Gamified Grammar in Arabic Classroom, Students' and Teachers' Perspectives from Two Learning Settings In Sharjah and Dubai

دراسة أستخدام الألعاب فى صفوف قواعد اللغة العربية من وجهة نظر المعلمين والطلاب فى موقعين تعليمين فى دبي والشارقة

by

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Abstract

The United Arab Emirates is considered to be one of the leading Arabic countries that has been developing in many areas and one of them is education. The UAE 2020 Vision and National Agenda both shed light on the importance of developing first-rate education system. That requires a change in the current system and present teaching methods. A main goal of the UAE government is to make students reach a high level of proficiency in Arabic and English that is to be equipped with language skills that are required to function in the global market place. Therefore, the aim of this study is to investigate the perspectives of teachers and students about integrating games in teaching Arabic grammar language and the challenges face adopting this method.

This study conducts a critical literature review on theories related to the use of games and playing in grammar teaching. In addition, this study investigates, using survey methods, the perspectives of teachers and students in private learning settings in two emirates: Dubai and Sharjah. The study will identify the current practices used by the teachers and will investigate the factors that prevent them from using games in their teaching. A case study is conducted in both settings. Relevant interviews are conducted. The study concluded that teachers might refuse using the approach for different reasons, but they have positive opinions regarding the effectiveness of gamification in teaching Arabic grammar. On the contrary, students have strong inclination towards gamification and they see that methodology helps in increasing their motivation and goals achieved

Keywords: Arabic, teaching language, grammar, games, and learning through playing

نبذة مختصرة

تعتبر دولة الإمارات العربية المتحدة واحدة من الدول العربية الرائدة التي تطورت في العديد من المجالات وأحدها هو التعليم. سلطت رؤية دولة الإمارات العربية المتحدة 2020 والأجندة الوطنية الضوء على أهمية تطوير نظام تعليمي من الدرجة الأولى. وهذا يتطلب تغييرا في النظام الحالي وطرق التدريس الحالية. يتمثل الهدف الرئيسي لحكومة الإمارات العربية المتحدة في جعل الطلاب يصلون إلى مستوى عالٍ من الكفاءة في اللغتين العربية والإنجليزية ليكونوا مجهزين بمهارات لغوية مطلوبة للعمل في السوق العالمية. لذلك ، تهدف هذه الدراسة إلى استكشاف وجهات نظر المعلمين والطلاب حول دمج الألعاب في تدريس قواعد اللغة العربية والتحديات التي تواجه تبني هذه الطريقة.

تجري هذه الدراسة مراجعة أدبية نقدية حول النظريات المتعلقة باستخدام الألعاب واللعب في تدريس القواعد. بالإضافة إلى ذلك ، تبحث هذه الدراسة ، باستخدام طرق المسح ، وجهات نظر المعلمين والطلاب في أماكن تعلم خاصة في إمارتي: دبي والشارقة. حيث ستحدد هذه الدراسة الممارسات الحالية التي يستخدمها المعلمون وستبحث في العوامل التي تمنعهم من استخدام الألعاب في التدريس. قامت الباحثة بإجراء دراسة حالة في كلا الوضعين. وقامت بإجراء المقابلات ذات الصلة. وخلصت الدراسة إلى أن المعلمين قد يرفضون استخدام النهج لأسباب مختلفة ، ولكن لديهم آراء إيجابية فيما يتعلق بفعالية استخدام الألعاب في تدريس قواعد اللغة العربية. على العكس من ذلك ، وجد ان لدى الطلاب ميل قوي نحو استخدام الألعاب ويرون أن هذه المنهجية تساعد في زيادة دوافعهم وتحقيق الأهداف التعليمية.

الكلمات المفتاحية: اللغة العربية ، لغة التدريس ، القواعد ، الألعاب ، والتعلم من خلال اللعب

Dedication

This research is dedicated to my soul mate Imad for inspiring me and giving me endless support and love.

To my five children, Suad, Leen, Mohammad, Yahya and Ibrahim. I hope my achievement inspires you in your life. You guys fill my life with happiness and joy, your support and love gave me the energy and kept me going through the hard times.

Along with

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Chapter 1: Introduction

The purpose of this chapter is to lay down the research aims, objectives and questions. It also states the problem statement along with the rationale behind selecting this topic. In addition, significance of this research is also illustrated at the end of the chapter.

1.1. Overview

Education is crucial and one of the most influential factors behind the growth and development of countries. The education sector is considered critical as it is charged with the responsibility of training young minds and ensuring that they grow up into confident and learned individuals. The research identifies the example of United Arab Emirates (UAE), which has strived to initiate various changes in its classroom practices in an attempt to make them more appealing to the students. There have been various strategies taken by the education ministry for raising the quality of education for all learners with their diverse needs and requirements (Dicheva*et al.,* 2015). Teachers use various games in order to make the learning process more effective. The importance of using games in learning and teaching Arabic language is highlighted by Zeroual, Anoual and Lakhouaja (2017) as an effective approach for increasing motivation, learning quantity and learning quality .The significance and effectiveness of these games in Arabic grammar classrooms are assessed in this study along with shedding light on the impact they have on the classroom environment and cohesion, all this is from the perspective of the key stake holders; students and teachers.

1.2. Statement of the problem

It has been clear for UAE authorities to take effectual measures so that the education sector could be given a positive boost. According to the national agenda (UAE VISION 2020), all middle school graduates must have a certain understanding and efficiency in their Arabic language capabilities as these help them in their later career success. This is deemed significant as it helps in boosting the research skills and capabilities of the students and prepares them for the future effectively (Kim 2015). In order to attain this end, the authorities have initiated varied changes and modifications in the teaching, curriculum and learning environment in organisations.

There is a lack of competence as well as low proficiency in skills such as writing, reading, speaking and listening among students (Government.ae 2019). As has been found in Ball and Kashoob (2016), most teachers in UAE agree to the fact that the Arab students struggle with their writing and reading more than they do with their speaking and listening. The role of effective teaching practices are significant in improving the overall quality and efficiency of school performance as they help make each lesson more attractive and interesting for the students. This research therefore identifies the extent to which games are played in the classroom while teaching grammar along with discussing its significance and the ways in which it enhances the learner's performance. It takes Arabic grammar into consideration and assesses the extent to which classroom gamification is used by teachers in Sharjah's and Dubai's private learning settings.

1.3 Rationale

The rationale behind choosing this issue is to identify the gaps that exist within the education sector in UAE because of which there is a lack of competence as well as low proficiency in skills such as writing, reading, speaking and listening among students (Government.ae 2019). Classroom lessons are widely regarded as boring due to the traditional teaching practices implemented by the teachers (Kim 2015). This research highlights this gap and discusses the extent to which gamification may help learners learn effectively and boost their classroom performance.

1.4 Background of the Research

The significance of the education sector is huge as it directly influences the future progression and development of a nation. It is because of this reason that effective measures are always taken in order to make the system effectual and error-free (Taylor 2015). The research builds on the significance of an effective education system that boosts individual performances of the students and develops their Arabic grammar skills. In today's world, the learners often regard the traditional modes of classroom teaching as boring and drab. They want teaching practices that instigate their curiosity and involve them on a personal level so that they are able to follow the classroom experiences in the best possible manner (Wiggins 2016). It will discuss the importance

and significance of gamification in building the Arabic language syntax and expanding the knowledge of learners in the classrooms in order to arrive at concrete solutions.

1.5 Research Aim

The aim of this research is to explore the extend of using games in Arabic grammar classrooms on in Dubai and Sharjah private sector, and identify the challenges encountered while implementing this practice.

1.6 Research Objectives

- To examine the perspective of Arabic language teachers and students in implementing gaming practices in Arabic grammar classrooms
- To explore the advantages of gamification among students and the overall classroom structure
- To identify challenges while implementing classroom gamification

1.7 Research Questions

- What are the perspectives of the Arabic teachers towards using educational games in the learning process?
- What are the students' perspectives towards the use of educational games in the learning process?
- What are the challenges encountered by teachers and students while implementing Games in the learning settings?

1.8 Significance of the Research

Ball and Kashoob (2016) have stated in their research that a large proportion of students in UAE face a significant amount of difficulty in their basic grammar and cannot read or write perfectly. Based on this, it might be stated that this research is significant as it aims to highlight existing educational practices in UAE and demonstrate ways in which it may be made more efficient. It will investigate and highlight the effect of gamification in the Arabic grammar classrooms along with identifying the varying challenges that are encountered in the process. It discusses the importance of teacher involvement in ensuring that the practice is implemented successfully in

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the classrooms. It discusses the impact of games within the classroom premises during grammar lessons highlighting the receptivity and responsiveness of the students. Through its diverse investigation, it identifies current practices and the factors that prevent teachers from using these games while teaching their students in the classrooms. Being influenced from Dicheva*et al.* (2015), it is expected that the research would be significant in highlighting current practices while shedding light on practices that may make the education sector more effective in the future.

1.9 Structure of the Dissertation

The first chapter introduces the research issue and states the research aims, objectives and questions. The second chapter aims at assessing various journals and articles in order to gain a concrete perspective of the issue. The third chapter includes identifying of the research methodology while highlighting the varying ways in which data is collected for deriving at appropriate conclusions. Chapter 4 includes collecting the required data and analysing them. Chapter 5 includes discussing the analysed data in order to arrive at logical conclusions, it also includes the overall conclusions and recommendations that are stated at the end of the study.
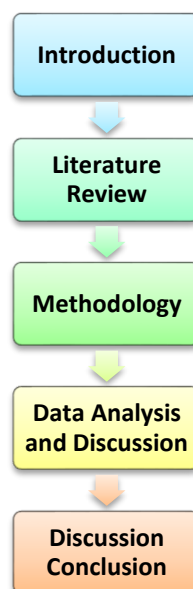

Figure 1: Structure of the dissertation

(Source: Created by the learner)

Study Key Terms

Gamification: is the use of game design elements in non-game contexts to make it more fun and engaging (Zichmann &Cunningham 2011)

Chapter 2: Literature Review

Introduction:

The aim of this chapter is to bring together various journals and articles in order to understand and gain a better perspective of the research issue. It takes up various issues that are intrinsically related to the research topic and try to analyse them.

2.1 Theoretical Framework

Designing and building instructional games in general, and language learning games in particular, need to have a base of learning theories. Three learning theories are adopted in the study to investigate how games are supporting and promoting language learning, and grammar as a focus of the paper; Cognitivism, Constructivism, and Behaviourism.

2.1.1 The Cognitive Learning theory:

The cognitive learning theory states that the process of language learning is not merely a habit formation but an effective cognitive process. It focuses on the active role that the mind plays and proposes the universal model of grammar (Chomsky 1965). This model assumes the fact that all individuals are born with an effective innate device that helps them in their learning process. It stresses on teaching practices and the kind of surroundings that a child has on his ability to discover the manner in which knowledge of the language must be acquired (Meichenbaum 2017). Language production is widely thought to be the active effort of the mind which focuses on three distinct stages. The stages may be identified as the construction stage, transformation stage and the execution stage. The execution stage is deemed crucial as it concerns with the idea of speech and writing accuracy. In the second stage, production revisions may take place as the result of varied assessments and evaluations. These stages help in supporting the overall production process that is inclusive of the process of editing, revising and drafting before presenting the final product. When a student goes through the above mentioned stages, he must take up varying forms of feedback and assessment which has the power of enhancing his learning quality. Therefore, it might be stated that the cognitive language learning theory helps students in becoming more proficient and ensures that students are helped in comprehending and retaining their language skills (Nabi & Prestin 2017).

There are varied aspects of this theory that view language acquisition as a reasoned and conscious process that involves the use of varied learning strategies. These strategies are deemed important as they help in processing information while enhancing the ability to comprehend, learn and retain information among the learners. This theory emphasises on using various learning strategies that are useful for language learners who are regarded as information-processors (Anderson 2016). Within the premises of the classroom, the teachers may implement activities such as grammar games to enhance language acquisition.

2.2.2 The Social Constructivism Theory:

The social constructivism theory is built upon the effective interaction that takes place among students and between students and teachers. This theory is based on formative assessment and feedback. It considers learning as a social interaction whereby students cooperate with each other and with their teachers to build knowledge and develop its social meaning. This approach is deemed significant as it helps students to learn through various meaningful interactions (Amineh & Asl 2015). This theory holds that the learners have the utmost responsibility of their learning. It states that the prior knowledge of the learners must be considered as the base for new lessons in the class. The students come to the classroom with varied kinds of knowledge and an operative learning experience must be constructed by the method of social interaction.

This theory may be implemented in the grammar classes whereby the students are working together through games in order to socially construct learning. It helps the learners to construct something that is based on their own ideas and understanding (McKinley 2015). This theory focuses on the role of the students more than that of the teachers. It is an effective language theory which has a great contribution in the field of education and learning. In general sense, it focuses on the manner in which students may construct the inherent meaning of a particular grammar rule according to their own perception.

2.1.3 Behaviourism

Classroom learning has a great association with behaviourism theory principles. Looking closer at gamified learning, we can see the incentives, rewards and punishment in the form of losing points, are all used as main principles in grammar learning games. The theory assumes that learning is a behaviour that responses to stimulus (Skinner 1963). Zahou and Brown (2018)

explain the mechanism of learning according to behaviourism as an observable and measurable change in behaviour as a response to stimuli. Foresberg (2018) clarifies the operant conditional theory use in language classroom in the form of rewarding for the desired responses and punishing for the undesired one, as well as receiving constructive feedback.

2.2. Conceptual Framework

2.2.1. Arabic Language Grammar

Arabic language, as per the UNESCO, is spoken by around 422 million people who are considered native speakers, and it is the fourth in rank language used on the Internet (Zeroual & Lakhouaja 2017). Arabic grammar has a somehow complicated paradigms resulted from the ancient origion of the language. The grammatical features of Arabic add a difficulty in structuring a sentence as the subject and verb can exchange positions in sentences, and thus format, without changing the meaning (Al Allaq 2015). Due to the relation of the language with Quran and Islamic rituals, grammar knowledge is considered a vital part to be taught to students in a suitable way that matches their learning style and abilities (Farihah et al. 2019). In their study, in the Malasian Dini context, Fairhah et al. (2019) studied gamification as a fun technique to teach Arabic grammar in the classroom, among other fun techniques. They resulted that games and fun techniques facilitates teaching Arabic grammar to students.

2.2.1 Gamification in Grammar Classroom

Gamification as a concept originates from the IT filed, and means to use online games in learning educational items ((Padmavathi 2013). Classroom games such as the Climbing Grammar Mountain are known for receptivity and adaptability. In grammar games, the target points may be held for the advanced levels as well as the beginner levels. The grammar teachers ensure that the students are given structures that they recognise as correct or wrong. Games help in reviewing the grammar skills and ensure that learners learn in a more effective manner (Americanenglish.state.gov 2019). Students feel satisfied with games as it gives them the opportunity of working cooperatively while developing basic grammar skills (Becker & Nicholson 2016). It has been widely accepted that games are not merely time-consuming activities but rather have a huge amount of educational value. These grammar games often make the students develop the habit of using language appropriately rather than thinking about

knowing the right forms. However, the teachers must ensure remembering their pedagogical value and keeping that in mind while developing games for the classrooms.

In general, instructional grammar games have varied advantages. Games have the power of lowering down anxiety in students thereby making language syntax acquisition more rapidly. Games are also entertaining and motivating for students. They ensure that even introvert students get opportunities where they can express their learning. These games used in the classroom help the learners in acquiring newer experiences in grammar that may not always be possible through the traditional modes of classroom teaching. The games used in the classroom help in adding diversity in the regular activities and make the learning process more interesting for the students (Furdu *et al.* 2017). Grammar games are some of the most effective ways to encourage students to practice the language and offer an effective model for all the students whereby they learn the art of using the language in their real lives. Overall, the grammar games are useful as they encourage, teach, inspire, entertain and promote greater grammar fluency and proficiency as stated by Ajibade and Ndububa (2008).

