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Enhancing the Didactic Experience Through Edutainment in Algerian Classrooms

A Dissertation Submitted in Partial Fulfillment for the Requirement of the Master Degree in
Didactics of Foreign Languages

Presented by: **Supervisor:**
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Dedication

This dissertation is dedicated to the following individuals, whose unwavering support and inspiration have made this journey possible:

To my loving family, especially my mother, who has always believed in me and encouraged me to pursue my goals. Your endless love, patience, and sacrifices have been my guiding light throughout this challenging endeavor. I am forever grateful for your unwavering support.

To my esteemed advisor, Mr. Salim Boudad, whose expertise and guidance have shaped my research and nurtured my intellectual curiosity. Your mentorship and invaluable insights have challenged me to push the boundaries of my knowledge and have greatly contributed to the development of this dissertation.

Ayoub

Alhamdulillah for finishing this humble work, which I dedicate to Mouloud Harrats, my parents, my brother, the families of Benmaaouia and Amrouche, my teachers in Mila and Guelma, my friends, and every person who seeks knowledge and tries to make the world a better place.

Reda

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Abstract

This research delves into the fascinating realm of edutainment, a hybrid concept that combines education and entertainment. With the aim of solving the problems faced when implementing edutainment into the didactic experience. This study tries to answer three questions: (1) What is the state of current didactic experience in relation to edutainment in the Algerian classroom? (2) What challenges that teachers and learners face while incorporating edutainment? (3) What are the solutions and measures that can be taken for improvement? By examining existing literature and conducting two questionnaires, the research evaluates the impact of incorporating elements of entertainment in the didactic experience. One questionnaire was administered to 54 randomly selected English learners of various grades and another was administered to 10 EFL teachers at the University Centre of Mila, Institute of Letters and Languages, Department of Foreign Languages. The results of this study shed light on the positive effects of edutainment on motivation, knowledge retention, and overall learning experience. The study also acknowledges the challenges associated with implementing edutainment approaches. It explores potential obstacles, including striking the right balance between education and entertainment, ensuring content relevance, and addressing the shortage in the technological devices for the classroom. Ultimately, the study advocates for a thoughtful and purposeful integration of edutainment by providing recommendations for future research in order to create engaging, effective, and enjoyable learning environments for learners of all ages.

Key words: edutainment, modern didactics, technology, video games.

List of Abbreviations

ELT: Experiential Learning Theory

MIT: Multiple Intelligences Theory

MMO: Massively Multiplayer Online

RPG: Role-Playing Game

SDT: Self-Determination Theory

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Résumé

General Introduction

1. Statement of the Problem

In recent years, the incorporation of technology in education has gained substantial traction as universities endeavor to offer a contemporary and efficient learning experience to students. Despite this trend, the adoption of technology, particularly edutainment, in Algerian universities poses a significant challenge. The present dissertation endeavors to investigate the implementation of edutainment in the Algerian University Center of Mila while analyzing its potential advantages, impediments, and prospective remedies.

The research problem that this dissertation will address is the current state of edutainment integration in Algerian universities. Specifically, this dissertation will explore the current state of the didactic experience, the benefits of edutainment integration, the challenges faced by universities, and Mila's specifically, as well as potential solutions to overcome these challenges.

2. Aims of the Study

The main aims and objectives of this dissertation are to examine the current state of didactics and edutainment integration, identify the benefits of edutainment integration, analyze the challenges faced by the University Centre of Mila, and propose potential solutions to overcome these challenges..

3. Significance of the Study

This dissertation is significant and relevant because it will contribute to the ongoing conversation around the importance of technology and edutainment in education. It will also provide insights into the challenges faced by universities in Algeria through the sample of the Mila University Center and potential solutions that could be implemented to overcome these challenges.

4. Research Questions

In the current paper, two major questions are tackled:

1. What are the challenges faced by learners and teachers while incorporating edutainment?

2. What are the solutions to those challenges that can be applied in Algerian classrooms?

5. Means of the Research

To achieve the objectives of the research and address the research inquiries, the study employs a questionnaire for students and another questionnaire for teachers. These questionnaires serve as valuable tools for gathering the necessary information needed to fulfill the objectives of this study. Both of the questionnaires were sent online to 54 students and 10 teachers at the University Centre of Mila for the purpose of finding out the major problems the Algerian classroom has with edutainment and getting suggestions about how to solve those problems from the sample too..

6. Structure of the Dissertation

The structure of this dissertation will consist of three chapters: Chapter One will tackle didactics in terms of its traditional and modern ways, as well as its shaping concepts like learning, pedagogy, collaboration, and critical thinking. Chapter Two will review the relevant literature on edutainment integration in education, with a focus on the elements that edutainment is made of: entertainment, along with its shaping concepts like emotional engagement, creativity, escapism, and interactivity. Chapter Three will outline the research methodology used in this study, present the findings of the investigation, and provide a discussion of the results, conclusions, and recommendations for future research.

CHAPTER ONE: The Didactic Experience

Introduction

Teaching and learning are fundamentally interconnected processes that have been central to human progress in life. Both of them have never been just a bunch of easy tasks to conduct or even simple enough to understand without digging deeper into their principles and histories. From the ancient Greek philosophers' curiosity about how humans think to today's age of artificial intelligence, many scholars and scientists established theories that explored the human psyche, cognition, and behaviors for the sake of grasping the way we learn, which ultimately leads to improving the ways we teach.

This chapter aims to provide some basic insights on teaching and didactics. First, an attempt is made to introduce the concept of didactics by providing some clear definitions of the concept and its differences from pedagogy. Then, it accounts for the principles of didactics and the components of each principle. In addition, the most used and famous theories regarding learning will be provided in chronological order, focusing on the fact that theories have shifted from targeting the teacher as the focal point of learning processes to the learner. However, due to a considerable number of scholars who had divergent points of view from those present in their communities, the chapter will be divided into a traditional didactics section and a modern didactics section, with more care given to the schools of thought that encompass all of those theories and perspectives. Last but not least, the present chapter treats everything related to education equally, from skills to methods to practices, in an attempt to provide a starting point for the second chapter, which will be an extension of entertainment.

1.1. Traditional Didactics

The following part introduces of the origins of didactics, the main principles it consists of

and the major theories used in teaching in old times.

1.1.1. Introduction to the Field of Didactics

The first part of speaking about traditional didactics is to introduce the term "didactics" itself, how it differs from pedagogy and where it intersects with it.

1.1.1.1. Definition and Roots of Didactics

Since the term "didactics" is not as common globally as it is in francophone countries, we are much obliged to provide a clear-cut definition, even though it could be a bit daunting. Etymologically speaking, the Greek language offers the verb "didaskein" which has several meanings including to teach, to learn and to instruct. Additionally, the adjective "didaktós" can mean "teachable" or "communicable" as the word was commonly used in reference to didactic poetry, which was a popular form of poetry in ancient times. One writer of those times is Hesiod who lived around 700 BC. He has written two excellent examples that can explain the types of didactic poems. The first work is "erga kai hemérai" which translates to "works and days" and it can show a type that focuses on practical life and takes conclusions from empirical views and experience. The second work is "theogony" which explores teachings about the mythical Greek gods and can be used to show a type that sheds light on theoretical ontology. Therefore, didactic poetry at that time took into consideration both theory and real life practice as sources for topics and ideas.

In modern times, an educator called John Amos Comenius completed his renowned work "Great Didactic" (Didactica Magna) in 1638. It is in fact the first book to use the word "didactic" even though it was originally written in Latin and wasn't printed until 1657 with the name of "Opera Didactica Omnia." In his work, Comenius believed that with new teaching methods and better teaching tools, everyone could be taught everything quickly and effectively. However, later on, he had doubts about whether the goal of teaching should solely be about learning everything. He believed that education should focus on knowledge that could improve the

human condition and benefit humanity, the environment, and other living beings. Furthermore, Comenius' work turned didactics into a central term in educational theory and contributed to the development of teaching and education.
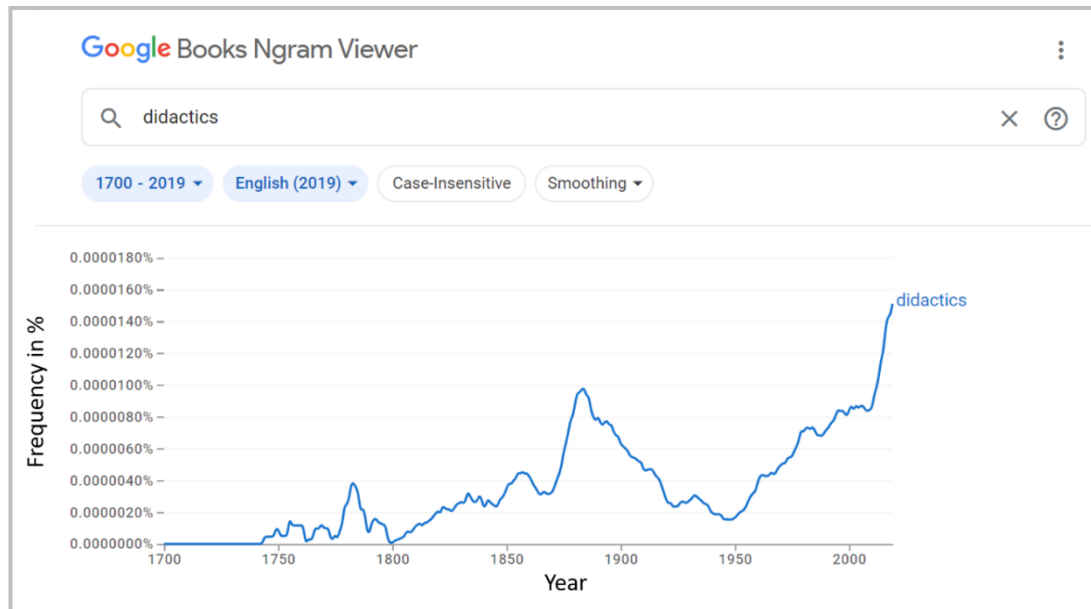
Figure 1.1: The Frequency of the Word Didactics Between 1700 and 2019 from Google Ngram Viewer (2022)

In addition, the term as we understand it today has evolved over time. Between the 1700s and 1800s, didactics began to emerge as a separate field of study, particularly in Europe. Educational reformers such as Johann Amos Comenius and Jean-Jacques Rousseau emphasized the importance of teaching methods and pedagogical principles, which led to the establishment of teacher training programs. In the early 20th century, didactics became more focused on empirical research and the scientific study of teaching and learning. The work of researchers such as John Dewey, Maria Montessori, and Lev Vygotsky contributed to the development of modern educational psychology. Between the 1950s and 1970s, didactics became more interdisciplinary, drawing on insights from fields such as sociology, anthropology, and linguistics. The focus shifted from teaching methods to curriculum design and the development of learning materials.

In a few words, didactics is just "the art or science of teaching" (Merriam-Webster, n.d.). According to Wegerif, et al. (2015), it is "a scientific discipline concerned with the investigation of teaching and learning processes, and with the development of principles and strategies for effective instruction" (p. 98). This means that didactics is concerned with how teachers can create a learning environment that fosters active participation and engagement, which is crucial for effective learning outcomes.

1.1.1.2. Definition of Pedagogy

Pedagogy refers to the theory and practice of teaching, with a focus on understanding the principles and methods that underlie effective instruction. According to Jim Garrison, "pedagogy is not just a method or set of methods, but is rather an evolving and multidimensional field of theory and practice that continually adapts to new technologies, new forms of knowledge, and new social contexts" (as cited in Biesta & Tedder, 2006, p. 3). In other words, pedagogy is a dynamic field that is constantly evolving in response to changing social and technological contexts.

1.1.1.3. Comparison Between Didactics and Pedagogy
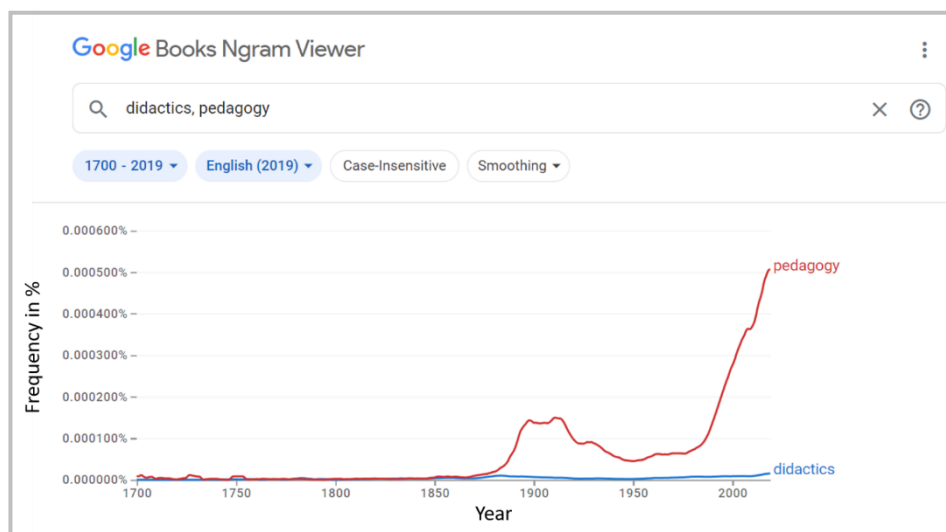
Figure 1.2: The Frequency of the Word Pedagogy in Comparison to Didactics Between 1700 and 2019 from Google Ngram Viewer (2022)

Didactics and pedagogy are often used interchangeably, but they actually represent distinct approaches to teaching and learning. According to Biesta (2013), didactics is concerned with the "systematic investigation of teaching and learning processes and the development of methods and principles for effective instruction" (p. 72), while pedagogy encompasses "the whole range of experiences, activities, and relationships in which learning takes place" (p. 72).

In summary, while didactics and pedagogy share some similarities, they have distinct approaches to teaching and learning. Didactics is concerned with the development of effective instructional methods and principles, while pedagogy places greater emphasis on individual differences, the social context of learning and how to teach.

1.1.2. Didactics' Concepts

Throughout history, didactics developed a number of key elements that we can refer to as the didactics concepts. These concepts include the main ideas, theories, and principles that underlie effective teaching and learning.

1.1.2.1. The Didactic Triangle

The didactic triangle, also known as the instructional triangle, is a model used in education to describe the relationship between the teacher, the learner, and the content. As Jean Piaget, a French philosopher and psychologist, stated, "the three aspects of the didactic triangle are indissolubly linked, and each one is essential for the process of learning to take place" (Piaget, 1970). The phrase "indissolubly linked" means that these three aspects of the didactic triangle are interdependent and cannot be separated from one another.

1.1.2.1.1. The Teacher

The teacher serves as the facilitator of learning, guiding students in their exploration and understanding of the subject matter. Since they act as a bridge between the knowledge and the

learner, as stated by Shulman, "teachers need to be equipped with a rich understanding of the subject matter they teach" (p. 9). In addition to possessing subject matter expertise, effective teachers are also skilled at communicating this knowledge to students in a clear and engaging manner.

1.1.2.1.2. The Learner

The learner, or the student, is an active participant in the learning process, using their prior knowledge and experiences to make connections with the new material. As Bransford, Brown, and Cocking note, "students come to the classroom with preconceptions about how the world works" (p. 19). Effective teachers are able to tap into these preconceptions to help students make sense of new concepts and ideas.

1.1.2.1.3. Content

The content, also known as the subject matter, provides the foundation for the learning experience, serving as the content to be explored and understood. As Jonassen and Land note, "The nature of the subject matter should determine the nature of the learning activities" (p. 32). Effective teachers are able to select and design learning activities that align with the subject matter being taught and the needs of individual students.

1.1.2.1.4. The Relationships

In the didactic triangle, some scholars suggest that there exist three relationships between each of the three triangle's aspects. The pedagogical relationship exists between the teacher and the learner and it is one that is concerned with the methods and strategies used by the teacher to facilitate learning, as well as the role of the learner in the learning process. The teacher must create a positive and engaging learning environment that supports the acquisition of knowledge and skills, and the learner must take an active role in their own learning.

In addition, the cognitive relationship exists between the content and the learner. This relationship is about how the learner engages with the subject matter being taught. The content must be presented in a way that is both challenging and accessible to the learner, encouraging deeper understanding and facilitating the acquisition of knowledge and skills.

Last but not least, the didactic relationship exists between the teacher and the content and it is a relationship concerned with the teacher's role in presenting the subject matter in a way that is meaningful and relevant to the learner. The teacher must carefully consider the presentation of the subject matter, ensuring that it is engaging and promotes deeper understanding.
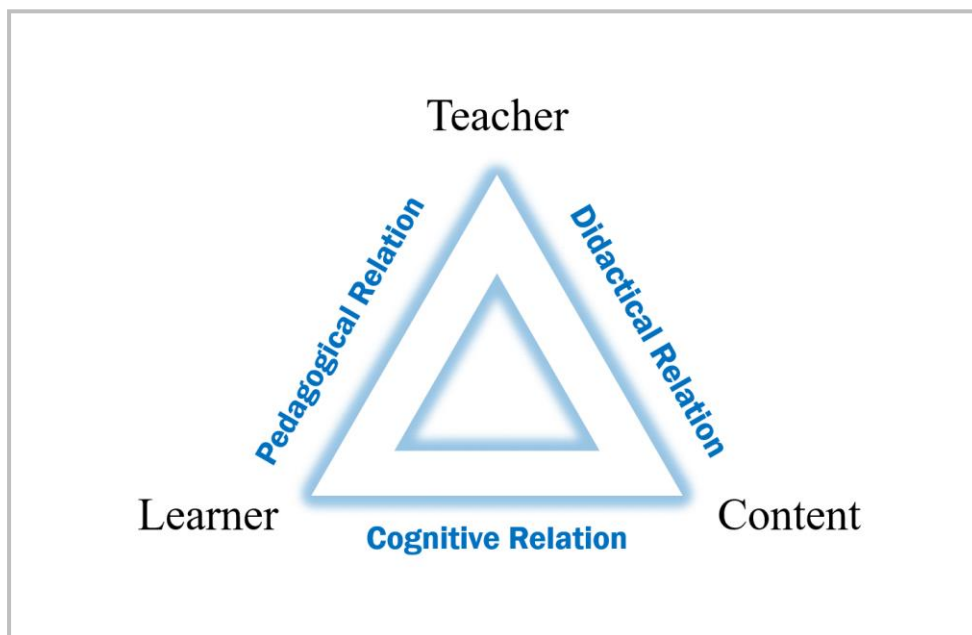
Figure 1.3: The Didactic Triangle With Its Relations

(Adapted from Kansanen & Meri, 1999)

1.1.2.2. Didactic Transposition

Yves Chevallard coined the term didactic transposition in the field of mathematics didactics, which refers to the modification and transformation of knowledge from its creation to its actual teaching in an educational institution (Chevallard, 1985, 1992). This process involves adapting the content to a less technical level to make it more accessible to students

who are not specialized in the subject. Chevallard (2005) stated that this transformation of wise knowledge to taught knowledge is necessary for it to be appropriate for the students' level. According to Hudson (2016), the process of didactic transposition involves several key sub-concepts. These include desynscretisation, which involves separating the knowledge from its origin; depersonalisation, which refers to detaching the knowledge from its producer so it can be used by others; programmability, which involves organizing the knowledge according to a certain progression; and the learner's ability to publicly and socially learn.

1.1.2.3. Didactic Contract

The didactic contract is a concept in education that describes the mutual expectations and responsibilities between the teacher and the learner. As Paul Ricoeur, a French philosopher, stated, "The didactic contract is the foundation of the teaching relationship, establishing the terms of engagement between the teacher and the learner" (Ricoeur, 1977). The didactic contract includes the goals and objectives of the learning experience, the roles and responsibilities of the teacher and the learner, and the methods and strategies that will be used to facilitate learning.

As Donald Schön, an American philosopher and educator, noted, "the didactic contract provides a framework for the teacher and the learner to work together towards a common understanding of the learning experience" (Schön, 1983). This framework helps to create a positive and engaging learning environment that supports the acquisition of knowledge and skills.

The didactic contract also includes the social and ethical aspects of the learning experience. As Jerome Bruner, an American psychologist and educator, argued, "the didactic contract establishes a social and ethical relationship between the teacher and the learner, ensuring that the learning experience is both meaningful and relevant to the learner" (Bruner,

1996). This means that the teacher must take into account the cultural and social background of the learner and ensure that the learning experience is inclusive and respectful of diversity.

1.1.2.4. Didactic Obstacles

The didactic obstacles refer to the what prevents learning by making the access to knowledge harder or even impossible in some cases. These obstacles can be related to the content being taught, the teaching methods used, or the learners themselves. As Jean Piaget (1970) noted, "didactic obstacles are not an impediment to learning but rather a necessary condition for the development of intelligence". As a result, the process of learning and teaching does not take place as intended.

However, the obstacles themselves are not always negative and hinder learning since they may come in a positive form when they are considered as a challenge and a motivator for the learner to achieve his learning goals. One common didactic obstacle is the lack of engagement with the content being taught. If learners are not interested or motivated by the subject matter, they may struggle to retain the information being presented. Another obstacle is a lack of prior knowledge or understanding of the subject matter. If learners do not have a foundation of knowledge on which to build new concepts, they may struggle to grasp the new material being presented.

1.1.2.5. Didactic Representations

Didactic representations refer to the various ways in which knowledge is represented and presented to learners. These representations can take many forms, including visual aids, text, multimedia, and other materials to suit different learning styles. The use of different types of representations is necessary to enable learners to see the same concept from different perspectives (Vygotsky, 1978).

One type of didactic representation is visual aids, which can include diagrams, charts, and

other graphic organizers. As Albert Einstein (1941) famously stated, "If you can't explain it simply, you don't understand it well enough". Visual aids can help simplify complex concepts and make them easier for learners to grasp.

