental group in terms of confidence scale's pre-test mean scores (P=0,726>0,05). When the mean scores of confidence posttest are compared, it is seen that the difference is significant (p=0,000<0,05). Means of the control and the experimental group are respectively 3,27 and 4,10. Then, the experimental group's confidence level is higher than the control group.

A statistically significant difference is not observed between the control and the experimental group in terms of attention scale's pre-test mean scores (p=0,141>0,05).

When the mean scores of attention Post-test compared, it is seen that the difference is significant (p=0,000<0,05). Means of the control and the

experimental groups are respectively 3,27 and 4,00. Then, the experimental group's attention level is greater than the control group.

A statistically significant difference is not observed between the control and the experimental group in terms of satisfaction scale's pre-test mean scores (p=0.932>0.05).

When the mean scores of satisfaction post-test are compared, it is seen that the difference is significant (p=0,008<0,05). Means of the control and the experimental groups are respectively 3,51 and 3,96. It shows that the experimental group's satisfaction level is greater than the control group.

A statistically significant difference is not observed between the control and the experimental group in terms of relevance scale's pre-test and post-test mean scores. When the mean scores of relevance pre-test, it is seen that the difference is significant (p=0,019<0,05). Means of the control and the experimental groups are respectively 3,45 and 3,74. Then, the experimental group's relevance level is greater than the control group.

When the mean scores of relevance post-test are compared, it is seen that the difference is significant (p=0,000<0,05). Means of the control and the experimental groups are respectively 3,33 and 3,87. It reflects that the experimental group's relevance level is greater than the control group.

In Table 4.7, Paired Samples t-test results are presented, which show the difference between pre-test and post-test scores for each subscale.

		Mean	Ν	Std.	t	р
		1,10411	11	Deviation	· ·	P
Control	Confidence Pre-test	3,33	36	0,62	0,49	0,628
	Confidence Post-test	3,27	36	0,47		
	Attention Pre-test	3,18	36	0,93	-0,36	0,723
	Attention Post-test	3,27	36	0,87		
	Satisfaction Pre-test	3,44	36	0,65	-0,39	0,702
	Satisfaction Post-test	3,51	36	0,80		
	Relevance Pre-test	3,44	36	0,42	0,95	0,351
	Relevance Post-test	3,33	36	0,56		
Experimental	Confidence Pre-test	3,43	36	0,76	-4,09	0,000
	Confidence Post-test	4,10	36	0,70		
	Attention Pre-test	2,90	36	0,64	-7,82	0,000
	Attention Post-test	4,00	36	0,55		
	Satisfaction Pre-test	3,49	36	0,72	-3,14	0,003
	Satisfaction Post-test	3,96	36	0,55		
	Relevance Pre-test	3,75	36	0,61	-0,85	0,400
	Relevance Post-test	3,87	36	0,49		

 Table 4.7: Comparison of Pre-test and Post-test (IMMS)

For each subscale, the control group's pre-test scores are compared to the posttest scores. Since all p values are greater than 0,05, no significant difference is observed.

However, for the experimental group except for the relevance, all subscales' scores are statistically significant since p values are less than 0,05. Means of confidence pre-test and post-test scores are respectively 3,43 and 4,10. Then, confidence increased.

Means of attention pre-test and post-test scores are respectively 2,90 and 4,00. Then, attention increased. Means of satisfaction pre-test and post-test scores are respectively 3,75 and 3,87. Then, satisfaction increased.

4.5 Students' Reflection towards Integrating MAR Supported Materials in EFL Writing Courses

Research Question 3: What are the students' reflections towards integrating MAR supported materials in EFL writing courses?

The third research question aims to explore the reflections of the students after the MAR integrated materials were utilized in the EFL writing classes. In order to gather qualitative data to substantiate collected quantitative data, 10 students from the experimental group were chosen randomly and a semi-structured interview was utilized as an evaluation form. Some of the interview questions designed by Sevda Küçük (2015) (Appendix 3) were used as the starting point, but necessary adaptations were made. As students felt limited and uncomfortable while expressing themselves in English in order not to miss any information and get more appropriate responses, students were interviewed in Turkish, which is their mother tongue. The interview questions are provided below with students' answers and are translated by the researcher into English.

4.5.1 Interview question 1: Were you satisfied with MAR enhanced EFL writing lesson materials?

'I was happy to study with MAR adopted writing materials. These materials caught my attention when I was bored and made me more interested.' S1

'I was satisfied. In my opinion, this material catches students' attention when they are bored. I took a keen interest in the writing material because of the applications.' S3

'When mobile devices are integrated into the learning environment, students remember newly learned subjects better, and the way the lesson is presented changes completely. I think this kind of devices are important as they enable the transformation of information in a more meaningful way and increase students' motivation. I found MAR supported materials very useful.' S6 'I was delighted to work with these materials. I felt more engaged in the lesson using them. As the lesson was presented with MAR adopted materials, it was more enjoyable. I felt delighted.' S10

'These materials were flawless. I'm satisfied with them. In my opinion, all new writers should enhance their writing this way. S5

4.5.2 Interview question 2: How do you think MAR enhanced materials affected your learning process in EFL writing class? Do you think they are useful?