Gamification allows the classroom to be fun and enthusiastic. It eliminates the boring elements of the learning procedures (Mahmoud 2018). According to Al-Bulushi and Al-Issa (2017), engaging games have enhanced the learning process of the students, and that using communicative games for imparting vocabulary and grammar have been better than the older method of learning grammar. Thus it can be stated that the method of gamification have been useful in successfully delivering knowledge to the students and keeping the students motivated.

According to Stott and Neustaedter (2013), it has been found that students who are habituated with the use of the games and other methods of learning process are encouraged to learn and have the freedom to fail. Thereby, it is used to boost confidence among students. When students take the risks, they build confidence after achieving success. It also indicates that the students are not afraid of failure in this gaming design of study. Therefore, it can be stated that gaming procedures are used by the schools to encourage on the learning procedure rather on end results. However it has been viewed that it improved the performance of the students as they are motivated to take tests in form of challenges and are rewarded with points (Mahmoud 2018). The gamification method also enables the students to use continuous self-assessment of their exams and assignments.

Progress of the students can be visualised in this gamification model of learning. It is because this method uses scaffold learning process, guides the students in their learning (Stott & Neustaedter 2013). It is a form of modern pedagogy process. The gamification process can be used to categorise and organise the information into different categories making it easy for the students to learn. It eliminates the problem of not being able to start to the problem, which is prevalent among students. This allows the students to restart if he gets stuck at any point (Foresberg 2018). This encourages the student to think over and restart the problem instead of fearing from trying. Thus it enables the students to progress in their subject matter. Progress in gamification process can be viewed as the level of interest of the students. If the interest curve of the students is high in the subject then it is considered as progress.. However different authors have different viewpoints. According to Hanus, and Fox (2015), gamification process have a negative impact on the performance of the students, especially in terms of their scores and their results. Even though it might motivate the students to learn and develop themselves, the seriousness of the subjects get lost in the over encompassing games and quests. Thus this gets reflected on the final results of the students. The satisfaction and the encouragement of the students are present in gamification. However, with time the students lose motivation and empowerment over years as compared to the non-gamified classes. Therefore, it is suggested that gamification process should be implemented in the educational settings.

As per Zeroual*et al.* (2017), gamification is used especially by the language teaching courses of Arabic classes to encourage the students to perform better. It makes them understand the language in an easy manner. The techniques used by this type of method are interface design that is attractive and colourful to the viewers as board games are facilitated. An immediate feedback method used in this gamification system help in developing and rectifying of the students, mistakes. Thus it provides the opportunity to the students to understand and perform better. The major advantages on the students are better learning experience and instant feedback.

2.2.2 Factors Affecting Implementing Games in Grammar Classroom:

Teachers have to consider various factors while developing games for the students in their grammar classes. It is crucial for the teachers to be careful and precise while choosing the games as this directly influences the extent to which they would be received and liked by students. In order to ensure that games are effective, teachers must ensure that games correspond to the age

and level of students (Foresberg 2018). One game cannot be held suitable for all students belonging to different age groups. It is natural for different age groups to need different materials, modes and topics of games. Example can be taken of children who benefit the most when they are given the opportunity to play games that requires to move around while competing in different groups. In addition, there are various structural games which aim at reinforcing and practising varied grammatical aspects of languages among students (Hanus & Fox 2015). These must relate to the ability of the students and their previous knowledge. It is natural for students to regard games as difficult when the topics are unsuitable and outside their scope and experience.

As per Hussein (2018), there are various factors that have resulted in the implementation of gaming for learning languages. Communicative language teaching is an aspect of learning language which needs help in form of visual use. Conquests and other communicative games has been started by the educators to make the learning simple and easy (Bakhsh 2016). Books and traditional methods are not fruitful for learning a language especially for communicating purposes. It requires practical learning which is provided by gamification.

The length and time required for completing a game is another major factor that influences the choice and scope of games used in classrooms. Several games have specific time limits and these must be followed by the students. In addition, the teacher has the opportunity of allocating time according to factors like levels of the students, knowledge of the game rules among them and the total number of students in each group. The games may often be used as a kind of warm-up activities in the classrooms. They might also be played in situations where the teacher has a short span of time left at the completion of the grammar lesson (Zarzycka-Piskorz 2016). Games must not be assessed as marginal activities that helps the classroom to get engaged when they do not have anything better to do. These games must be held as an important factor that remains at the core of effective grammar teaching in classrooms. The games must be used frequently and the teachers must ensure that they are chosen carefully. The grammar games are held as immensely useful for the revision classes whereby the students are given an opportunity to recall their grammar lessons in a more entertaining and interesting manner.

2.2.3 Gamification and Language Teachers

There are varied perceptions and ideas of teachers while they develop games for their students in the grammar classrooms. Grammar has often been regarded as boring and difficult. Therefore, a huge number of teachers initiate and implement these games that help learners in boosting their grammar skills and become more proficient. The teachers perceive them to be useful in acquiring attention and ensuring that they become proficient in grammar.

As per Stott, and Neustaedter (2013), this concept of gamification has been useful to encourage the teachers to maintain a positive relationship with the failures of the students by propagating proper feedback cycles to the students. Gamification encourages instant feedback for the students and enables them to learn and rectify themselves. Thus it even makes the works of the teachers faster and easier as the problem is addressed to quickly and solutions are provided accordingly.

If the students understand the course of learning and develops the interest, then it also encourages the teachers to teach and communicate. It also enables the teachers to modify and improve their methods of providing solutions to the students. A teacher can modify the questions and adoptions based on the riddles which are previously solved by the students (Stott & Neustaedter 2013). If the results indicate that the students have misunderstood the concept then it enables the teachers to adopt different approaches of imparting knowledge. The grammar point of focus for the next lesson can be easily seen by the teachers according to the responses made by the students.

The teachers who adopt this process of gamification utilises this method to encourage and support the students in their learning experiences. Therefore it can be analysed that the teachers find it useful while teaching grammar and other languages to the students. Gamification is used as a guiding tool for the educators to impart knowledge to the students (Stott & Neustaedter 2013).

As per Hashim*et al.* (2019), some teachers are not fully aware of the systems used in the language games. Therefore if any problem arises they cannot be catered by the teachers. The education system is ever changing and it is challenging for the teachers to learn the new digital methods of learning processes. So the educators need to be fully upgraded and have sound knowledge about the digital and gamification methods of imparting knowledge to the students.

2.2.4 Challenges faced while implementing Gamification

As per Heil *et al.* (2016), there are certain shortfalls in the use of gaming technology and apps in learning another language. These are not integrated in the educational systems. Sometimes these games and other technology used in gamification for the learning processes do not include the presence of the instructor. So if there is a query or problem in performing the task which is done in the form of a game does not get clarified by the system only 58% of the students who are learning grammar and language using this gamification process have been benefitted by this model (Hashim*et al.* 2019). Therefore it indicates that improvement on the gamification of the teaching courses must be conducted. Many schools and institutions have not been able to implement this techno centric approach of learning in their regular curriculum. These gamification models use natural language processing tools and relies on the ability of the computer. This can be challenging for the learning process of the students (Al Allaq 2015). Any problems faced during conducting the conquests which as are actually games will have to be dependent on the system. This cannot be solved immediately and the students lose the track of the exam and the things which they have learnt (Foresberg 2018).

Some teachers are not fully aware of the systems used in the language games. Therefore if any problem arises they cannot be catered by the teachers. The education system is ever changing and it has made difficult for them to adapt to this digital learning method. Institutions are not yet capable to implement the gaming process in the final examinations as lots of students take exams together. Thus it does not hold its fruitfulness in the learning method. The final results of the students get affected and this degrades their score (Hashim*et al.,* 2019). Therefore the motivation which was previously gained from the experiences of games and other methods of learning becomes nullified. The students lose interest and enthusiasm when they receive poor results and cannot perform well.

2.3 Arabic Grammar Teaching in the UAE.

2.3.1 Overview of the education sector and strategies developed in UAE

The UAE education sector is deemed as one of the fastest growing with more than 1.03 million students admitted in private as well as public schools in the academic year 2016-2017. It is expected that the number of learners in the varied schools and universities in UAE would grow

by around 4.1 percent annually till the year 2020. The Ministry of Education in UAE has developed its Education 2020 strategy that encloses a set of five-year plans that is created for bringing qualitative improvements in the overall education system (Government.ae 2019). This is especially true for the grammar teachers who have always complained that their students thought their subject to be boring and drab. This is expected to influence the ways in which the teachers teach grammar in the classroom and also the ways in which the students learn. This strategy focuses on smart learning programmes, evaluation and licensing systems, new codes for the teachers, curriculum revisions. In addition, The Mohammed bin Rashid Smart Learning Programme has been launched in order to create a new learning environment in the government schools in the Northern Emirates and Dubai. The consistent endeavour of the government has been to promote technology in the schools and introduce tablets and computers within the classroom so that the students get a more effective learning environment.

The Ministry of Education has launched 2017-2021 strategic plan for creating and maintaining an innovative education system in order to create a globally competitive and skilful society. Since the year 2008, UAE has been participating in varied global tests for examining and benchmarking its education system performance levels (Export.gov 2019). These tests comprise of Programme for International Student Assessment, Trends in International Mathematics and Science Study and the Progress in International Reading Literacy Study. According to its 2015-2021 plans, UAE's Ministry of Education made several changes in the school curriculum and considered varying facets that is meant to develop the mind and thinking process of children (moe. 2017) . This plan strives to prepare students for their bright future and ensures that they are able to learn a wide range of skills and capabilities.

2.3.2Common Perception about Grammar and Gamification in UAE.

Though learning grammar and having an in-depth knowledge of it is deemed necessary and challenging, most students in UAE perceive it as boring and drab. It has been reported that most teachers rely on traditional teaching methods such as worksheets, direct teaching and grammar exercises to ensure that the students have their grammar knowledge boosted (Becker and Nicholson 2016). Though direct teaching has several advantages, it has been seen that students are more responsive towards alternative learning methods in their grammar classes. As has been understood from Pritchard (2017), games are often thought to help students in such cases. It

helps them in learning, reviewing and internalizing grammar structures. It has been seen that students learn more effectively when they are given the opportunity to take part in varied communication activities. As the commonly held perception about the grammar class is boring, use of games are often encouraged in order to make them engaged and interested in what is being taught in the classroom (Becker & Nicholson 2016).

 The teachers perceive games as a method of incorporating skill, strategy and enjoyment in the classroom. These save the students from the lengthy and boring grammar classes (Ball & Kashoob 2016). Such games meant to instigate students into the grammar classes and ensure that they are able to gain proficiency in the language.

The teachers acknowledge the fact that games are easier to develop and conduct in the classroom and the fact that they are held as enjoyable by the students. It serves both the purpose of being educational and enjoyable for the classroom students (Stott and Neustaedter, 2013). These may be held useful for both younger and middle school students. Therefore, it may be stated that the role of gamification in the classroom is huge as it helps the students in learning in a more effective and interesting classroom environment. This makes grammar classes, widely regarded as boring to be interesting and effective for the young learners.

In the context of UAE, Al Neyadi clarified that using games in classrooms improves the students' learning of languages. She concluded that games are a source of comprehensive input and interaction in the classroom.

Concepts related to Gamification and Grammar classroom
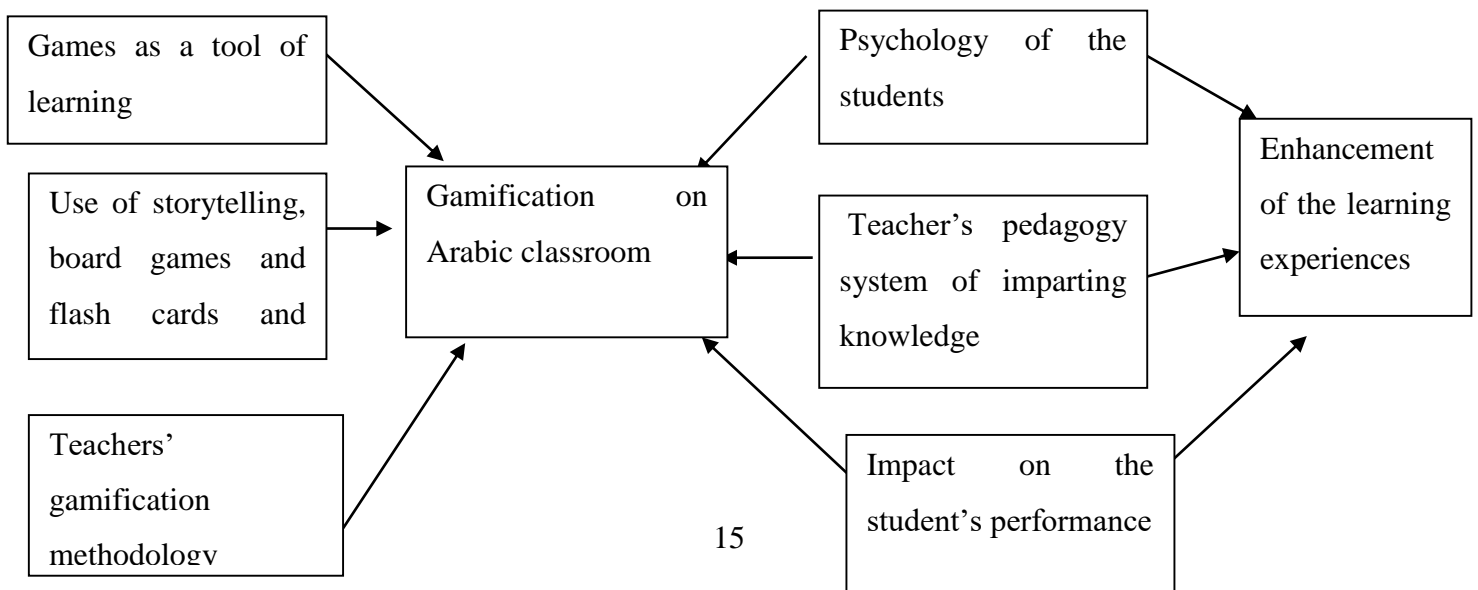
Figure 1: Conceptual Framework

(Source: created by the researcher)

2.3.3. Literature gap

Based on the literature reviewed, very rare studies focused on gamified Arabic grammar teaching. Other topics studied included the effect of globalization on Arabic language in UAE, as a case (Al Allaq 2017). Other focused on the relation between Arabic as a language and the identity of Muslim communities (Morrow & Castleton 2007). Some work is done on teaching Arabic language methodology in general (Younes 2015; Melli 2011). Tylor (2015) studied the impact of gamification on the performance of higher education students in the context of UAE higher colleges of Technology, but did not focus on Arabic grammar as specific. Zerual et al. (2019) studied gamified Arabic lessons and concluded that these games focus mainly on the phonological awareness, but do not extend to grammar or language acquisition. It is clear to the researcher that studying the perspectives of both teachers and learners of using gamified Arabic Grammar lessons, in the context of UAE, is of an importance. That is with a weight in a time period where digitalization, natural processing of languages, and Arabic language, all have a significant importance in the UAE educational system.

Chapter 3: Research Methodology

3.0 Introduction

This chapter is considered as one of the indispensable parts of research work that reviews an essential use of research method in the terms of qualitative and quantitative for providing accuracy of the collected data. This chapter intention has been designed to portray different methods and analytical techniques that are followed widely while implementing the research work. A constructive report of research can be identified by the application of appropriate research methodology (Creswell 2009). Various techniques for assorting data from different sources have been successfully applied. These methods are identified to be an effective research procedure that can help in accomplishing the research work fluently (Creswell 2009; Yin 2013). The research Philosophy has been identified. Research limitation has been identified; with ethical considerations. That is to define the importance of securing collected data and maintain the integrity and confidence of the current paper.