Another type of didactic representation is text, which can take the form of textbooks, articles, or other written materials. Text can provide a wealth of information on a subject, but as Neil Postman, an American author and educator, argued, "The problem with textbooks is that they are often boring, dry, and difficult to understand" (Postman, 1995). Teachers must be aware of this potential obstacle and work to engage learners with the text.

Multimedia is another form of didactic representation that can include videos, audio recordings, and interactive online materials. According to Richard E. Mayer (2009), "multimedia can improve learning outcomes by presenting information in a variety of formats and engaging multiple senses" (Mayer, 2009). In order to effectively use the didactic representations, teachers must consider the needs and learning styles of their learners. Furthermore, one should know that "different learners have different strengths and weaknesses, and teachers must be aware of these differences when selecting didactic representations" (Gardner, 1999).

1.1.2.6. Didactic Situations

Guy Brousseau initiated the development of the theory of didactical situations in France during the 1960s and has since been leading its progress. The first synthesis of this theory was published in 1997. The theory posits that a situation involves a complex set of interactions between three elements: students, teachers, and knowledge or the content. Also, Brousseau (1998) defines knowledge as a characteristic of a system that includes a subject and an environment, and learning happens through the interactions between the two. In this context, the subject acts within the environment and receives feedback from it, while the teacher's role

is to create an environment that fosters the learning process. Accordingly, there exist different types of situations that can happen in classroom.

1.1.2.6.1. Action Situation

The theory of didactic situations identifies the situations of action as the ones where students are actively involved in finding solutions to a specific problem and performing immediate actions that lead to the production of operational knowledge. In the words of Brousseau (1998), "the didactic situations of action are those in which the student plays an active role in constructing their own knowledge through their actions and interactions with the environment, resulting in the production of knowledge of a more operational nature" (p. 5). These situations allow students to develop a deeper understanding of the concepts and ideas being taught, as they actively participate in the learning process. The teacher's role is to create an environment that encourages this type of active engagement and facilitates the learning process.

1.1.2.6.2. Formulation Situation

The formulation situation refers to situations in which students utilize explicit theoretical models or schemes to solve a given problem, while also demonstrating a more elaborated use of theoretical information. Brousseau (1998) states that in these situations, "the student already has a repertoire of theoretical tools and knowledge to use in their problem-solving process and engages with the theoretical information in a much more sophisticated way" (p. 5). These situations are important for developing a deeper understanding of the concepts being taught, as students are able to apply theoretical knowledge in practical situations. The teacher's role is to provide opportunities for students to engage in these types of situations and to support their development of theoretical models and schemes.

1.1.2.6.3. Validation Situation

According to Brousseau's theory (1998), the didactic situations of validation are those in which students utilize mechanisms of proof and demonstrate the use of knowledge for this purpose. He explains saying that in these situations, "students engage in the process of validation through the use of mechanisms of proof, and their knowledge is utilized in this process" (p. 5). These situations allow students to develop critical thinking and analytical skills, as they must justify their reasoning and provide evidence to support their claims. The teacher's role is to create opportunities for students to engage in these types of situations and to provide support and guidance as needed.

1.1.2.6.4. Institutionalization Situation

Concerning the institutionalization situations, Brousseau (1998) stresses the fact that "knowledge is validated and recognized as objective and universal by the community of experts in the relevant field" (p. 5). These situations are aimed at establishing the objectivity and universality of knowledge. Therefore, they are important for ensuring that knowledge is accepted and valued by society, and for establishing it as a legitimate area of study. The teacher's role in these situations is to help students understand the importance of the knowledge being studied, and to guide them in their efforts to contribute to the community of experts in the field.

1.1.3. Theories of Traditional Didactics

After digging into the roots of didactics, it is worth mentioning the first most influential theories of traditional didactics. According to these theories, learning is a process that involves the transmission of knowledge from teacher to student, and the teacher plays a central role in this process. The teacher is seen as an authority figure who possesses knowledge that the student lacks, and it is the teacher's job to impart this knowledge to the student. This approach is often based on a fixed curriculum that outlines the content that students are expected to learn. The

focus is on the acquisition of knowledge, rather than on the application of that knowledge in practical situations. While traditional didactics has been criticized for its focus on rote learning and the passive role assigned to the student, it remains an important foundation for many educational practices today. As Brousseau (1998) notes, "Traditional didactics has provided a basis for the construction of more elaborate models that account for the complexity of the didactic phenomena" (p. 4).

1.1.3.1. Defining Learning Theories

Learning theories refer to a set of ideas, concepts, and principles that attempt to explain how individuals acquire, retain, and apply knowledge and skills over time. As Tomic and Tomic (2019) note, learning theories are "conceptual frameworks or explanatory systems that describe how information is processed, stored, and retrieved in the mind of an individual or a group of individuals" (p. 100). These theories provide a lens through which researchers and educators can understand the processes involved in learning and develop effective instructional strategies that align with these processes. As one example, Bruner (1996) emphasized the importance of actively constructing knowledge rather than passively receiving information, stating that "learning is an active process in which learners construct new ideas or concepts based upon their current/past knowledge" (p. 11).

1.1.3.2. Rationalism

One of the earliest established theories in education is rationalism, which is a philosophical approach that emphasizes the role of reason and logic in acquiring knowledge. According to the rationalism theory, knowledge is not solely based on sensory experiences, but can also be gained through the use of reason and deduction. As René Descartes (1641) stated, "I think, therefore I am", which highlights the importance of reasoning and rationality in establishing one's existence. Similarly, Immanuel Kant (1781) believes that "thoughts without

content are empty, intuitions without concepts are blind", emphasizing the role of rational concepts in organizing sensory experiences. Rationalism has been a significant influence in various fields, including science, mathematics, and philosophy. It is often contrasted with empiricism, which emphasizes the role of sensory experiences in acquiring knowledge.

1.1.3.3. Empiricism

Empiricism is a philosophical approach to knowledge that emphasizes the importance of sensory experience in the acquisition of knowledge. According to this view, all knowledge is ultimately derived from sensory experience, and our senses are the ultimate source of knowledge about the world. The British philosopher John Locke is considered to be one of the most important empiricists in the history of philosophy. He believed that the mind is a "tabula rasa" or blank slate at birth, and that all knowledge comes from experience. Another prominent empiricist, David Hume, believed that knowledge of the world can only be derived from sense experience, and that reason cannot provide us with any knowledge that is not already contained in our sensory experience. As he wrote in his "Treatise of Human Nature": "All our reasonings concerning matters of fact are founded on a species of Analogy, which leads us to expect from any cause the same events, which we have observed to result from similar causes" (Hume, 1739-40).

1.1.3.4. Behaviorism

Behaviorism is a school of thought that emerged in the early 20th century, and its theories are based on the idea that behavior can be modified through conditioning by focusing on only observable and measurable behaviors without caring about what happens inside the mind whether on a neurological or psychological level. According to Skinner (1953), "behavior is shaped and maintained by its consequences" (p. 33). Behaviorists believe that learning is the result of the relationship between a stimulus and a response, and that behavior can be modified

through the use of reinforcement or punishment. As Watson (1913) states, "give me a dozen healthy infants, well-formed, and my own specified world to bring them up in and I'll guarantee to take any one at random and train him to become any type of specialist I might select—doctor, lawyer, artist, merchant-chief, and yes, even beggar-man and thief, regardless of his talents, penchants, tendencies, abilities, vocations, and race of his ancestors" (p. 82). In addition, behaviorism emphasizes the importance of environmental factors in shaping behavior, and has been applied to a variety of fields, including education, psychology, and even advertising.

1.1.3.4.1. Classical Conditioning

In the early 1900s, Ivan Pavlov created the classical conditioning learning theory. According to this behaviorist notion, if we perceive two items as frequently being close to one another, we will learn to associate them. According to Pavlov (1927), classical conditioning is the process by which an organism learns to associate two stimuli that are presented together, such that the response to one of the stimuli changes. In his research, he conducted the experiment of striking a bell right before feeding a dog. He soon discovered that regardless of whether food will be delivered, the dog would salivate after the bell was rang in expectation of food. This experiment demonstrated how we can program our brains to respond to stimuli automatically. The dog's slobbering wasn't a deliberate action. Instead, it was a subconscious response that demonstrated how the dog's brain had become permanently wired to respond in a particular way over time. He also noted that this type of learning can occur involuntarily and that the conditioned response can be generalized to other stimuli that are similar to the original conditioned stimulus. As Skinner (1953) described, "Classical conditioning is thus seen to involve the establishment of an association between two stimuli which previously had little or no relation to each other" (p. 113). This type of learning has been applied in a variety of contexts, from training animals to therapy for humans.

1.1.3.4.2. Operant Conditioning

Classical conditioning is built upon by operant conditioning, which is a type of learning theory developed by B.F. Skinner that emphasizes the relationship between behavior and its consequences and it demonstrates that some concepts from classical conditioning may be applied to consciously learning things. Skinner believed that behaviors are shaped through reinforcement and punishment, and that "reinforcement strengthens the behavior and increases the probability that it will be repeated, whereas punishment weakens the behavior and decreases the probability that it will be repeated" (Schacter et al., 2011, p. 221).

In his experiment, Skinner created a device known as a "Skinner box" which was a contraption that taught cats to open a food box by pulling a lever next to it. The cats initially had no idea how to obtain the food. They attempted to gain in by scratching around the box. However, they eventually discovered that the lever allows them to reach the food. Therefore, The cats developed enough intelligence to simply pull the lever at will. The cats were trained using food as a kind of positive reinforcement. The reinforcement is positive when a desired behavior is followed by a reward, and it is negative when an undesired behavior is followed by the removal of an unpleasant stimulus. Punishment, on the other hand, can also be either positive, where an undesired behavior is followed by an unpleasant consequence, or negative, where a desired behavior is followed by the removal of a pleasant stimulus.

1.2. Modern Didactics

1.2.1. Introduction to Modern Didactics

Modern didactics is not simply the integration of technology into teaching, but rather a more holistic approach that involves a deep understanding of how technology can be used to support and enhance student learning. They emphasize the importance of a thoughtful and intentional approach to technology integration that takes into account the specific context and

needs of each classroom.

1.2.2. History and Development of Modern Didactics

In the 20th century, the field of didactics underwent significant changes as new theories and teaching strategies emerged. One of the most significant changes was the shift from teacher-centered to student-centered learning. Educational psychologists such as Jean Piaget and Lev Vygotsky developed theories that emphasized the importance of student involvement in the learning process (Eggen & Kauchak, 2019). These theories influenced the development of modern didactics and led to the adoption of new teaching strategies, such as problem-based learning and cooperative learning.

1.2.2.1. Roots of Modern Didactics

The roots of modern didactics can be traced back to the progressive education movement of the late 19th and early 20th centuries, which sought to move away from the traditional factory model of education towards more personalized and experiential approaches. Progressive educators such as John Dewey and Maria Montessori emphasized the importance of hands-on learning, student choice, and active engagement with the material (Dewey, 1930).

1.2.2.2. Modern Didactics in Practice

Modern didactics is an ever-changing and vital field of education that has gained increasing prominence in recent times. It is a comprehensive area that covers a wide range of educational contexts, from K-12 schools to higher education and beyond. The field's primary focus is on creating, executing, and assessing efficient teaching and learning approaches that consider the most up-to-date research and effective practices in education.

The modern or current didactic experience is characterized by several teaching practices that are aimed towards enhancing the teaching and learning process.

1.2.2.2.1. Learner-Centeredness

The concept of "student-centered learning," also known as "learner-centered education," is one important practical component of modern Didactics, it refers to a variety of instructional strategies that place the student rather than the teacher at the center of the learning process. According to Hase & Kenyon (2000):

"Effective education does not consist of a fixed body of knowledge transmitted from teacher to student but, instead, is an active, creative, and exploratory process in which both teacher and learner participate. It is not enough for students to memorize information and repeat it back on exams. Rather, students must be active participants in their own learning, taking responsibility for their own education and collaborating with others to construct knowledge and solve problems. This requires a shift away from a teacher-centered approach to education and towards a learner-centered approach that prioritizes student agency, autonomy, and engagement in the learning process" (p. 3).

Today, the focus is on promoting students' self-education, which develops with time and experience. Therefore, it is better for students if they are pushed to learn by means of practical activities in addition to academic knowledge because retention rates soar and students are better able to apply their knowledge in real-world situations.

1.2.2.2.2. Active learning

Active learning, in contrast to traditional learning, is a broad learning approach that involves students in learning alongside the teacher. These techniques typically entail some students cooperating during class, but they may also involve private work or reflection.

1.2.2.2.2.1. Collaboration

Active learning promotes problem-solving skills, and communication skills by group and hands-on exercises. It also encourages students to take an active part in their own education instead of just being receivers of content.

Working together is a crucial component of active learning. Dillenbourg (1999) believes that "collaborative learning has been shown to promote higher-order thinking, problem-solving, and critical reflection, as well as the development of interpersonal and communication skills" (p. 1). Peer collaboration can take many different forms, such as engaged in pairs, small groups, or by participating in peer teaching. Collaborating with others motivates students to take an active role in discussions, share thoughts and opinions, and have a dialogue that improves their comprehension of the subject matter.

1.2.2.2.2.2. Experimental Activities

Active learning includes hands-on exercises that let students investigate, test, and make connections between the subject matters. Simulations, research projects, problem-solving exercises, and practical exercises are a few examples of these activities. Learners can actively interact with the material through experiential learning, which encourages them to exercise critical thought, put knowledge to use, and hone real skills that can be used in real life.

1.2.2.2.2.3. Inquiry-based Learning

Instead of just memorizing facts, inquiry-based learning is built on asking questions and finding solutions. According to the National Research Council of the United States (2000), "inquiry-based learning approaches can promote critical thinking, problem-solving, and deeper understanding of concepts by actively engaging students in the process of learning" (p. 23) Critical thinking abilities are encouraged by inquiry-based learning, which is one of its main advantages. Instead of just listening to what is said, teachers encourage their students to pose questions and look for solutions on their own. This fosters the growth of their capacity for critical thought, data analysis, and independent evaluation of the proof.

1.2.2.2.2.4. Reflection

Reflection can take many various forms, but it always involves considering and

evaluating one's own learning experiences. Self-evaluation, group talks, and journaling are a few typical formats for reflection.

According to Ash & Clayton (2009), "reflection is a critical component of learning, allowing students to examine their experiences, make connections between their learning and real-world contexts, and develop a deeper understanding of themselves and their place in the world" (p. 199). It also aids students in gaining a better comprehension of the subject matter. Students can link new knowledge to what they previously understood when they think about everything they have learned. Instead of just being a collection of disparate facts, the content becomes more coherent and integrated as a result.

1.2.2.2.2.5. Diversity

Active learning has many different forms and can be customized to meet the requirements and interests of various students, which is one of its main advantages. According to the National Academies of Sciences, Engineering, and Medicine (2018), "embracing diversity and providing inclusive learning environments is critical to promoting equity and excellence in education" (p. 6). The ability to cater to the requirements of various learner types is one of the main advantages of diverse active education activities.

1.2.3. Theories of Modern Didactics

Modern didactics draws upon a range of theoretical perspectives to inform teaching and learning practices. In fact, each of the famous schools of thought in education developed different theories, each of which was led by several scholars.

1.2.3.1. Cognitive Theories

Jean Piaget is recognized for leading and starting the development of the cognitivism theory. The foundation of cognitivism as a school of thought is based on studying the thought

process that underlies a behavior. Accordingly, people think about the knowledge they learn rather than just reacting to external stimuli. When a learner actively seeks out methods to comprehend and process new information and correlate it to what has previously been learned and preserved in the memory, cognitive processing of data is being used. This idea is put into practice in the classroom when the student participates in tasks like discussion and problem-solving. Students are assigned problem-based tasks, and the teacher acts as a facilitator. Students are instructed by their teacher to ask questions in order to gather data, analyze it, and make conclusions. A student who is confused is experiencing cognitive disequilibrium, and they acquire cognitive equilibrium when they fully comprehend a subject. Critical thinking is promoted among the students. The tasks are typically completed through active exploration learning and are centered on the students.

1.2.3.1.1. Constructivism

Constructivism is a learning theory that emphasizes the importance of students actively constructing their own knowledge and understanding through their experiences and interactions with the environment. According to this theory, learning is not just about the acquisition of information, but rather the process of creating meaning and understanding through personal experiences and interactions. As Piaget (1976) stated, "the principal goal of education is to create men who are capable of doing new things, not simply of repeating what other generations have done" (p. 26). Additionally, the constructivist learning theory puts emphasis on the idea that new knowledge is "constructed" in the mind. Therefore, the constructivist theory emphasizes the importance of student-centered learning and active engagement in the learning process.

1.2.3.1.2. Social Constructivism

This theory's proponent, Vygotsky (1978), asserts that social contact and context are

crucial for cognitive growth. The foundation of social constructivism is the idea that information is created, interpreted, and reorganized by learners when they use it with a "more knowledgeable other". Within the social and cultural environments where the ideas occur, learners actively engage to make sense of the information they are taught in the classroom in relation to what they already know. In order to learn more, students engage in interactions with experts in their field. These individuals include the instructor and the more intelligent learners. According to Gordon (2009), when students collaborate with peers under the guidance of teachers, learning, mental growth, and knowledge are all enmeshed in a specific social and cultural context. Furthermore, active learning is promoted by classroom tasks that are typically organized in groups. Students collaborate in order to achieve effective learning. Through processes like inquiry, interpretation, and creation, the learners are required to acquire information through the activities.

1.2.3.1.3. Cognitive Constructivism

The cognitive constructivist learning theory agrees with social constructivists on the main concepts of a constructivist learning theory, but they differ on the significance of social interaction in learning. Cognitive constructivists, in contrast, entirely concentrate on the subconscious and how it changes over time. While social constructivists may place a greater emphasis on "nurture" as a factor in learning, cognitive constructivists place a greater emphasis on "nature" as a factor in learning.

Piaget (1973) stated, "each time one prematurely teaches a child something he could have discovered for himself, that child is kept from inventing it and consequently from understanding it completely" (p. 167). In other words, learners need to be given the opportunity to explore and discover things on their own in order to truly understand them. Piaget believed that learners are constantly testing their own hypotheses about the world and adjusting their understanding based on the outcomes of their experiments, just like scientists in a laboratory. They can venture into

the world and pick up knowledge only by making mistakes. Exploring their surroundings allows students to make new discoveries that can advance their understanding of concepts such as how gravity operates, how trees grow, and how the computer works.

1.2.3.1.4. Bloom's Taxonomy

Bloom's taxonomy is a framework that categorizes educational goals into three domains: cognitive, affective, and psychomotor. The cognitive domain focuses on intellectual skills, such as knowledge, comprehension, analysis, synthesis, evaluation, and creativity. The affective domain pertains to attitudes, values, and emotions, while the psychomotor domain deals with physical skills and abilities. According to Bloom et al. (1956), "These domains represent a dynamic continuum of learning. Each domain is organized according to a hierarchy, with higher-order skills building upon lower-order skills" (p. 17).
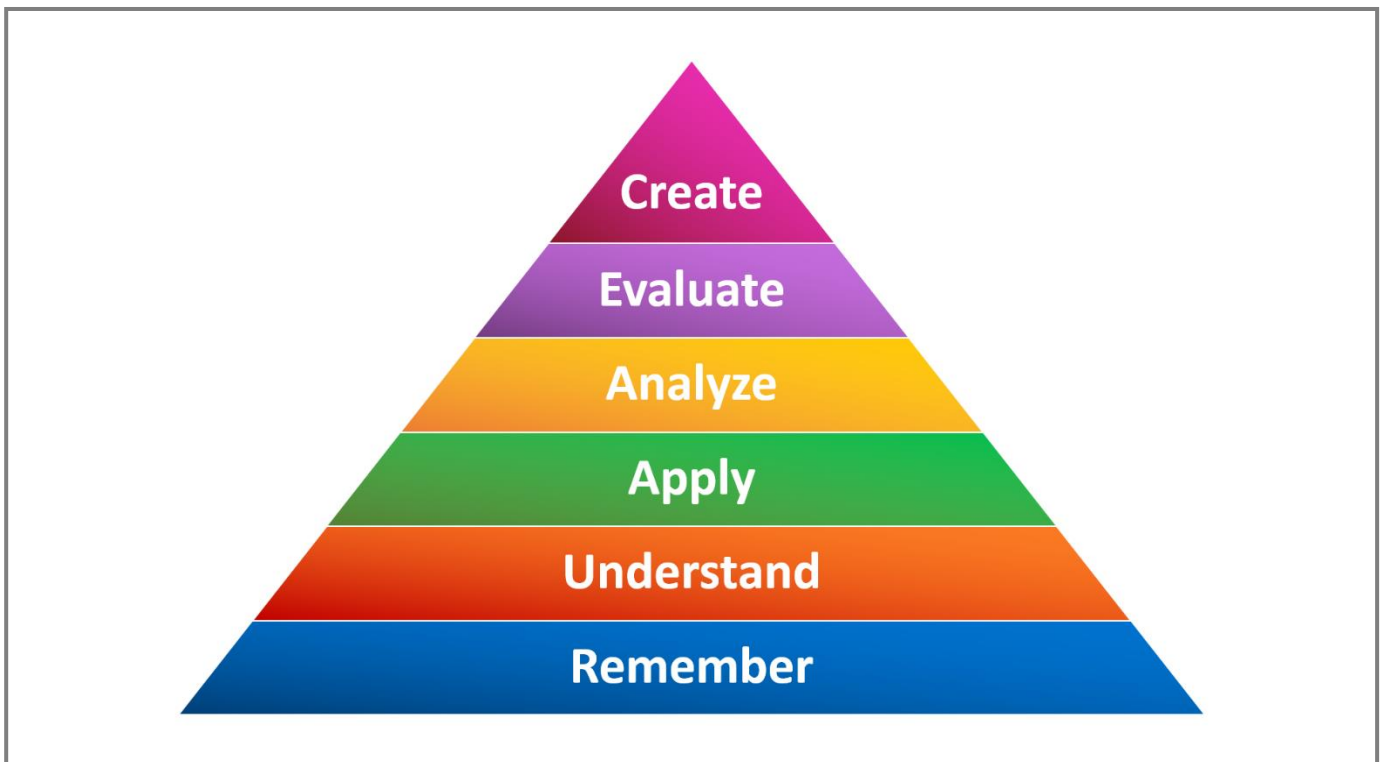
Figure 1.4: Revised Version of Bloom's Taxonomy

(Adapted from Wilson, 2016)

The taxonomy serves as a guide for educators in developing instructional objectives and assessments that target specific domains of learning. For example, a teacher might design a lesson that focuses on developing critical thinking skills in the cognitive domain, or a lesson that aims to foster empathy and respect in the affective domain. It is worth mentioning that it is crucial to specify exactly the verbs related to skills and abilities learners will be able to do by the end of the teaching session, the program and the curriculum.