'Yes, I think they are useful. I think with these materials lessons were more enjoyable.' S2

'If something is presented visually or I have fun while learning something new, I can keep it in my mind easily. Thus, I become more successful. That is why it positively influenced my learning.' S4

'MAR adopted writing materials shortened the rote teaching time because we were active during the lessons. Furthermore, applications and tasks made retention of information easier for me. Visuals that were attached to the pack and essay papers were appealing and it helped me to reinforce some essential phrases, essay writing rules and other important elements of the writing class.' S7

'Yes, these applications are excellent to gather students' attention and make learning fun.' S9

'They affected me and my writing. It helped me to find clues and new ways to write an essay which were very useful for me.' S6

4.5.3 Interview question 3: Did the developed material affect the way you study for EFL writing class? How?

'We live in the technology age and teachers should keep up with it, too. MAR enriched materials increased my willingness towards studying.' S3

'When I wanted to study at home by myself, QR markers were handy.' S5

'It did not affect me because when I study on my own, I do not prefer it.' S8

'It did not change my habits when I study on my own, but it made our lessons catchy and appealing.' S10

'Yes, it did. In the past, writing something was difficult for me because I was confused and did not know how to start and finish. However, I can write about any topic without confusion now.' S7

4.5.4 Interview question 4: Do you think MAR enhanced EFL writing materials affect your attitude towards the writing lesson? How?

'We had a space activity in which planets were revolving around us. We even took photos of us with the planets. Based on this activity, we wrote an essay. I think this extended my topic knowledge and helped me to think broader about the given topic.' S6

'I used to find writing lessons boring. My interest in the lesson increased due to MAR apps.' S9

'Our lessons became less monotonous. I was expecting to be less active in writing classes, but these materials made the lessons attractive to me.' S4

'I have always had this devotion to do research and learn new things. Composing an essay is an interpretation-based activity. As I utilized technology-enhanced materials in the lessons and worked on some specific tasks with my peers, I could come up with interpretation-based knowledge and my willingness for producing more increased.' S7

'Yes, definitely. It helped me to change my attitude towards my writing lessons and encouraged me to learn more and compose my essay easily.' S2

4.5.5 Interview question 5: Do you think MAR enhanced EFL writing materials influenced your motivation towards the course? Why?

'Like many other people I love, and I am interested in technology a lot. I think the diversification of the learning environment with technology is a must in this century to meet the demands of this century's learners.' S2

'It absolutely affected me because my motivation increased.' S10

'I have always loved writing lessons, so even if the lessons had not been enhanced with these applications, I would still have enjoyed it.' S6 'Writing was the most challenging skill in my EFL classes, and I hardly ever wanted to write something. However, MAR adopted materials motivated me to compose.' S1

'When I came to the course, I was not used to writing because I was afraid to share my ideas. I did not have enough confidence and had limited content knowledge, but working with these apps and using mobile devices helped me. I can write down my thoughts with full confidence now.' S3

4.5.6 Interview question 6: Would you like other lesson materials to be developed and supported with similar MAR technologies? Why?

'Same applications can be used in other lessons as well. For instance, I feel nervous about speaking classes. If they were used in speaking lessons, I could feel less tense. Besides, if teachers benefit from these applications, during listening lessons we may enjoy while learning and focus more.' S5

'I would love to have similar activities and applications in other lessons. When we work on or practice new concepts MAR applications support it. Concepts and newly covered items are pinned down better in our brain.' S8

'I would like to, because I think it visualizes the lesson. For example, in Anatomy lessons, we could have learned parts of the body by visualizing them.' \$9

'I would love to. If I had similar technologies in other lessons, I would enjoy the classes more.' S4

4.5.7 Interview question 7: Can you compare MAR enhanced materials with other EFL skill lesson materials? What are the similarities and differences?

'In both of them, the lessons were tried to be taught effectively, but with MAR enhanced materials, the output was more fruitful.' S7

'In some lessons, our teacher made us study with our friends and encouraged us to have a look at the material before she presented it. I personally think that being informed about the lesson beforehand made learning easier for me.' S3 'We know that all lessons are meant to teach us something but when new technologies are applied in the lessons it sticks in my mind, and I can recall it easier. I think it affects attention span positively.' S2

'I personally think that there are many differences, but the most important one is that MAR supported materials increase the engagement level of the students.' S9

'English learners do not actually know how to write, read, speak and listen to a topic and learning these skills with these innovations would be great.' S4

4.5.8 Interview question 8: Did you experience any problems while using the MAR enhanced EFL writing materials? What kind of difficulties did you face?

'I have not experienced any problems.' S8

'My phone was not updated to the latest software so I could not download the necessary applications' S1

'I did not have any problems.' S6

'I have not faced any technical difficulty. On the contrary, it seems that MAR applications and tasks facilitate learning.' S8

'No, but during the first days I had difficulty in using these applications.'

5. DISCUSSION AND CONCLUSION

This study aims to understand to what extend MAR adopted writing materials affect students' motivation, attitudes in EFL writing classes as well as reveal students' reflections on MAR enhanced materials. A mixed-methods research design is adopted, which includes both quantitative and qualitative data. A four-step procedure is followed for data collection; application of IMMS and AWMQ pre-tests, implementation of the MAR materials, application of IMMS and AWMQ post-tests and semi-structured interviews with the students. The study was conducted in two academic years 2017-2018 and 2018-2019. This chapter presents the discussions of research results, and the conclusion with the suggestions for future studies.

5.1 Discussion on Findings of Research Question One

In order to find an answer to the first research question, Academic Writing Motivational Questionaire Payne (2012), which is mainly developed to assess students' motivation towards the writing classes, is utilized. The underlying purpose of AWMQ is to help writing course instructors to gain a better understanding on their students' writing motivation and make necessary changes in the environment, use more effective materials to meet their learners' needs and modify their teaching methodology if required. Five main factors that contribute to the motivation level are analyzed, which are enjoyment, self-efficacy, instrumentality, recognition, and effort. At the end of the third track, both students of control and experimental group were asked to respond to the same questionnaire after their classes were delivered.

