

Similarities and differences between “learn through play” and “edutainment”

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ABSTRACT

The idea of integrating education and entertainment can be widely observed over the last few decades. Recently, two commonly known terms when referring to combining learning and entertainment are “learn through play” and “edutainment”. The objective of this paper is to present an investigation into the similarities and differences of these two terms. This includes definitions, applications, and discussions from different point of views. The results of the study found that “learn through play” and “edutainment” are important areas that both use entertainment activity for learning. Learn through play is a much broader term in fun activity while edutainment relies heavily on technology, especially computer games. They are effective teaching strategy both inside and outside school. This paper also shows their success so far and could provide some guidelines in future research in this field.

Categories and Subject Descriptors: computer and education

General Terms: teaching, learning, education, technology

Keywords: edutainment, learn through play, effectiveness, similarity, difference

1. INTRODUCTION

It is widely accepted that play could be a vehicle for developing a more rational or metaphorical way of thinking. The idea of combining education with entertainment has been widely used for many formal and informal educational purposes. Two commonly known terms that most people are familiar with are “learn through play” and “edutainment”. In the most basic form, the focus of edutainment is learning through play. Nevertheless, there are some differences between them. Thus, this is the focus of this paper to analyze their similarities and differences in terms of definition, importance, effectiveness and exemplification of successful cases in some learning foundation in school.

2. LEARN THOUGH PLAY

2.1 Definition of play

“Play” is described as the activities involved during childhood from babyhood to early teenager years. It also referred to some activities in adulthood as well. There is no

exact meaning of play and could be different under different context.

In the Oxford English Dictionary, we can find that the definitions of play under different context are more than ten pages. Some definitions, for example, are: play is intrinsically motivating, that is, it is pleasurable for its own sake and is not dependent on external rewards; play involves some level of active, often physical engagement; play as power is concerned with winning competitions; play as fantasy liberate the mind towards creative and imaginative exercise; play as progress is the learning that can be gained through play activities

However, people from different backgrounds included: philosophers, psychologists, novelists, historians, and educators said have different definition of “play” as follows: “Work and play are words used to describe the same thing under differing conditions.” - - Mark Twain, novelist, journalist, river pilot; “It is a happy talent to know how to play.” - - Ralph Waldo Emerson, philosopher, poet, essayist; “When kids play, they remember. They may not aware they are learning, but they sure are aware they are having fun.” - - Rebecca Krook, play facilitator for kids with disabilities; “It is a paradoxical that many educators and parents still differentiate between a time for learning and a time for play without seeing the vital connection between them.” - - Leo Buscaglia, author, educator; “Play permits the child to resolve in symbolic form unsolved problems of the past and to cope directly or symbolically with present concerns. It is also his most significant tool for preparing himself for the future and its tasks.” - - Bruno Bettelheim, child psychologist; “You can discover more about a person in an hour of play than in a year of conversation.” - - Plato, Greek philosopher; “The activities that are the easiest, cheapest, and most fun to do – such as singing, playing games, reading, storytelling, and just talking and listening – are also the best for child development.” - - Professor Jerome Singer, Yale University; “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.” - - Friedrich Froebel “father” of modern kindergarten; “All play means something. It goes beyond the confines of purely physical or purely biological activity. It is significant function – that is to say, there is some sense to it.” - -Johan Huizinga, cultural historian; “I played with an idea, and grew willful; tossed it into the air; transformed it; let it escape and recaptured it; made it iridescent with fancy, and winged it with paradox.” - - Oscar Wilde, playwright, novelist; “If you want to creative workers, give them enough time to play.” - - John Cleese, English actor, writer; “In every real man a child is hidden that wants to play.” - - Friedrich Nietzsche, philosopher, poet;

“Play is like a reservoir full of water. The deeper the reservoir, the more water can be stored in it, and used during times of drought.” - Tina Bruce, Professor, London Metropolitan University.