1.2.3.1.5. Cognitive Load

Cognitive load theory is a learning theory that describes how the working memory of the brain processes information during learning. It proposes that the human cognitive system has limited processing capacity and that learning is hindered when this capacity is exceeded. According to cognitive load theory, learning is most effective when the cognitive load is managed by reducing extraneous cognitive load (related to irrelevant information) and germane cognitive load (related to the learning task) while increasing the intrinsic cognitive load (related to the complexity of the learning task). This theory has been applied to various fields, such as instructional design, e-learning, and multimedia learning, with the aim of improving learning outcomes.

One of the key proponents of the cognitive load theory is John Sweller, who proposed the theory in the 1980s. In his book "Cognitive Load Theory and Educational Instruction," Sweller explains that "cognitive load theory assumes that the mind has a limited capacity for processing information during learning and that when the mind is overloaded, learning will be impeded" (Sweller, 2011, p.2). Another influential researcher in this field is Richard Mayer, who has conducted numerous studies on multimedia learning and the cognitive load theory. In his book "Multimedia Learning," Mayer (2009) states that "cognitive load theory provides a framework for designing instructional materials that facilitate learning by taking into account the limitations of human memory and processing capacity" (p. 10).

1.2.3.1.6. Multimodal Learning

The multimodal learning theory is a framework that suggests that individuals learn more effectively when information is presented in multiple modalities, such as visual, auditory, and kinesthetic. This theory emphasizes the importance of creating learning environments that engage learners in a variety of sensory experiences to enhance learning and retention. According to the multimodal learning theory, learners can better understand and remember information when it is presented in a way that aligns with their preferred learning style. This theory has practical applications in a variety of educational settings, from elementary schools to corporate training programs.

One of the pioneers of the multimodal learning theory is Richard Mayer, who stated that "the use of multiple media helps people learn more deeply from words and pictures than from words alone" (Mayer, 2005, p. 9). He also emphasized that "redundancy is often beneficial for learning, especially for low-knowledge learners" (Mayer, 2005, p. 36). Another key researcher in this field is Allan Paivio, who proposed the dual coding theory, which suggests that information is processed and stored in two distinct systems - verbal and nonverbal - and that learning is enhanced when information is presented in both modalities (Paivio, 1986). Paivio stated that "the dual coding theory implies that information in two or more modalities is more likely to be retained in long-term memory than information in only one modality" (Paivio, 1986, p. 7).

1.2.3.1.7. Kohlberg's Stages of Moral Development

Kohlberg's stages of moral development theory is a psychological theory that proposes that individuals progress through a series of six stages of moral development as they mature. This theory emphasizes the importance of reasoning and critical thinking in moral decision-making and suggests that moral reasoning becomes increasingly complex and sophisticated as

individuals move through each stage. According to Kohlberg, moral development is a lifelong process, and individuals can continue to develop their moral reasoning skills throughout their lives.

Kohlberg's theory has been influential in fields such as education, psychology, and criminology, among others. Kohlberg stated that "the most important single factor in facilitating moral development is the individual's level of cognitive development" (Kohlberg, 1984, p. 30). He also emphasized that "moral development is a process that takes place throughout the lifespan, with each stage building upon the previous one" (Kohlberg, 1984, p. 10). Another key researcher in this field is Lawrence Walker, who has conducted numerous studies on moral development and education. Walker stated that "moral development is an essential aspect of education that must be taken seriously by educators" (Walker, 2013, p. 42).

1.2.3.2. Social And Cultural Theories

The importance of connection, communication, and language use in the learning process is what social and cultural theories focus on. According to them, speaking styles have a significant influence on learning. Similar to this, the frequency of your interactions with intelligent people and your peers will probably have an impact on how your brain develops.

1.2.3.2.1. Social Learning

The Social Learning theory is an approach that emphasizes the role of social interaction in the learning process. This theory suggests that individuals learn by observing and imitating the behavior of others, and that this learning process is influenced by the social context in which it takes place. The Social Learning theory has been influenced by the ideas of prominent social psychologists such as Albert Bandura, who emphasized the importance of modeling and reinforcement in the learning process.

One of the key principles of the Social Learning theory is the importance of observation

and imitation in the learning process. As Albert Bandura (1977) stated, "Most human behavior is learned observationally through modeling: from observing others, one forms an idea of how new behaviors are performed, and on later occasions this coded information serves as a guide for action" (p. 22). This approach emphasizes the importance of providing learners with positive role models and opportunities to observe and imitate the behaviors of others.

Another important aspect of the Social Learning theory is the role of reinforcement in the learning process. This theory suggests that individuals are more likely to repeat behaviors that are rewarded, and less likely to repeat behaviors that are punished. Also, "learning would be exceedingly laborious, not to mention hazardous, if people had to rely solely on the effects of their own actions to inform them what to do" (Bandura, 1986, p. 25). Therefore, this approach emphasizes the importance of providing learners with positive feedback and reinforcement to encourage the development of desired behaviors.

1.2.3.2.2. Sociocultural Theory

The sociocultural theory suggests that the social and cultural context are important in shaping cognitive development. This approach is very similar to Vygostky's theory since it posits that individuals learn and develop through their interactions with others and through their engagement with cultural practices and artifacts. According to Rogoff (2003), "our social, cultural, and historical worlds are the crucible in which minds develop, and cognitive growth is not just a matter of individual experience but also of shared activity and cultural practice" (p. 3).

Also, one of the key principles of Sociocultural Theory is the idea that learning and developmet are inherently social processes since "they are not solitary pursuits, but are rather embedded in social activity, collaboration, and guided participation" (Rogoff, 1990, p. 18).

Another important aspect for the theory is the role of cultural practices and artifacts in

shaping cognitive development. This approach emphasizes the importance of cultural tools and artifacts, such as language, tools, and symbols, in shaping the way individuals think and learn. As Rogoff (2003) stated, "The cultural practices and artifacts that individuals use are integral to the cognitive and social development of the individual" (p. 4). This approach emphasizes the importance of providing learners with access to a wide range of cultural tools and artifacts in order to support their cognitive and social development.

1.2.3.2.3. Situated Learning

Lave and Wegner's situated learning theory emphasizes the role of social and cultural context in shaping the way individuals learn and develop. This approach posits that learning is a social and cultural process that occurs through engagement in authentic activities and contexts. As Lave and Wenger (1991) say, "learning is an integral part of social practice and occurs through participation in communities of practice" (p. 29).

One of the main principles of this theory is the idea that learning happens through participation in authentic activities and contexts. By providing learners with opportunities to engage in real-world activities, they can find support in their learning because "it involves the whole person, in activity and in relation to others" (Lave & Wenger, 1991, p. 49). Another important aspect of situated learning is the role of communities of practice in supporting learning and development. According to Lave and Wenger (2002), "communities of practice are groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly" (p. 4).

1.2.3.2.4. Play-Based Learning

Friedrich Frobel was a German educationalist who developed the concept of kindergarten and is widely known for his theory of play-based learning. Frobel believed that play was the primary means through which young children learned about themselves and the world around

them. He saw play as a natural activity that allowed children to express themselves creatively and to develop their physical, emotional, and social skills. According to Frobel (1887), "play is the highest expression of human development in childhood, for it alone is the free expression of what is in a child's soul" (p. 11). Also, the scholar believed that through play, children could learn important life skills such as problem-solving, decision-making, and cooperation, which they could then apply to other areas of their lives. Today, we can even apply the theory through playing on digital devices, allowing learners of all ages to learn while enjoying the task.

1.2.3.2.5. Connectivism

The theory of connectivism is a modern learning theory that was developed by George Siemens and Stephen Downes in response to the rapid advancements in technology and the increasing importance of online networks. Connectivism suggests that learning is not just an individual process but rather a collective and networked activity. In this theory, knowledge is viewed as distributed and constantly changing, and learning is seen as the process of making connections and building networks. As Siemens (2005) states, "learning is a process of connecting specialized nodes or information sources" (p. 1). Connectivism emphasizes the importance of digital literacies, such as the ability to navigate and manage information, and the ability to create and participate in online communities. Downes (2007) notes that "connectivism is the application of network principles to define both knowledge and the process of learning" (p. 1). This theory has had its most effect particularly in online and distance learning environments.

1.2.3.3. Cyclical Learning Theories

Theories of the learning cycle emphasize that learning happens in cycles. Each cycle involves the learner engaging in an active experience and reflecting on it to improve the subsequent round.

1.2.3.3.1. Kolb's Experiential Learning Theory

Kolb's Experiential Learning Theory (ELT) is a widely used approach to learning and development that emphasizes the role of experience in the learning process. According to Kolb, learning is a continuous process that involves the transformation of experience into knowledge. ELT posits that learning is most effective when it involves a cycle of four stages: concrete experience, reflective observation, abstract conceptualization, and active experimentation. According to Kolb (1984), "learning is the process whereby knowledge is created through the transformation of experience" (p. 38). Also, ELT emphasizes the importance of active and engaged learning, and suggests that learners should be encouraged to reflect on their experiences, construct meaning from them, and apply this meaning in new contexts.

1.2.3.3.2. Bruner's Spiral Curriculum

Jerome Bruner's Spiral Curriculum is a model of curriculum design that emphasizes the importance of building upon prior knowledge and experience in a systematic and iterative manner. According to Bruner (1960), "any subject can be taught effectively in some intellectually honest form to any child at any stage of development" (p. 33). The spiral curriculum consists of a series of interrelated units of study that are designed to be revisited and built upon over time. Also, the curriculum is structured in a spiral, with each new level of understanding building upon prior knowledge and experience because Bruner argues that this approach allows for deeper and more meaningful learning, as students are able to develop a more complex understanding of a subject over time.

1.2.3.4. Motivational Learning Theories

According to motivational learning theories, motivational factors like personal interest may have an impact on how well learned material is activated in learning contexts and to what extent students can grasp it.

1.2.3.4.1. Growth Mindsets

Carol Dweck's growth mindset theory suggests that individuals can develop their intelligence and abilities through effort and perseverance. According to her, individuals with a growth mindset believe that their abilities can be improved with practice and that challenges are opportunities for growth, while those with a fixed mindset believe that their abilities are predetermined and unchangeable.

This theory sheds light on the idea that individuals with a growth mindset are more likely to embrace challenges, persist in the face of obstacles, and achieve their full potential. Dweck (2006) argues that "the view you adopt for yourself profoundly affects the way you lead your life". She believes that individuals who embrace a growth mindset are more likely to take on challenges and pursue their goals with a sense of purpose and determination. On the other hand, those with a fixed mindset may shy away from challenges and limit their potential for growth and achievement. Dweck (2015) also suggests that "We can all learn to use a growth mindset to develop our abilities and achieve our goals". This highlights the importance of cultivating a growth mindset through deliberate practice, feedback, and reflection.

1.2.3.4.2. Self-Determination Theory

The self-determination theory is a psychological framework that explores human motivation and personality development. Developed by Edward Deci and Richard Ryan, the theory suggests that individuals have three basic psychological needs: autonomy, competence, and relatedness. Autonomy refers to the need to feel in control of one's life, competence refers to the need to feel effective and capable, and relatedness refers to the need to feel connected to others. When these needs are met, individuals are more likely to experience intrinsic motivation, or a drive to engage in activities for their own sake rather than external rewards. As Deci and Ryan (2008) say, "the satisfaction of these needs is not only conducive to psychological health

but is also conducive to the growth and maintenance of integrated functioning and to the person's general well-being" (p. 183).

One of the key insights of SDT is that intrinsic motivation, or the drive to engage in activities for their own sake rather than for external rewards, is more beneficial for long-term well-being than extrinsic motivation. In other words, when individuals are motivated by their own interests, values, and goals, they are more likely to experience a sense of autonomy and competence, which in turn fosters a greater sense of well-being. According to Ryan and Deci (2020), "autonomy-supportive contexts promote autonomous motivation, positive affect, optimal learning and performance, and personal growth" (p. 14).

The theory has also been applied in various contexts other than education, such as healthcare, and workplace, to promote positive outcomes. When we speak specifically about education, self-determination theory suggests that providing students with opportunities to make choices and feel competent can lead to greater engagement and academic success. In the workplace, providing employees with opportunities for autonomy and connection can lead to higher job satisfaction and productivity.

1.2.3.4.3. Flow Theory

The flow theory is a framework that seeks to explain the subjective experience of optimal human performance, often referred to as being "in the zone". According to Csikszentmihalyi (1990), the Hungarian-American psychologist who developed the theory, flow occurs when an individual is fully absorbed in an activity that is challenging but within their skill level, leading to a state of complete focus and enjoyment. As Csikszentmihalyi (1997) explains, "flow is being completely involved in an activity for its own sake. The ego falls away. Time flies. Every action, movement, and thought follows inevitably from the previous one, like playing jazz. Your whole being is involved, and you're using your skills to the utmost" (p. 4).

The experience of flow has been linked to a wide range of positive outcomes, including increased motivation, creativity, and well-being. The theory suggests that flow can be achieved in a variety of contexts, from sports and movies to work and education. Csikszentmihalyi (1997) notes that "almost any activity can produce flow, provided that it meets the requirements for complexity and skill" (p. 52).

While flow theory has been influential in a number of fields, it has also faced criticism for its focus on individual experience and lack of attention to larger societal factors that may shape opportunities for flow experiences. However, it remains a valuable framework for understanding the subjective experience of optimal performance and the conditions that promote it.

Conclusion

The traditional approaches in didactics might still be relevant in some circumstances, but modern didactics offers a more beneficial and effective way of educating students. Traditional techniques have been substituted with contemporary methods that prioritize student-focused learning as well as critical thinking, which leads to the conclusion that education has advanced significantly in terms of didactics. The way students study has changed, becoming more engaging, pertinent, and efficient thanks to the introduction of cutting-edge methods and theories that incorporate science and technology. Accordingly, students become more motivated and feel a greater sense of ownership of their educational experience thanks to these contemporary didactics strategies, which can assist them succeed in the current world's accelerating change.

To conclude, the development of didactics has been advantageous since it has contributed to the development of a more student-centered educational setting that encourages collaboration, creativity, and critical thinking. Therefore, educators can keep improving how

children should be educated and get them ready for a prosperous future by adopting current didactics.

CHAPTER TWO: Edutainment

Introduction

Entertainment refers to any form of activity or performance designed to amuse, entertain or delight an audience. It can take many forms, including films, television, theater, sports, and video games. The purpose of entertainment, usually, is to provide enjoyment and diversion from the routine of daily life. It can serve as a means of relaxation, escape, or inspiration and has been an essential aspect of human culture throughout history. Entertainment can also be a powerful tool for social commentary, education, and political expression, as it allows artists and performers to communicate ideas and emotions in a way that is accessible and engaging to a broad audience. Whether it is in the form of a blockbuster movie or a small community theater production, entertainment has the ability to bring people together and create a shared experience that can be enjoyed by all.

When it comes to education, entertainment can have both positive and negative effects on it. On one hand, well-designed educational games, TV shows, and films can make learning more enjoyable and engaging for students, helping them to retain information and develop critical thinking skills. For example, documentaries or films that explore historical events or scientific concepts can help to bring these subjects to life and make them more accessible to students who might otherwise struggle to engage with them. On the other hand, excessive exposure to non-educational forms of entertainment, such as video games or social media, can be distracting and potentially harmful to academic performance. It is important for students to find a balance between entertainment and education in order to maximize their academic success. Additionally, educators can use popular culture and entertainment as a tool to relate to and engage students, as well as to teach important lessons and values. Therefore, the purpose of this chapter is to explore how entertainment can be used effectively in the educational field and how the term "edutainment" came to life for the sake of improving the didactic experience

in modern times.

2.1. Introduction to Edutainment

Edutainment has become an increasingly popular approach to education, as it combines learning with entertainment to make the process more engaging and enjoyable for students. IT can be used in a variety of educational settings, from primary schools to higher education institutions, and can be tailored to suit different learning styles and preferences. However, the term itself has to be examined and explained, along with its roots, first.

2.1.1. Background on Edutainment

2.1.1.1. Definition

Edutainment is a form of media that is designed to both educate and entertain. Or, it is simply the combination of the words "education" and "entertainment." Also, the term refers to software and technological items that in some way integrate both. Many of these modern products and technologies aim to increase students' and young people's interest in education.

Walt Disney coined the term "edutainment" in 1954 to characterize the True Life Adventures television series. Robert Heyman coined the word "edutainment" in 1973 while creating programs for the National Geographic Society. Dr. Chris Daniels used it in 1975 to sum up the focus of his Millennium Project. The Elysian World Project is the name given to this endeavor later on. In 2001, the phrases "edutainment" (and "busitainment") were introduced to describe how the CRUMPET endeavor, on context-aware and personalized tourism, refers to individuals who travel for adventure but also for business and educational purposes and who do not see themselves as traditional "tourists." Also, it is worth mentioning that Craig Sim Webb has been referring to someone who provides edutainment performances and presentations as an "edutainer" since before the year 2000.

Technology in education is a new opportunity to learn in an engaging fashion is provided

by edutainment, which enables trained students of all abilities to learn on an even footing with traditional students. The viewpoint D. Buckingham and M. Scanlon (2005) is that edutainment is a particularly intriguing combination of conventional content and instructional strategies. They claim that this system is beneficial on a variety of levels because it employs innovative teaching strategies to engage motivated students by allowing them to observe the immediate outcomes of their efforts.

Edutainment can also be considered as a new learning technique that is built on the idea of learning through enjoyment. It may be thought of as an amalgam of contemporary technology and teaching-learning. According to Anikina et al. (2016):

"Edutainment is a feature of the technology implementation of modern forms of entertainment in traditional lectures, lessons, classes, workshops and master classes. Without television programs, desktop, computer and video games, movies, web sites, multimedia software is already impossible to imagine. A modern training and communication. Classes and activities held in the format of the technology. Edutainment can be conducted in the cafe, park, museum, office, and gallery, club, where you can obtain information on any informative topic in a relaxed atmosphere."

With the advancement of educational technology for educational objectives, we can now see it flourishing. Academics, corporations, and governmental organizations have used edutainment in a variety of methods to spread knowledge through classroom instruction and multimedia, affecting viewers' beliefs and behavior. Modern types of edutainment, that employ enjoyment to draw and keep an audience while including instructional content, include television programs, film, museum exhibits, computer games, and software.

In a few words, edutainment is merely the blending of education with entertainment, or boosting education by making it more engaging, even though it seems to be gaining popularity in recent years. By offering easy-to-use and digital distribution that promote the production of specialized content, technology makes it easier for educators to become edutainers.

2.1.1.2. History

Since the Renaissance and Enlightenment, when this combination was introduced to students, there has been interest in fusing education and entertainment, particularly to make studying more entertaining.

Particularly Komensk is associated with the idea of "school as play," which suggests education with exciting or enjoyable components. Benjamin Franklin combined entertaining and informative information, such as riddles and norms of behaviour, into a teaching entity for colonists in Poor Richard's Almanack, demonstrating early adoption of edutainment.

Walt Disney is responsible for the later establishment of the term "edutainment," as the Deneer Dental School commissioned and funded the production of his first instructional brief movie, Tommy Tucker's Tooth, in 1922. Since Disney and the U.S. government developed a relationship as a result of the U.S. joining World War II, Disney was able to test the waters with educational and nonfiction movies in a way that kept going even after the war, with series like True-Life Adventures and Disneyland. This had a significant impact on the success of educational entertainment.

The following quote can be found in the transcript of an Alexander P. de Seversky interview of The Walt Disney Archives, whose date and interviewer are unknown:

"It is a new kind of entertainment that goes far beyond simply "amusing" its audience. This picture is vital entertainment--it treats a subject that directly affects every man, woman, and child, in America. With dramatic action it exposes the basic ideas that will rid the mind of confusion and clarify the war thinking of the public"

Since the 1970s, a variety of organizations in the US, the UK, and Latin America utilized edutainment to tackle health and social concerns such drug misuse, immunization, teenage pregnancies, HIV/AIDS, and cancer. Edutainment content has been developed by initiatives at prestigious colleges like the Johns Hopkins Center for Communication Programs and the

University of Wisconsin-Madison, NGOs like PCI-Media Impact, and governmental organizations like the U.S. Centers for Disease Control.

Television shows, movies, exhibitions at museums, educational video games and computer programs are examples of contemporary forms of edutainment that intentionally incorporate instructional content or messages while using amusement to draw in and keep an audience. It is also clear that educational components are being included into formerly established leisure contexts, such vacations and games.

2.1.2. Types of Edutainment

The field of entertainment is very broad and its content comes in different formats. However, the following section will tackle the most effective genres and the most compatible ones with education.

2.1.2.1. Video Games

Video games can instruct people a lot, making them one of most strongly effective educational tools, particularly when they are made with a specific lesson in mind. There are many advantages to games, from the auto industry to sports. Video games that simulate real-world situations, such as racing games, games that simulate space travel, games that simulate the effects of gravity, and games that simulate the profession of medicine, are very useful for teaching pupils through virtual worlds. Traditional games like chess, scrabble, crosswords, and others that improve vocabulary, critical thinking, and creative thinking are among the other types of games. For efficient usage of edutainment, researchers are carefully examining various ways to merge these techniques using digital media technologies and artificial intelligence.