The Enjoyment scale is related to intrinsic motivation, apprehension to take part in writing activities, or eagerness (Payne, 2012). Payne signified the importance of this particular scale as it is the most crucial one to determine the learner's motivation towards composition. According to the statistics, when the control group's pre-test results are compared to the post-test scores, for enjoyment subscale, the difference is significant (p=0,039<0.05). Means are respectively 2,64 and 2,94, which indicates that the enjoyment level of the control group increased. On the other hand, the finding of the experimental group indicates that the pre and post-test scores were respectively 2,13 and 2,66 and which causes a significant difference (p=0,001<0,05). The results demonstrate two things. First, both in traditional writing classes and MAR adopted writing classes students' enjoyment level increased; however, the experimental group's enjoyment level increased more. This shows that MAR materials might increase students' intrinsic motivation in the writing course. However, the teacher has a vital role in the lesson delivery because when the teacher of the class is energetic, has a positive attitude towards the subject or the topic that is being taught play a significant role on students' attitudes.

Another component of writing motivation is instrumentality. The instrumentality factor measures students' extrinsic motivation and their viewpoints regarding the cruciality of writing in order to ensure success (Payne, 2012). The extrinsic motivation of both the control group and the experimental group increased. For instrumentality subscale, the difference was significant in the control group (p=0,001<0,05) and means are respectively 3,62 and 3,84. In other respects, the means of instrumentality pre and post-test scores were 4,15 and 4,24 and the difference is significant (p=0,000<0,05). The results demonstrate that despite the increase in the control group's instrumentality level, the experimental group's instrumentality level was higher. It can be said that when writing lessons are equipped with MAR materials, students' extrinsic level increases dramatically; however, in traditional writing classes, students may also be affected by external factors such as classroom atmosphere, classmates, teacher's willingness, attitude towards the particular course, methodology and so on.

Finally, the experimental group's level of personal recognition increased at the end of the study, which was about getting feedback and receiving high grades for their writing assignments. When the pre and post-test scores were compared, a significant difference (p=0,001<0,05) was observed. Means were also respectively 3,98 and 4,13. From the other side, no difference was observed in the control group's recognition scale.

Statistical analysis revealed that when writing class materials are supported with Mobile Augmented Reality applications, and MAR tasks, students' motivation regarding the writing course increases.

5.2 Discussion on Findings of Research Question Two

The second research question aimed to observe the motivational attitudes of students on MAR supported writing materials and whether it has any effect on students. The results of the Instructional Materials Motivation Survey (Keller, 2010) revealed that there was a significant difference between the control and experimental groups' attitude levels towards the used material. The IMMS categorized motivational attitudes of the learners under four motivational subscales: Attention, Relevance, Confidence, and Satisfaction. These four factors were the components of Keller's ARCS Model of Motivational Design.

After the instructional process was completed, the results of post-test showed that there was no significant difference in students' attitudes before and after the application of the traditional writing lesson materials in the control group. All p values appeared to be higher than 0,05, which resulted in no significant difference. On the other hand, the experimental group's results suggested that there was a significant increase in students' attention, confidence, and satisfaction levels except for the relevance subscale towards the writing lesson materials. It can be stated that MAR materials are positively correlated with students' motivational attitudes and play a crucial role in the learning process.

Serio, Ibanez and Delgado-Kloos (2013) in their study also investigated the impact of AR system on the learners' motivation in a visual art course. The results of their study pointed out that attention and satisfaction factors were highly scored by the students when the AR learning environment was compared to the control group's slide-based learning environment. On top of that, when AR and its impact was analyzed separately, attention and satisfaction scales were graded the highest. This proves Majumdar's (2016) idea; when IT is merged with the educational field, it enables learners to learn through inquiry and exploration, fosters collaboration, increases motivation and engagement by creating a brand new student-centered learning culture.

5.3 Discussion on Findings of Research Question Three

The last research question attempted to reveal participants' reflections on MAR adopted writing course materials. In order to address the third research question, ten randomly selected students from the experimental group were interviewed.

First and foremost, interviewees reported that they found the lesson materials and MAR applications satisfactory due to numerous advantages. According to the students, these writing lessons were much more captivating than their previous traditional writing classes. They stated that the MAR lesson materials and the prepared tasks were appealing, satisfying, enjoyable, attention gathering, and learning became enjoyable for them. Besides, they added that thanks to these materials, they were more involved and keener during the learning process because they were delighted to work on this new material in their classes. The results are in parallel with Wasko's (2013) study of Augmented Reality Enhanced Learning Environments in which he stated that these brand-new instructional experiences expand learners' interest and as well as assisting them to develop positive attitudes towards the instruction.

Secondly, as interview results revealed that MAR enhanced writing materials enabled students to develop a positive learning attitude towards EFL writing. Students declared that they felt more motivated during the classes and willing for participation and more successful in writing. Since every lesson had a task before the introduction of each essay type, students needed to be active participants of the learning process, cooperate with their peers, brainstorm for the new ideas, participate in the group discussions, be kinesthetically active and so on. Students also highlighted that MAR adopted materials played a significant role in that. As a result, their learning process and writing skills were positively affected.

This study did not aim to evaluate the level of retention of newly learned information, but students' responses showed that with the increased positive learning attitudes, MAR enhanced materials have a positive impact on recall and retention of newly covered topics as well.