3.1 Purpose

The key purpose of this chapter is to apply different data collection techniques and define its effectiveness in evaluating or interpreting useful information in elaborating the research topic, based on the literature review. Research philosophy, research design and research approach according to the types of research study have been outlined in the chapter with a motive of acquiring accurate and true information that could further assist in continuing the research successfully.

3.2 Research Philosophy

Research philosophy focuses on the nature, spring and expansion of knowledge (Bajpai 2011), which means the way a phenomena is looked at and studied. The role of research philosophy in the research work is to signify proper understanding of the research and its applicable procedure. The key aims of philosophy in the research methodology are is to access guidance for implementing the research procedures successfully, aiming at achieving research goal in an effective manner. By the help of applying research philosophy, accurate research subject and risk issue can be identified in a successful manner. The statement of AL-Ataabiet al. (2019) has

outlined that the direction of carrying out the research work can be identified by the application of research philosophy. There are three different types of research philosophies:

Interpretivism: According to the interpretivism philosophy, the involvement of human as a researcher is approved in order to interpret entire elements of the study. Thus it can be said that the interpretivism helps in studying and proceeding with the research work by human interest. It focuses on qualitative methods for data collection (Creswell 2009; Livesey 2006).

Realism According to the statement of Quinlan *et al.* (2019), realism is based on the scientific philosophy assumptions in order to develop knowledge regarding several research aspects. It can be stated that realism philosophy provides a perspective of portraying the entire research work in human sense personally. The realism Philosophy applies the human perspective hence it applies the qualitative data collection and interpretation technique.

Pragmatism:

As a research philosophy, pragmatism is adopted when research questions require both qualitative and quantitative data to be collected seeking the answers. Pragmatism philosophy recognizes the different methods to interpret the phenomena under study (Saunders, Lewis, & Thornhill 2012) and that there is no one single true point of view. It accepts both previous philosophies in the same research for a more pragmatic answer, and employs multiple research methods (Creswell 2009).

Justification

The current study has applied the pragmatism as a research philosophy as the nature of the research questions requires both qualitative and quantitative methods (Busicoet al. 2016). The realism philosophy is thus implied in interpreting the quantitative data and the interpretivism is for the qualitative data needed through interviews and observations. Based on Creswell (2009) The pragmatism philosophy enables the researcher to have a flexible view to determine what works. This essentiates both qualitative and quantitative data. Qualitative data is significant for seizing the framework of the phenomenon and the humanitarian and societal facet of education, while Quantitative data is important to determine precise results (Greenne, 2007)

3.2 Research approach

The procedure of implementing research methodology is identified by the help of applying appropriate research approach ((Busicoet al. 2016, Cohen, Manion and Morrison 2007). By the help of effective and suitable research approach the collected data helps in addressing the hypothesis of the research work. The research approaches are beneficial in the research study as it can allow identifying entire research work and expand the method of data collection and analysis in a directive way. Two different types of research approaches are generally considered in education research:

Inductive Approach: By the help of the inductive approach, consistent analysis as per collected data can be analysed by applying facts and figures. The inductive approach helps in developing a hypothesis on the basis of the related research topic with accessible strategies and applicable theories that can be used in designing entire research work (Trochim 2006).

Deductive approach: By the help of deductive approach entire research can be established effectively by accessing appropriate explanation in two possible stages that are proposition and presumption. It helps the researcher in assuming the result (Hardwick, 2016).

Justification for the selected approach

This research work and methodology, followed the inductive approach as a main one as defined by Creswell and Clark (2007). They stated that it is a bottom-up approach which answers the research questions based on the collected data from participants using interviews. The research questions, thus, determined using the appropriate approach to answer (Trochim 2006). The mixed approach has been applied. By the help of mixed techniques in the research approach, the qualitative and quantitative collected data can be understood as one unit (Tetnowski, 2015). As the analysis of data and collection method of qualitative and quantitative, both have been adopted in the research project, its evaluation can be easily implemented by the help of mixed approach.

3.3 Research design

An effective research design helps the researcher in designing and evaluating different information by collecting the appropriate ones (Dannels, 2018). There are three kinds of research design that followed by most researchers.

Exploratory design: It enables the researcher to frame the search process with a sensible outcome at the end of the research. The researchers are able to evaluate the different sources effectively and arrange data in an understandable manner on the basis of facts and data (Hughes and Sharrock, 2016).

Explanatory design: According to Noddings,(2018), It is a research design that is generally applied by the researcher in a project with the intention of focusing on the explanation of collected data and determining its aspect regarding the study in a detailed process.

Descriptive design: The Descriptive design of research utilises both explanatory and exploratory designs for framing procedures that can be used further in finding a solution according to the mentioned research question (Padilla-Díaz, 2015). It employs a scientific technique that is involved in the process of observation and description for defining a research problem and answering the education research enquiries.

Justification

In this research project, the descriptive research design has been implemented, that can allow in initiating and carrying out the research work in an effective manner with efficacy. The descriptive design of research includes the process and technique related to the case study (Mahdi 2015). The reviews of the participants are recognised on the basis of their natural perspectives. The characteristic and subject phenomenon can be defined by the help of this research design on the basis of case study (Yin 2011).

The researcher followed the case study pattern in doing the research, as the study investigates the perspectives of both teachers and students regarding gamified Arabic grammar lessons, as a case, and challenges in the Arabic grammar classrooms in two sites, one in Sharjah and the other is in Dubai. Case study research allows the researcher to investigate the topic deeply and provides

rich data (Creswell 2009; Yin 2011). Case study is well-thought-out to be one of the proper approaches of research that intensely studies a topic in a physical setting. Merriam and Tidsell (2015) define this design as "an in-depth description and analysis of a bounded system" (p.37). The last two definitions match the research aim of investigation of a case in a real context. Case study design is believed to be a valuable tool for the exploratory phase of research (Eisenhardt 1989)

3.4 Method of collecting data

The techniques of collecting data are of two different types that are qualitative and quantitative. Both data according to the case study approach has been applied in the research in order to collect information from primary sources (Olson 2015). The technique of collecting information from primary sources enables the researcher in catering truth and in-depth knowledge related to the topic. It has been further identified that quantitative data collection technique is based on the basis of appropriate theories related, that is for determining facts and figures to show the authenticity (Creswell 2009).

In this research study, both the qualitative and quantitative methods has been applied in collecting data and information from the various sources sequentially. The research paper followed the protocol of explanatory sequential mixed method approach where quantitative data through questionnaires are collected, then interviews are used for qualitative data (Fraenkel & Wallen 2009). The sources that have been identified for data collection are via relevant interview and questionnaires (Teherani*et al.* 2015). The collected data is utilised in analysing the research topic of gamification by sharing the information participants in both settings.

The primary quantitative data collection method, questionnaire, has been applied in order to acquire real and true data that aids the researcher ineffective outcome of the research. The researcher in this case tries to identify authentic information on the basis of the research topic. The questionnaire has been prepared in a routine manner on the basis of gender, age and others including Likert-scale. Close-Ended questions have been prepared that could make the process easier for the respondents to reply to the asked question with multiple choice. The qualitative process of interview helped in adding the human lens to the collected data, and to answer more research questions (Creswell 2009).

Research Reliability and Validity

The data collection study has followed the pilot study technique in order to verify the questionnaire and design for collecting a small represntative sample. The purpose of conducting a pilot study is to identify any kind of laws in the related question and modify it before the initiation of the research work further (Fraenkel & Wallen 2009). The pilot study has been conducted to check the questionnaire reliability, as 10 different students, and the same number of teachers, from the research population answered it. A reliability coefficient (alpha) of 0.8, was the result, which considered a good one. In most of the cases, respondents got conflict with the issue of understanding one question and replying to it, hence this double-barrelled question has been eliminated (Marshall *et al.* 2017). The researcher checked the internal validity of the tools, and the face validity as another researcher, has a back ground of the research topic, reviewed the tools to check the validity (Creswell 2009).

3.5 Research Sampling size and method

The technique of sampling helps in facilitating the recognition of the sample of related data that are helpful in commencing with the process of data analysis on entire research in an effective way. It helps the researcher in separating the collected data into a different category that can make it easier to analyse the performance in the achievement of research work (Alase 2017). The researcher used the purposive convenience sampling technique due to limited time and resources

The technique of interview and questionnaire is assumed to be more effective in determining and collecting true data that requires examination of the collected data and its verification. The research projected has implemented with the technique of survey for collecting data sample from the sources of the school where the interviews have been held to the students and teachers in the private learning settings of Sharjah and in the Dubai (Meyers *et al.* 2016). Representative sample related to the research topic and according to the intention of the survey has been selected in a random process. The target sample size of the survey related students is taken randomly up to 50 and the sample of the teacher as 15. Further, the analysis of data has been initiated by the help of SPSS. The online primary questionnaire was open to teachers to answer from any school in the UAE. A question asks about the subject helped in focusing on Arabic subject teachers' responses only which reached 30.

3.6 Ethical Consideration

Following the ethical considerations in the research ethics is significantly assumed to be effective for achieving the research objectives, as well as aim, that can help the researcher in completing the work effectively within the time frame. In the process of collecting data in research work, it is important to collect data and understand the importance of maintaining the confidentiality of collected data related to its respondent's identity and the date of collecting information (Lewis, 2015). Before implementing the data collection technique in the process of interview and survey, the researcher was ensured regarding the culture, behaviour and perspective of the respondents. The willingness of respondents in participating in the process of interview and questionnaire process was ensured by the researcher. The researcher got a content form signed by the principles of the learning settings in order to provide them with authentic information in an appropriate manner. The purpose and intention of using the collected data was made clear to the respondents, and the right to withdraw at any time point during the research was confirmed to them (Johnson and

While initiating with the research work several issues are confronted in the data collection process. The research work as specifically have been conducted on the basis of the existing learning settings of Dubai and Sharjah, the sources are not purposefully acquired to be used as a secondary source (Abdulkadiroğlu *et al.* 2017). The ethical consideration in the research work has thus been evaluated to be essential for conserving the priority of the data and maintain the integrity of the sources that can be utilised in a research project in future. The data is thus assumed to be trusted by the sources and kept protected from access by another unknown representative without permission.

3.7 Research Limitation

This section of research limitation is to highlight the problem and issue that has been confronted while implementing the project and collecting data from various sources for the completion of research work. The researcher had observed several limitations while conducting research related to the data collection process at the initial stage in finding private learning setting those are not

involved in the gamification process for teaching purpose (Kratochwill and Levin 2015). The issue while preparing questions related to the perspective of the teacher and students in a close-ended process have been confronted in the research work.

Using one research approach, quantitative or qualitative, can cause some limitations of neglecting the strengths of the other. While following a mixed method approach in conducting research ensures the validity of the current paper. The researcher tried to ensure the validity of the results by using more than one tool; questionnaires for both teachers and students, and interview for teachers as well.

One limitation is the number of cases studies, as one setting in Dubai and one setting in Sharjah. That was for time and resources limitations.

3.8 Summary

This chapter has been defining techniques of collecting data from different. The research has been initiated with an intention of identifying the utilisation of game in Arabic classrooms and involvement of the student in learning Arabic grammar that has ensured the technique of questionnaire and interview for data collection from primary sources.

As per the fourth objective of the research work, case study data analyses have been conducted on the basis of two private learning settings in Sharjah and Dubai. The interview process has been selected to evaluate and find accurate data as a sampling process. The interviews that have been conducted to the teacher is generally of an open-ended question.

Chapter 4: Findings and Analysis

4.1 Introduction

The chapter presents findings and analysis of the data collected by the researcher from the primary survey conducted in the two different learning settings of Dubai and Sharjah to understand whether the concept of gamification is helpful for the institutes to manage and improve the overall education process. This segment is addressing all the demographic data in a graphical format to give a clear idea about how student, as well as teachers, is considering the model of gamification of the learning process, especially the use of the same while learning grammar. The research aim of the paper is to understand and explore the opportunity of gaming in the learning process of Arabic Grammar as well as Student Performance as well as understand the challenges associated with the same. The key questions that will be addressed with the help of detail data analysis include:

- What are the perspectives of the Arabic teachers towards using educational games in the learning process?
- What are the students' perspectives towards the use of educational games in the learning process?
- What are the challenges encountered by teachers and students while implementing these systems?

Structure of the Chapter

The chapter is divided into 4 parts. The first part discusses the overview of the chapter. In the second part, the researcher discussed the overall quantitative analysis including a graphical review of survey and SPSS (descriptive) analysis to represent correlation among different factors. The third part includes the qualitative study which provides a summary of the interview along with the themes designed based on the same.

4.3 Data Analysis

4.3.1 Demographic Analysis: Teacher's Data

4.3.1.1 Question 1: What is your age?

Age	Response	Total Respondent
25-30	8	
31-35	14	
36-40	6	
41-50	2	30

Table 4.1: Age of the Teachers
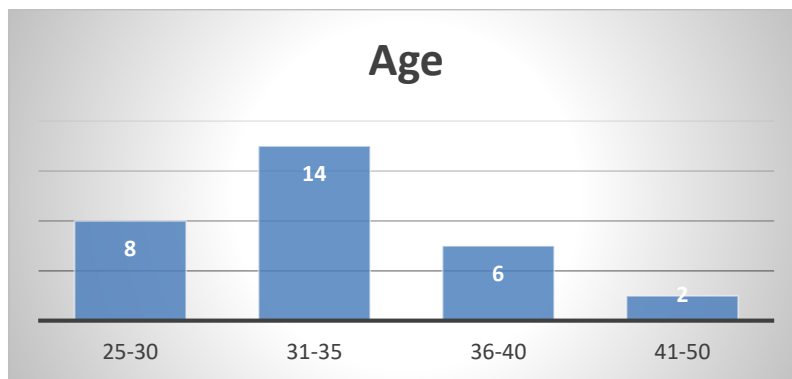
Figure 4.1: Age of the Teachers

The overall analysis reveals the fact that among 30 teachers, the majority are below 35 years of age and the least are above 40

4.3.1.2 Question 2: What is your gender?

Gender	Responses	Total Respondent
Male	12	30
Female	18	

Table 4.2: Gender of the Teacher
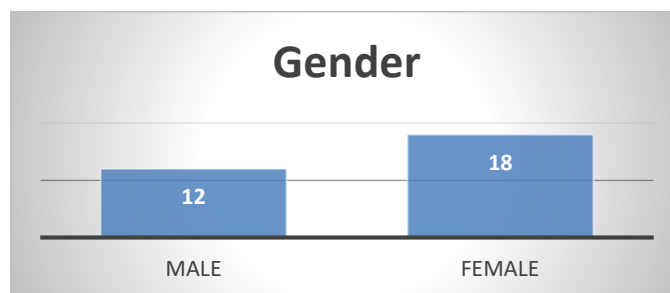
Table 4.2: Gender of the Teacher

Out of 30 participants, 18 teachers are female and the remaining are male. It is clearly showing that the research is devoid of any form of gender bias, which is one of the key factors associated with the research.

4.3.1.3 Question 3: What subject do you teach?

Subject teach	Responses	Total Respondent
Arabic grammar	30	30

Table 4.3: Subject Teach by Teach

Out of 40 real respondents, 30 teachers stated they teach Arabic language, the rest were English teachers and teachers of other branches of the Arabic subject. Thus 10 responses were dropped.