Video games can be a valuable tool for learning, as they can engage players in a way that traditional teaching methods may not. According to James Gee (2003), a professor of literacy studies at Arizona State University, video games can provide a "situated learning experience,"

where players are immersed in a virtual environment that allows them to explore, experiment, and learn by doing. This approach can be particularly effective for complex or abstract topics, as it provides a hands-on experience that can help students understand concepts in a more tangible way.

Moreover, video games can also help students develop important skills such as problem-solving, critical thinking, and collaboration. As the expert on gamification, Gabe Zichermann (2010) explains, "video games are designed to be solved by the player. They're designed to be engaging and fun, but also to teach you something." By incorporating video games into educational settings, teachers can tap into these benefits to help their students learn more effectively.

People can learn new things, deepen their understanding of existing ideas, reinforce their development, gain a better understanding of a historical event or another culture, or even improve their skills while playing educational games. At least 68% of American homes play video games, according to Paraskeva (2010). Numerous recent research articles make the claim that gaming and education can be combined to improve academic performance and success.

Games are generally seen as learning tools for three reasons, as reported by Van Eck (2006). First, study has shown that video games can be educational, using the last 20 years' worth of educational outcomes as evidence. Second, the current generation prefers "multiple streams of information," which include frequent and fast interactions that enable inductive thinking. Third, a billion-dollar industry has been spawned by the simple popularity of gaming. The concept of enjoying a game implies that the participant is doing so voluntarily. An element of "fun" should be present in the action. This does not imply that they are only doing it for fun; they may also be doing it to develop new skills, interact with the gaming community, and pass time doing something they enjoy.

However, it is important to note that not all video games are created equal when it comes

to learning. It's crucial to choose games that are specifically designed for educational purposes, as these will be more likely to align with learning objectives and provide meaningful feedback. As James Paul Gee (2003) notes, "we need to think carefully about which games to use, and for what purposes. But if we do it right, we can help students learn in ways that are engaging, challenging, and fun."

2.1.2.2. Movies and Series

As early as 1943, films and series with instructional themes began to emerge. Television itself became the preferred form of instructional entertainment following World War II. Today, it is unquestionably that movies and series are great ways to use media and entertainment to promote learning. Movies and series have the power to sway the general public and reach people in ways that are impossible with other media. Many intricate and delicate messages can be beautifully conveyed in a movie that lasts around two to three hours or a series of multiple episodes. These influence thoughts and aid in understanding reality. According to Gronseth and Lomicka (2014), "movies and series can be powerful tools for stimulating student engagement, promoting critical thinking, and developing cross-cultural competence" (p. 234). Also, this kind of entertainment has covered a wide range of subjects, from abstract ideas like psychology to concrete ones like history, math, and languages. Therefore, educators can find different options and titles of franchises that can be used for learning and teaching.

2.1.2.3. Toys

The use of toys as a teaching tool is a crucial aspect of edutainment. Toys aid in the development of practical skills in addition to being used for instruction. Toy samples can be used by kids to develop their talents. Examples of simple teaching tools for kids include small musical instruments, legos, games for boards, animal and plant toys, and Rubik's cube. Their improvisational talents and teamwork techniques develop as a result.

Similar to imitation in video games, toys are frequently used in imitation and roleplay to fully experience characters or circumstances that would not otherwise be feasible. According to Hirsch-Pasek et al. (2015), "toys can provide a fun and engaging way for children to learn new concepts and develop important skills such as problem-solving, creativity, and social interaction" (p. 126). They can be utilized as simple techniques to develop a child's instinct or personality. Toys frequently function in the opposite direction, giving kids a way to express those things. For example, a girl may use a doll to explore motherhood as well as imitate her mother.

Even for toys with no explicit educational value, a considerate parent or teacher can make a static figurine, for instance, into an object of interest by indicating out its features or outfits, or by referencing its history or science (for example, a figurine of a Native American could serve as a starting point for investigating American history, a representation of Santa Claus might be used to explore the origins of Christmas, or a toy astronaut to look into science. This can be done in conjunction with other educational activities, also, he majority of kids are inherently curious, which may explain why they occasionally destroy their toys in an effort to learn more about the contents, the mechanics, or the source of a certain sound. Caregivers should take advantage of this trait.

Even adults can discover things about children through their toys, such as their talents or hobbies, their extrovert or introvert tendencies, and even whether they despise toys in favor of social activities or sports. By doing this, adults can make the most of the children's skills and correct which is wrong or lacking.

As their creation and execution may vary from the straightforward to the complex, some toys, like Lego or the Rubik's Cube, have significant appeal and advantages for both kids and adults.

2.1.2.4. Applications

Mobile and computer applications have become increasingly popular in education as they offer new and innovative ways to engage students and enhance their learning experience. The use of educational apps can help to improve students' understanding and retention of subject matter by providing interactive and personalized learning experiences that can be accessed anywhere and anytime. "Mobile apps provide an opportunity for students to access interactive learning tools anytime and anywhere, at their own pace, and to learn through active engagement with the material" (Hill, 2012, p. 66). Additionally, computer applications can be used to facilitate collaboration and communication among students and between students and teachers. "The interactive and collaborative features of computer applications can enhance the learning experience by promoting social interaction and encouraging active engagement with the material" (Lin et al., 2015, p. 368). However, it is important to note that the effectiveness of mobile and computer applications in education depends on their design and implementation. As Gikas and Grant (2013) note, "in order to realize the full potential of mobile and computer applications in education, careful planning and design are essential" (p. 222).

2.1.2.5. Podcasts

Listening to podcasts is another well-liked edutainment application. Podcasts are a more sophisticated type of radio, which evolved from radios as the primary source of news and information. Different podcasts cover different themes and are presented by experts who are excellent speakers as well as having the ability to capture listeners' attention and hold it. They are made up of various/single episodes that frequently include professionals or guest speakers. Because they can easily be used in a device that can be while driving, traveling, or performing tasks around the house, podcasts are simple to listen to.

As Gurung et al. (2020) suggest, "podcasts can provide an engaging, flexible, and personalized approach to learning that allows students to explore topics in depth and at their

own pace" (p. 191). Examples of programs that utilize music and film to educate subjects like arithmetic, science, and history include Schoolhouse Rock, Wishbone, Sesame Street, as well as Bill Nye the Science Guy. The Iliad or the Odyssey are two examples of previous oral traditions that mention the use of music to help with memory. A lot of what edutainment has to offer, particularly in the audio and video formats, is available online on sites like YouTube, where you can find channels like CGP Grey, Minute Physics, Meet Arnold, Veritasium, and Crash Course.

2.1.2.6. Anime

Anime, which refers to Japanese animated productions, has gained a significant following around the world, and its popularity has led to its use in education as a tool to engage students and teach various subjects. According to Perlmutter (2014), "anime is no longer just a niche interest, it has become a global phenomenon, with millions of fans around the world" (p. 1). Anime can be used to teach language, culture, and history, among other topics, and it has been found to be an effective way to promote interest and motivation in students. As Nakajima (2014) believes, "anime and manga are highly engaging and accessible media that can be used to create a fun and exciting learning environment for students" (p. 11).

Additionally, anime can provide a unique and diverse perspective on various topics, which can help students to develop critical thinking skills and broaden their understanding of the world. "Anime offers an alternative lens through which students can view and understand culture, history, and society, allowing for a deeper understanding and appreciation of the complexities of the world around them" (La Marre et al., 2018, p. 371). However, it is important to note that the use of anime in education should be carefully considered and integrated into the curriculum in a meaningful way. Tsai (2016) believes that "anime can be a valuable tool in education, but it is important to use it effectively and thoughtfully, and to consider the potential cultural and linguistic barriers that may exist for students" (p. 214).

Furthermore, educators and anime producers should make use of this genre and make well-created, innovative, and suitable anime for educational purposes since "anime has the potential to be an innovative and engaging tool for educators, and there is a growing demand for high-quality educational anime content" (Parker, 2020, p. 100).

2.2. Integration of Edutainment

Integrating edutainment has become increasingly popular as a means to engage and motivate students. The use of gamification, simulations, and interactive media has been shown to improve students' attention, motivation, and learning outcomes. According to a study by Nadelson and Jordan (2017), "the use of gamification in education can foster engagement, learning, and motivation" (p. 142). Another study by Ruiz-Gallardo and colleagues (2020) found that the use of virtual reality simulations improved students' spatial reasoning abilities. When we speak about kids, Neil Postman (1995) stated that "children learn best when they are engaged in the material, and what could be more engaging than a good story?" (p. 61). Overall, incorporating entertainment in the educational field can be a valuable tool in enhancing students' learning experiences and outcomes.

2.2.1. Incorporating Educational Theories

Edutainment has several theories that have been developed over the years. These theories are related to didactics in the first place. Hence, edutainment has to depend on them in order to explain how education can use entertainment principles to facilitate teaching, enhance both learning and engagement among learners. However, one should bear in mind that those theories are not the only ones out there. Different views on learning through entertainment are closely related. For example, experiential learning and play-based learning have a lot in common since both emphasize experiences and actions. Therefore, the following section will briefly tackle some key theories that edutainment potentially depends on.

2.2.1.1. Behaviorism

Behaviorism is a very useful theory in the design of edutainment experiences. According to Moore and Kearsley (1996), behaviorism posits that learning is a process of behavior change, and that this change can be achieved through rewards and punishments. In edutainment, designers can use behaviorism to reinforce desired behaviors and provide immediate feedback to learners. For example, in a language learning game, learners may receive points or other rewards for correctly identifying vocabulary words or constructing grammatically correct sentences. This immediate feedback can help reinforce the desired behavior and increase motivation to continue learning. As Moore and Kearsley (1996) believe, "behaviorism has been used extensively in computer-based instruction" (p. 184). Therefore, by incorporating elements of behaviorism, especially operant conditioning, into edutainment experiences, designers can create engaging and effective learning experiences for learners.

2.2.1.2. Cognitive Load Theory

The cognitive load theory suggests that learners have a limited capacity for processing information, and that this capacity can be overwhelmed if the instructional materials are presented in a way that is too complex or difficult to understand. In the edutainment context, teachers can use cognitive load theory to present information in a way that minimizes the cognitive load on the learner. For instance, they can break complex information into smaller, more manageable chunks or use clear and concise instructions.

In addition, Sweller et al. (1998) believe that "if we can minimize extraneous cognitive load, we will have more cognitive resources available for schema acquisition and automation" (p. 14). Additionally, designers of educational video games can use techniques such as scaffolding, where players are given support or guidance as they learn new concepts, to gradually increase the complexity of the game and prevent cognitive overload. As Clark and Mayer (2016) note, the cognitive load theory "is a useful lens for analyzing and improving the

design of educational video games" (p. 39). In this way, players can gradually build their understanding and skills, reducing the burden on working memory and facilitating deeper learning.

2.2.1.3. Flow Theory

The flow theory is a psychological construct that describes a state of complete immersion and enjoyment in an activity. The use of the theory in the context of edutainment can be done by helping learners become fully immersed in a learning activity to keep them engaged and retain knowledge. As Csikszentmihalyi (1990) explains, "in flow, the relationship between what a person has to do and what he can do is perfect" (p. 4).

On one hand, flow can be achieved in educational games by creating challenges that are matched to the player's level of ability, and by providing feedback that helps them to improve. As Kiili (2005) notes, "flow is an important factor in games as it motivates players to continue playing" (p. 113).

Educational movies and series, on the other hand, can achieve flow by using engaging visuals, sound effects, and narration to create an immersive experience. By providing clear learning objectives and keeping the content relevant and interesting, designers can create a flow experience that encourages learners to stay engaged and motivated. As Chen and Vorderer (2006) suggest, "media that provide a rich, emotionally arousing, and involving experience are more likely to induce flow than those that are uninteresting or disengaging" (p. 191).

2.2.1.4. Social Learning Theory

The social learning theory proposes that learning occurs through observation, modeling, and feedback from others. In edutainment, this can be achieved by creating opportunities for social interaction and collaboration, and by providing feedback from virtual characters or other learners especially in online video games like RPG and MMO games. The theory can also be

applied in educational games that simulate real-life scenarios where learners can practice social skills and behaviors. For example, multiplayer games can be used for teaching empathy, conflict resolution, or negotiation skills. As Dickey (2011) suggests, "games can provide a venue for social learning to take place, in which players learn from their experiences and the experiences of others" (p. 49). These games allow learners to interact with avatars and develop their social skills in a safe and controlled environment.

2.2.1.5. Self-Determination Theory

According to SDT, individuals have three basic psychological needs: autonomy, competence, and relatedness. In edutainment, these needs can be met by providing learners with choice and control over their learning, opportunities for success and mastery, and a sense of connection and community with others.

One example of how SDT can be applied in edutainment is through the use of gamification. Gamification refers to the use of game design elements in non-game contexts to increase motivation and engagement. Ryan and Deci (2017) state that:

"By tapping into the fundamental psychological needs for autonomy, competence, and relatedness, gamification can create experiences that are engaging, enjoyable, and satisfying. For example, gamification can enhance autonomy by allowing users to choose their own avatars, customize their learning paths, and participate in activities that align with their interests and values. It can foster competence by providing frequent feedback and opportunities for progress, as well as challenges that are optimally matched to users' abilities. And it can support relatedness by creating opportunities for social interaction, collaboration, and support" (p. 174).

Another type of edutainment that can benefit from SDT is mobile learning. Mobile devices provide learners with greater autonomy and flexibility, allowing them to learn on-the-go and at their own pace. Additionally, social media and other collaborative features of mobile devices can enhance relatedness by allowing learners to connect with peers and instructors. As

Li and Chen (2018) note, "SDT can serve as a theoretical foundation for the development of mobile learning, which can foster learners' autonomous and competent behaviors, and create a social learning environment" (p. 3).

2.2.2. Importance and Benefits of Edutainment

2.2.2.1. Increasing Motivation and Engagement

According to Yung-Ting Chuang (2014), "technology-based learning spaces or classrooms that enable edutainment can boost collaboration, fundamental learning outcomes, including encouragement for more engagement and behavior." Additionally, the researcher claims that by incorporating a technologically enabled environment and creating in-class activities that enhance collaborative connection and engagement.

"Technology has been shown to enhance learning outcomes and engagement", claim Kuh et al. (2001). According to Meyers et al. (1993), "higher-order thinking, which helps pupils increase their knowledge, is a key idea in education and can ultimately lead to collaborative learning." In addition, Stahl et al. (2006) believe that "in order to encourage group collaboration and accomplish collaborative learning, it is crucial to use learning technologies like CSCL (computer-supported collaborative learning)". Hence, schools and universities should invest more in computers and technological equipment. Yung-Ting Chuang (2014) also thinks that "by implementing learning technology, she may change her pedagogical style from one that is instructor-centered passive learning to one that is student-centered active learning".

When it comes to video games, "video games can motivate learners by providing a sense of control, challenge, and achievement that is often lacking in traditional learning environments." (Richard Van Eck, 2006).

Edutainment can also foster user engagement and a positive learning environment which leads to better efficacy of learning. The successful performance of learning has been discovered

to be influenced by learner engagement. As Patti Shank (2017) claims, "Engagement is the cornerstone of effective learning. Without engagement, students are unlikely to learn much of anything." In other words, learners learn more effectively the more actively they participate in the learning process.

2.2.2.2. Facilitating Knowledge Retention

According to research, "learning in a fun and engaging way can increase motivation and subsequently lead to better retention of knowledge" (Dichev & Dicheva, 2017, p. 332). Edutainment can also be particularly effective for learners who struggle with traditional teaching methods. Gunter et al. (2008) believe that "interactive educational software can be particularly effective in engaging learners who may not thrive in traditional classroom settings" (p. 39).

Furthermore, edutainment can help to make complex or abstract concepts easier to understand. According to a literature review done by Mayer & Moreno (2003), "multimedia resources, such as videos and animations, have been found to be particularly effective for teaching abstract or complex concepts" (p. 130). In addition, interactive elements such as quizzes and games can help learners to actively engage with and apply the knowledge they have learned. As a study by Schrader & Bastiaen (2012) notes, "game-based learning can be effective in improving learners' knowledge retention and transfer, as it encourages active engagement with the material" (p. 319).

2.2.2.3. Developing Critical Thinking and Problem-Solving Skills

Edutainment can take various forms, such as interactive games, simulations, and virtual reality experiences. These can provide learners with opportunities to apply critical thinking and problem-solving skills in a safe and controlled environment. As Katie Salen Tekinbaş (2018) explains, "edutainment games can help learners develop their problem-solving skills by

presenting them with challenging problems that require them to apply their critical thinking skills to find solutions." Furthermore, edutainment can foster collaboration and teamwork, which are essential skills for developing critical thinking. By working together on projects and activities, learners can exchange ideas and perspectives, and learn from one another's strengths and weaknesses. As Jennifer Groff (2012) states, "Edutainment can help learners develop critical thinking skills by providing opportunities to collaborate with others, ask questions, and explore complex problems."

Additionally, problem-solving skills can be greatly obtained from video games. As game designer Jane McGonigal (2011) notes, "games are a powerful tool for developing problem-solving skills because they provide a structured, rule-based environment where players are encouraged to experiment and try new things."

2.2.2.4. Promoting Creativity and Imagination

Jane McGonigal (2011) notes that "games and other forms of edutainment offer a powerful platform for fostering creativity and imagination." Edutainment activities, such as puzzles, simulations, and role-playing games, can provide learners with opportunities to experiment, take risks, and explore new ideas and perspectives in worlds they may probably never experience in real life.

According to educational technology expert Marc Prensky (2012), "edutainment encourages learners to think outside the box and come up with new and innovative solutions to problems." By presenting learners with challenges that require them to think creatively and apply their imaginations, edutainment can help learners develop the skills they need to be successful in the 21st-century workplace. For instance, design applications such as Adobe Suite, Microsoft PowerPoint and 3D structural building programs enhance creative thinking skills by providing wide ranging design features for learners to develop their original ideas.

Moreover, edutainment can provide a safe and supportive environment for learners to express their creativity and explore their imaginations. As author and education expert Eric Schmitt (2016) points out, "edutainment can help learners develop a sense of agency and ownership over their learning, which can foster their creativity and imagination."

2.2.3. Obstacles in Applying Edutainment

While edutainment can be an effective tool for promoting learning, there are some challenges that need to be addressed in order to maximize its benefits.

2.2.3.1. Difficulty in Measuring Effectiveness

Although technology has made a lot things easier, the need for more effective methods of evaluation and assessment in edutainment programs still exists. As educational researcher Kurt Squire (2011) points out, "evaluating the effectiveness of edutainment programs can be challenging, as traditional assessment methods may not be suitable for measuring learning outcomes in these types of programs." There is a need for new and innovative assessment methods that can effectively measure the impact of edutainment on learning outcomes especially when the entertaining content being used in teaching is not made for educational purposes in the first place.

2.2.3.2. Balancing Entertainment and Education

One of the main challenges of edutainment is finding the right balance between entertainment and education. While the primary goal of edutainment is to educate, it should not sacrifice entertainment value. As stated by Yang and Chang (2017), "edutainment should not be so focused on the educational goals that it forgets about the entertainment value, which is a necessary component to engage learners and promote their motivation to learn" (p. 163). Furthermore, according to Tüzün et al. (2009), "if the entertainment value is too low, learners may not be motivated to engage in the learning experience" (p. 120). Balancing the two

elements requires careful consideration of the intended audience and learning goals. As noted by Kebritchi et al. (2010), "designers of edutainment programs must take into account the learning goals and objectives, as well as the preferences and characteristics of the target audience, to ensure that the program is engaging, entertaining, and effective" (p. 168).

2.2.3.3. Accessibility Issues

Another challenge in implementing edutainment is the issue of accessibility, particularly for those who lack access to technology or have disabilities that make it difficult to engage with digital media. As noted by Yuen and Ma (2008), "technological advancements have brought about new ways of learning, but at the same time, they have created disparities in access to education between those who have access to the technology and those who do not" (p. 112). This presents a challenge for educators and designers of edutainment programs to create accessible content that can be accessed by a wide range of learners. As stated by Klopfer et al., (2009), "accessibility issues need to be addressed, especially for those with disabilities or who lack access to the technology required for participation in the experience" (p. 9). It is important to ensure that edutainment is accessible to all learners, regardless of their background, abilities, or access to technology.

2.2.3.4. Keeping Up With Technology Advancements

One of the major obstacles in implementing edutainment is keeping up with the rapid pace of technological advancements. As noted by Dickey (2011), "the rapid pace of technological change has made it difficult for educators to keep up with the latest innovations and determine their potential impact on teaching and learning" (p. 26). This presents a challenge for educators and designers of edutainment programs to ensure that their content is up-to-date and relevant to the latest technologies. As stated by Klopfer et al. (2009), "designers need to stay abreast of new technologies, tools, and platforms as they emerge, in order to create innovative and engaging learning experiences" (p. 9). This requires a commitment to ongoing

professional development and a willingness to experiment with new technologies to ensure that edutainment remains current and effective.

However, Gee (2003) points out that it is important to keep in mind that technology should not be the sole focus of edutainment: "While technology can facilitate learning, it is not the most important factor in creating effective educational experiences" (p. 32). It is important to balance the use of technology with sound pedagogy and instructional design principles to create engaging and effective edutainment programs.

2.2.3. Solutions in Practice

In order to overcome the obstacles in applying edutainment, there are several solutions that can be considered.

2.2.3.1. Training Events for Teachers and Students

Training events for teachers and students can play a vital role in promoting the use of edutainment in education. As noted by Lai and Wong (2018), "teachers need to be equipped with the necessary knowledge, skills, and attitudes to effectively integrate edutainment into their curriculum" (p. 140). Therefore, training events can provide teachers with the knowledge and skills needed to design and implement effective edutainment programs in their classrooms.

Moreover, training events can also help students to learn about edutainment and how it can be used to promote their learning. As Nsengiyumva and Bui (2020) believe that, "training events that engage students in the design and creation of educational games can enhance their learning experience and promote their creativity and critical thinking skills" (p. 147). By involving students in the design and creation of edutainment programs, they can gain a better understanding of the learning goals and objectives, as well as develop important skills such as teamwork, communication, and problem-solving.