Thirdly, via mobile devices, MAR applications and MAR modified writing pack learners had a chance to revise outside of the class whenever and wherever it is required. Several students pointed out that these materials contributed to their learning and changed their self-study methods in the right way. Nevertheless, some others stated that they did not necessarily need any material for self-study and did not find MAR enhanced materials useful because they were not willing to study more outside the class. The difference is related to students' intrinsic motivational levels. It is a known fact that some students may have a high level of intrinsic motivation so that they can participate in the classes and feel ready to come up with language outcome without any external motivational factors.

On the other hand, other learners may need some support from the teacher, appealing materials, suitable activities or engaging games that will meet their intelligence type. AR materials may provide a great method to overwhelm the limitations of textbook-based materials, in such a way that AR may meet the needs of the students with distinctive learning styles (Billinghurst and Dünser, 2012). Students reported that visual content knowledge, clues, pinned videos and photos on the writing material contributed to their memory span.

Besides, learners were in favor of using MAR enhanced materials in other lessons. They expressed their willingness to have similar materials in other EFL skill lessons and wished that they had used them in high school to prevent rote learning. Some students suggested using MAR materials in EFL speaking classes because they thought they could overcome the anxiety and in EFL listening classes to prevent boredom.

To sum up, during the implementation of the study, students came across with some technological problems; the low battery problem, not having enough memory on handheld devices to download the applications, not being able to update the software of the phone, and not being able to use the applications at first. The teacher provided the necessary help in order to overcome these limitations.

5.4 Conclusion

In this decade, the most common problem that the educators, curriculum designers, teachers, or instructors may face in EFL classes is the lack of student motivation and negative attitudes towards the lessons. There is an enormous

amount of changing and updating visual stimulants around learners and although they want to take part in the learning process actively since they are used to this flow of visualized information, they struggle to do that. In order to make demanding students active and willing learners of our classes, we must make use of different technologies, engage necessary methodologies and tools into our teaching to grab their attention and sustain it.

As Bruning and Horn (2000) stated motivation does not only depend on an individual's intrinsic motivation, but it also can be supported by the teachers or instructors who prepare the writing tasks and check students' writings. In order to increase the motivational level of the students, four conditions were suggested which are the following; improving learners' beliefs about the function of writing, promoting participation in writing by making use of authentic materials, supporting learners with a contextual knowledge, and creating a positive atmosphere in the learning environment (Billinghurst and Dünser, 2012). The content and linguistic knowledge can be delivered with AR supported mobile learning materials in the English writing classes (Liu and Tsai, 2013), which would obviously facilitate the learning. In parallel with Billinghurst and Dünser (2012), AR experiences may be adopted into teaching in a way that the limitations of text-based lesson material will be overcome.

In the light of the findings of the current study, the conclusions listed below have been drawn.

- MAR enhanced EFL writing course materials increase students' intrinsic motivation, level of appreciation of the activities, and eagerness to engage in writing activities.
- MAR enhanced EFL writing materials increase students' extrinsic motivation and affect their viewpoints regarding the cruciality of writing.
- MAR adopted EFL writing materials contribute to students' personal recognition in writing classes.
- MAR enhanced writing lesson materials are positively correlated with students' motivational attitudes as they have a positive impact on their attention, confidence and satisfaction level.

- MAR enhanced EFL writing materials are more appealing, captivating, satisfying, enjoyable, attention gathering and engaging compared to traditional writing class materials.
- Students engage and feel keener to participate in the writing classes when they are enriched with MAR materials.
- Students' responses indicate that MAR enriched materials have a positive impact on recall and retention of newly learned EFL writing topics.
- MAR adopted EFL writing materials are not beneficial enough for self-study as intrinsically motivated students did not consider them necessary.
- Students are in favor of utilizing MAR integrated materials in other EFL skill classes as the learners reported that the materials prevent rote learning and boredom, and help them to overcome anxiety.

5.5 Limitations and Suggestions for Further Research

The present study provides insights into the effectiveness of Mobile Augmented Reality adopted materials in EFL Academic writing classes; however, there are a number of limitations. While conducting future studies, these constraints can be taken into consideration. First of all, the study was conducted in the preparatory school of Istanbul Aydin University. The participants of the research were A1 level, young adults. Future studies can investigate the effectiveness of MAR applications with a higher level of EFL learners and in different surroundings. Secondly, MAR materials were integrated into only academic writing classes. Future researchers may adopt these materials when teaching other skills. Furthermore, the lessons were delivered by one teacher to make sure that students benefit from the same type of instruction; thus, future studies can observe the significance of the teacher factor in the delivery of the instruction. Finally, future research can be conducted with more participants in a longer period of time.

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APPENDICES

APPENDIX 1: Academic Writing Motivation Questionnaire

APPENDIX 2: Instructional Materials Motivation Survey

APPENDIX 3: Küçük's (2015) Interview Questions

APPENDIX 4: Semi-structural Interview Questions

APPENDIX 5: Some Pages from MAR Integrated Writing Pack

APPENDIX 6: Examples of students' Essays

APPENDIX 7: Photos of the students during the Instructional Process

APPENDIX 1: Academic Writing Motivation Questionnaire

Dear participants,

In order to gain a better insight of what you think and how you feel about the writing you do in your courses, this questionnaire was prepared. Please respond to each of the following statements by circling the number in one of the boxes or providing the requested information.

Thank you for participation.