4.3.1.4 Question 4: For which class/classes do you teach?

Associated with class	Responses	Total Respondent
Primary to 1st	8	
2nd to 3rd	14	
4th to 6th	8	30

Table 4.4: Association of Teacher with Class
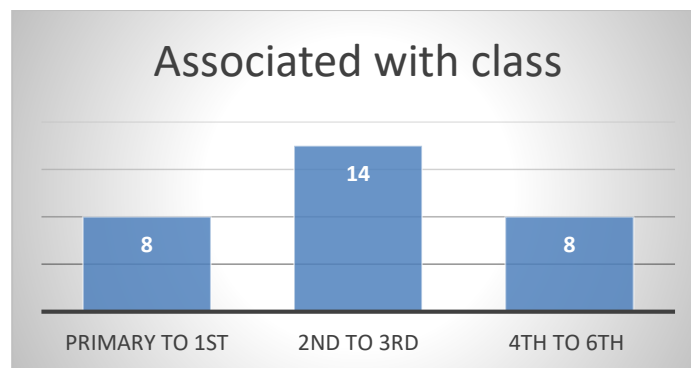
Figure 4.4: Association of the Teacher with the Class

Out of 30 teachers, 8 are associated with grade 1, whereas 14 teachers are associated with grade 2 to grade 3. Remaining 8 are associated with 4th to 6th grade.

4.3.2 Survey:

4.3.2.1 Question 1: Do you feel teaching grammar with the help of a game is easy and beneficial for the teacher in the class?

Teaching grammar through the game is easy to implement in class	Responses	Total Respondent
Yes	8	
no	22	30

Table 4.5: Teaching Grammar with the help of Game is Easy
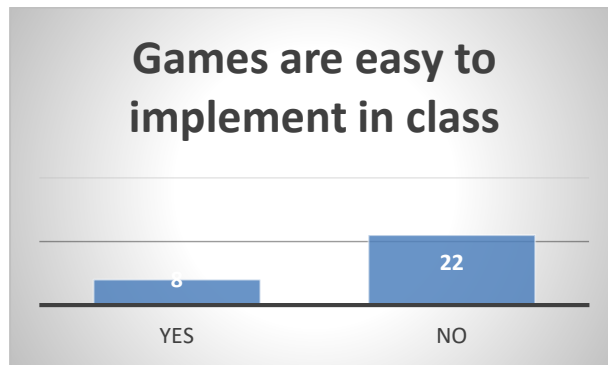
Figure 4.5: Teaching Grammar with the help of Game is Easy

Based on the overall responses gathered from the teachers, it is very clear that a few teachers believe in the fact that educational games are helpful for them to teach the students in the class in an effective manner.

4.3.2.2 Question 2: If you have to select the option for not favouring gaming, the method to teach grammar in the class what will be the One Main reason out of the following?

Reason for not using/preferring games in the educational system	Responses	Total Respondent
It is time-consuming	6	30

it requires lots of efforts	10
Managing students is hard in class	8
lack of infrastructure affects teaching	6

Table 4.6: Reason behind not to support Gaming in the teaching of Grammar
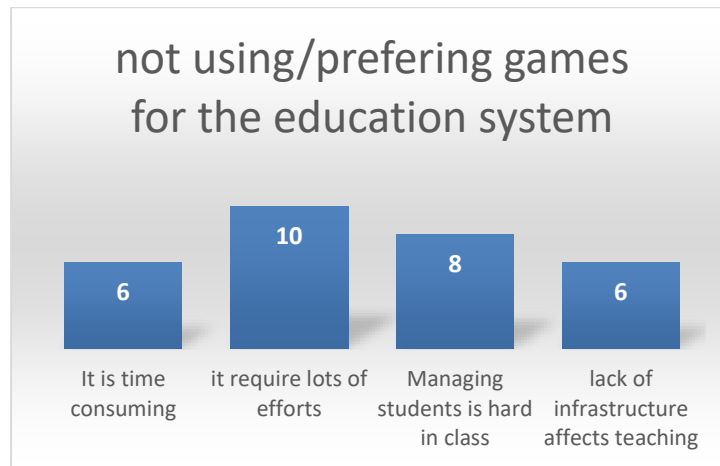
Figure 4.6: Reason behind not to support Gaming in the teaching of Grammar

When asked why they are not using this method, they have been given 4 different options to choose with a chance to select more than one as well. Based on their responses it becomes very evident that teachers believe that using educational games often require lots of efforts from the teacher's end to guide and monitor students in the class compared to that of the general education process. 10 out of 30 participants suggested the same which is followed by student's management which is supported by 8 of them. According to them, often managing student while allowing them to use education games become harder. 6 teachers supported the fact that the process is very time consuming and the same number of teachers believe that there is a lack of infrastructure to implement this model.

4.3.2.3 Question 3: Is there a sufficient number of Games available to teach student grammar in the school

Adequate number of games Available to Teach Grammar	Responses	Total Respondent
no	24	
yes	6	30

Table 4.7: Availability of Adequate Games
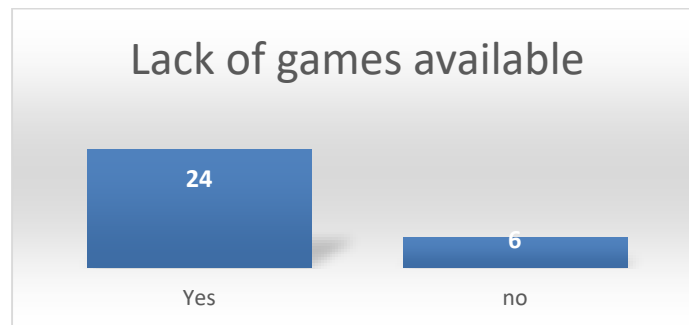
Figure 4.7: Availability of Adequate Games

Most of the teachers, (24 out the 30) believe that there is a very little number of the educational game available for teaching students. Whatever educational games are sometimes lack variation also which is added by some of the teachers in their survey sheet.

4.3.2.4 Question 4: Do you feel the lack of variety associated with games is affecting meeting teaching requirements in the class?

Lack of variety in games to meet teaching requirements	Responses	Total Respondent
Yes	22	
No	8	30

Table 4.8: Lack of Variety in Education Games Affecting Teaching
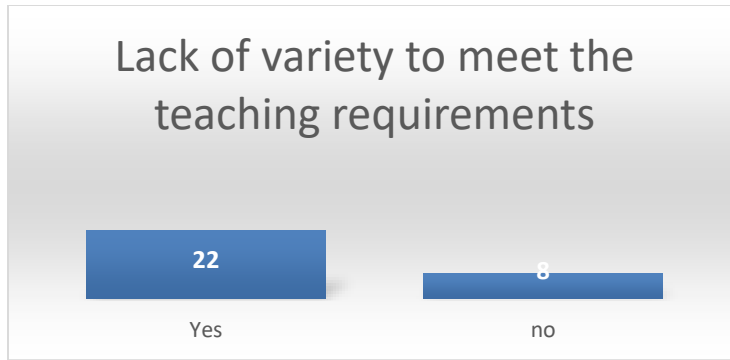
Figure 4.8: Lack of Variety in Education Games Affecting Teaching

When the question about the variety of the educational game has been asked, majority of the teachers, 22 out of 30 supported the fact that there is lack of variety associated with educational games used in the grammar teaching process, which can affect the overall teaching quality to a large scale. Only 8 out of 30 believes that the options available for teaching with the educational games are sufficient enough for teaching Arabic grammar.

4.3.2.5 Question 5: Does available infrastructure in the school is supporting to implement gaming in the education process.

Lack of infrastructure to implement education gaming	Responses	Total Respondent
Yes	16	
No	6	
Chance of improvement	8	30

Table 4.9: Availability of Infrastructure to Implement Gaming for Education

31
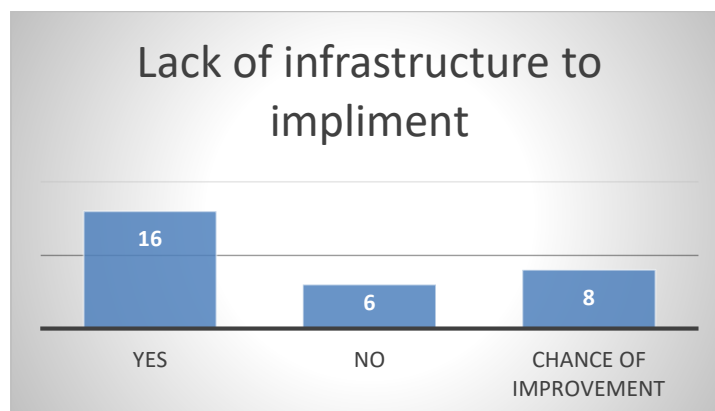
Figure 4.9: Availability of Infrastructure to implement gaming for Education

Every process requires proper infrastructure. According to the data gathered from the market about the infrastructure associated with education through games in the Arabic classroom to teach grammar is yet to reach the desired standard. Only 6 out of 30 believe that the available infrastructure is supportive to help the process to launch an education system in the learning settings based on gamification. 16 believe that the infrastructure is not at all up to the mark whereas remaining 8 believe that there is still scope for improvement.

4.3.2.6 Question 6: Do you feel adequate training is mandatory for teachers to teach grammar with the help of gaming?

Training is required to implement educational games	Responses	Total Respondent
Definitely yes	18	
Yes	6	
no	2	
Not sure	4	30

Table 4.10: Requirement of Training for Teachers
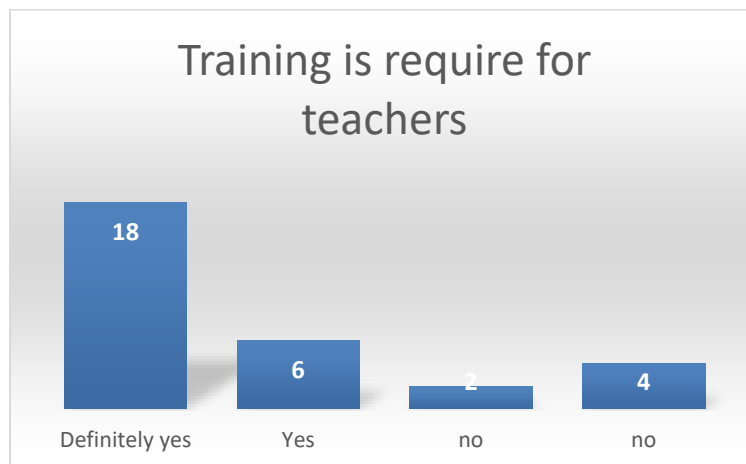
Figure 4.10: Requirement of Training for Teachers

All the new processes require proper training and teachers believe that they require the same to incorporate the system in the process of education. Out of 30 participants, 18 believe that they

32

require training before starting using educational games in their teaching, where 6 are in favour of the same. Only 2 suggested that there is no requirement of training and the remaining 4 are not sure about the same.

4.3.2.7 Question 7: Do you feel additional training for the teacher is necessary for the implementation of the gaming process to improve teaching?

Educational training can improve student's performance	Responses	Total Respondent
Yes	10	
not sure	14	
no	6	30

Table 4.11: Requirement for Additional Training

Table 4.11: Requirement for Additional Training

When asked whether teachers believe in the fact that this model can improve the performance of students or not only 10 out of the 30 participants agreed with the fact. 14 are not sure about the overall outcome of this application especially related to student performance and rest 6 are assure about it that no way supports student's education performance.

4.3.2.8 Question 8: Do you feel successful implementation of the gaming process in teaching is helpful for students to improve their performances?

Implementing education games helps in improvement of the student's performance	Responses	Total Respondent
Agree	6	
Disagree	16	
Not sure	8	30

Table 4.12 Gamified education helps the student to improve performance

Education Games Helpful in Improving Students Performance

■ Responses

| 6 | 16 | 8 |
| Agree | Dis Agree | Not sure |
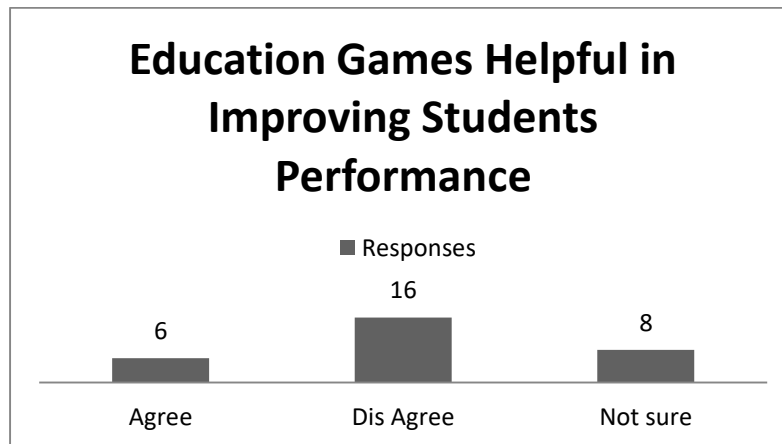
Figure 4.12 Gamified education helps the student to improve performance

The overall review clearly represents the fact that using educational games like card games according to the teachers in those two settings are not helping in the improvement of student's overall performance as most of them (16) are against. 8 are not sure where there is a positive or negative impact associated with gamification. Only 6 teachers are in favour of the use of educational games to support education, as they believe this increases the level of performance of the students.

4.3.3 Correlation Testing

In order to understand whether teachers prefer using games to teach students Arabic Grammar or not, doing an SPSS analysis is necessary. In the SPSS analysis, a detail correlation testing has been done where various factors such as involvement of the teacher in the game, their motivation level while introducing games in teaching, their concepts about using the games, they feel it helps to improve performance of the students and other parameters are considered. The correlation will be helpful to address the first research question that is "*What are the perspectives of the Arabic teachers towards using educational games in the learning process?*"

All 15 teachers (Arabic Subject teachers in both settings) are provided with a questionnaire that consists of 12 close-ended questions which they answered by selecting one of the 4 given options. All the options are measured in a 4-point likert-scale, 11 only completed the questionnaire, so the 4 responses were not considered.

4 stands for Strongly Agree

3 stands for Agree

2 stands for Disagree

1 stand for strongly Disagree

Answers table

	q1	q2	q3	q4	q5	q6	q7	q8	q9	q10	q11	q12
Participant 1	1	1	1	1	1	2	2	1	1	1	1	1
Participant 2	1	1	1	1	2	1	2	2	2	2	1	1
Participant 3	1	2	1	1	2	1	1	1	1	1	1	1
Participant 4	1	1	1	2	1	2	1	2	1	1	2	2
Participant 5	1	2	1	1	2	2	2	2	2	2	2	3
Participant 6	1	1	2	1	2	2	2	1	3	2	2	1
Participant 7	1	1	1	1	2	2	1	1	2	2	1	2
Participant 8	1	2	3	2	2	2	1	3	3	2	1	2
Participant 9	2	2	1	1	1	2	1	4	3	1	1	1
Participant 10	3	1	1	3	3	1	3	2	1	3	3	4
Participant 11	3	3	1	4	4	3	4	1	4	1	4	2

Table 4.13: Answer Table of Teachers for Correlation Question

	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8	Column 9	Column 10	Column 11	Column 12
Column 1	1											
Column 2	0.403016	1										
Column 3	-0.2571	0.081786	1									
Column 4	0.809499	0.450648	0.01369	1								
Column 5	0.681562	0.487833	0	0.762115	1							
Column 6	0.183804	0.504308	0.139876	0.367013	0.185405	1						
Column 7	0.733913	0.309794	-0.22913	0.721453	0.797254	0.276433	1					
Column 8	0.11291	0.161632	0.243454	-0.07215	-0.34168	-0.06143	-0.34906	1				
Column 9	0.297133	0.620303	0.403786	0.313604	0.428174	0.663953	0.310331	0.212798	1			
Column 10	0.147959	-0.39223	0.250217	0.078784	0.331662	-0.42485	0.192305	0.041208	-0.09037	1		
Column 11	0.768906	0.380003	-0.18112	0.859781	0.775605	0.40339	0.853534	-0.25698	0.31053	0.133631	1	
Column 12	0.485512	0.013469	-0.0716	0.523053	0.455573	-0.06143	0.377358	0.066038	-0.17733	0.645595	0.550667	1

Table 4.14: Correlation Value

There are 12 different questions based on which correlation has been done. The focus of the researcher to do this correlation analysis is to understand whether teachers in the learning settings are comfortable with the implementation of Gaming for teaching Grammar in the classroom or not. The scores associated with correlation reveals what the teachers feel in those settings about using the gaming methods in the overall process of teaching Grammar in the setting. The first question that is "*Flashcard, board games are not good supporting tools for Arabic grammar education in schools*" showing a low correlation value of 0.40 which emphasise on the fact that according to the majority of the participants, the gaming has very little role to play in the teaching of Grammar at learning setting level. The correlation figure showing high value for three different questions which are

Question 3: Teacher never finds time to include games in the lesions

Question 6: Teachers never feel motivated by means of participating in games to teach grammar in the class

Question 10: teacher does feel that playing games with students will help them to strengthen their relationship.