Furthermore, this kind of events can provide an opportunity for educators and students to

share their experiences and best practices in using edutainment. According to Sánchez and Olivares (2017), "collaboration and sharing of knowledge and experience among educators and students can lead to the development of innovative and effective edutainment programs" (p. 215). By sharing their experiences, educators and students can learn from one another and improve the quality of their edutainment programs.

2.2.3.2. Innovation at Rewarding Learners

Innovative methods of rewarding learners can enhance the effectiveness of edutainment in evaluation and assessment. According to Garris et al. (2002), "rewarding learners with game-based rewards can enhance learner motivation, performance, and satisfaction in learning." This implies that incorporating gamification techniques, such as badges, studies points, digital in-game points and leaderboards, can promote learners' engagement and motivation to learn. Moreover, Plass et al., (2015) suggest that edutainment can help assess learners' knowledge and skills by providing a naturalistic environment to observe learners' performance in real-time. This can help evaluate learners' progress, strengths, and areas for improvement, and provide feedback to guide further learning. Overall, innovative and engaging reward systems can motivate learners and foster their desire to learn, leading to a more successful evaluation and assessment of their knowledge and skills.

2.3.3.3. Offering Low-cost Technologies

The availability of low-cost technologies has made edutainment more accessible and affordable for learners. According to Murray and Perez (2019), "the growing availability of low-cost technologies has the potential to democratize access to quality education." This means that learners who may not have had access to traditional educational resources can now benefit from edutainment platforms that are affordable and accessible. Additionally, Niazi and Hussain (2021) suggest that offering low-cost technologies, such as smartphones and tablets, can enable learners to access edutainment platforms anytime and anywhere, providing flexibility and

convenience in learning. This can lead to more personalized learning experiences and better retention of knowledge and skills.

2.3.3.4. Exploiting Free and Open-Source Materials

The use of free and open-source materials in edutainment can make the production and delivery of educational content more possible and successful. According to Szymczak and Ślusarczyk (2021), "the use of open educational resources in edutainment can help reduce the cost of creating and distributing educational content." This means that the use of open-source materials, such as open educational resources (OERs), can help content creators and educators produce high-quality educational content at a low cost, making it more accessible to learners. Additionally, the use of open-source materials can facilitate collaboration and innovation in content creation and delivery. As Martin and Stacey (2014) suggest, "open educational resources have the potential to create new models of learning that are more participatory, learner-centered, and up-to-date than traditional educational materials." Therefore, more engagement and effective learning experiences can be achieved for learners.

Conclusion

Edutainment has become an increasingly popular and effective approach to education, utilizing the power of entertainment to engage and motivate learners. Through the use of games, simulations, videos, and other forms of media, edutainment has the potential to enhance critical thinking, problem-solving, creativity, and collaboration skills among learners. Despite the various obstacles that come with implementing edutainment, such as balancing entertainment and education, accessibility issues, and keeping up with technology advancements, there are several solutions available that can make edutainment more possible and successful. These include offering low-cost technologies, exploiting free and open-source materials, and providing training events for teachers and students.

All in all, didactics should incorporate edutainment since it has the potential to transform both traditional and modern learning environments by creating more engaging, interactive, and personalized educational experiences for learners. As technology continues to advance, it is important for educators and content creators to embrace edutainment as a means to enhance learning outcomes and prepare learners for the future.

CHAPTER THREE: Didactics and
Edutainment in the Algerian Classroom

Introduction

The practical chapter of this dissertation aims to present and analyze the empirical research conducted to investigate the central research questions. By employing a hands-on approach, the practical work offers a practical application of the theoretical framework discussed in the literature review.

The primary purpose of this practical chapter is to test and validate the hypotheses formulated in the earlier stages of this research. Through the collection and analysis of real-world data, this practical work aims to contribute to the existing body of knowledge in the field and provide meaningful implications for both theory and practice.

To achieve these objectives, a rigorous research methodology was adopted. The research design incorporates both quantitative and qualitative data collection techniques, allowing for a comprehensive exploration of the research question. The chosen sample for this study represents a diverse range of participants, ensuring the findings can be generalized to the wider population.

This chapter is structured as follows:

First, the research design and methodology employed will be provided by a detailed description of the data collection process, including the selection of participants, the instrumentation utilized, and the procedures implemented.

Subsequently, the data gathered will be analysed later, the findings and results that revolve around the didactic and edutainment experiences in the University Center of Mila, the obstacles of edutainment corporation that are faced, potential solutions and benefits will be presented, and comprehensively discussed. Finally, recommendations and suggestions for

curious teachers, students and future researchers will be provided.

3.1. Aims of the Research

The goal of the current study is to determine where edutainment fits in Algerian classrooms and how to use it to enhance the didactic process. It looks into whether the emphasis on edutainment is present in the classroom. Therefore, this study looks for issues that teachers and students may encounter when adopting edutainment and looks for potential solutions.

3.2. The Participants

This present research has been conducted at the University Centre of Mila, Institute of Letters and Languages, Department of Foreign Languages. The population selected for the study involves students of English in addition to teachers. Concerning the students sample, they are 54 randomly selected learners from levels that range between the first and the fifth year in the academic year 2022-2023. The first reason for this selection is that edutainment is not part of the English curriculum per se, but is more of an approach that should be applied at any level and in any field of study. Second, it is expected that any of the first four levels, if taken alone, will tend to give answers related solely to the module of oral expression when they are asked about edutainment. To avoid that bias, including second year master's students is important since they don't have that module. Third, we intended to avoid the bias of older learners (master's students) who usually fall into the stereotype that "entertainment is only for young people," and therefore teaching with it should be employed only for beginners, not for those of higher levels. Lastly, we took into consideration that the familiarity with the services and technologies the university centre offers differs from a student to another for countless reasons.

Consequently, the research tried to confirm if the use of edutainment and the spread of knowledge about those services covers most of the levels. When it comes to the teacher sample, ten English teachers participated, nine of whom hold a PhD degree and one holds a Master's.

All of them work mainly at the University Center in Mila.

3.3. Data Collection Tools

The study utilizes two questionnaires as a method for gathering information to achieve its goals. Both teachers and students received these questionnaires online to obtain the required data.

3.4. The Students' Questionnaire

3.4.1. Description of the Students' Questionnaire

The participant questionnaire for this dissertation focuses on understanding how students perceive and engage with various learning methods, technology tools, and entertainment materials. The questionnaire consists of 14 questions that aim to gather valuable insights about students' preferred learning styles, technological preferences, organizational habits, motivation levels, feedback experiences, and the role of technology and entertainment in their education. The questionnaire is designed to provide a comprehensive understanding of students' perspectives on these topics. The questions themselves are divided into three sections with single-choice, multiple-choice and open-ended questions.

The "Background Information" section, which is the first, aims to shed light on the students' backgrounds by asking learners about their age and gender. The second section is about didactics and how current educational methods affect learners' motivation and progress. The questions start by asking participants how they learn best, providing options such as visual aids, practical activities, group discussions, and lectures. Furthermore, more questions are added to identify the learning methods that resonate most with the participants. They are asked about the technology they find most helpful in their learning process. The options include digital textbooks, online conferences, videos, educational apps, and e-learning platforms. This question explores participants' preferences for technology-based learning tools. Following that,

students are asked about their motivation in the classroom and to what degree they feel teachers give them feedback. Finally, the third section attempts to find out the current state about edutainment in the classroom. First, students answer questions about their preferences when it comes to entertainment genres. Consequently, the questions shift the focus from entertainment for fun's sake to its actual use within the educational field. For that matter, we used not only closed-ended questions, but also open-ended questions to give more freedom to students in answering and encourage them to speak more about themselves and what they enjoy. In addition, more questions were offered to explore the actual problems faced by learners and the solutions they suggest themselves to be able to get immersed in an edutainment learning experience.

To sum up, this questionnaire aims to capture a comprehensive understanding of students' learning preferences, technology usage, and perceptions of entertainment materials in education.

3.4.2. Administration of the Students' Questionnaire

The targeted participants to answer the questionnaire are English students of various grades, who already have an experience with technology personally or academically.

They belong to the University Center of Mila. The method used for administering the questionnaire that is to be presented in order to collect the required data is an online method of distributing the questionnaire made with Google Forms and shared through social media. This descriptive method has proven convenient as it provides liberty and ease for all parties involved, the researchers and the participants who have access to the internet, and it is also efficient in terms of data collection since all answers are in a digital format that can be used in future research.

3.4.3. Analysis of the Students' Questionnaire

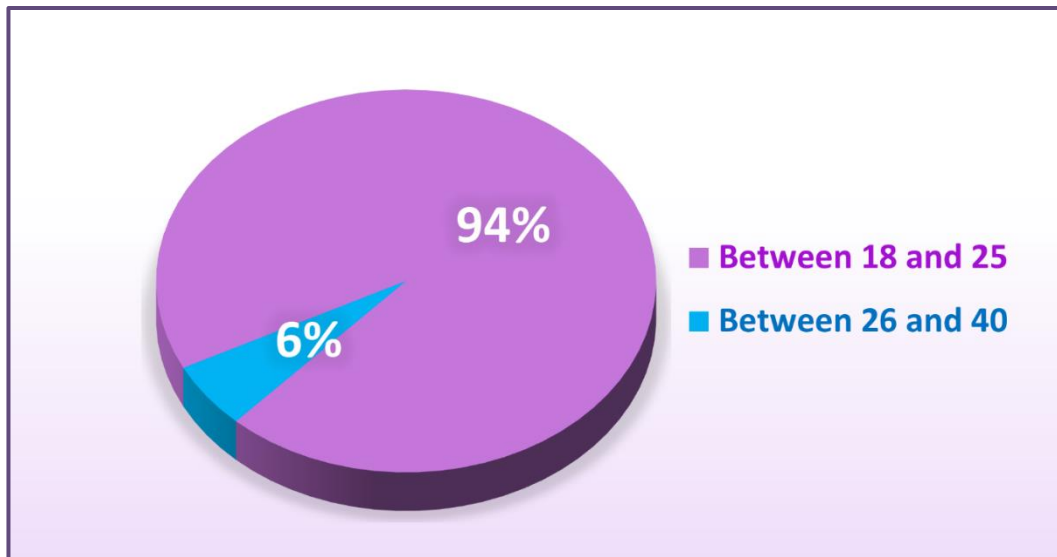### 3.4.3.1. Background Information

Q1. What is your age?

Figure 3.1. Participants' Age

Out of 54 students, 94.4% are between the ages of 18-25 which is clearly the dominant fraction of them, while 5.6% are between 26-40 being the minority. However, the more than 40 option was left unselected.

Q2. What is your gender?
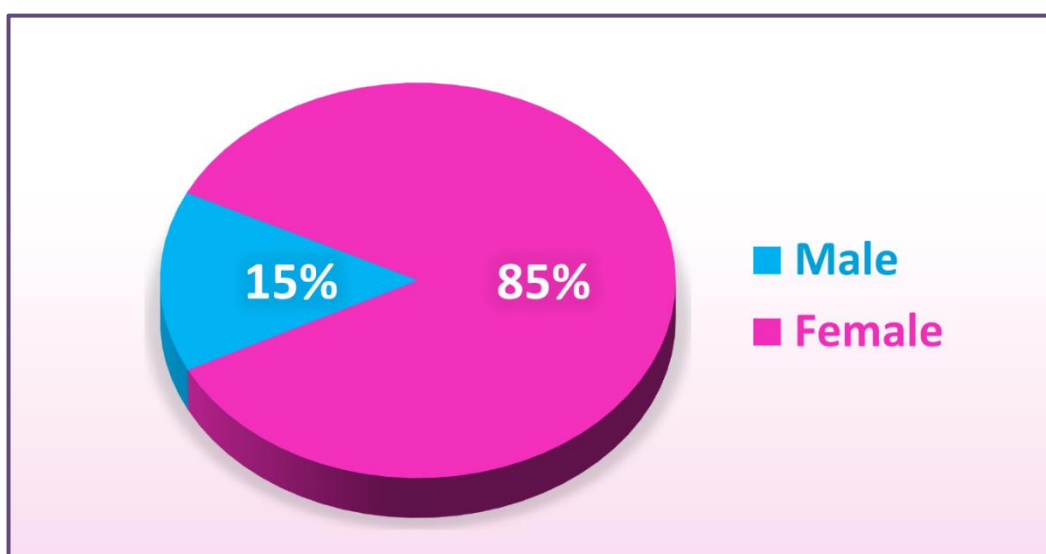
Figure 3.2. Participants' Gender

The second question asks to determine the gender of the participant, where 85% answered to be females students while 15% answered to be males.

3.4.3.2. Didactics in the Algerian Classroom

Q1. How do you learn best?
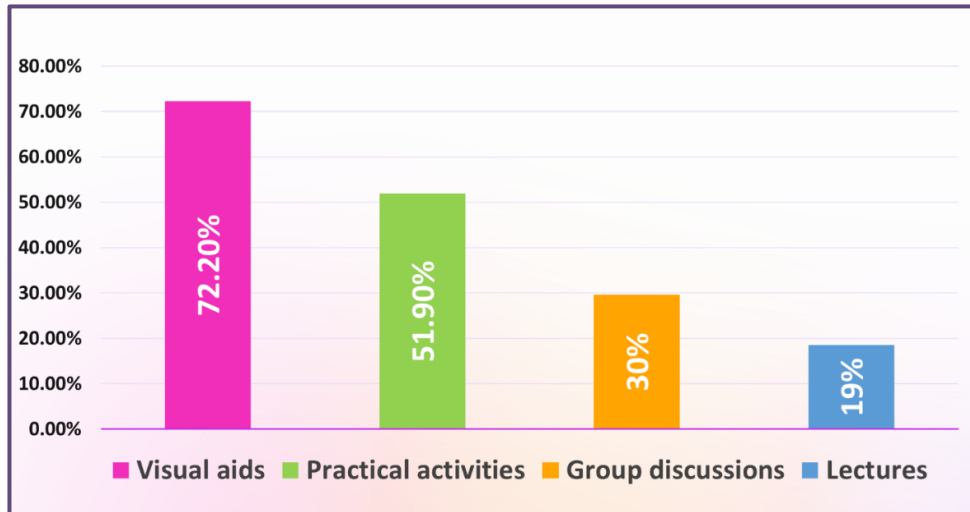
Figure 3.3. Learners' Preferred Method for Learning

This question asks the participants how they can learn best. The first option is visual aids (videos, images, and graphics), and it was selected by 72.2% of the participants. The answer "practical activities" had 51.9% of the participants' selection. "Group discussions" had 29.6% of the participants favor, and the least picked answer is lectures, with a percentage of 18.5%.

Q2. What technology do you find most helpful in your learning process?
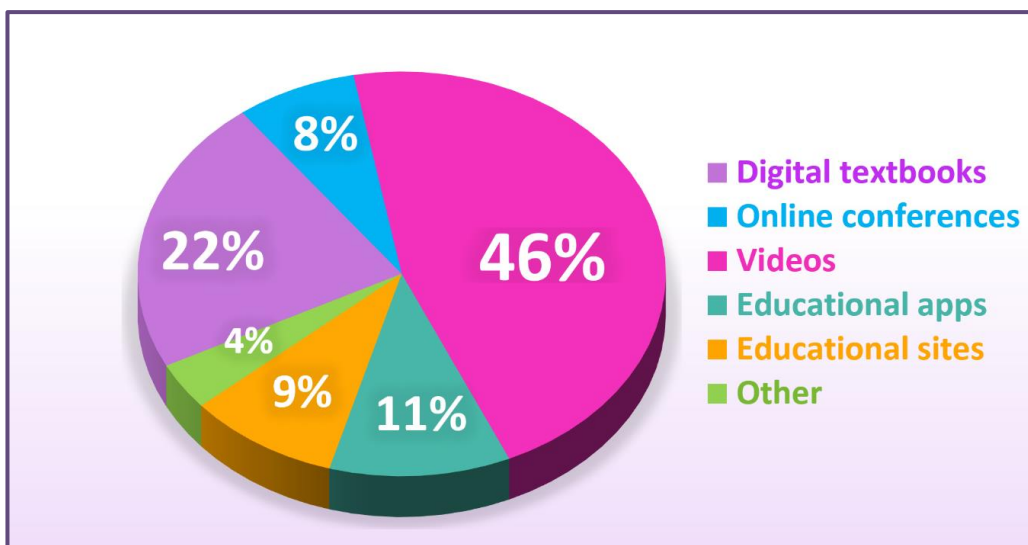
Figure 3.4. Learners' Preferred Technology for Learning

The following question inquires about the most helpful technology tools for students to learn. The first answer, which is "Digital textbooks (PDF, Word, PowerPoint, etc.)", was selected by 22.2% of the students. The second answer, "Online Conferences," is selected by 7.4% of the participants, who do appear to be in favor of online learning. The third answer is picked by nearly half of the students; up to 46.3% picked the answer from videos (YouTube, TED, etc.). The fourth answer is "educational apps," and it is selected by 11.1% of the students as the third most selected option. As for the fifth option, "Educational sites and e-learning platforms," it was selected by 9.3% of the participants. The next answer is "other," where a student representing 3.9% mentioned ChatGPT and another mentioned printed materials.

Q3. How do you stay organized and keep track of your studies?
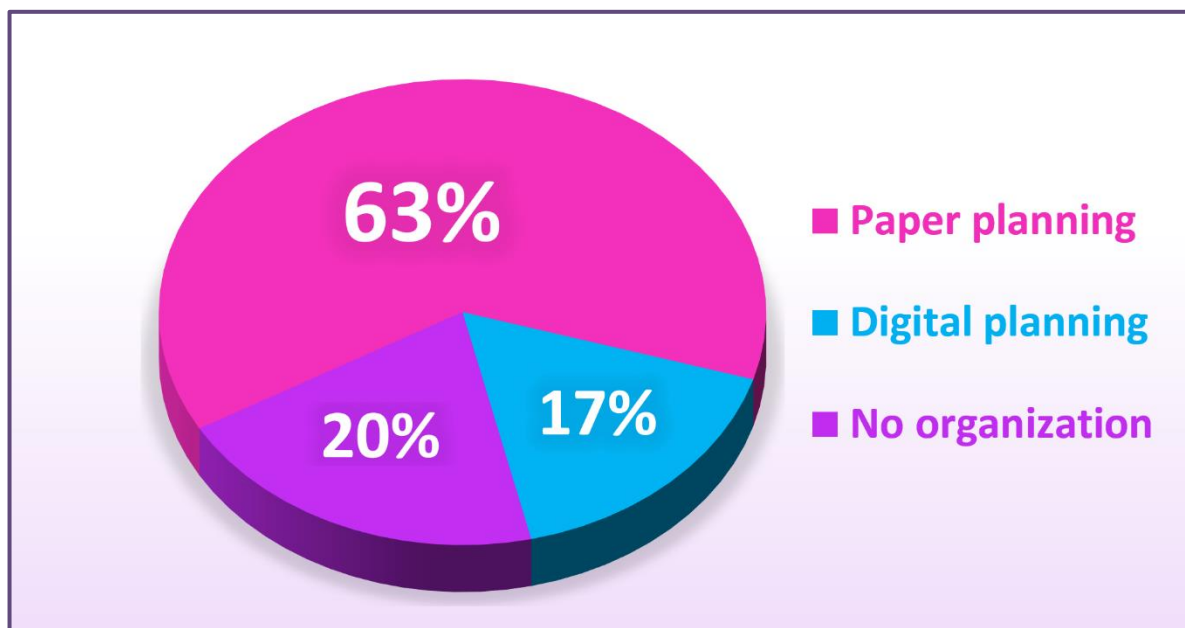
Figure 3.5. Learners Organization and Track of Progress

The next question is about how students remain organized and keep track of their studies. The paper planning (making a plan on paper with lessons, tasks, etc.) answer was selected by a vast majority of 63% of students. For the digital planning option (making a plan on the phone or PC with lessons, tasks, etc.), it was favored by a total of 16.7% of the participants. The last pick is "no organizing or tracking of studies," and it is picked by 20.3% of those who are in

favor of spontaneity.

Q4. How often do you feel motivated in your classes?
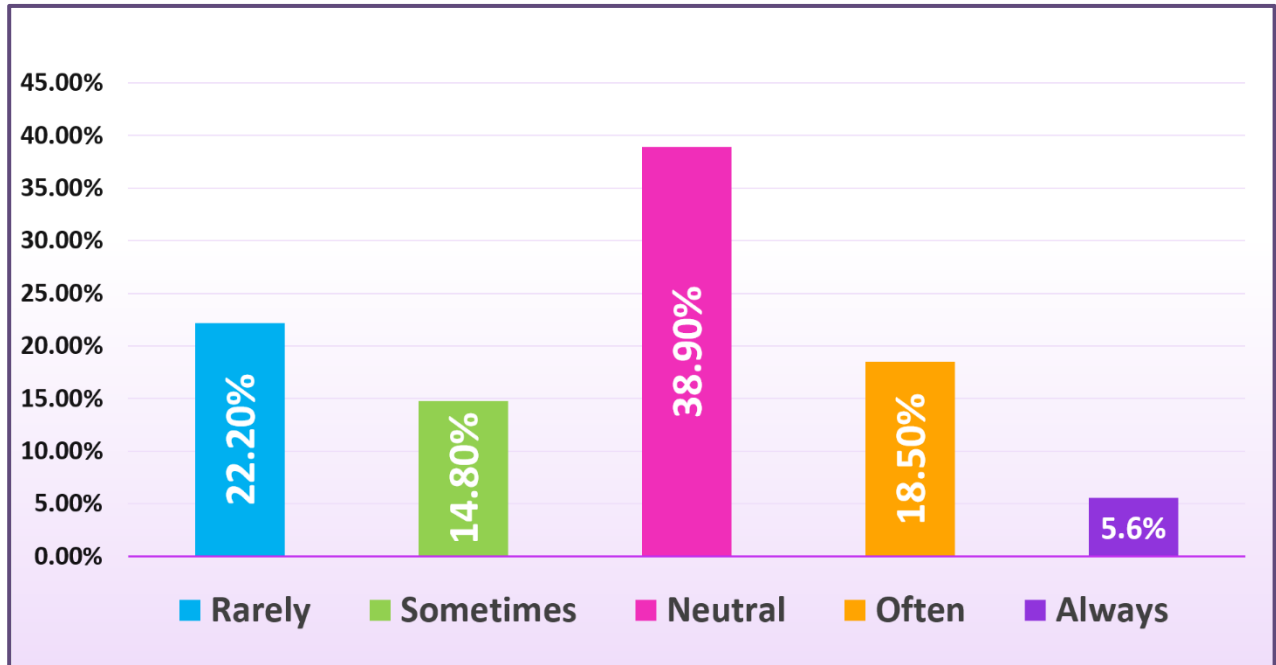
Figure 3.6. Learners Motivation in Classroom

According to the data gathered from the answers provided by the participants about how often they feel motivated in the classroom, we find that the majority feels just neutral and that only a minority feels always motivated. 22.2% of the sample answered that they rarely feel motivated, whereas 14.8% stated that they usually get motivated. The highest portion of the participants, 38.9%, answered that they sometimes feel excited in the classroom. Also, 18.5% of the students claimed to be motivated often, and 5.6% claimed that they are always motivated.