PART	1.
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Age:
Gender:
Group: MAR Integrated Writing Class
Traditional Academic Writing Class

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		Strongly Disagre	Disagree	Uncertain	Agree	Stronglyagree
1	I enjoy writing.	1	2	3	4	5
2	I like to write down my thoughts.	1	2	3	4	5
3	I use correct grammar in my writing.	1	2	3	4	5
4	I complete a writing assignment even when it is difficult.	1	2	3	4	5
5	Being a good writer will help me do well academically.	1	2	3	4	5
6	I write as well as other students.	1	2	3	4	5
7	I write more than the minimum on writing assignments.	1	2	3	4	5
8	I put a lot of effort into my writing.	1	2	3	4	5
9	I like to participate in written online discussions.	1	2	3	4	5

10	I like to get feedback from an instructor on my writing.	1	2	3	4	5
11	I am able to clearly express my ideas in writing.	1	2	3	4	5
12	I easily focus on what I am writing.	1	2	3	4	5
13	I like my writing to be graded.	1	2	3	4	5
14	I am more likely to succeed if I can write well.	1	2	3	4	5
15	It is easy for me to write good essays.	1	2	3	4	5
16	I enjoy creative writing assignments.	1	2	3	4	5
17	I like classes that require a lot of writing.	1	2	3	4	5
18	I plan how I am going to write something before I write it.	1	2	3	4	5
19	Becoming a better writer is important to me.	1	2	3	4	5
20	Being a better writer will help me in my career.	1	2	3	4	5
21	It is important to me that I make an A on a writing assignment.	1	2	3	4	5
22	I enjoy writing assignments that challenge me.	1	2	3	4	5
23	I revise my writing before submitting an assignment.	1	2	3	4	5
24	Punctuation is easy for me.	1	2	3	4	5
25	I enjoy writing literary analysis papers.	1	2	3	4	5
26	I like to write even if my writing will not be graded.	1	2	3	4	5
27	I like others to read what I have written.	1	2	3	4	5
28	I enjoy writing research papers.	1	2	3	4	5
29	I would like to have more opportunities to write in classes.	1	2	3	4	5
30	Being a good writer is important in getting a good job.	1	2	3	4	5

31	I practice writing in order to improve my skills.	1	2	3	4	5
32	I want the highest grade in the class on a writing assignment.	1	2	3	4	5
33	I would rather write an essay than answer multiple-choice questions.	1	2	3	4	5
34	I want others to recognize me as a good writer.	1	2	3	4	5
35	Spelling is easy for me.	1	2	3	4	5
36	Choosing the right word is easy for me.	1	2	3	4	5
37	I am motivated to write in my classes.	1	2	3	4	5

APPENDIX 2: Instructional Materials Motivation Survey

Dear participants,

This survey consists of 36 statements. Please think about each statement in relation to the instructional materials you have just studied, and indicate how true it is. Give the answer that truly applies to you.

Thank you for participation.

PA	RT 1.				
Age					
Gen	nder:				
Gro	up: MAR Integrated Writing Class				
	Traditional Academic Writing Class				
		Not True	Slightly True	Moderately True	Mostly True Very True
1	When I first looked at this lesson, I had the impression that it would be easy for me.	1	2	3	45
2	There was something interesting at the beginning of this lesson that got my attention.	1	2	3	45
3	This material was more difficult to understand than I would like for it to be.	1	2	3	45
4	After reading the introductory information, I felt confident that I knew what I was supposed to learn from this lesson	1	2	3	45
5	Completing the exercises in this lesson gave me a satisfying feeling of accomplishment.	1	2	3	45
6	It is clear to me how the content of this material is related to things I already know.	1	2	3	45
7	Many of the pages had so much information that it was hard to pick out and remember the important points.	1	2	3	4 5

8	These materials are eye-catching.	1	2	3	4	5
9	There were stories, pictures, or examples that showed me how this material could be important to some people.	1	2	3	4	5
10	Completing this lesson successfully was important to me.	1	2	3	4	5
11	The quality of the writing helped to hold my attention.	1	2	3	4	5
12	This lesson is so abstract that it was hard to keep my attention on it.	1	2	3	4	5
13	As I worked on this lesson, I was confident that I could learn the content.	1	2	3	4	5
14	I enjoyed this lesson so much that I would like to know more about this topic.	1	2	3	4	5
15	The pages of this lesson look dry and unappealing.	1	2	3	4	5
16	The content of this material is relevant to my interests.	1	2	3	4	5
17	The way the information is arranged on the pages helped keep my attention.	1	2	3	4	5
18	There are explanations or examples of how people use the knowledge in this lesson.	1	2	3	4	5
19	The exercises in this lesson were too difficult.	1	2	3	4	5
20	This lesson has things that stimulated my curiosity.	1	2	3	4	5
21	I really enjoyed studying this lesson.	1	2	3	4	5
22	The amount of repetition in this lesson caused me to get bored sometimes.	1	2	3	4	5
23	The content and style of writing in this lesson convey the impression that its content is worth knowing.	1	2	3	4	5
24	I learned some things that were surprising or unexpected.	1	2	3	4	5
25	After working on this lesson for a while, I was confident that I would be able to pass a test on it.	1	2	3	4	5
26	This lesson was not relevant to my needs because I already knew most of it.	1	2	3	4	5

27	The wording of feedback after the exercises, or of other comments in this lesson, helped me feel rewarded for my effort.	1	2	3	4	5
28	The variety of reading passages, exercises, illustrations, etc., helped keep my attention on the lesson.	1	2	3	4	5
29	The style of writing is boring.	1	2	3	4	5
30	I could relate the content of this lesson to things I have seen, done, or thought about in my own life.	1	2	3	4	5
31	There are so many words on each page that it is irritating.	1	2	3	4	5
32	It felt good to successfully complete this lesson.	1	2	3	4	5
33	The content of this lesson will be useful to me.	1	2	3	4	5
34	I could not really understand quite a bit of the material in this lesson.	1	2	3	4	5
35	The good organization of the content helped me be confident that I would learn this material.	1	2	3	4	5
36	It was a pleasure to work on such a well- designed lesson.	1	2	3	4	5

APPENDIX 3: Küçük's (2015) Interview Questions

GÖRÜŞME SORULARI

Görüşme Süresi :

Merhaba,

Atatürk Üniversitesi Bilgisayar ve Öğretim Teknolojileri Eğitimi Lisansüstü Programı'nda doktora öğrenimimi sürdürüyorum. Öncelikle "Anatomi Eğitiminde Mobil Artırılmış Gerçeklik Uygulamaları" konusunda görüşlerinizi benimle paylaştığınız için teşekkür ediyorum. Bu konudaki kişisel deneyimleriniz ve görüşleriniz araştırmam için büyük önem arz etmektedir.