The highest value in the correlation analysis of 0.80 reveals that most of the teachers strongly disagree with the fact that educational games are an essential component of their teaching. Most of the teachers prefer not to participate in any form of an educational game with students as the

correlation score is as high as 0.73. In support of the same, they have stated that it never motivate them to be a part of the gaming process in the class. However, one positive aspect coming out of this correlation analysis and that is teachers do agree with the fact that playing games with the student will increase the level of interaction and relationship with the students as the score is as high as 0.76. In addition, teachers are reluctant to modify any educational game which is available to them to teach or improve students' grammatical skills as the correlation score is as high as 0.68.

To summarize the findings and its discussion, the first research question can have an answer driven from the quantitative data analysed. The first research question is '*What are the perspectives of the Arabic teachers towards using educational games in the learning process?*'
Teachers have a strong negative perspective towards using education games in teaching Arabic grammar to students in the classroom. This result comes in consistency with literature of Hashemate et al (2019) as teachers are not fully aware of the components of the gamified learning; thus, there is a negative tendency towards using games in classrooms.
Third research question is '*What are the challenges encountered by teachers and students while implementing Games in the learning settings?*'

Can have a partial answer based on the quantitative data analysed as that teachers face challenges like time and available resources in applying games to teach Arabic grammar. Heil et al. (2016) stated a similar conclusion as the systems has some shortfalls that are considered challenges to teachers.

4.3.4 Survey among Students Data

4.3.4.1 Question 1: Do you prefer educational games in your study?

Prefer educational game in study	Response	Total Respondent
Yes	47	
no	3	50

Table 4.15: Preference for Educational Games
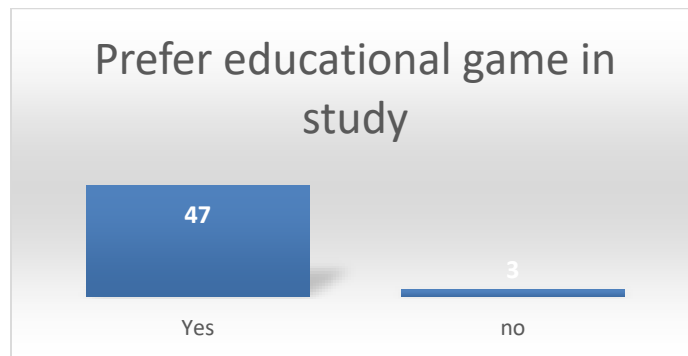
Image 4.15: Preference towards Educational Games

Out of 50 students, 47 prefer the use of the educational games in their education system. This is a clear indication that the trend of using the application and popularity is completely opposite compared to that of the teachers.

4.3.4.2. Question 2: Are their sufficient grammar/language games available in your school to learn grammar?

Sufficient language/Grammar game available to learn grammar	Response	Total Respondent
Yes	29	

no	21	50

Table 4.16: Availability of Grammar/Language Games in the School
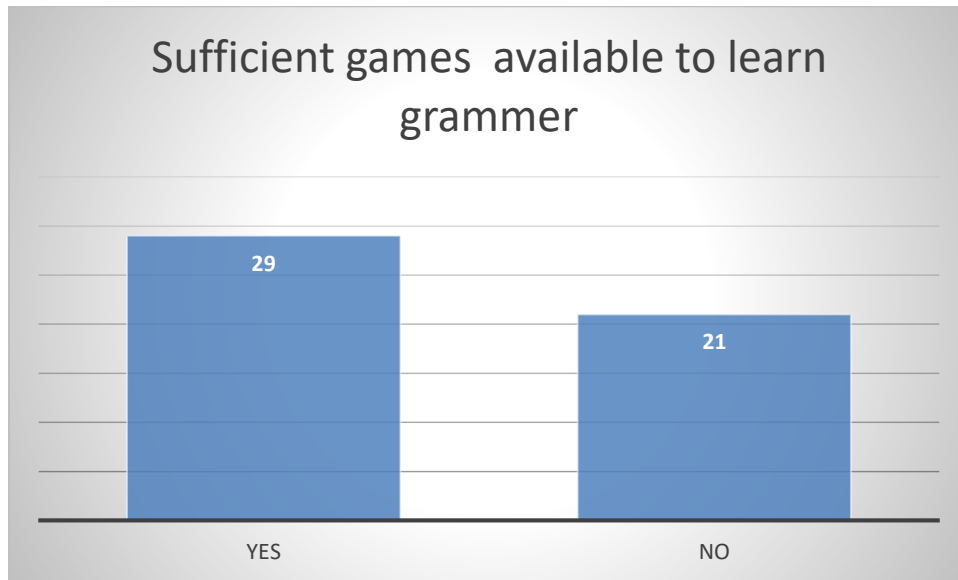
Image 4.16: Availability of Grammar/Language Games in the School

According to students, there is a sufficient number of grammar games available for them in the education system, which is helpful to support their study. Out of the 50 participants, 29 believe that there are sufficient numbers of games available whereas 21 believe that the number is yet to reach the desired standard.

4.3.4.3 Question 3: Do you prefer playing educational games to learn new things associated with Arabic Grammar?

Prefer playing education games to learn new thing	Response	Total Respondent
Yes	42	
no	8	50

Table 4.17: Playing Educational Games to Learn New Things
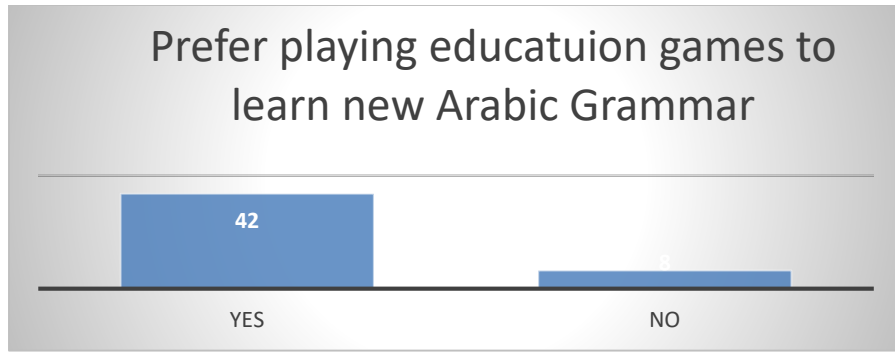
Image 4.17: Playing Educational Games to Learn New Things

When asked, whether students prefer using games to learn new things in the class, majority of them, 42 out of 50 replies positively whereas remaining 8 say they prefer the traditional educational system to learn.

4.3.4.4 Question 4: Does your teacher participate in education games when it takes place?

Teacher participates in the game regularly	Response	Total Respondent
Yes	3	
Very Rarely	12	
no	35	50

Table 4.18: Participation of the Teachers in the Educational Games

Image 4.18: Participation of the Teachers in the Educational Games

When asked about whether their teachers participate in this game, only 3 students out the 50 replied positively. 12 participants' have pointed out that their participation is rare whereas 35 replied in a negative sense.

4.3.4.5 Question 5: Is there enough option available for your students to use educational games for learning?

Enough option available for the student to use the educational game for learning	Response	Total Respondent
Yes	35	
no	15	50

Table 4.19: Availability of options to use Educational Games for Learning
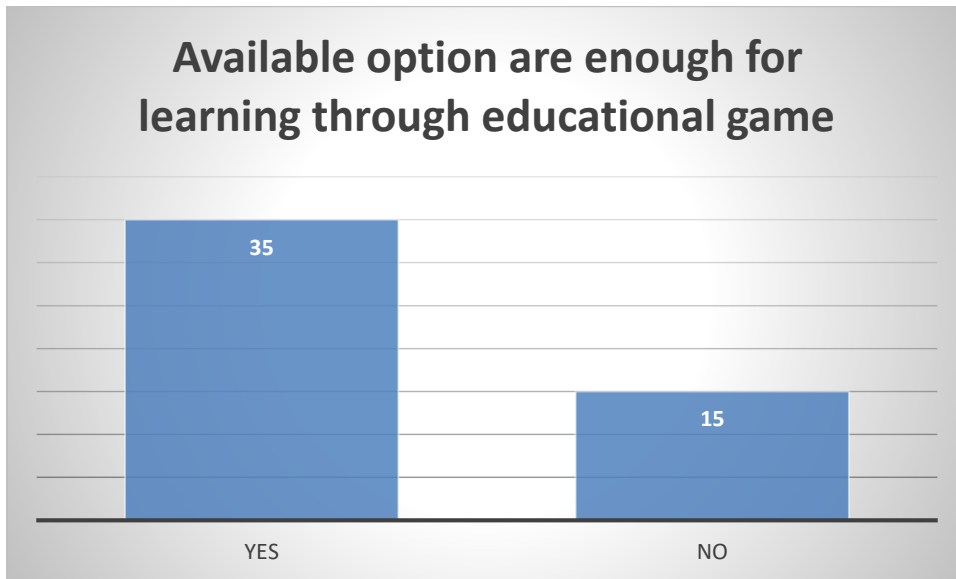
Image 4.19: Availability of options to use Educational Games for Learning

When asked students that whether there is enough option available for them to learn with the help of this game, 35 out of 50 students say yes and remaining 15 are saying no. This is a clear indication that those students prefer gamification as a learning method.

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4.3.4.6 Question 6: Do you feel educational games are helpful enough to enhance your learning skills?

Educational game helpful to improve learning skills	Response	Total Respondent
Yes	46	
no	4	50

Table 4.20: Educational Games are helpful to enhance Learning Skills

Image 4.20: Educational Games are helpful to enhance Learning Skills

To understand whether these games are helping them to improve their learning skills, 48 out of 50 respondents mentioned in a positive manner. This is showing a clear trend of popularity among students about the game.

4.3.4.7 Question 7: Do you think educational games help you to think logically about grammar?

Educational game helps in think logically about grammar	Response	Total Respondent
Yes	44	
no	6	50

Table 4.21: Educational Games helps to think logically about Grammar
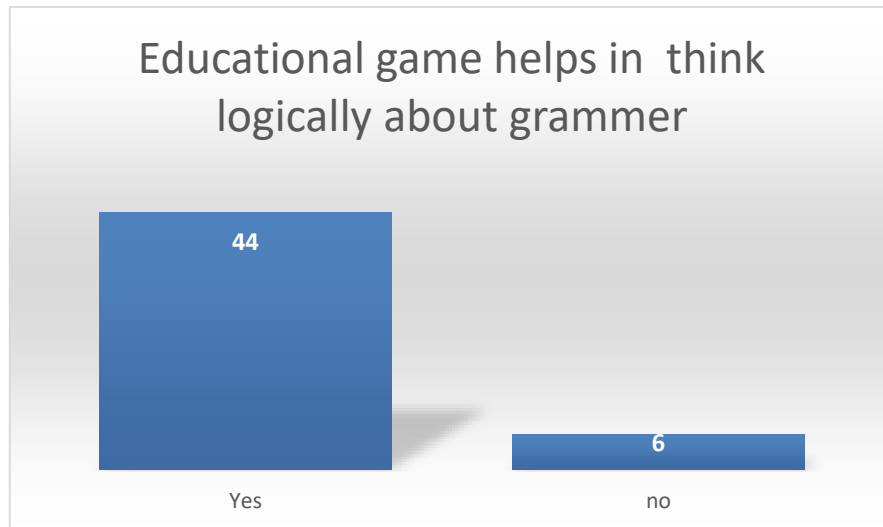
Image 4.21: Educational Games helps to think logically about Grammar

Educational games are helpful for the students to make sure that students are able to think logically about grammar learning. 44 out of 50 students support this concept in both settings. There are certain games, which require logical thinking and application of those thinking to be a part of the game. As a result, students start to enhance their thinking skills as most of the kids like playing games. When those games are associated with learning it is helpful to boost their logic about the use of grammar in a different context, which sometimes through traditional educational method can be monotonous as well as boring.

4.3.4.8 Question 8: Are educational games helpful for you to achieve higher marks?

An educational game is helpful in achieving higher marks	Response	Total Respondent
Yes	47	
no	3	50

Table 4.22: Educational Games Helps to achieve Higher Marks
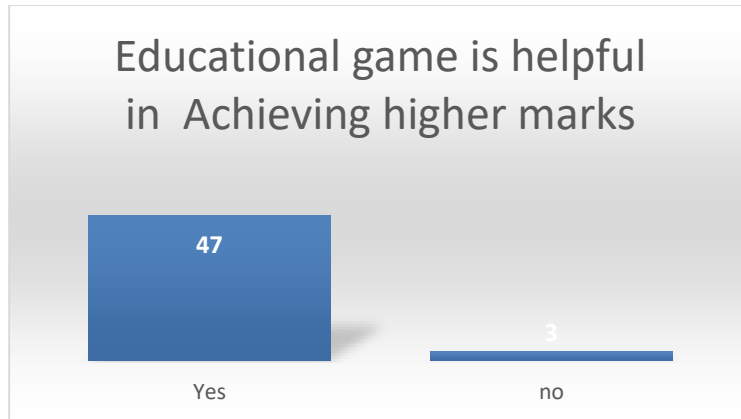
Image 4.22: Educational Games Helps to achieve Higher Marks

Most of the students accept the fact that these games are helping them to achieve high marks as 47out of 50 participants responded positively about the same.   In both the settings' students prefer the use of educational games as in their views, use of educational games is helpful for them to gain more marks in the exam as they get more attracted toward studies. Educational games help them to learn new things in a more easy approach, which generate more interest in their   mind   as   well.

4.3.5 Correlation Testing

In order to understand the perception of the students towards the use of gaming methods in the learning setting to teach them grammar, a detail correlation testing has been done. There is an equal number of participants from both settings. The questionnaire has been designed by the researcher keep in mind the significance of using gaming in the teaching process to understand whether students are interested about this concept or not, and if they prefer to use the limited (or sufficient) available options in their instates to use gaming methods in order to learn Grammar. The correlation test has been done to judge their thinking process about the impact of the gaming model to improve their performance from an educational perspective.

This correlation analysis is helpful for the researcher to get the answer to the second research question, which is *"What are the students' perspectives towards the use of educational games in the learning process?"* All 50 students are provided with a survey questionnaire with 10 different questions associated with their perspectives about how gaming can add values to the education process, especially while teaching Grammar. All the answers need to be given by choosing any 1 of the 4 options associated with the questions. The options are strongly agreed, agree, disagree and strongly disagree. Once the participant has given their responses, the researcher convert the answer against Linker scale in a scale of 1 to 4 where

1 stand for Strongly Agree,

2 stands for Agree.