Q5. In general, do your teachers provide feedback to your work when you ask for it?
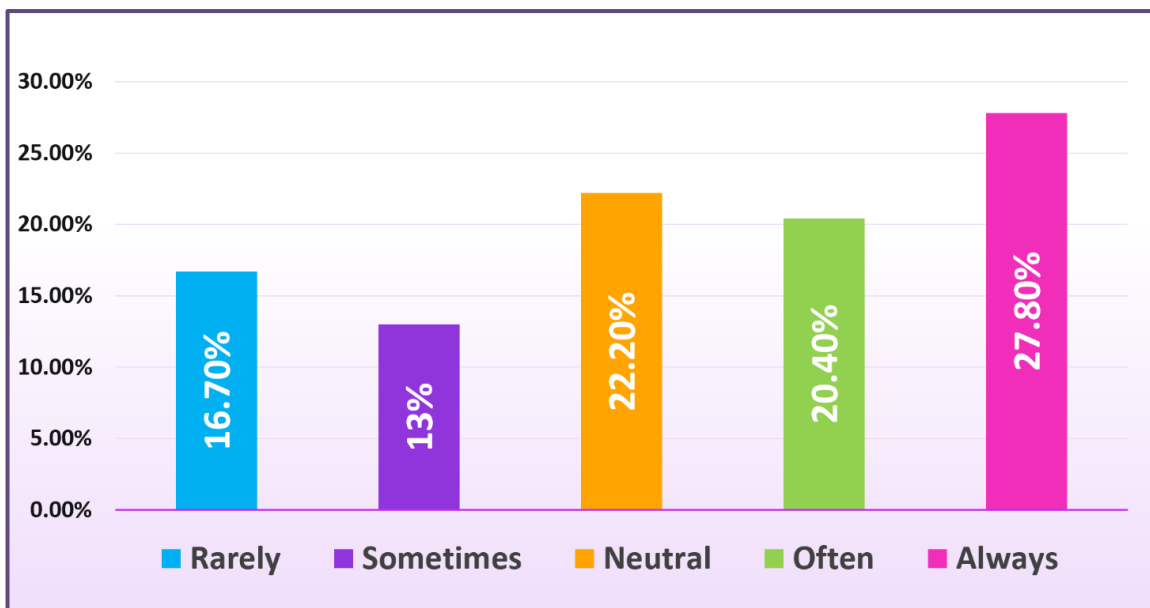
Figure 3.7. Teachers' Feedback Availability for Learners

Based on the collected data presented in the chart out of question 5, which asks the participants if their teachers provide feedback on their work when they ask them for it, only 16.7% of learners have claimed that their teachers rarely ever give feedback when they're asked for it. Second, around 55.6% of participants had answers between sometimes and often. Lastly, 27.8% of participants answered "Always".

Q6. In your opinion, what would your teachers do to improve your learning experience?
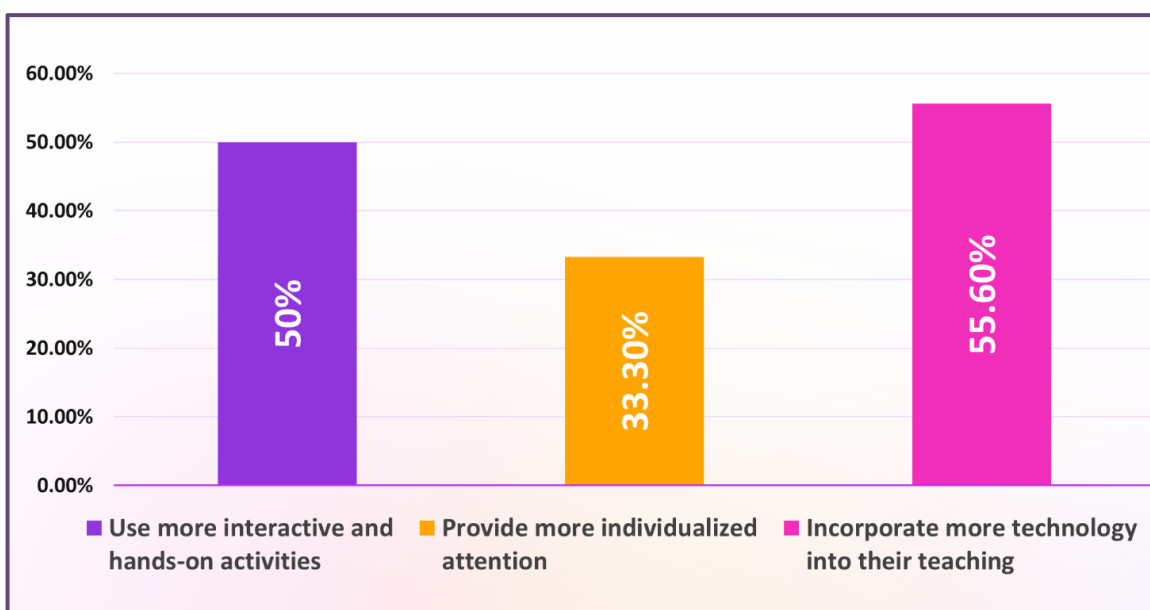
Figure 3.8. Learners' Suggestions to Improve Learning

The last question of the didactics section seeks the thoughts of students over three choices about what teachers would do to improve learning experiences. The participants are allowed to choose more than one option. For the first option, which is about using more interactive and hands-on activities, 50% of students favored it. For the "provide more individualized attention" option, 33.3% of the total participants chose it. The third option, which is "incorporate more technology into their teaching", is preferred by 55.6% of the participating students.

3.4.3.3. Edutainment in the Algerian Classroom

Q1. From the list below, what materials do you use and find helpful for learning?
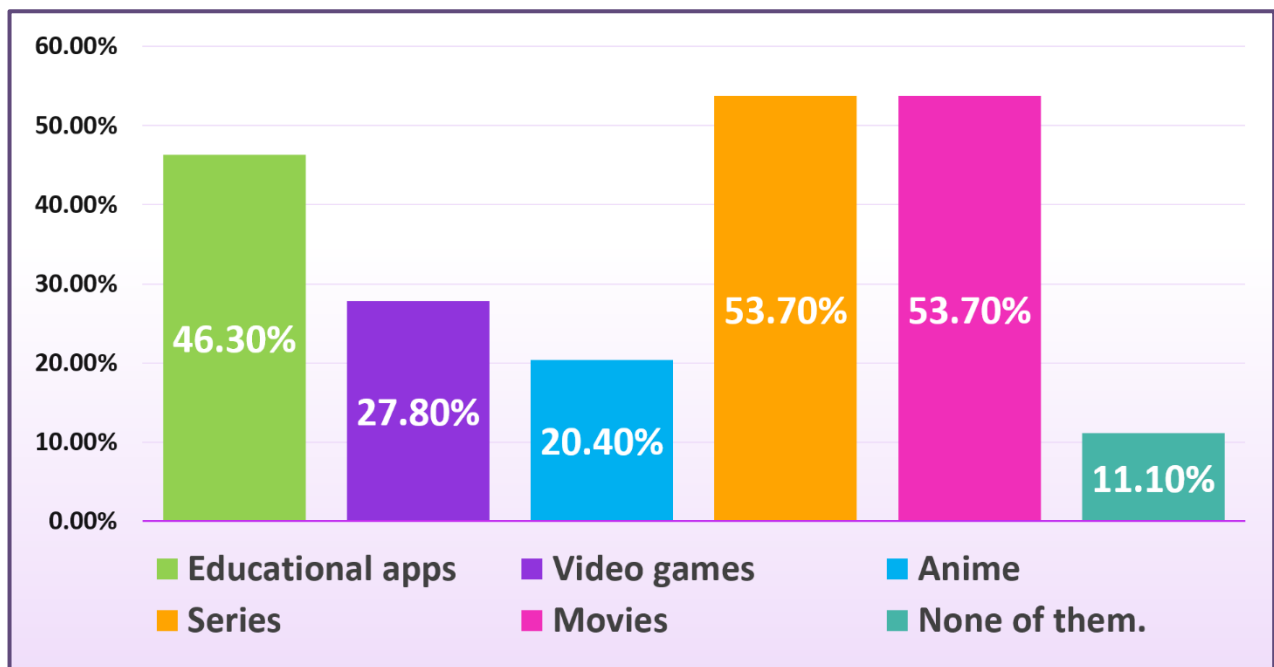
Figure 3.9. Learners' Preferred Entertainment Materials for Learning

This question marks the beginning of the questions related to edutainment in Algerian classrooms which will be investigated through various questions over various elements at that.

So, the first question gives the participants a list of edutainment materials to pick from based on which are most helpful for the process of learning.

The first material of the list is educational apps which is selected by 46.3% of the participants. The second material "video games" comes with 27.8% of the participants' favor

for being a considerable tool to the process of learning. The third material, anime, is picked by 20.4% by the students. Both movies and series were selected by 29 students (53.7%) which is more than half of the sample. Lastly, only six learners (11.1%) chose the "I don't use any of them" option.

Q2. If there is one, what is your favorite material?
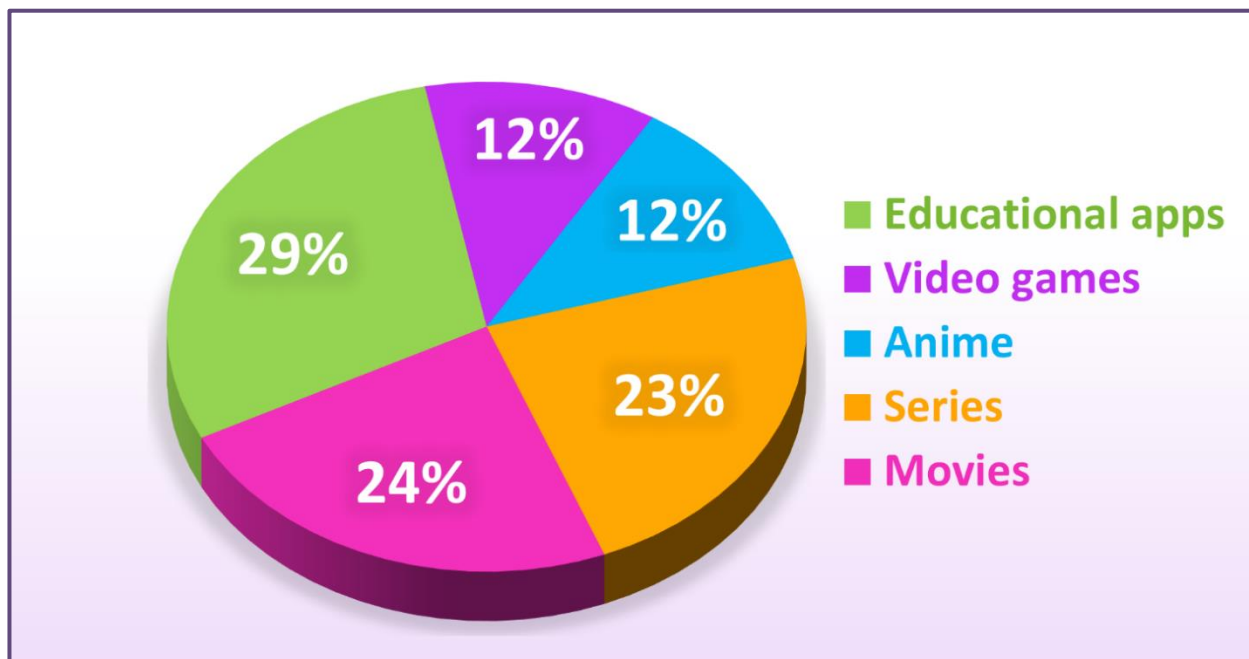
Figure 3.10. Learners' Favorite Entertainment Material for Learning

The table and chart for this question represent the favorite entertainment material for learning for each of the participants who use any of them in first place.

Out of the surveyed learners, 15 individuals, or 29.4% of the total, prefer using educational apps for learning. Six individuals, accounting for 11.8% of the total, indicated video games as their preferred form of entertainment for learning. Similarly, six individuals, representing 11.8% of the total, selected anime as their preferred material.

Twelve individuals, or 23.5% of the total, indicated that they enjoy using series for educational purposes. The same number of individuals (12), which is 23.5% of the total, chose movies as their preferred entertainment material for learning.

Q3. Can you provide some examples (names of apps, games, anime, movies..etc)?

This question was open-ended. The answers provided by the students regarding entertainment materials for learning were diverse and covered a wide range of options. They mentioned movies and TV shows with a variety of genres and themes. There was also a strong presence of language learning apps like Duolingo and Lingodeer, as well as resources like BBC Learning English and TED Talks. The latter example was even consumed both as a series and as an educational app. Also, students expressed interest in watching anime and reading manga. Furthermore, the inclusion of various video games, especially action and adventure games, showcased the use of interactive media for language learning by experiencing imaginary worlds. It is worth mentioning that some game titles were also the titles of anime, movies, or series. This indicated that franchises usually attract people with their different types of content. Therefore, immersion in entertainment happens.

Although the answers were diverse, they were not explicitly connected or linked to each other. Nonetheless, the responses were generally clear in conveying the types of entertainment materials that the students found useful for learning.

Q4. How do the materials help you in learning?
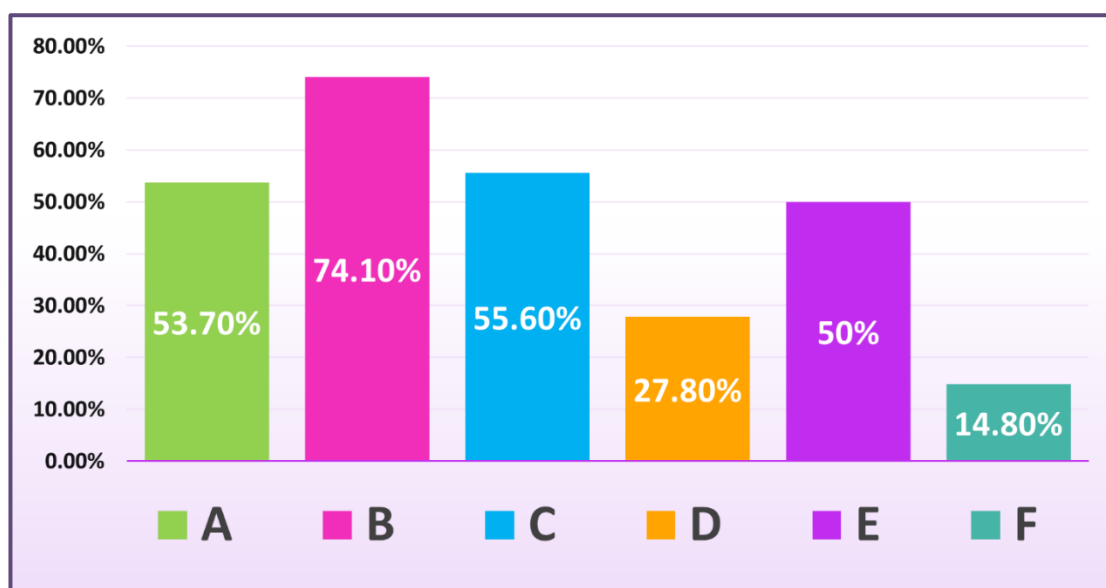
Figure 3.11. The Way Entertainment Materials Help in Learning

The options provided for this question are:

A. They increase my motivation

B. They help me acquire foreign languages

C. They offer the information in an enjoyable manner

D. They improve my social skills

E. They help me learn independently

F. They provide feedback

The data gathered from this question indicates that entertainment materials play a significant role in students' learning experiences. A significant percentage of students (53.7%) believe that edutainment increases their motivation for the learning process. Furthermore, the majority of learners (74.1%) find that those materials help them acquire foreign languages. Over half of the sample (55.6%) appreciated the fact that entertainment materials offer information in an enjoyable manner. While it is a smaller percentage (27.8%), some students acknowledge that entertainment materials contribute to improving their social skills. Also, half of the students (50%) believe that edutainment assists them in learning independently. Lastly, from another small percentage (14.8%), we see that a portion of students recognize that entertainment materials provide feedback.

Q5. Do any of you teachers use entertainment? If yes, what are the materials used?
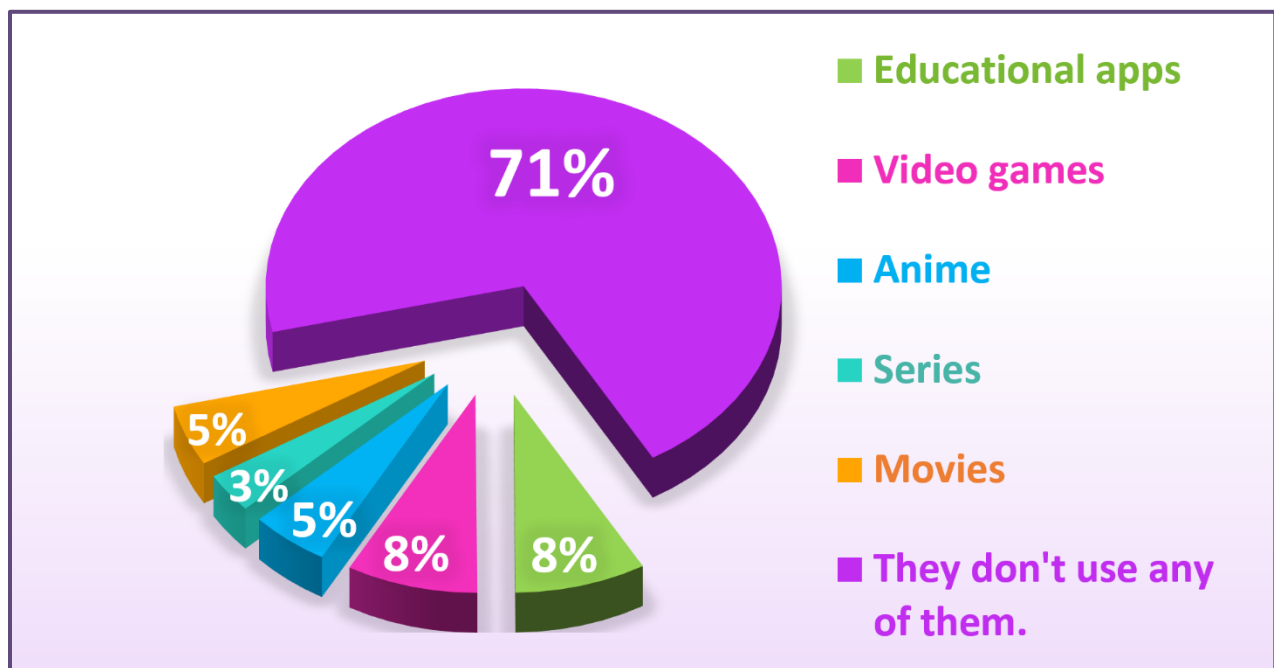
Figure 3.12. Students' Opinions About Teachers Using Edutainment

The majority of students (79.6%) perceive that their teachers do not use any form of edutainment in the classroom. Both educational apps and video games are mentioned by a small proportion of students (9.3%) as materials used by their teachers.

Furthermore, a smaller number of students mentioned anime, series, and movies as materials used by their teachers (5.6% each). While these forms of entertainment may not be widely integrated into classroom instruction, a few teachers seem to incorporate them for educational purposes.