Başlamadan önce bazı noktaları vurgulamak istiyorum. Yapacağımız görüşme sadece araştırma amaçlı kullanılacaktır. Bu çalışma sonucunda oluşturulacak dokümanlarda isminiz doğrudan ya da dolaylı olarak kullanılmayacaktır. Araştırma tamamlandıktan sonra çalışma sonuçlarını eğer isterseniz sizlerle paylaşmaktan mutluluk duyarım.

İzin verirseniz görüşmeyi kaydetmek istiyorum. Sizce sakıncası var mı?

Sormak istediğiniz bir soru var mı? Görüşmenin yaklaşık 20 dk süreceğini tahmin ediyorum. Müsadenizle başlamak istiyorum.

- MAG ile oluşturulan materyallerle ders çalışmaktan memnun kaldınız mı? Hangi açılardan memnun kaldınız/ kalmadınız? Ders içeriğinin MAG ile sunulmasını nasıl değerlendiriyorsunuz?
- Derslerinizde AG uygulamalarının kullanılması öğrenme sürecinizi nasıl etkiledi? Bu uygulamaların faydalı olduğunu düşünüyor musunuz? Neden?
- 3. MAG uygulamasıyla desteklenen anatomi derslerinizi MAG uygulamalarının gerçekleştirilmediği diğer derslerinizle karşılaştırınca neler söylersiniz? Benzerlikler ve farklılıklar nelerdir?
- 4. Derslerinizin MAG ile desteklenmesi, ders çalışma yönteminizi değiştirdi mi? Değiştirdiyse ne gibi değişiklikler oldu?
- 5. MAG uygulamalarındaki hangi çoklu ortam materyallerinin (resim, ses, videoanimasyon) daha etkili olduğunu düşünüyorsunuz? Neden?
- 6. MAG uygulamaları için kullanılan sistemlerin/yazılımların özelliklerinden memnun kaldınız mı? Sorun yaşadıysanız ne tür sorunlarla karşılaştınız?
- MAG ile gerçekleştirilen uygulamalarda herhangi bir zorlukla karşılaştınız mı? Ne tür zorluklarla karşılaştınız?

- 8. Kendinizi teknolojik araçları kullanma açısından yeterli görüyor musunuz? Derslerinizde MAG uygulamalarını rahatlıkla kullanabileceğinizi/yönetebileceğinizi düşünüyor musunuz? Bunun sağlanması ve uygulamanın daha etkili olması için neler yapılabilir?
- 9. Diğer konularda/derslerde benzer uygulamaların yapılmasını ister misiniz? Neden? Nasıl? Örneklerle açıklayabilir misiniz?
- Gelecekte tıp eğitiminin MAG uygulamalarıyla desteklenmesi gerektiğini düşünüyor musunuz? Sizce bunun avantajları/ dezavantajları neler olabilir?
- MAG uygulamalarıyla konuyu öğrenme sürecinde zihinsel/bilişsel olarak ne kadar çaba sarfettiniz?
- 12. Hazırlanmış olan MAG uygulamaları (resim, ses, video) bilişsel yükünüzü/öğrenmeye harcadığınız çabayı nasıl etkiledi? Geleneksel yöntemle işlenen derslerinizle karşılaştırırsanız neler söylersiniz?
- Derslerinizde MAG uygulamalarının kullanılmasının başarınız üzerinde değişiklik oluşturduğunu düşünüyor musunuz? Neden?

Görüşme sona ermiştir. Zaman ayırdınğınız için teşekkür ederim.

APPENDIX 4: Semi-structural Interview Questions

INTERVIEW QUESTIONS

Date:

Time:

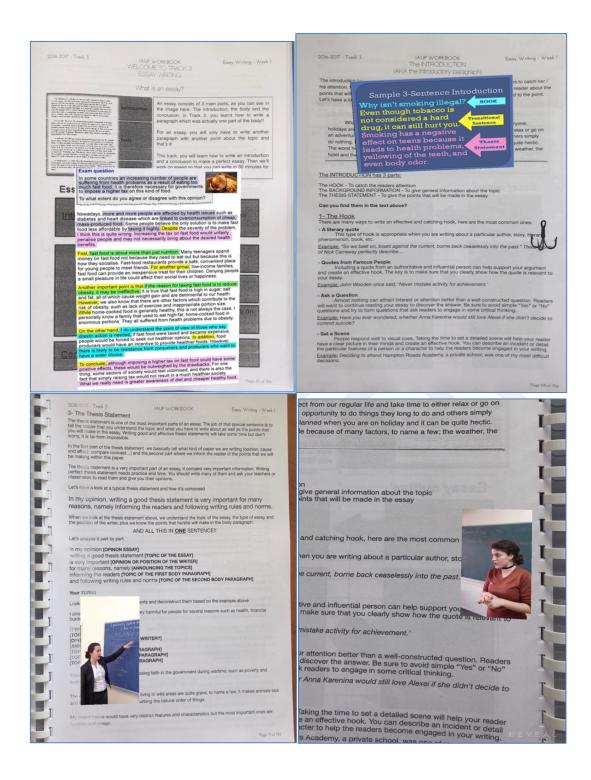
Student's Name:

Dear.....,

The purpose of this interview is to get your opinion about the reflection of Mobile Augmented Reality Applications, the adopted materials and instruction process in your EFL writing classes. As you experienced this new learning environment, I would like you to share both positive and negative experiences that you have had. Feel free to ask any question. Please be assured that confidentiality will be provided throughout the whole process.