2.2 The Reason Why Play is so Important

Play has seemed to be a natural and universal learning tool for children and adults. Through play, human can acquire skill without knowing it and in the most natural way. It can be lifelong and enjoyable activity to carry out. As most educators have pointed out, plays are recreation activities which are easy fun to do. How play is so important and what does play provide benefit to the players? Lindon [9] pointed out that “from babyhood, children use play to promote their own learning; they do not have to be persuaded into playing.” Through play, learner can develop, alter, and understand. All these basic skills are developed as they explore, construct, imitate, discuss, plan, manipulate, problem-solve, dramatize, create and experiment [21]. Play supports children in all aspects of their development including [9], [15], [21]: to explore intellectually and physically; to extend their skills of communication; to give free run to their imagination; to promote their physical and healthy development; to demonstrate their knowledge; to represent their experience; to develop all skills children need, including literacy, mathematical reasoning, creating and social skills; to manage environment through cooperation, helping, sharing and social problem-solving; to further explore their world.

2.3 How Can Adult Support Play?

To answer this question, it is useful to consider another query: what do children need in order to play? This is normally important for children as they need some guidance in most of the things they are doing. They are normally not mature enough to handle experiences independently. Lindon [9] suggests that children can make their own decision in a welcoming environment for play. In order to set up this welcoming environment, the variety of play materials must be sufficient and adults must be children’s play companion.

It was discovered that children learn better when they can choose their own activities. They will also enjoy and gain more benefit under the generous scope to access materials and determine their own play. Adults, therefore, should facilitate and support their children by [9], [18], [21]: selecting the acquainted materials and organizing them effectively in interesting area; providing the variety of materials and activities in the generous scope and should be easily access; providing space to spread out the play environment so children are able to explore and enjoy; planning ahead in a flexible way, on the other hand, this must be balance. The adults should not over-plan or over supervise by making all key decisions for their children; avoiding accidents to ensure that children can play safety - both emotionally and physically; accompanying children’s play by providing guidance if necessary and helping to ask questions in order to spark children’s thinking; managing risky play activities. Uncertainties and challenges make play activities more interesting. Too safe is boring.

2.4 Learn Through Play in Formal Education Circumstance

So far we know that play is an essential activity to improve and develop children physically, mentally, emotionally, and socially. Play also teaches a child to react and handle circumstances around enjoyable activities. It is an integral part of child’s development process. Consequently, play has its value as a mean in children’s learning. It is a natural way to learn because it uses all their senses to solve problem and understand their environment. Play prepares children for academic learning as they begin their school years and each step along the way. The idea to modify traditional games and toys into the classroom become one of the most essential areas for psycho-pedagogy [4]. Therefore it makes sense to see play as having a valued and valuable place within a school curriculum [23]. Teacher has an important role in helping children learn through play by selecting material they know, guiding them when they need help and sparking their thinking by asking questions. When children are free to follow their interests and organize their own experiences, learning happen naturally [18].

3. EDUTAINMENT

Edutainment, similar to infotainment, technotainment, educational electronic games, is a new term coinage. This term was first used in computer industry describing CD ROM programs that we use to teaching with entertainment. “The concept of entertainment is not new, although the term is a neologism. Entertainment facilities have large used the education aspects while adding entertainment or amusement” [22]. The term edutainment is defined in several ways. Hutchison Encyclopedia, for example, defines edutainment as multimedia-related term, used to describe computer software that is both education and entertainment. The American Heritage Dictionary defines edutainment as “the act of learning through a medium that both educated and entertains.” According to Buckingham and Scanlon [2], edutainment is “a hybrid genre that relies heavily on visual material, on narrative or game-like formats computer games-education-implications for game developers, and on more informal, less didactic styles of address.”

In conclusion, edutainment is the act of learning heavily through any of various media such as television programs, video games, films, music, multimedia, websites and computer software. Entertainment is the media and education is the content [22]. The development of edutainment environment is also intended to implement technological innovations in education [7].