Q6. What are the challenges you face while using technology for learning?
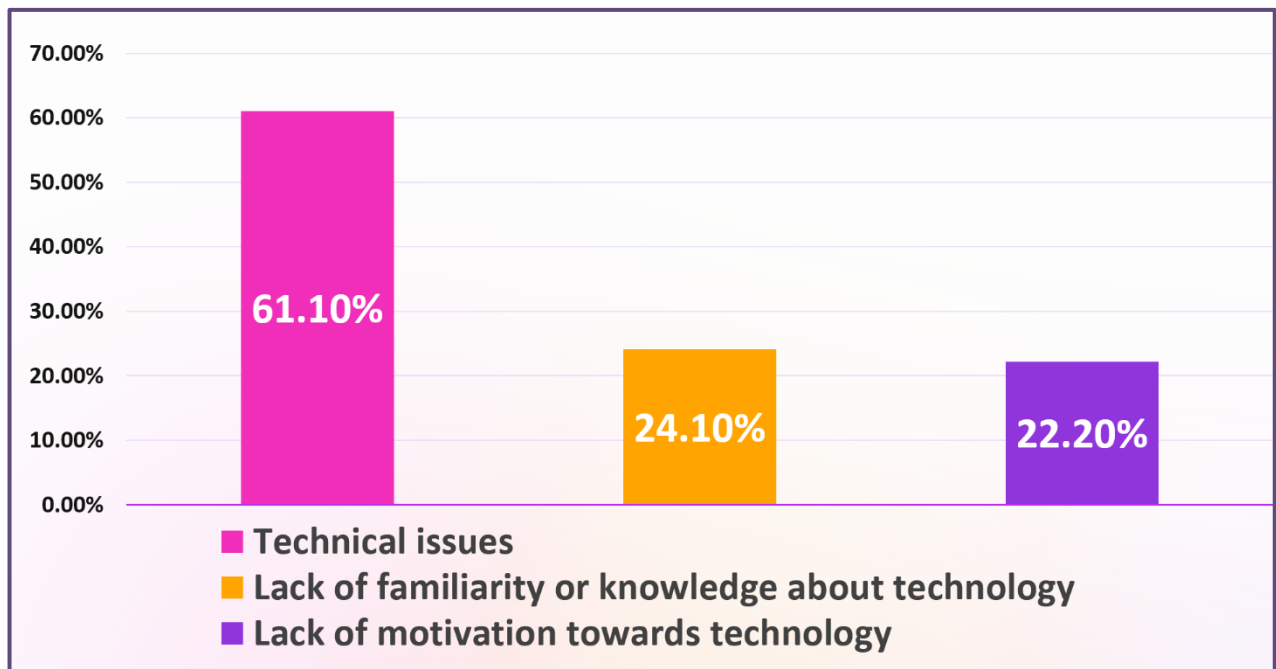
Figure 3.13. Challenges Faced by Students When Using Technology for Learning

This question asks about the challenges faced by students while using technology for learning. A majority of students (61.1%) encounter technical issues, such as connectivity problems, software glitches, hardware issues, or other technical barriers. Another option chosen by students (24.1%) is a lack of familiarity or knowledge about technology. Lastly, some students (22.2%) indicated that lack of motivation towards technology is a challenge.

Q7. If there are other challenges you face, please mention and explain them.

This question was open-ended in order to gather more information about other problems students face while using technology and edutainment. However, not enough or significant answers were provided. The only answer worth mentioning is offered by one student: "online distractions".

Q8. Finally, what do you think the school can do to support technology and entertainment in education?

Providing more training on how to use technology for teachers 52.80%
Providing more training on how to use technology for students 47.20%
Upgrading technology equipment in school 56.60%
Turning the educational content into apps, games, anime or movies 37.70%
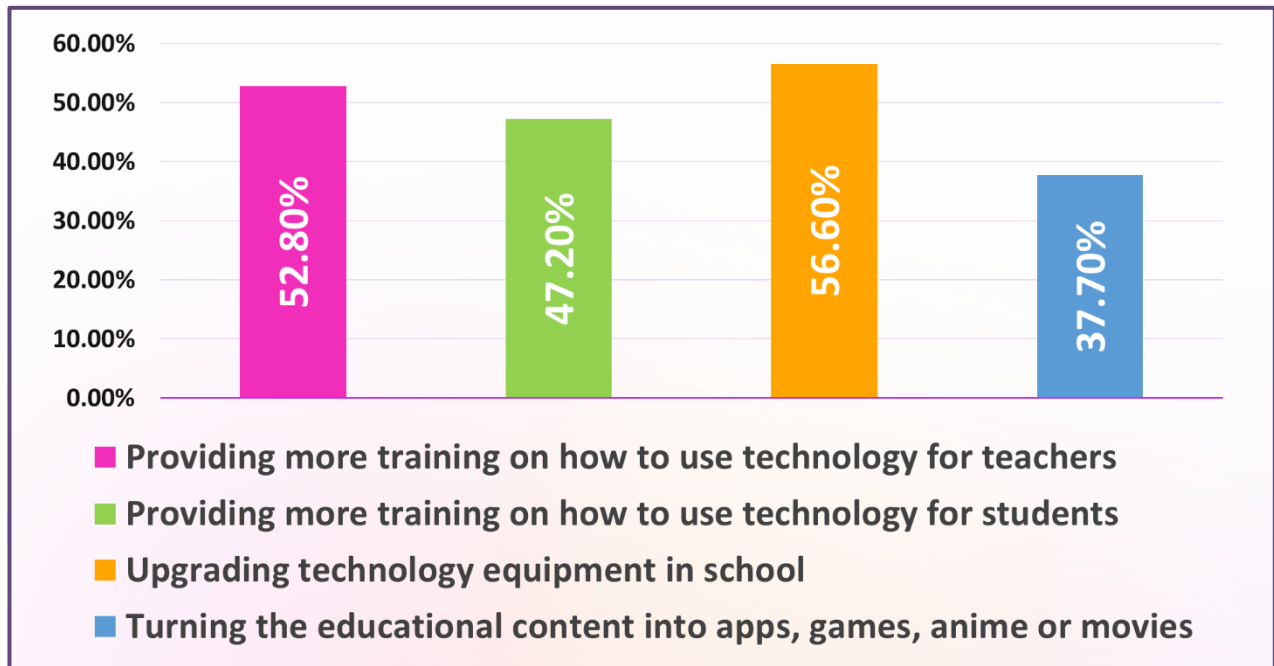
Figure 3.14. Suggestions for the University to Support Edutainment

The last question in this survey seeks out answers and suggestions from students themselves about what school can do in order to support edutainment and technology. More than half of students (52.8%) suggest that schools should provide more training to teachers on how to use technology effectively. Similarly, a significant percentage of students (47.2%) feel that schools should offer more training to students too on how to use technology for learning. Furthermore, 30 students (56.6%) suggest upgrading technology equipment in schools. This recommendation underscores the significance of having up-to-date and reliable technological infrastructure to support the integration of edutainment methods effectively. Last but not least, a considerable number of students (37.7%) express a desire for educational content to be transformed into apps, games, anime, or movies.

3.5. The Teachers' Questionnaire

3.5.1. Description of the Teachers' Questionnaire

The teacher's questionnaire is used in harmony with the students' questionnaire. Although it is shorter than the students' survey, it nevertheless includes a variety of questions, from multiple-choice to open-ended ones. Thirteen questions total, broken up into two sections, make up the survey.

The first section collects some background information about the teachers, while the second one aims at exploring their experience with edutainment, the challenges they face using it and the solutions they can suggest to incorporate edutainment in a better way.

3.5.2. Administration of the Teachers' Questionnaire

Teachers received their questionnaires solely online in their email boxes. The period of time needed to gather all the answers was around 10 days.

3.5.3. Analysis of the Teachers' Questionnaire

3.5.3.1. Background Information

Q1. What professional degree do you own?
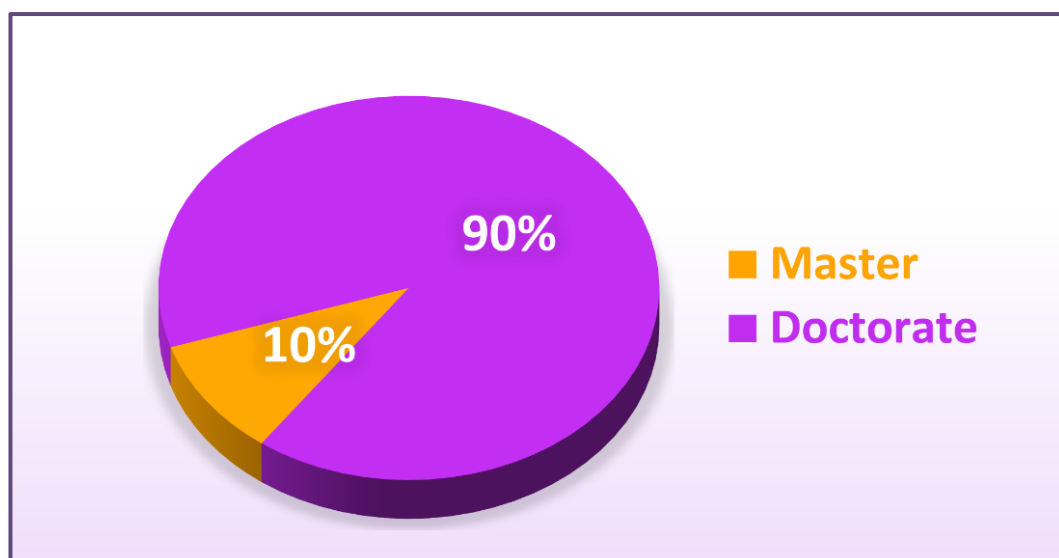
Figure 3.15. Teachers' Academic Degrees

When it comes to degrees, the majority of teachers (90%) have obtained a doctorate degree, while only one teacher (10%) possesses a master's degree.

Q2. What is your gender?
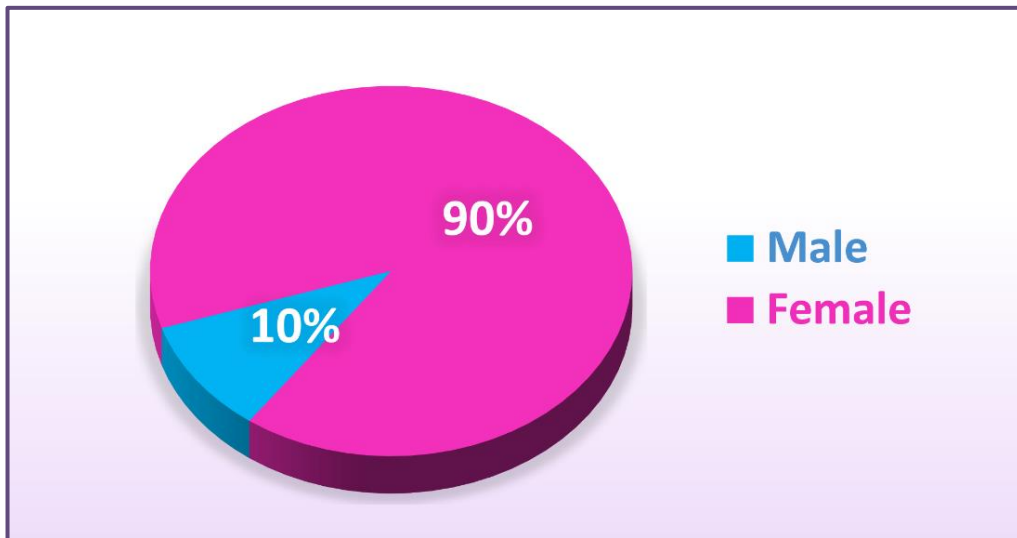
Figure 3.16. Teachers' Gender

Among the surveyed teachers, the majority (90%) are female, while only one teacher (10%) is male.

3.5.3.2. The Use of Entertainment in Teaching

Q1. Do you know what edutainment is?
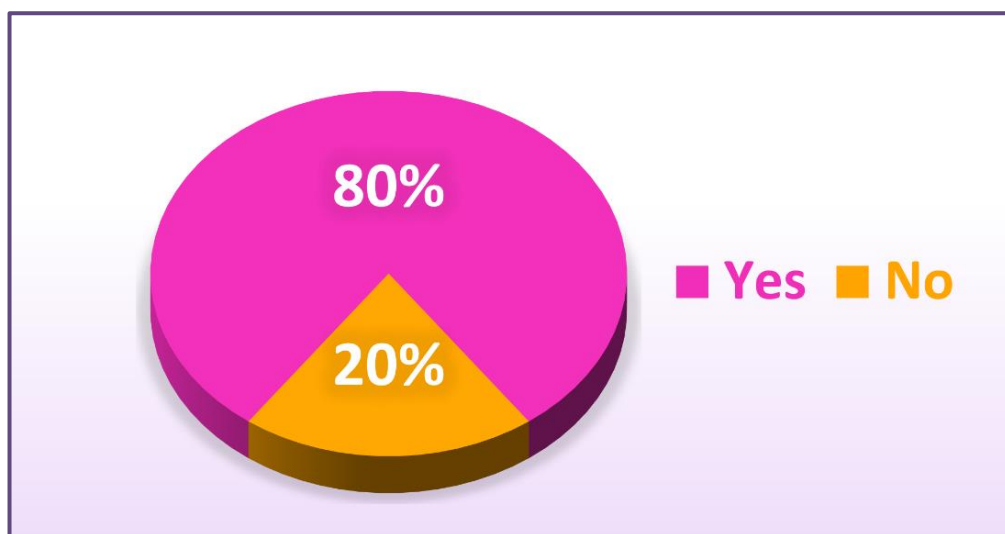
Figure 3.17. Teachers' Knowledge About Edutainment

From the first question, we see that the majority of teachers (80%) are familiar with the

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concept of edutainment, indicating a significant level of knowledge about the topic. However, a minority of teachers (20%) answered that they have no knowledge about edutainment.

Q2. Do you use it for teaching?
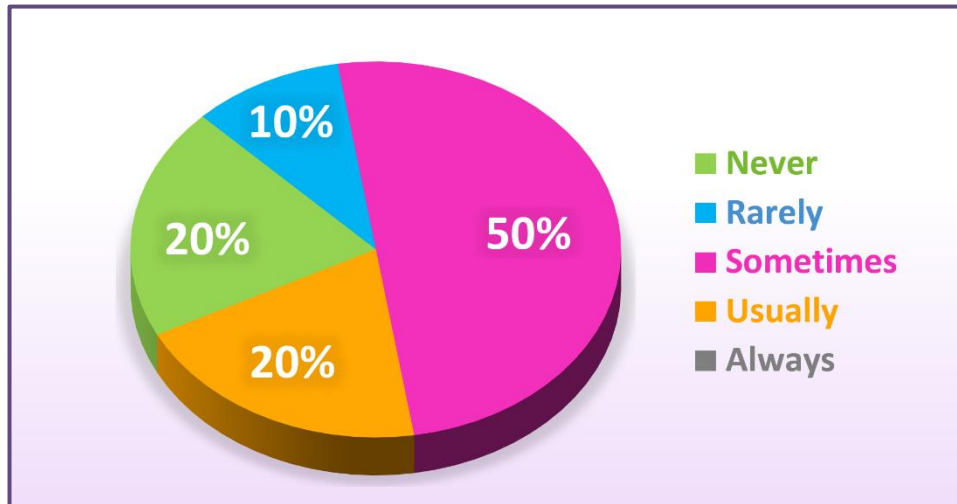
Figure 3.18. Teachers' Use of Edutainment

The data from Q2 shows that 20% of teachers never use edutainment, 10% use it rarely, 20% use it usually and half of the sample use it sometimes. None of the teachers reported using edutainment always.

Q3. If you do, what type of entertaining content do you exactly use?
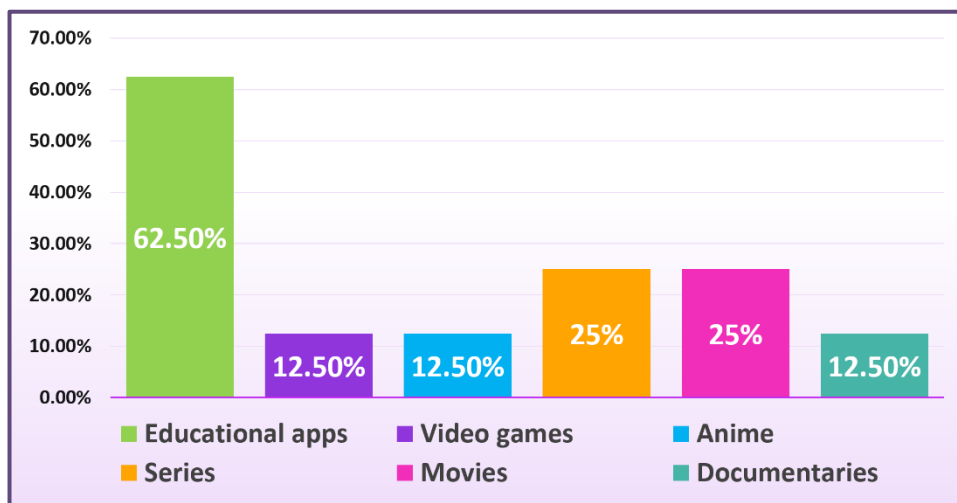
Figure 3.19. Teachers' Choice of Edutainment Content

This question is multiple-choice. The majority of teachers (62.50%) choose to use educational apps as their preferred edutainment content in teaching. A smaller portion of

teachers also incorporate other forms of edutainment content, including video games (12.50%), anime (12.50%), series (25%), movies (25%), and documentaries (12.50%).

Q4. How are the reactions and feedback of students when you use edutainment?
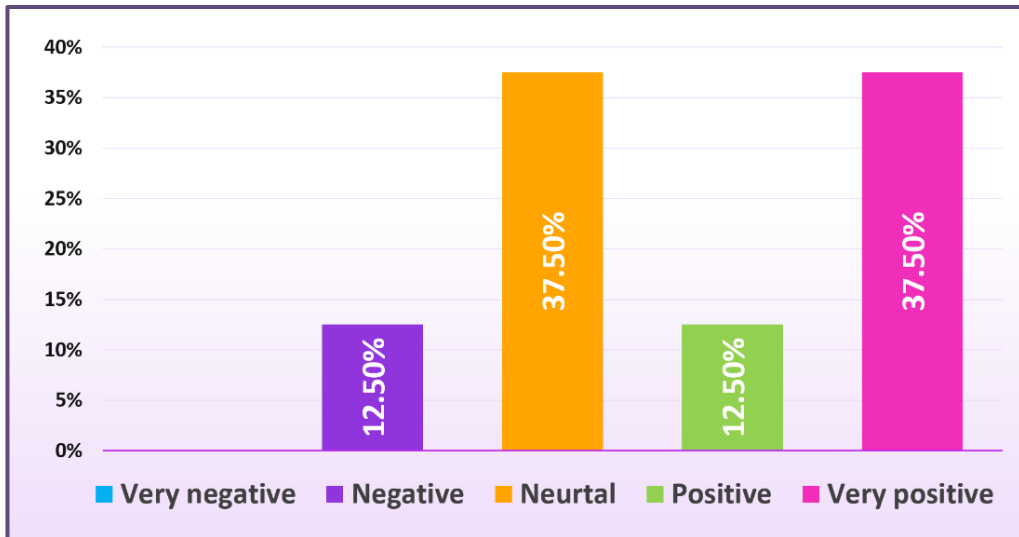
Figure 3.20. Students' Reactions When Using Edutainment

Students' reactions to edutainment can be summarized as follows: the majority of students had positive (12.50%) or neutral (37.50%) responses, while there were no very negative reactions reported. A significant number of students (37.50%) had very positive reactions, indicating a strong appreciation for edutainment. Only a small percentage of students (12.50%) had negative reactions.

Q5. Do you think that edutainment is important to make teaching more effective?
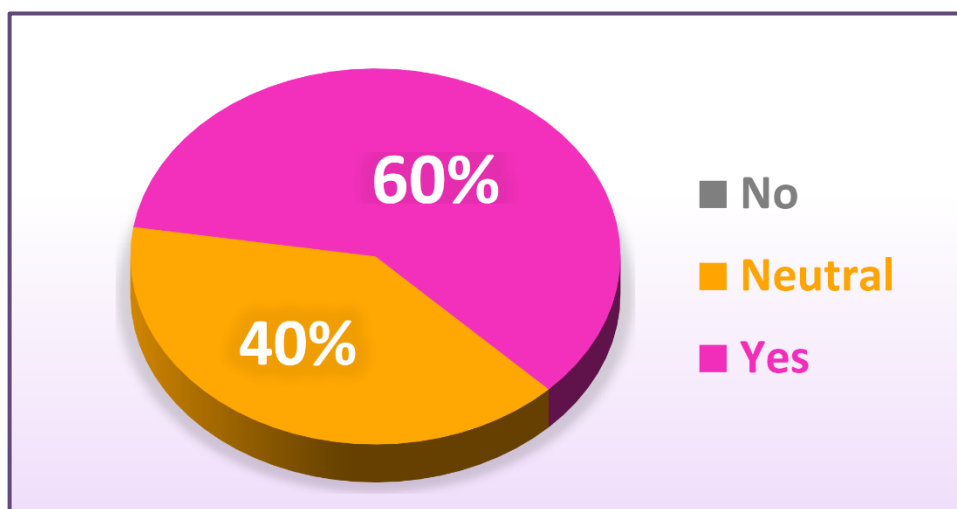
Figure 3.21. Teachers' Opinions on the Importance of Edutainment

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In this question, 60% of teachers believe that edutainment is important, 40% hold a neutral opinion, and none disagree with its importance.

Q6. Please, justify..

Summarizing teachers' answers to justify their choices to the previous question, we found out that they believe in the importance of edutainment as it makes teaching more engaging, enjoyable, and effective. It enhances student motivation, creates a positive learning environment, and increases retention and concentration. Edutainment is also seen as a way to combat boredom, boost learning outcomes, and provide an authentic representation of the subject matter. Furthermore, some teachers expressed curiosity and recognized its potential benefits, despite not having personal experience with it.