- 1. Were you satisfied with MAR enhanced EFL writing lesson materials?
- 2. How do you think MAR enhanced materials affected your learning process in EFL writing class? Do you think they are useful?
- 3. Did the developed material affect the way you study for EFL writing class? How?
- 4. Do you think MAR enhanced EFL writing materials affect your attitude towards the writing lesson? How?
- 5. Do you think MAR enhanced EFL writing materials influenced your motivation towards the course? Why?
- 6. Would you like other lesson materials to be developed and supported by similar MAR technologies? Why?
- 7. Can you compare MAR enhanced materials with other EFL skill lesson materials? What are the similarities and differences?
- 8. Did you experience any problems while using the MAR enhanced EFL writing materials? What kind of difficulties did you face?

APPENDIX 5: Some pages from MAR Integrated Writing Pack



APPENDIX 6: Examples of students' Essays

Descriptive Essay

ISTANBUL AYDIN UNIVERSITY PREPARATORY SCHOOL 2017-2018 ACADEMIC YEAR **CLASS: 318** IN CLASS: NAME: DATE: 22 nd February, 2018 ASSIGNMENT: SURNAME: Describe the best neighbour you've ever known? Use specific reasons and examples to support your answer. Downstairs Neipbour These days, most people ast some question; "why neipbourhood relationship aren't like the akt ones. T". Neipbours main with mount. are (most) important for our. Neipbours effect us in a bool way or a pood way. It we want to peace ful life, we must have (pot) pood neipbours but untortunately just some people have pot pood neipbours in this ope. Already mast person lite in bip building and another Worksof time they don't speak eachother. That is to say most person haven't pat prove the second part of the state of the say most person haven't pat neipbourhood relationship? Thesis Statement I live in Plot with my tomify and we have got many neipbour Some of them person but some be not. Despite this, I think (of) we are (pood) locky. My Pavarite neipbour is aunt Serpil. Punt Serpit is prery mod nomen. She makes my mather anory houser / I have it. " I love it. Sorpil type is little different women. It is not clear what she is spying. She has not short and blande hair. She is measure weight. She has not a dap, she spends mast at his time tion her dage. I hear her dag's voice at night. We talk when

Just (to) preet people, will make us hoppy. Therefore, it a person have poth nepbour, this person is very lucky. I hope you, one day (you) will have a poor nepbour. - Charadeerstic peatures In the body part, You can talk about PS < career physical ap. your memories together

Opinion Essay

ISTANBUL AYDIN UNIVERSITY PREPARATORY SCHOOL 2018-2019 ACADEMIC YEAR IN CLASS: **CLASS: 319** NAME: SURNAME: DATE: 1st March, 2019 ASSIGNMENT: Do you agree with the statement that animal testing should be banned? State your opinion with clear supporting ideas and examples. Medical Animals What would you to if you have to choose have at them? Hire or death. Refinitely, life will techosen by all people. In that case, people must think from the point of life about using animals in testing of medical research. Sensationally, some people will disagree This ideal however, I'll try to support my opinion with tree main ideas. Scientific background, similar anatomy and medicine I believe that there in't enough development in the field of medicine. First of all scientists are seaking a way to solve (to disuse? animals? but they have to make medical research during ix this cess. In time, science will develop itself and people don't use animals for medical research but now it is neccessories for living people. Another point I'd like to write about psimilar anatomy. In my opinion, people and some animals are relatives and they have similar anatomy. For this reason plats of medicines were used by people for animals. For sure, we caused to die some animals but these medicines are useful animal as well. People are dop of the evolutionary tree whose researches may be useful for all nature

Another significant reason is medicines which are made by some animal's tissue sample. To begin with, we shouldn't forget this information because if we bennet using animals in development of medical research we didn't cure lots of would n't illnesses be able to

In conclusion, science doesn't core Pethics because scientists know ethics is changeble. Fifty years ago and today there different ethics rule and one hundred years leter, we might tell about different things about attics. Science doesn't live these rules. It creates its in rules. Because of these reasons scientist should use animals for medical pescench. At least until they find another attents.

Cause Essay

ISTANBUL AYDIN UNIVERSITY PREPARATORY SCHOOL 2018-2019 ACADEMIC YEAR NAME: CLASS: 319 IN-CLASS: DATE: 15th March, 2019 ASSIGNMENT: SURNAME: 回义 άD What causes students to think school is boring? Use specific reasons and examples to support your answer. Boring Education System I educated myself. To me, school was boring -Morrison said . why most people get hold of boring at school? As Von Morrison soid, con le etucate ourselve Are schools really borins? Education is very crucial and - Galvet! witch for humanity but despite this most of us (are) get hold of boring at school and we have it. Then there ore several reasons why school is boring but three stand out; teachers, time and school's area. I A goal start bear o One reason why (there is) students [boring to school is) teachers. Many teacher is big head, unsympathetic, irritable and industriferent. They don't pay attention to student's' request and their loves. They just come to the school for fulfill their duties. They don't attention to lessons. They just lecture and (they) go. They don't core Twho learn the lesson.