 3 stands for Disagree and

4 stand for Strongly Disagree.

Following is the answer table in the Liker Scale based on the responses given by the students of both the settings.

Answer table

q1	q2	q3	q4	q5	q6	q7	q8	q9	q10
1	2	1	1	1	1	1	2	1	1
1	2	2	1	2	1	2	2	1	2
1	2	1	1	1	2	2	2	1	2
1	2	1	1	1	1	2	2	1	1
1	1	1	1	2	2	1	2	1	1
1	2	1	1	2	1	1	1	1	1
1	2	1	2	2	1	1	1	2	1
1	1	1	2	2	1	1	1	1	1
1	2	1	2	2	1	1	1	1	1
1	2	1	2	1	1	1	1	1	1
1	2	1	2	2	1	1	1	1	2
1	1	2	1	2	1	1	1	1	2
1	1	1	1	2	1	3	2	2	2
1	1	1	1	2	1	3	2	2	1
1	1	1	1	2	1	3	2	2	2
1	1	2	2	2	1	2	1	2	1
1	1	1	1	2	1	2	1	2	1
1	1	1	1	2	1	2	1	2	1
1	1	2	2	2	1	2	1	2	2
1	1	1	1	1	1	2	1	2	2
1	1	2	2	1	1	2	1	2	2
1	1	1	1	1	1	1	3	2	2
1	1	1	2	2	1	1	3	2	1
1	1	2	1	1	1	1	2	1	1
1	1	1	2	2	1	1	2	1	2
1	1	1	1	1	1	1	2	1	2
1	1	1	1	1	1	1	2	1	1
1	1	1	1	1	1	1	2	1	2
1	1	1	2	1	1	2	1	1	1
1	1	1	1	2	1	1	2	1	1
1	1	1	2	1	2	2	1	1	1

q1	q2	q3	q4	q5	q6	q7	q8	q9	q10
1	1	1	1	1	1	2	1	2	2
1	1	1	2	2	3	1	1	2	1
1	1	1	1	1	2	2	2	2	1
1	2	1	1	2	2	2	1	2	2
1	2	1	2	2	2	2	1	2	1
1	2	1	1	2	2	3	1	3	1
2	2	1	2	1	2	3	2	1	1
2	2	1	1	2	2	3	3	1	1
2	2	1	2	2	2	3	1	1	2
2	2	1	2	3	2	3	1	1	2
2	2	1	1	1	1	3	1	4	2
1	2	2	2	2	1	1	1	4	1
1	1	2	1	2	1	2	1	4	1
2	1	2	2	2	1	2	2	2	1
3	3	2	2	1	3	2	1	2	3
3	1	3	3	3	1	2	3	2	4
4	2	3	4	4	1	2	1	2	3
4	4	4	1	3	3	2	4	4	4
4	2	4	4	3	4	3	3	3	3

Table 4.23: Liker Scale Table for Correlation Analysis

Based on the above table, shown is a correlation value of all different parameters associated with the use of educational games and use in the class for student about learning grammar from their point of view. The main factor in this correlation is question 1, which *is Educational Game, is always helpful for school students to learn Arabic grammar*. Based on this question the correlation has been run to find the relation of using gaming in enhancing logical thinking, improve educational performance, strengthen vocabulary, increasing motivation level to get involved with studies, relationship with a batch mates preference towards languages like English and so on.

	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8	Column 9
Column 1	1								
Column 2	0.548256	1							
Column 3	0.760864	0.328398	1						
Column 4	0.582206	0.118307	0.508343	1					
Column 5	0.556783	0.215957	0.542383	0.515644	1				
Column 6	0.540861	0.516892	0.347183	0.270558	0.203771	1			
Column 7	0.375508	0.195153	0.130019	0.075992	0.192369	0.335487	1		
Column 8	0.37718	0.13497	0.357143	-0.06631	0.12577	0.231455	0.050563	1	
Column 9	0.334939	0.240557	0.468333	0.072457	0.267192	0.206337	0.300989	0.055461	1

Table 4.23: Liker Scale Table for Correlation Analysis

The overall correlation study reveals the fact that students in both the institutes prefer the use of gaming in order to learn grammar in the classroom mainly due to two critical reasons. One is, it is helping them to strengthen their vocabulary skills alongside learning grammar, this result is on the same line with Stott and Neustaedter (2013). Secondly, it is allowing them to get familiar with more computer games related to education such as card and flash games while they are studying at home [I prefer using educational games such as card games, a *flash game* in the computer while at home to learn grammar, Question 4 with correlation value of 0.58]. These two factors are highly correlated with their preference for preferring gaming in the education of grammar in the class.

 Alongside, one critical thing, which they feel, can be achieved if gaming is implemented appropriately to ensure the teaching of grammar in the class is, teachers will be more involved in different games, which are important for developing a healthy relationship between teacher and student. [I like to see my teacher get involved in the educational game, Question 10 with a correlation value of 0.70]

This is a clear representation that the correlation value is supporting the concept of students considering this option as a great tool for improvement their grammatical skills. There is a high correlation between using education games and its impact in strengthen vocabulary (0.76) [Education games is helpful for strengthen vocabulary], as well as the high correlation between

the impact of using education game for learning and involvement of teacher. The correlation study also reveals that there is a positive relationship between the use of educational games and development of grammar skills (0.54) [Playing educational games increase motivation level to learn]. The analysis also reveals that there is an almost equal correlation between using games to motivate students, students preferring computers to play educational games and educational games strengthening existing grammatical skills. All these parameters are more than 0.50 in score in terms of the correlation value. There are only three factors that are not so must directly be associated with the overall correlation value, as the score is less than 0.40. Education games play a role in developing a relationship among students and choice of language to boost through the game, especially the grammar as most of the students first preference is strengthening Arabic Grammar.

Thus, it is driven that students have a strong positive perspective towards using games in their learning of Arabic grammar classrooms, and they see educational games as valuable learning source and method. That is the answer for the second research question '*What are the students' perspectives towards the use of educational games in the learning process?*' which is sustained by literature. Becker and Nicholson (2016) confirmed that grammar lessons are considered boring to the students, and the use of games motivates them and enhance their positive attitude towards learning, as well as enhancing their learning. Amineh and Asl (2015) pointed that as a social interaction, language learning achieves its height when students are interacting through games.

4.4 Qualitative Analysis

Three teachers from both settings in Sharjah and Dubai were asked semi-structured interview questions in order to execute the interview processes efficiently. The overall qualitative research has been done keeping in mind the first and third research questions to get a perspective of the teacher about what they feel regarding use of gaming model in the education especially to teach grammar in the class. The research questions which are mainly focused by the researcher to address with the help of qualitative research include:

- What are the perspectives of the Arabic teachers towards using educational games in the learning process?
- What are the challenges encountered by teachers and students while implementing these systems?

The qualitative data gained from the teachers may be discussed in the following manner:

Question 1: What is your take on classroom gamification?

Teacher 1: Gamification proves to be advantageous for the classroom as it makes the students more attentive and attracted to what is being taught in the class. It has often been seen that students remember their grammar lessons better when they are taught through the help of games. The class becomes more engaged and willing to learn. This proves to be beneficial for teachers as well. Introduction of games in the grammar classes make the students more attentive and responsive and they are able to retain their lessons more effectively.

Teacher 2: Traditional teaching methods are considered to be boring by this generation and this necessitates the introduction of newer methods of learning that attracts the learners and inspires them to learn well. It is because of this reason that learning settings are turning towards gamification of the classroom in order to make the learning environment more focussed and effectual. However, from a teacher's point of view, the depth of the teaching which can be delivered through the traditional form of teaching is far more in comparison to using modern techniques such as gamification. The traditional classroom teaching allows teachers to cover different aspects of Grammar in a comprehensive manner where they can use their experience as well to guide students who are not able to understand the same at first attempt or slow learner to some extent.

Teacher 3: There are both merits as well as demerits of introducing games in the classroom. It is undeniable that gamification often makes the classroom more effective by attracting learners. It makes it easier for them to understand, follow and remember lessons taught in class. However, it causes a lot of wastage of time as students always demand to be taught this way. On the other hand, to introduce the ideology associated with the gamification, it is necessary to invest a substantial amount so that there are a variety of games available in sufficient numbers for the

students in each and every classroom so that they can learn every aspect of Grammar in an effective manner. Often this will increase the overall expenses of the learning setting which can resultant in the hike of fees that can be non-affordable for some students as well.

The first theme based on the first interview question is:

Theme 1: Gamification of Education is attractive but teachers often prefer traditional mode of teaching to ensure in-depth learning for students

Question 2: Do you think games help students in learning grammar more effectively?

Teacher 1: Yes, the introduction of games in the classroom is one of the many effective ways in which grammar may be taught to the students. These games have the power of attracting students and instigating their curiosity which in turn reflects in their performances. It has often been seen that when students are made part of these fun games, they are able to understand and follow their lessons better and can remember them for longer periods of time. Therefore, it may be stated that games indeed have the power of helping students to learn their grammar lessons in a better manner.

Teacher 2: The sole idea behind gamification of the classroom was to ensure that students are given an opportunity to learn complicated things in a fun and attractive manner. Introduction of games has made the students more receptive in class and they understand the lessons better. In addition, they perform better in their examinations and show a higher level of proficiency in their academics.

Teacher 3: Introduction of classroom games have proved to be beneficial for the classroom as it helps the students to learn the lessons easily as they engage themselves positively while playing the games. Engagement in the class has a positive influence and ensures that the students are able to learn their lessons in the best possible manner. In addition, the effectiveness of these games can be analysed from the fact that students often demand these games in the classroom and prefer them more than the traditional modes of learning.

After analysis of the responses given by the participants related to question 2, the following theme (theme 2) can be designed. The second theme is:

Theme 2: Engagement of the student with learning in the school increases if the process of gamification implemented appropriately

Question 3: What are the advantages of using games in Arabic grammar classes?

Teacher 1: Playing games in the grammar classroom boosts the overall performance of students and motivates them to take charge of their own learning. This motivates them to learn, pay greater attention and participate effectively in their given tasks. These games are helpful in assisting learners in becoming a part of a team and learn their lessons well. Students often become too competitive in their classrooms. Introducing these games is one of the best ways of controlling the competitiveness existing between classmates. These games help the students in competing against one another while playing games. It ensures that they support one another during their learning activities and celebrate each other's success.

Teacher 2: All these games need problem-solving strategies along with effective planning. It teaches the students to apply a wide range of useful strategies in the games and uses their memory to solve the problems while developing their mental cognition. However, as most of the games are associated with problem-solving, it can be stated that the emphasis on the development of knowledge in relation to grammar sometimes gets overlooked. This can affect learning to some extent.

Teacher 3: Using games in the classroom as a part of learning and teaching activities helps in creating a certain aura of positivity in the classroom as the lessons are understood and followed better. It motivates the students with their participation in class and also helps in maintaining a better attitude towards learning. It helps in creating positive memory and an effective learning experience for the students. On the other hand, having to answer questions on worksheets may often be stressful for students. It often creates a negative perception of the learning environment of the student. However, gamification is one of the most effective alternatives to such stressful worksheets and is used by students to demonstrate and make effective use of their skill, understanding and knowledge of the lessons that are taught in the classroom. It also improves their attentiveness and makes them more alert and responsive in the classroom.

Keeping in mind the responses, the theme which can be designed is stated below:

Theme 3: Gamification is helpful to reduce stress and develop problem-solving skills of the students but it can overlook Grammar learning as well in some context.

Question 4: Are there any disadvantages faced while implementing games in the classroom?

Teacher 1: Though gamification has several benefits, it has a few demerits too. For example, it is easy for the students to feel addicted towards the games and they sit for hours in the same place while playing them. These often result in physical issues such as repetitive strain injuries, backaches, neck aches, headaches, eyestrain, mood swings and fatigue. Therefore, it is crucial for the teachers to ensure that they are played in proper intervals so that their health is not compromised in any manner.

Teacher 2: Educational games often affect children mentally. For example, children often want to keep on playing the games until they win or at least advance in classroom games. This determination is often deemed to be harmful as they cause aggressive behaviour and low self-esteem. In addition, it has also been seen that students lose their interest in learning in the traditional way. These behaviours must be controlled by the teacher in the classroom.

Teacher 3: Wastage of time is one of the most common disadvantages of these classroom games. Educational games often take away a great amount of time from the student's routine that they could have used studying and participating in learning activities. Once students get used to having fun in the classroom, they do not want to learn from books and sit for examinations. It is difficult for teachers to create new games for the students on a regular basis. Therefore, it may be stated that though classroom gamification has certain advantages, it is advisable to use them wisely so that the learners may understand and follow their lessons effectively and ensure that they perform well in the classroom.

Following is the theme 4 based on the answers given by the respondent against question 5.

Theme 4: Gamification makes student addicted to games on the computer at home as well along with effect the time which students can invest in the qualitative study.

Question 5: What are the common perceptions and attitudes among teachers relating to introducing games in the classroom?

Teacher 1: Today teachers are more receptive in acknowledging the importance of classroom gamification. They create various interesting games for their students so that they are able to follow all that is being taught in the classroom. The teachers ensure that each student is given the opportunity to participate in these fun activities so that they are able to learn in the most effective manner. The teachers today try to strike out a harmonious balance between traditional modes of teaching and innovative practices such as classroom games and interesting group activities for the students.

Teacher 2: Most teachers today are receptive towards the individual needs of their students and ensure that they are given an opportunity to excel within their classroom. In order to ensure the same, there are teachers who often prefer the traditional form of teaching to guide their students rather supporting gamification. Following a traditional method is helpful to teach students grammar in an efficient manner which is key for every student's future success.

Teacher 3: A certain section of teachers still perceive gamification of the classroom to be unnecessary as they are of the opinion that best student outcomes can be attained from traditional modes of teaching. They regard games as a waste of time and encourage students to learn in the traditional way. However, a growing number of teachers acknowledge the fact that they are imperative for the success of the students as it ensures that they are able to follow and remember the lessons in the most effective manner.

Based on the answer to the 5th question, the last theme associated with research can be stated in the following manner:

Theme 5: A gamification helps the student to improve their personal interaction, relationship with teachers as well as improvement of logical skill but traditional teaching still can be more effective to manage better teaching.

Surprisingly enough, qualitative data collected from the randomly selected teachers from both settings proved a quite opposite result to the quantitative data analysis. Teachers see educational

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games to teach Arabic grammar as beneficial and valuable with a lot of merits to mention. This contradicts with the result of the questionnaire that is aforementioned. That can be explained as these teachers have more ideas and opinions to reveal during interviews than that via questionnaire. The results can be considered to complete each other as the qualitative analysis clarified more deep views about teachers' regard of educational games. That is a strength of using mixed method approach as clarified by the literature (Creswell 2009, Fraenklen & Wallen 2009). More clarification can be made through the following section of reviewing the work of Hashimet et al (2019) before stating the final answer for the first and third question.

In a nut shell, the first question '*What are the perspectives of the Arabic teachers towards using educational games in the learning process?* 'Can be answered as follow:

Teachers feel pressured to use new resources that they are not trained to in the classroom. Gamification is considered a challenge for teachers due to different factors. Yet, teachers deeply believe in the benefits of using educational games in the Arabic grammar classroom.

The third research question 'What are the challenges encountered by teachers and students while implementing Games in the learning settings? 'Can be answered to clarify the first result as follow:

Teachers face different challenges that hinder their ability to use educational games in Arabic grammar classroom. Some of these challenges are time, resources, training, and availability. Yet teachers are ready to learn and apply educational games due to their belief in its benefits and effect on the students' level.