Q7. What are some of the biggest challenges you face when using edutainment in the classroom?
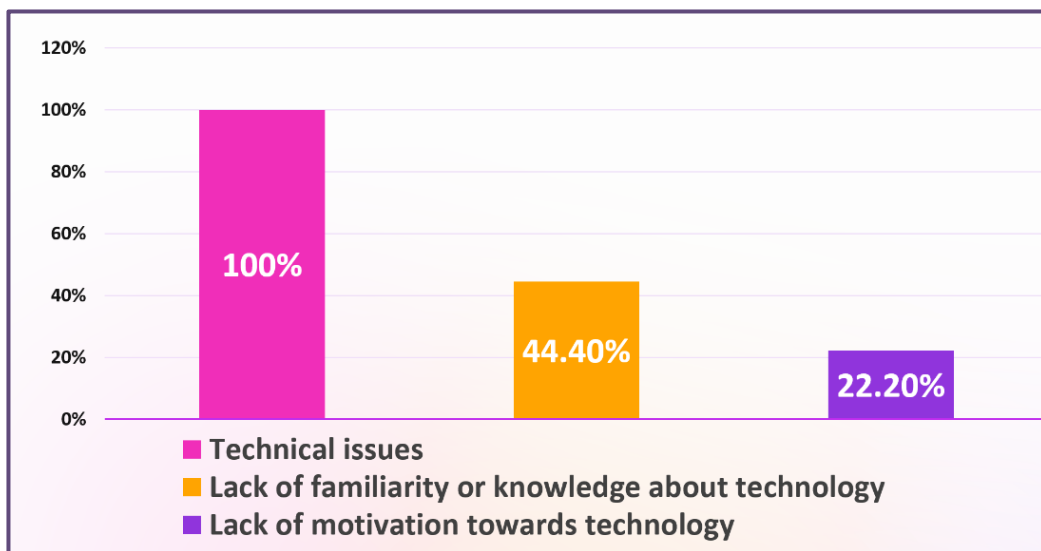
Figure 3.22. Challenges Faced by Teachers When Using Edutainment

Only participants who answered this question are counted for the percentages, meaning that the percentage of 100% represents 9 teachers. The main challenge reported by teachers when using edutainment is technical issues, which accounted for 100% of the responses. A significant proportion (44.4%) mentioned a lack of familiarity or knowledge about technology.

Furthermore, a smaller percentage of teachers (22.2%) reported a lack of motivation towards technology as a hindrance.

Q8. If there are any other reasons that prevent you from using edutainment, please mention and explain them down below:

Summarizing the two open-ended answers offered in this question, teachers face challenges in using edutainment due to the difficulty of balancing entertainment and didactics. They also cite a lack of awareness about the importance of integrating technology into education.

Q9. Have you ever received training on incorporating edutainment into your teaching practice?
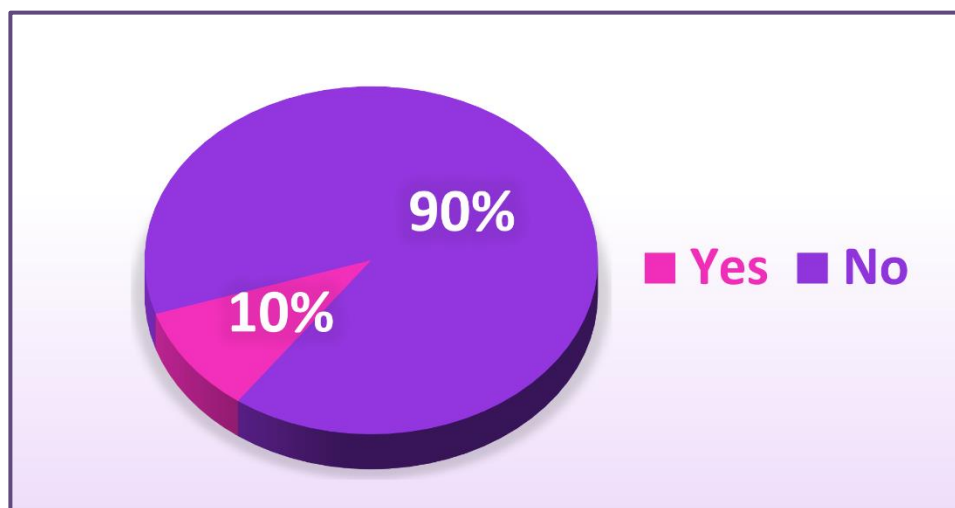
Figure 3.23. Teachers' Answers on Edutainment Training Reception

For this question, only one teacher (10%) reported having received training on incorporating edutainment while the rest of teachers (90%) indicated that they have not.

Q10. What resources or support do you need to effectively integrate edutainment into your teaching practice?
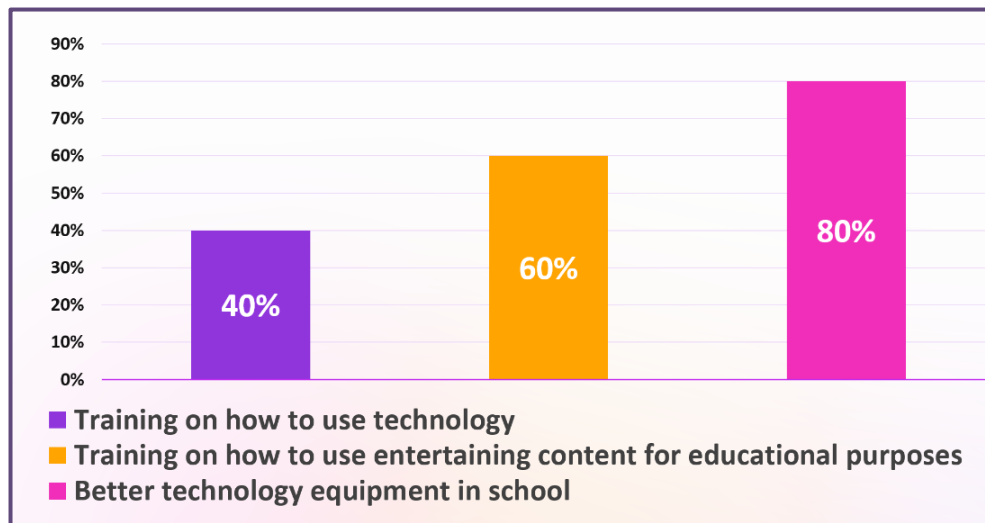
Figure 3.24. Edutainment Support for Teachers

This question seeks out solutions teachers wish for in order to incorporate edutainment in their teaching practices. The data gathered shows that 40% of teachers express the need for training on how to use technology. Additionally, 60% of teachers emphasize the necessity for training on using entertaining content for educational purposes. Furthermore, a significant majority of teachers (80%) stress the need for better technology equipment in schools.

Q11. Finally, what advice would you give to other teachers who are interested in incorporating edutainment into their teaching practices?

Since the final question is open-ended, the advice given by teachers to colleagues interested in incorporating edutainment into their teaching practices can be paraphrased in that they recommended learning about edutainment and trying to put it into practice. They also acknowledged the need for resources suggesting that edutainment starts with equipping classrooms and providing necessary tools and training for teachers before anything else.

Shortly, they advise learning and implementing edutainment, making it a personal teaching tradition, strongly urging incorporation, considering resources and training,

highlighting the advantages, expressing curiosity, and emphasizing the importance of awareness about edutainment.

3.6. Discussion, Limitations and Recommendations

3.6.1. Discussion of the Findings

The current research is stated to have significant implications for theory and practice, taking into account the key findings from both questionnaires given to students and teachers.

The major findings of this research goes in harmony with the theories presented in both chapters one and two. Both students and teachers have identified several benefits, challenges, and potential solutions when incorporating edutainment with different content types such as apps, games, movies, and anime.

Students have highlighted the positive impact of edutainment on motivation, foreign language acquisition, enjoyable information delivery, independent learning, and the provision of feedback. On the other hand, teachers have acknowledged the difficulty of balancing entertainment and education, as well as the need for more awareness and training on integrating technology into education. Additionally, teachers have emphasized the importance of upgrading technology equipment in schools and transforming educational content into interactive formats. Therefore, these insights underline the importance of investing in the potential of edutainment to enhance engagement, motivation, and learning outcomes while also highlighting the challenges that need to be addressed for effective implementation.

3.6.2. Limitations of the Study

During the execution of the current study, various challenges were encountered. The primary difficulty arose during the data collection phase of the practical research, where obtaining the required information proved to be problematic. Due to the reliance on Facebook as a means of contacting students, it was not feasible to include a large sample size. This

limitation was further compounded by the fact that some students lacked regular internet access, making their participation in the study more challenging. Additionally, due to their busy schedules with tests and exams at the University Centre of Mila, a limited number of teachers had interaction time with our survey.

3.6.3. Recommendations for Pedagogy and Research

Based on the analysis of the data collected through the research tools utilized in this study, it is essential to highlight a series of recommendations pertaining to pedagogy and future research. These recommendations aim to enhance students' and teachers' understanding and engagement with the concept of edutainment in the educational experience, urging them to give it more attention. Furthermore, these recommendations also serve as guidance for future studies that share a similar interest, offering suggestions for further research in the field.

3.6.3.1. Recommendations for Students

- Embrace a growth mindset and approach edutainment with an open and positive mindset, recognizing that it can be a valuable tool for learning and expanding your knowledge.

- Seek educational apps and games that align with your areas of interest and subjects of study.

- Minimize your time interacting with movies, games, anime and series with content that goes against our religion and culture. Instead, seek ones that offer more educational and moral value.

- When it is hard to find such educational and clean content, try to make one yourself by employing your knowledge that you have gathered from your field and collaborating with other content creators, especially in Algeria.

- Clearly define your learning goals and objectives when using edutainment. This will

help you stay focused and motivated, ensuring that you are using the technology in a purposeful and effective manner instead of getting distracted by the technology itself.

- Strike a balance between entertainment and learning. While edutainment can be enjoyable, make sure that the content you engage with provides a pedagogical value and helps you acquire knowledge and skills.

- Take time to reflect on your experience with edutainment. Evaluate how it has helped you in your learning journey, what strategies or techniques were most effective for you, and how you can further optimize your use of edutainment for better learning outcomes.

- Engage in discussions and collaborations with your peers regarding the use of edutainment. Share your experiences, recommendations, and favourite resources to enhance the collective learning experience.

- Keep up with the latest advancements and developments in edutainment. Always explore new apps, games, and platforms that offer innovative and effective educational content.

3.6.3.2. Recommendations for Teachers

- Take the time to familiarize yourself with the concept of edutainment and explore its potential benefits for enhancing student engagement and learning outcomes.

- Participate in professional development programs or workshops that focus on integrating edutainment into your teaching practices, both in Algeria and abroad, even if it's just online. This will enhance your knowledge and skills in effectively utilizing edutainment tools and resources.

- Ensure that the edutainment content you incorporate aligns with your curriculum objectives and learning standards. Select resources that complement the topics and skills you are teaching, reinforcing your didactic concepts and practices.

- Conduct thorough research and select high-quality edutainment resources that are age-appropriate, engaging, and aligned with your students' needs and interests. Most of movies, anime, series and entertaining content today is filled with ideas and stuff that go against our culture and religion. Therefore, consider factors such as educational value, interactivity, moreality and positive learning experiences.

- Strive for a balance between entertainment and educational value in the edutainment materials you use. Maintain a focus on academic and didactic content while incorporating interactive and engaging elements to keep students motivated and invested in the learning process.

- Engage in discussions and collaborate with fellow teachers who are using edutainment. Share your own stories, resources, and best practices to learn from one another.

- Regularly assess the impact of edutainment on student learning and engagement. Reflect on what worked well and what can be improved. Adjust your approaches and strategies accordingly to optimize the use of edutainment in your teaching.

3.6.3.3. Recommendations for Further Research

- Conduct longitudinal studies to assess the long-term impact of incorporating edutainment in education. Explore how students' learning outcomes, retention of knowledge, and overall academic performance are influenced by continued exposure to edutainment over an extended period.

- Conduct comparative studies to analyse the effectiveness of different types of edutainment content (e.g., educational apps, video games, movies, anime) on student engagement, motivation, and learning outcomes. Compare the benefits and challenges associated with each type and identify the most effective approaches for different subjects and age groups.

- Explore the impact of edutainment on learning outcomes across different disciplines, including STEM subjects, language learning, social sciences, and arts. Investigate how the use of edutainment can enhance conceptual understanding, critical thinking skills, creativity, and problem-solving abilities in various academic domains.

- Investigate the impact of edutainment on diverse student populations, including students with different learning styles, abilities, and cultural backgrounds. Examine how edutainment can be tailored to meet the needs and preferences of diverse learners, promoting inclusivity and equitable access to educational resources.

Conclusion

To sum up the practical chapter, it is important to emphasize the fact that the results achieved through this research reflect the benefits of edutainment in making the didactic experience more fruitful for both learners and teachers. Although the Algerian classroom (even on the university level) still faces a major problem indicated by both students and their teachers, which is the lack of technological equipment, the space for edutainment content creation is open to anyone who would like to improve teaching and learning for society. Incorporating free and open-source materials is also available for the majority of schools. Furthermore, spreading awareness about how impactful edutainment is can push the whole educational system towards supporting it.

General Conclusion

The attempt to investigate edutainment in the Algerian classroom was carried out in accordance to the theories and concepts modern didactics offers. The data and interpretations gathered from the students and teachers questionnaires highlight the significant role and potential benefits of incorporating edutainment in education. Students and teachers alike recognize the positive impact of edutainment on various aspects of learning, including motivation, engagement, information retention, and the development of social and independent learning skills.

However, several challenges need to be addressed, such as technical issues, lack of familiarity with technology, and the need for adequate training and support for both teachers and students. The findings also emphasize the importance of curriculum alignment, selecting quality edutainment resources, and striking a balance between entertainment and educational value.

Recommendations for students focus on being mindful of online distractions, managing time effectively, and actively engaging with edutainment content. For teachers, the offered recommendations include gaining familiarity with edutainment, seeking professional development, selecting appropriate resources, and providing guidance and structure to students. Furthermore, suggestions for further research encompass areas such as long-term impact, comparative analysis of different edutainment types, teacher training and support, student perspectives, barriers and solutions, learning outcomes across disciplines, and the impact on diverse student populations.

By considering these insights and recommendations, education systems can harness the power of edutainment to make the didactic experience more successful, enjoyable and create engaging calssrooms that cater to the needs and interests of students in the digital age.

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Appendices

Appendice A

The Students' Questionnaire:

Dear student,

We are kindly asking for your help answering the following questions to examine how entertainment is being used in education and how to improve it.

Please indicate your response in the corresponding box or circle by marking a checkmark (✓) for multiple-choice questions and a circle (●) for single-choice questions. We also appreciate any additional comments or suggestions you may have.

Section One: Background information

1- Your age:

- ○ Between 18 and 25
- ○ Between 26 and 40
- ○ More than +40

2- Are you a..

- ○ Male student
- ○ Female student

Section Two: Didactics

1- How do you learn best?

- ☐ Visual aids (videos, images, graphs)
- ☐ Practical activities
- ☐ Group discussions
- ☐ Lectures

2- What technology do you find most helpful in your learning process?

○ Digital textbooks (PDF, word, powerpoint,..etc)

○ Online conferences (Meet, Zoom,..etc)

○ Videos (Youtube, TED,..etc)

○ Educational apps

○ Educational sites and e-learning platforms

3- How do you stay organized and keep track of your studies?

○ Paper planning (making a plan on paper with lessons, tasks..etc)

○ Digital planning (making a plan on the phone/pc with lessons, tasks..etc)

○ I don't organize or track my studies

4- How often do you feel motivated in your classes?

○ Rarely

○ Sometimes

○ Neutral

○ Often

○ Always

5- In general, do your teachers provide feedback to your work when you ask them for it?

○ Rarely

○ Sometimes

○ Neutral

○ Often

○ Always

6- In your opinion, what could your teachers do to improve your learning experience?

☐ Use more interactive and hands-on activities

☐ Provide more individualized attention

☐ Incorporate more technology into their teaching

☐ Other: ....

Section Three: Edutainment

1- From the list below, what materials do you use and find helpful for learning?

☐ Educational apps

☐ Video games

☐ Anime

☐ Series

☐ Movies

☐ I don't use any of them.

2- If there is one, what is the most favorite material to you?

○ Educational apps

○ Video games

○ Anime

○ Series

○ Movies

3- Can you provide some examples (names of apps, games, anime, movies..etc)?

Feel free to write 1 or more examples.

....

....

....

4- How do the materials help you in learning?

- ☐ They increase my motivation
- ☐ They help me acquire foreign languages
- ☐ They offer the information in an enjoyable manner
- ☐ They improve my social skills
- ☐ They help me learn independently
- ☐ They provide feedback

5- Does any of you teachers use entertainment? if yes, what are the materials used?

- ☐ Educational apps
- ☐ Video games
- ☐ Anime
- ☐ Series
- ☐ Movies
- ☐ They don't use any of them.

6- What are the challenges you face while using technology for learning?

- ☐ Technical issues (malfunctioning devices, poor internet connection)
- ☐ Lack of familiarity or knowledge about technology
- ☐ Lack of motivation towards technology

7- If there are any other challenges you face, please explain:

....

8- Finally, what do you think the school can do to support technology and entertainment in education?

- ☐ Providing more training on how to use technology for teachers
- ☐ Providing more training on how to use technology for students
- ☐ Upgrading technology equipment in school
- ☐ Turning the educational content into apps, games, anime or movies

Thank you for your collaboration.

Appendice B

The Teachers Questionnaire:

Dear teacher,

We are kindly asking for some of your valued time to help us in our research by answering the following questionnaire in order to examine how entertainment is being used in education and how to improve it.

Please indicate your response in the corresponding box or circle by marking a checkmark (✔) for multiple-choice questions and a circle (●) for single-choice questions. We also appreciate any additional comments or suggestions you may have.

Section One: Background Information

1- What professional degree do you own?

○ Master's degree

○ Doctorate degree

2- Are you a..

○ Male teacher

○ Female teacher

Section Two: Using Edutainment to Improve Teaching

1- Do you know what edutainment is?

○ Yes

○ No

2- Do you use it for teaching?

○ Never

○ Rarely

○ Sometimes

○ Usually

○ Always

3- If you do, what type of entertaining content do you exactly use?

☐ Educational apps

☐ Video games

☐ Anime

☐ Series

☐ Movies

☐ Other: ....

4- How are the reactions and feedback of students when you use edutainment?

○ Very negative

○ Negative

○ Neurtal

○ Positive

○ Very positive

5- Do you think that edutainment is important to make teaching more effective?

○ No

○ Neutral

○ Yes

6- Please, justify:

....

....

7- What are some of the biggest challenges you face when using edutainment in the classroom?

☐ Technical issues (malfunctioning devices, poor internet connection)

☐ Lack of familiarity or knowledge about technology

☐ Lack of motivation towards technology

8- If there are any other reasons that prevent you from using edutainment, please mention and explain them down below:

....

....

....

9- Have you ever received training on incorporating edutainment into your teaching practice?

○ Yes

○ No

10- What resources or support do you need to effectively integrate edutainment into your teaching practice?

☐ Training on how to use technology

☐ Training on how to use entertaining content for educational purposes

☐ Better technology equipment in school

11- Finally, what advice would you give to other teachers who are interested in incorporating edutainment into their teaching practices?

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Thank you for your collaboration.

ملخص

تهدف هذه الدراسة إلى البحث في التعليم الترفيهي، الذي هو مفهوم هجين يجمع بين التعليم والترفيه، وبهدف استكشاف الفوائد والتحديات المحتملة لتطبيق الترفيه التعليمي في التجربة التعليمية ، تحاول هذه الدراسة الإجابة على ثلاثة أسئلة: (1) ما هو واقع التجربة التعليمية فيما يتعلق بالترفيه التعليمي في الأقسام الجزائرية؟ (2) ما هي التحديات التي يواجهها المعلمون والمتعلمون أثناء الدمج؟ (3) ما هي الحلول والتدابير التي يمكن اتخاذها لتحسين حالة التعليم الترفيهي؟ من خلال فحص الأعمال الموجودة حاليا حول الموضوع، وإجراء إستبيانين، أين وزع استبيان على 54 متعلمًا للغة الإنجليزية تم اختيارهم عشوائيًا وتم توجيه استبيان آخر إلى 10 مدرسين في المركز الجامعي عبد الحفيظ بوالوصف - ميلة ، بمعهد الآداب واللغات ، أو قسم اللغات الأجنبية بالتحديد. تسلط نتائج هذه الدراسة الضوء على الآثار الإيجابية للترفيه التعليمي على التحفيز والاحتفاظ بالمعرفة لمدى أطول، كما تقر الدراسة أيضًا بالتحديات المرتبطة بتنفيذ مناهج التعليم الترفيهي، بما في ذلك تحقيق التوازن الصحيح بين التعليم والترفيه ، وضمان ملاءمة المحتوى ، ومعالجة النقص في الأجهزة التكنولوجية داخل القاعات الدراسية. في نهاية المطاف ، تدعو الدراسة إلى إرشادات في كيفية الاستعمال الفعال للترفيه التعليمي وتقديم توصيات للباحثين مستقبلا عن ذات الموضوع من أجل خلق بيئة تعليمية جذابة وفعالة للمتعلمين بمختلف فئاتهم العمرية.

Résumé

Cette recherche plonge dans le domaine du divertissement ludo-éducatif, un concept hybride qui combine l'éducation et le divertissement. Dans le but d'explorer les avantages et les défis potentiels de la mise en œuvre du divertissement ludo-éducatif dans l'expérience didactique, cette étude tente de répondre à trois questions : (1) Quel est l'état de l'expérience didactique actuelle par rapport au divertissement ludo-éducatif dans la salle de classe algérienne ? (2) À quels défis les enseignants et les apprenants sont-ils confrontés lors de l'intégration ? (3) Quelles sont les solutions et les mesures qui peuvent être prises pour améliorer l'état du divertissement ludo-éducatif ? En examinant la littérature existante et en menant deux enquêtes, la recherche évalue l'impact de l'incorporation d'éléments de divertissement dans l'expérience didactique. Une enquête a été administrée à 54 apprenants d'anglais sélectionnés au hasard et une autre a été administrée à 10 enseignants du Centre universitaire de Mila, Institut des lettres et des langues, Département des langues étrangères. Les résultats de cette étude ont mis en lumière les effets positifs du divertissement ludo-éducatif sur la motivation, la rétention des connaissances et l'expérience d'apprentissage globale. L'étude reconnaît également les défis associés à la mise en œuvre d'approches de divertissement ludo-éducatif. Il explore les obstacles potentiels, notamment trouver le juste équilibre entre l'éducation et le divertissement, assurer la pertinence du contenu et remédier à la pénurie d'appareils technologiques pour la salle de classe. En fin de compte, l'étude préconise une intégration réfléchie et ciblée du divertissement ludo-éducatif en fournissant des recommandations pour de futures recherches afin de créer des environnements d'apprentissage attrayants, efficaces et agréables pour les apprenants de tous âges.