-) L'heck different " lopic Sentence' example, that we have in the Writing Pack. Another reason why there is students boring to school is time. Lessons take a long time at school. Schools start early. May students findit early wake p? Many schools finish late and students don't pore time & then selves. They a little take (a) break so students bored quickly.) short Plural they The last reason why there is students boring to school is school's area. Specially, private universities haven't got big compute and green field. Environment is very important for us. If schools have got small area, students are boring. If students to many activities in school, they oren't borings Ly may might can be In addition quested that education system (don't) be like this. In my opinion, if teachers be thoughtful, optimistic d'interested potudents be successful and eager. In this way, schools don't be boring place. PW * Try to use different works - get bored (v) - interested in (V) - pay attention to(v) * boring "> Find its synonym X6

Effect Essay

ISTANBUL AYDIN UNIVERSITY PREPARATORY SCHOOL 2017-2018 ACADEMIC YEAR IN-CLASS: NAME: CLASS: 318 4th April, 2018 ASSIGNMENT: DATE: SURNAME: Check your results Do the test Analyze me Watch me What are the effects of being able to read someone's body language on a person's life? Use specific reasons and examples to support your answer. Reading (ap Bady Language Richy Gervaissaid Body Language is more powerful than words." Body language is very important on a person's life. Sometimes, people use (oF) body language when people can't talk. It seems to me that Subject pronoun budy language Verrect on people's life (has several reasons) such as social life, business life and claring. One of the main reason is Racial life, Reading (OF) body language effect our social life. Body language maker, easier, (9) communicate (with somebody). For instance, someoned in he she spoke, I pay attention his ber nun Front of me when body language. Alter body language II can understand how prep You Feel. sub? The second effect is business life. In my opinion, when we go to a Job interview Thody language is more important than what we are talking about - IF we are confident

In ourselves), this is always better because people always want self-confident and self-assured people (in their) around. They think (do) these individuals do their job better. The Final point is aloting. I strongly believe that the most important thing is darting because) body longuage is more important the carting. For instance, I have a boy-Friend. When I met his, the First thing I notice is his stance and his hand. " lour body language can effect people For example, someone who wants to meet you, your budy language looks agressive may be reluctant to must RW madal verb YOU For. To sum up, your body language Verfect Vsocial life business life and olating teople Junderstand (to tell) lie Typur Modal V. plurcu body language so body language is very important on ano ph. people's life 1) Use synonym ? - Significant * reading of body lang. -> Being able to crucial vital etc. read someone's body lang 2) affect vs effect -gestures what's the difference? body pasture larg impact (n) eya have an impact on sth(v) > include hands talk about then as well influence (v) etc Tryto use different words

Compare & Contrast Essay

ABULAL	ISTANBUL AYDIN UNIVERSITY	
	PREPARATORY SCHOOL	
MUERSITES .	2017-2018 ACADEMIC YEAR	
NAME:	CLASS: 318	IN-CLASS:
SURNAME:	DATE: 19th April, 2018	ASSIGNMENT:
compare contras	omplete the Blippar activity, choose two di t essay as you discuss similarities and diffe ons and examples to support your answer.	rences of the chosen planets.
	Place and Eath	
	is a question every one is	
	the other planets? Researcher	
	ill no fefinite result. There	
sola system	such as Mercury, Venus,	Earth, Mars, Jupiter, Setura nott
Oranos and Di	spture. Are you happy with l	ife on Earth? Would ask man
you like to	live on A another planet and	which planet would it question
be i wont	to live on Mars (because	Mas of Earth are sonteneerth
SIMILO IN	some ways Although they	and Earth are remarkable. You a
(inc. c (inc.))	- twownat?	and convide remote you comit
	us) are (also) very different, lone	difference is Mars is
colder then	Eath. Mas is similar to the	Antorctic because in
	rature rery low. Temperature	
	to -87 centigrade degree	
Mers is	smaller than Earth. For	example, Mas completes
a cycle in	657 daysilon the other has 65 days. Mas is nearly h ifference front Earth is the	nd Earth completes a
cycle in 3	bb days. Mars is nearly h	alf the size the Earth.
Epine Another d	iftenence front Earth is the	third planet and Mars is
the fourth		
Both	Eath and Mas have non	y things in common.
\bigcirc	11 is hall almosts have	water. In this way,
reseachers	say people con live on Mr. h planets. Another case	sthat of them is in
rock V bal	h planets. Another face	in the some direction
the solo	system and they rotate	in the same official
one so H	rere one similar seasons in	ENTR.

la summary, in the light of points Incationed above, it con be clearly seen that. Even though there are differences on Mors and Earth-Mors is the most similar the Earth and so people may live on the Mors in the Robure. If one day something like that happens, I want to live on Mors. and (wonder if there's life there. Thomas .

APPENDIX 7: Photos of the students during the Instructional Process





RESUME

Name Surname: Gayane Pozharina Place and Date of Birth: Russian Federation– 26.03.1988 E-mail: gayanepozharina@gmail.com

EDUCATION

Bachelor: 2010, Istanbul University, Faculty of Foreign Language Education, English Language Teaching



Certificate Programme: 2013, Istanbul State Conservatory, The Choral/ Vocal Arts Department

Master: 2019, Istanbul Aydın University, Social Sciences Institute, English Language and Literature.

EXPERIENCE

2012- ISTANBUL AYDIN UNIVERSITY ENGLISH PREPARATORY SCHOOL – English Language Instructor

2011-2012 BAHCEŞEHİR PRIVATE SCHOOLS- English Teacher

2010-2011 DIALOGUE LANGUAGE SCHOOLS- English Teacher