4.6 Summary of the Chapter

The overall finding and analysis part is helpful for the researcher to understand the perspectives of both teachers as well as students towards the gamification and understand how this process is helpful to improve the quality of teaching grammar. The primary survey demonstrates that teachers are not very much reluctant to use this gamification model to teach grammar in the class despite accepting the positive of the same. They do accept the gamification in the near future can help the students to enhance their skillset, logical thinking; their association with friends, interest

in studies but at the same time teachers also suggest that traditional mode of teaching is more comfortable from their point of view as the option of teaching is by far the best one associated with the same. In addition to that, they also pointed out that the cost of installation of various gaming software or different other gaming options are on the higher side and it is important from the organisation's perspective to arrange the same. It might increase the fees which can affect the chances of study for some students.

The primary quantitative research is helpful to address the three questions associated with the research paper and primary qualitative research is helpful to address the first and third associated with the research. It is evident that qualitative study is helpful to understand the teacher's perspective using their own words and justifications, as well as opinions.

4.4 Qualitative Analysis

Several teachers in Sharjah and Dubai were asked semi-structured interview questions in order to execute the interview processes efficiently. The overall qualitative research has been done keeping in mind the first and third research questions to get a perspective of the teacher about what they feel regarding use of gaming model in the education especially to teach grammar in the class. The research questions which are mainly focused by the researcher to address with the help of qualitative research include:

- What are the perspectives of the Arabic teachers towards using educational games in the learning process?
- What is the impact of using games on the students 'performance in Arabic language grammar sessions?
- What are the challenges encountered by teachers and students while implementing these systems?

The qualitative data gained from the teachers may be discussed in the following manner:

Question 1: What is your take on classroom gamification?

Teacher 1: Gamification proves to be advantageous for the classroom as it makes the students more attentive and attracted to what is being taught in the class. It has often been seen that students remember their grammar lessons better when they are taught through the help of games. The class becomes more engaged and willing to learn and this proves to be beneficial for the teachers as well. Introduction of games in the grammar classes make the students more attentive and responsive and they are able to retain their lessons more effectively.

Teacher 2: Traditional teaching methods are considered to be boring by this generation and this necessitates the introduction of newer methods of learning that attracts the learners and inspires them to learn well. It is because of this reason that schools are turning towards gamification of the classroom in order to make the learning environment more focussed and effectual. However, from a teacher's point of view, the depth of the teaching which can be delivered through the traditional form of teaching is far more in comparison to using modern techniques such as gamification. The traditional classroom teaching allows teachers to cover different aspects of Grammar in a comprehensive manner where they can use their experience as well to guide students who are not able to understand the same at first attempt or slow learner to some extent.

Teacher 3: There are both merits as well as demerits of introducing games in the classroom. It is undeniable that gamification often makes the classroom more effective by attracting learners. It makes it easier for them to understand, follow and remember lessons taught in class. However, it causes a lot of wastage of time as students always demand to be taught this way. On the other hand, to introduce the ideology associated with the gamification, it is necessary to invest a substantial amount so that there are a variety of games available in sufficient numbers for the students in each and every classroom so that they can learn every aspect of Grammar in an effective manner. Often this will increase the overall expenses of the school which can resultant in the hike of fees that can be non-affordable for some students as well.

The first theme based on the first interview question is:

Theme 1: Gamification of Education is attractive but teachers often prefer traditional mode of teaching to ensure in-depth learning for students

Question 2: Do you think games help students in learning grammar more effectively?

Teacher 1: Yes, the introduction of games in the classroom is one of the many effective ways in which grammar may be taught to the students. These games have the power of attracting students and instigating their curiosity which in turn reflects in their performances. It has often been seen that when students are made part of these fun games, they are able to understand and follow their lessons better and can remember them for longer periods of time. Therefore, it may be stated that games indeed have the power of helping students to learn their grammar lessons in a better manner.

Teacher 2: The sole idea behind gamification of the classroom was to ensure that students are given an opportunity to learn complicated things in a fun and attractive manner. Introduction of games has made the students more receptive in class and they understand the lessons better. In addition, they perform better in their examinations and show a higher level of proficiency in their academics.

Teacher 3: Introduction of classroom games have proved to be beneficial for the classroom as it helps the students to learn the lessons easily as they engage themselves positively while playing the games. Engagement in the class has a positive influence and ensures that the students are able to learn their lessons in the best possible manner. In addition, the effectiveness of these games can be analysed from the fact that students often demand these games in the classroom and prefer them more than the traditional modes of learning.

After analysis of the responses given by the participants related to question 2, the following theme (theme 2) can be designed. The second theme is:

Theme 2: Engagement of the student with learning in the school increases if the process of gamification implemented appropriately

Question 3: What are the advantages of using games in Arabic grammar classes?

Teacher 1: Playing games in the grammar classroom boosts the overall performance of students and motivates them to take charge of their own learning. This motivates them to learn, pay greater attention and participate effectively in their given tasks. These games are helpful in assisting learners in becoming a part of a team and learn their lessons well. Students often

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become too competitive in their classrooms. Introducing these games is one of the best ways of controlling the competitiveness existing between classmates. These games help the students in competing against one another while playing games. It ensures that they support one another during their learning activities and celebrate each other's success.

Teacher 2: All these games need problem-solving strategies along with effective planning. It teaches the students to apply a wide range of useful strategies in the games and uses their memory to solve the problems while developing their mental cognition. However, as most of the games are associated with problem-solving, it can be stated that the emphasis on the development of knowledge in relation to grammar sometimes gets overlooked. This can affect learning to some extent.

Teacher 3: Using games in the classroom as a part of learning and teaching activities helps in creating a certain aura of positivity in the classroom as the lessons are understood and followed better. It motivates the students with their participation in class and also helps in maintaining a better attitude towards learning. It helps in creating positive memory and an effective learning experience for the students. On the other hand, having to answer questions on worksheets may often be stressful for students. It often creates a negative perception of the learning environment of the student. However, gamification is one of the most effective alternatives to such stressful worksheets and is used by students to demonstrate and make effective use of their skill, understanding and knowledge of the lessons that are taught in the classroom. It also improves their attentiveness and makes them more alert and responsive in the classroom.

Keeping in mind the responses, the theme which can be designed is stated below:

Theme 3: Gamification is helpful to reduce stress and develop problem-solving skills of the students but it can overlook Grammar learning as well in some context.

Question 4: Are there any disadvantages faced while implementing games in the classroom?

Teacher 1: Though gamification has several benefits, it has a few demerits too. For example, it is easy for the students to feel addicted towards the games and they sit for hours in the same

place while playing them. These often result in physical issues such as repetitive strain injuries, backaches, neck aches, headaches, eyestrain, mood swings and fatigue. Therefore, it is crucial for the teachers to ensure that they are played in proper intervals so that their health is not compromised in any manner.

Teacher 2: Educational games often affect children mentally. For example, children often want to keep on playing the games until they win or at least advance in classroom games. This determination is often deemed to be harmful as they cause aggressive behaviour and low self-esteem. In addition, it has also been seen that students lose their interest in learning in the traditional way. These behaviours must be controlled by the teacher in the classroom.

Teacher 3: Wastage of time is one of the most common disadvantages of these classroom games. Educational games often take away a great amount of time from the student's routine that they could have used studying and participating in school activities. Once students get used to having fun in the classroom, they do not want to learn from books and sit for examinations. It is difficult for teachers to create new games for the students on a regular basis. Therefore, it may be stated that though classroom gamification has certain advantages, it is advisable to use them wisely so that the learners may understand and follow their lessons effectively and ensure that they perform well in the classroom.

Following is the theme 4 based on the answers given by the respondent against question 5.

Theme 4: Gamification makes student addicted to games on the computer at home as well along with effect the time which students can invest in the qualitative study.

Question 5: What are the common perceptions and attitudes among teachers relating to introducing games in the classroom?

Teacher 1: Today teachers are more receptive in acknowledging the importance of classroom gamification. They create various interesting games for their students so that they are able to follow all that is being taught in the classroom. The teachers ensure that each student is given the opportunity to participate in these fun activities so that they are able to learn in the most effective manner. The teachers today try to strike out a harmonious balance between traditional modes of

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teaching and innovative practices such as classroom games and interesting group activities for the students.

Teacher 2: Most teachers today are receptive towards the individual needs of their students and ensure that they are given an opportunity to excel within their classroom. In order to ensure the same, there are teachers who often prefer the traditional form of teaching to guide their students rather supporting gamification. Following a traditional method is helpful to teach students grammar in an efficient manner which is key for every student's future success.

Teacher 3: A certain section of teachers still perceive gamification of the classroom to be unnecessary as they are of the opinion that best student outcomes can be attained from traditional modes of teaching. They regard games as a waste of time and encourage students to learn in the traditional way. However, a growing number of teachers acknowledge the fact that they are imperative for the success of the students as it ensures that they are able to follow and remember the lessons in the most effective manner.

Based on the answer to the 5th question, the last theme associated with research can be stated in the following manner:

Theme 5: A gamification helps the student to improve their personal interaction, relationship with teachers as well as improvement of logical skill but traditional teaching still can be more effective to manage better teaching.

Surprisingly enough, qualitative data collected from the randomly selected teachers from both settings proved a quite opposite result to the quantitative data analysis. Teachers see educational games to teach Arabic grammar as beneficial and valuable with a lot of merits to mention. This contradicts with the result of the questionnaire that is aforementioned. That can be explained as these teachers have more ideas and opinions to reveal during interviews than that via questionnaire. The results can be considered to complete each other as the qualitative analysis clarified more deep views about teachers' regard of educational games. That is a strength of using mixed method approach as clarified by the literature (Creswell 2009, Fraenklen & Wallen

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2009). More clarification can be made through the following section of reviewing the work of Hashimet et al (2019) before stating the final answer for the first and third question.

In a nut shell, the first question '*What are the perspectives of the Arabic teachers towards using educational games in the learning process?* 'Can be answered as follow:

Teachers feel pressured to use new resources that they are not trained to in the classroom. Gamification is considered a challenge for teachers due to different factors. Yet, teachers deeply believe in the benefits of using educational games in the Arabic grammar classroom.

The third research question 'What are the challenges encountered by teachers and students while implementing Games in the learning settings? 'can be answered to clarify the first result as follow:

Teachers face different challenges that hinder their ability to use educational games in Arabic grammar classroom. Some of these challenges are time, resources, training, and availability. Yet teachers are ready to learn and apply educational games due to their belief in its benefits and effect on the students' level.

4.6 Summary of the Chapter

The overall finding and analysis part is helpful for the researcher to understand the perspectives of both teachers as well as students towards the gamification and understand how this process is helpful to improve the quality of teaching grammar. The primary survey demonstrates that teachers are not very much reluctant to use this gamification model to teach grammar in the class despite accepting the positive of the same. They do accept the gamification in the near future can help the students to enhance their skillset, logical thinking; their association with friends, interest in studies but at the same time teachers also suggest that traditional mode of teaching is more comfortable from their point of view as the option of teaching is by far the best one associated with the same. In addition to that, they also pointed out that the cost of installation of various

gaming software or different other gaming options are on the higher side and it is important from the organisation's perspective to arrange the same. It might increase the fees which can affect the chances of study for some students.

The primary quantitative research is helpful to address the three questions associated with the research paper and primary qualitative research is helpful to address the first and third associated with the research. It is evident that qualitative study is helpful to understand the teacher's perspective using their own words and justifications, as well as opinions.

Chapter 5: Conclusion and Recommendation

5.1 Introduction

In this chapter the number of concept has been analysed and highlighted related to the teaching standard and procedure applied in for teaching English grammar as well as Arabic grammar to the student using gaming process in a school. Entire research project has been reviewed and its conclusion has been analysed by linking research objectives with its findings acquired by the helps of journals of other scholars.

On the basis of related research study and topic regarding gamification in learning Arabic grammar have been initiated with different sources for collecting data from relevant and accurate information. By the help of research project, the researcher aimed to include several ideas that can add value to the system of education adopted by mentor within school while teaching grammar to pupil. The motive of the research work is to determine what challenges have been faced by the teacher and the student in the classroom while adopting the process of teaching grammar. The section has been defining how the facts and figures are related to the research objectives. The research objective has been initiated and proved successful by elaborating each perspective in the research literature.

The research project has been highlighting the independent and dependent variable for evaluating the concept of teaching grammar by the helps of correlation analysis. The research analysed and data collected has been linked further with the objectives along with the finding research. The process thus further is helpful in finding the research loopholes and risk that can haps further in generating a solution and provide recommendation accordingly.

5.1 Linking research findings with objectives

The purpose of evaluating the linking the findings with the objective section is to determine whether the research aim has been achieved or not. These findings will be used as evidence that can be used in future research by other research effectively. Linking with objective 1: To determine the impact of gamification in the classroom of the UAE related to Arabic grammar

It has been identified by in the literature review 2.7 that student indulges in the process of gamification in a classroom could enhance its recognition power and can gain points on the basis of its better performance that motivates them to proceed their learning capacity further. By the help of the social constructivist theory, effective model of interaction has been analysed between the student and the teacher by itself. The theory on the basis of formation and acquisition has helped in defining how social interactions in the term of gamification have been affecting the classroom environment in teaching. The objective is defining the process of indulging game into within classroom that is essential in enhancing the perspective and grasping power of student in simple process. By the help of flash card and frequent question asked by teacher related to game that has been played earlier helps the student in enhancing its learning capability.

Linking with Objective 2: To determine the students and teachers perspective regarding the gaming in the learning process

By evaluating the literature review part 2.6, the perception of the teacher regarding gamification has been determined. The perception of the student related to the teaching of grammar or its learning process is assumed to be difficult and uninteresting. Most of the teacher in the Arabic school has thus found it essential to initiate the gamification session in order to make the student proficient in learning the Grammar language. The method of gamification in the teaching process has been observed to be effective as students are kept engaged in the game structure to recognise thing and increase their attentive knowledge. The perspective of teachers regarding the games being played by the teacher and mentor in classroom for teaching Arabic grammar to the student involves the gaming process such as role playing game, board game or other digital game has been proven to make student attentive.

Linking with objective 3: To define the challenges in initiating gamification within the classroom

The challenges that are faced in the process of gamification are linked in point 2.8 of the literature review stating that the absence of the instructor to proceed with the game can create issue4 in learning due to its integrated system. Due to cost efficiency, most of the teaching institution was unable to accept these techno-centric approaches. Apart from the issue of the instructor, it has been identified that the student can face and issue of losing capacity in

theoretical learning ability due to involvement in the practical learning process. The practical gaming procedure being implemented into the classroom requires the assistance by experts who is having knowledge regarding the game and assist student with its applicable knowledge. Hence, the key issue being faced in this process is teaching the gaming process.

Summary

The objectives of the research mention in a project has been evaluated by the help of literature review and data analysis results. The research project has been evaluating the essentially of including gaming structure in teaching and learning process within classroom.

5.2 Recommendation

In this research study section after implementing several methods for data collection it has been analysed and assumed regarding the situation and impact of the fact related to teaching process of Arabic, and perspective of student or teacher regarding the gaming strategy. Several recommendations have been identified that can help improving the situation of the teaching process in the schools of UAE as follows

1. Conducting of the inductive programme and providing training to the teacher for using gaming section and procedure that can be involved further in teaching process within classroom

2. It has been suggested that the student learning grammar could proceed with the process of gamfication in classroom hence apart from the system of playing game digitally, it is essential to proceed with practical indoor game within classroom.

3. Creation of verbs categorising the terms as per the students understanding with a motive of bringing fluency to the English grammar of Arabic student.

4. The teacher is essentially required to approach the behaviour of the student and analyse it for further implementation of the teaching process. As motivation to the student in learning requires analysing the behaviour of the student at its initial learning stage.

5.3 Future scope

The research project has been implemented under legal consideration with the limitation that has generated the scope of future related to the topic. The data that has been collected in this research work can be applied by other researchers as secondary data and sources along with the sample size that might provide an in-depth instinct regarding the research topic. The researcher in future will be able to gain new idea and benefit of the gaming strategy in classroom of Arabic school for teaching grammar to the students. It can be thus considered that the research outcome will benefit the school, teacher and the student of the UAE. The student will be thus able to reach its high proficiency in the level of Arabic study. The research has further elaborated the gamification process in the field of learning that is not only beneficial to the student learning grammar however; it effectively helps in other teaching or learning process.

Reference List

Abdulkadiroğlu, A., Angrist, J.D., Narita, Y. and Pathak, P.A., 2017. Research design meets market design: Using centralized assignment for impact evaluation. *Econometrica*, *85*(5), pp.1373-1432.

Ajibade, Y. and Ndububa, K., 2008. Effects of Word Games, Culturally Relevant Songs, and Stories on Students' Motivation in a Nigerian English Language Class. *TESL Canada Journal*, *25*(2), pp.27-48.

Alase, A., 2017. The interpretative phenomenological analysis (IPA): A guide to a good qualitative research approach. *International Journal of Education and Literacy Studies*, *5*(2), pp.9-19.

AL-Ataabi, M.S.A., Mosa, A. and AL-Shahmanie, K.N., 2019. The Effect of the Characteristics of Moderation Values on Composing Islamic Arabic Architecture (The mosque is a case study). *Journal of University of Babylon for Engineering Sciences*, *27*(3), pp.299-320.

Al-Bulushi, A.H. and Al-Issa, A.S., 2017. Playing with the Language: Investigating the Role of Communicative Games in an Arab Language Teaching System. *International Journal of Instruction*, *10*(2), pp.179-198.

McCallum, C. G. and A. (2005) *Climbing Grammar Mountain AN INTERACTIVE LEARNING EXPERIENCE.* Available at: https://americanenglish.state.gov/files/ae/resource_files/climbing_grammar_mountai n.pdf (Accessed: 5 December 2019).

Amineh, R.J. and Asl, H.D., 2015. Review of constructivism and social constructivism. *Journal of Social Sciences, Literature and Languages*, *1*(1), pp.9-16.

Anderson, T., 2016. Theories for learning with emerging technologies. *Emergence and innovation in digital learning: Foundations and applications*, pp.35-50.

Bakhsh, S.A., 2016. Using Games as a Tool in Teaching Vocabulary to Young Learners. *English language teaching*, *9*(7), pp.120-128.

Ball, J. and Kashoob, M., 2016. Visual processing skill barriers in students with Arabic as a first language. *Learning and Teaching in Higher Education: Gulf Perspectives*, *13*(2).

Bajpai, N., 2011. *Business research methods*. Pearson Education India.

Becker, K. and Nicholson, S., 2016. Gamification in the classroom: Old wine in new badges. *Learning, Education and Games*, *61*.

Busico, V., Cipullo, R., Mingione, A. and Rongo, L., 2016. Accelerating the research approach to Ziegler–Natta catalysts. *Industrial & Engineering Chemistry Research*, *55*(10), pp.2686-2695.

Cresswell, J.W., Clark, V.L.P., Gutmann, M.L. and Hanson, W., 2009. E.(2003). Research Design: Qualitative, Quantitative, and Mixed Methods Approaches. *Handbook of mixed methods in social & behavioral research*, pp.209-240.

Dannels, S.A., 2018. Research design. In *The reviewer's guide to quantitative methods in the social sciences* (pp. 402-416). Routledge.

Dicheva, D., Dichev, C., Agre, G. and Angelova, G., 2015. Gamification in education: A systematic mapping study. *Journal of Educational Technology & Society*, *18*(3).

Eisenhardt, K.M., 1989. Building theories from case study research. *Academy of management review*, *14*(4), pp.532-550.

United Arab Emirates - Education (2019). Available at: https://www.export.gov/article?id=United-Arab-Emirates-Education (Accessed: 5 December 2019).

Furdu, I., Tomozei, C. and Kose, U., 2017. Pros and cons gamification and gaming in classroom. arXiv preprint arXiv:1708.09337.

4. Quality education (2019) *The Official Portal of the UAE Government*. Available at: https://www.government.ae/en/about-the-uae/leaving-no-one-behind/4qualityeducationhttps://www.government.ae/en/about-the-uae/leaving-no-one-behind/4qualityeducation (Accessed: 3 December 2019).

Gamification (2019) *The Official Portal of the UAE Government*. Available at: https://government.ae/en/about-the-uae/digital-uae/gamification (Accessed: 3 December 2019).

Hanus, M.D. and Fox, J., 2015. Assessing the effects of gamification in the classroom: A longitudinal study on intrinsic motivation, social comparison, satisfaction, effort, and academic performance. *Computers & education*, *80*, pp.152-161.

Hardwick, S. W. (2016) *International Encyclopedia of Geography: People, the Earth, Environment and Technology*.

Hashim, H., Rafiq, R.M. and Md Yunus, M., 2019. Improving ESL Learners' Grammar with Gamified-Learning. *Arab World English Journal (AWEJ) Special Issue on CALL*, (5).

Heil, C.R., Wu, J.S., Lee, J.J. and Schmidt, T., 2016. A review of mobile language learning applications: Trends, challenges, and opportunities. *The EuroCALL Review*, *24*(2), pp.32-50.

Hughes, J.A. and Sharrock, W.W., 2016. *The philosophy of social research*. Routledge.

Hussein, S. (2018) *Factors affecting the implementation of communicative language teaching in Libyan secondary schools*. Doctoral dissertation, Sheffield Hallam University.

Zeroual, I., El Kah, A. and Lakhouaja, A., 2017. Gamification for Arabic Natural Language Processing: Ideas into Practice. *Transactions on Machine Learning and Artificial Intelligence*, *5*(4).

Kim, B., 2015. . Gamification in Education and Libraries. *Library Technology Reports*, *51*(2), pp.20-28.

Kratochwill, T.R. and Levin, J.R. eds., 2015. *Single-case research design and analysis (psychology revivals): New directions for psychology and education*. Routledge.

Lewis, S., 2015. Qualitative inquiry and research design: Choosing among five approaches. *Health promotion practice*, 16(4), pp.473-475.

Livesey, C., 2006. Sociological methods: the Relationships between positivism, interpretivism and sociological research methods. *Unpublished powerpoint presentation. Retrieved from http://www. sociology. org. uk.*

Mahdi, M., 2015. *Ibn Khaldun's Philosophy of History: A study in the Philosophic foundation of the science of culture*. Routledge.

Mahmoud, M.H., 2018. A Multiagents based Intelligent Tutoring System for teaching Arabic Grammar. *International Journal of Education and Learning Systems*, *3*.

Marshall, J., Coleman, G. and Reason, P., 2017. *Leadership for sustainability: An action research approach.* Routledge.

Masrop, N.A.M., Ishak, H., Zainuddin, G., Ramlan, S.R., Sahrir, M.S. and Hashim, H., 2019. Digital Games Based Language Learning for Arabic Literacy Remedial. *Creative Education*, 10(12), p.3213.

Younes, M., 2014. *The integrated approach to Arabic instruction*. Routledge.

McKinley, J., 2015. Critical argument and writer identity: Social constructivism as a theoretical framework for EFL academic writing. *Critical Inquiry in Language Studie*s, 12(3), pp.184-207.

Meichenbaum, D., 2017. Changing conceptions of cognitive behavior modification: Retrospect and prospect. In *The Evolution of Cognitive Behavior Therapy* (pp. 32-38). Routledge.

Meyers, L.S., Gamst, G. and Guarino, A.J., 2016. *Applied multivariate research: Design and interpretation*. Sage publications.

Merriam, S.B. and Tisdell, E.J., 2015. *Qualitative research: A guide to design and implementation*. John Wiley & Sons.

Mili, A., 2011. *Teaching Arabic to business students*. Global Business Languages, 16(1), p.3.

Ministry of education strategic plan (2017) *United Arab Emirates Ministry of education.* Available at: https://www.moe.gov.ae/En/AboutTheMinistry/Pages/MinistryStrategy.aspx.

Morrow, J.A. and Castleton, B., 2007. The impact of globalization on the Arabic language. *Intercultural Communication Studies*, *16*(2), p.202.

Nabi, R.L. and Prestin, A., 2017. Social learning theory and social cognitive theory. *The International Encyclopedia of Media Effects*, pp.1-13.

Noddings, N., 2018. *Philosophy of education*. Routledge.

Al Neyadi, O.S., 2007. *The effects of using games to reinforce vocabulary learning*.

Olson, R.S., 2015. *Scottish Philosophy and British Physics, 1740-1870: A Study in the Foundations of the Victorian Scientific Style*. Princeton University Press.

Padilla-Díaz, M., 2015. Phenomenology in educational qualitative research: Philosophy as science or philosophical science. *International Journal of Educational Excellence*, 1(2), pp.101-110.

Pritchard, A., 2017. *Ways of learning: Learning theories for the classroom*. Routledge.

Quinlan, C., Babin, B., Carr, J. and Griffin, M., 2019. *Business research methods*. South Western Cengage.

Taylor, R., 2015. *Gamification for enhancing student motivation:* Research refections. Higher Colleges of Technology, United Arab Emirates.

Saunders, M., Lewis, P. and Thornhill, A., 2012. Research Methods for Business Students, 6th edn, sn.

Simons, H., 2009. *Case study research in practice*. SAGE publications.

Stott, A. and Neustaedter, C., 2013. Analysis of gamification in education. *Surrey, BC, Canada*, *8*, p.36.

Taylor, R., 2015. Gamification for enhancing student motivation: Research refections. *Higher Colleges of Technology, United Arab Emirates*.

Teherani, A., Martimianakis, T., Stenfors-Hayes, T., Wadhwa, A. and Varpio, L., 2015. Choosing a qualitative research approach. *Journal of graduate medical education*, *7*(4), p.669.

Tetnowski, J., 2015. Qualitative case study research design. *Perspectives on Fluency and Fluency Disorders*, *25*(1), pp.39-45.

Thornbury, S., 2000. How to Teach Grammar, England.

Ahmad, T.S.A.S., Hussin, A.A., Yusri, G., Sembilan, U.T.M.N. and Campus, K.P., A review of learning theories for gamification elements in instructional games.

Wiggins, B.E., 2016. An overview and study on the use of games, simulations, and gamification in higher education. *International Journal of Game-Based Learning (IJGBL)*, *6*(1), pp.18-29.

Al Allaq, W., 2007. Arabic language in a globalized world: Observations from the United Arab Emirates. *Identity*, p.202.

Yin, R.K., 2015. *Qualitative research from start to finish*. Guilford publications.

Zarzycka-Piskorz, E., 2016. Kahoot it or not? Can games be motivating in learning grammar?. *Teaching English with Technology*, *16*(3), pp.17-36.

Zeroual, I., El Kah, A. and Lakhouaja, A., 2017. Gamification for Arabic Natural Language Processing: Ideas into Practice. *Transactions on Machine Learning and Artificial Intelligence*, *5*(4).

Zhou, M. and Brown, D., 2017. Educational learning theories.

Zichermann, G. and Cunningham, C., 2011. *Gamification by design: Implementing game mechanics in web and mobile apps*. " O'Reilly Media, Inc.".

Appendix

Questionnaire

Questions for Teachers

Demographic Questionnaire

Age:

25-30   31-35   36-40   41-50

Gender

Male   Female

Subject teach

Arabic Grammar   English Grammar   Both

Associated with Class:

Primary to 1st standard   2nd to 3rd Standard   4th to 6th Standard

Survey:

1. Do you feel teaching Arabic grammar through education games is easy?

Yes   no

2. Why don't you like using educational games for teaching Arabic grammar?

- It is time consuming
- It require lots of efforts
- Sometimes it is hard to manage students in the classroom while playing games
- Sometimes lack of infrastructure affects teaching

3. Is there adequate number of games available of in the textbook to teach students?

Yes   no

4. Is there a lack of variety in games available in the books to meet the teaching requirement of the students in most of the cases?

Yes   no

5. Do you feel there are lack of infrastructure to implement the process of educational games in the learning process?

Yes   no   chances of improvement

6. Do you feel additional training is require for the teachers to manage the use of educational games in the learning process

Definitely yes   Yes   not sure   no

7. Do you feel that the use of educational games can improve the student's overall learning process and educational performance?

Yes   Not sure   No

8. Implementing educational games like flash games or card games are helping in improvement of the student's performance compare to earlier time

Agree   Disagree   Not sure

Hypothesis Question:

Educational game is a good supporting tools for Arabic grammar education in schools

Strongly disagree   Disagree   Agree   Strongly Agree

I like playing games with my students in the classroom

Strongly disagree   Disagree   Agree   Strongly Agree

I find the time to include playing games in my lessons

Strongly disagree   Disagree   Agree   Strongly Agree

I consider games as an essential component in my lessons

Strongly disagree   Disagree   Agree   Strongly Agree

I prefer modify the games available in the textbook while introducing the same to students

Strongly disagree   Disagree   Agree   Strongly Agree

Playing games with students motivates me to teach in the class

Strongly disagree   Disagree   Agree   Strongly Agree

I prefer to participate in the games with students
Strongly disagree   Disagree   Agree   Strongly Agree

I prefer designing games that increase vocabulary,

Strongly disagree   Disagree   Agree   Strongly Agree

Playing games adding funs & positive changes in the overall study

Strongly disagree   Disagree   Agree   Strongly Agree

Playing games helps in strengthen relationship with students

Strongly disagree   Disagree   Agree   Strongly Agree

I encourage my students to use both and Arabic while playing games in the classroom

Strongly disagree   Disagree   Agree   Strongly Agree

I keep in mind students level while selecting or designing games

Strongly disagree   Disagree   Agree   Strongly Agree

Student's Survey Question

1 Do you prefer educational game in study?

Yes   no

2 Is there sufficient Arabic language game available in the Textbook?

Yes   no

3 Do you prefer playing games in the class to learn new things?

Yes   no

4 Does your teacher regularly getting involved in games with you all?

Yes   Very rarely   never

5 Is there enough option available for you to play games for learning?

Yes   no

6. Do you feel educational games is helpful to increase your learning skills?

Yes   no

7. Do you feel educational games helps you to think logically as well as learn Arabic grammar in a fast manner?

Yes   no

8. Do you feel learning games are helpful for you to score high marks in examination?

Yes   no

Hypothesis Testing

Educational Game is always helpful for we school students to learn Arabic grammar and other languages

Strongly Agree   Agree   Disagree   Strongly Disagree

I feel education games helps to strengthen grammar skills

Strongly Agree   Agree   Disagree   Strongly Disagree

Education games is helpful for strengthen vocabulary

Strongly Agree   Agree   Disagree   Strongly Disagree

I prefer using educational games in computer

Strongly Agree   Agree   Disagree   Strongly Disagree

Playing games is helpful for me to improve my grammatical skills

Strongly Agree   Agree   Disagree   Strongly Disagree

Playing educational games increase motivation level to learn

Strongly Agree   Agree   Disagree   Strongly Disagree

Playing education games in classroom strengthen my relationship with bathmats and increase sharing of knowledge that helps in education development

Strongly Agree   Agree   Disagree   Strongly Disagree

I prefer to use both Arabic while playing to boost my grammatical skills

Strongly Agree   Agree   Disagree   Strongly Disagree

I prefer more English while using computer in educational game

Strongly Agree   Agree   Disagree   Strongly Disagree

I like to see my teacher get involve in the educational game.

Strongly Agree   Agree   Disagree   Strongly Disagree