3.1 Application of Edutainment

Edutainment is an interesting form of education that has been successfully used by many education systems around the world. One example is the use of edutainment within Singapore explored by Resnick [14]. “Whilst Singaporean students achieved some of the highest scores in mathematics and science literacy in the world, the Singapore government became increasingly concerned with the lack of creativity being displayed in secondary and tertiary level graduates. To counteract this trend, some school systems experimented with the use of Robotic edutainment, where children would

integrate their knowledge of maths and science into a practical, working model robot. The result was children that were better able to enjoy their studies as they saw it could lead to interesting and colorful practical application.”

3.2 Types of Edutainment

Edutainment is an involving alternative to traditional education method. It can be organized in different ways [20], [22]:

Location-based edutainment which can be divided into two categories: interactive & participatory where children can play and participate in game, and non-interactive & spectator where children can just be seated and exploring (movie, science show, museums and zoos).

Edutainment by purpose and content consists of informal education which is to improve learners’ life control, and skills education which is to give experiences, like simulations.

Edutainment by target group includes motivation-oriented (learners who have same interest), and age-oriented (learners who have same age)

Edutainment by type of media contains: edutainment on TV included: comedic drama, historical drama, sketch comedy, skills and travel; computer edutainment included game types: adventure, quiz, role-play, strategy, simulation, and experimental drama; edutainment on Internet included: tele-teaching and tele-learning systems, and web-based educational systems; interactive television. This type of edutainment uses the advent of digital television to provide the interactivity via software and hardware and connect with other telecommunication systems.

3.3 Edutainment: a Commercial Product

With the concept that learning can be fun and fun can promote learning, more and more entertainment product are marketing themselves using this concept. Edutainment is as much a marketing concept as it is content [22]. There are more for-profit types of location-based edutainment businesses around such as theatres, museums, zoos, aquariums, planetariums, historical sites, as well as children’s edutainment centers. Many different kind of media used for edutainment are also considered as commercial commodities. Television programs such as Sesame Street and Barney in USA as well as BBC’s series Teletubbies are confined as commercial products. Books, magazines, audio, video games, and computer games are sold to parent as a kind of commodity [2]. Parents are likely to invest more in their children’s education by purchasing additional educational resources at home. Statistic shows that the more educated parents are the more plausibly that they will agree with children’s participation in extracurricular lesson, and the more edutainment products they will purchase [22]. Data collected between 1996-2000, from the Census Bureau’s Survey of Income and Program Participation, shows that the families of parents with a high school degree or less education, only 22 percent of their children participated in extracurricular lesson when children’s participation in these activities increased to 50 percent from the families of parents had a bachelor’s degree [22]. Educational institutes seem to be another big target for

edutainment marketing. However, the study of Harvey [6] on the Market for Educational Software found that the edutainment market in educational institutes is weak due to the limited budget. The educational institutes educate heavily based on the used of traditional text rather than educational software, and they are normally unsure of technologies that will help to develop the educational content. Parents used to be interested in edutainment software and then disappear because they need teacher to help them select the appropriate software for home use. The understanding of teachers, however, is not much different from that of the parents.

4. LEARN THROUGH PLAY AND EDUTAINMENT: SIMILARITIES & DIFFERENCES

Both “learn through play” and “edutainment” include learning and education objectives as entertainment activities. While “edutainment” relies heavily on media including computer game, “learn through play” on the other hand is rather a broad term that includes activities which may or may not include any media. The similarities in the general concept, activity during play, foundation skills and effectiveness are shown in table 1 and table 2 [5], [9], [13], [21], [23].

Table 1: Similarities between “learn through play” and “edutainment”

Characteristics	Similarities
General concepts	<ul style="list-style-type: none"> • Amusing activities and learning at the same time • Effective teaching strategy both inside and outside school • Key facilitator for learning • Natural and universal activity of children and adults • Having its rules and being free activity without boundaries • Principle means of learning in early childhood • A way of thinking and a vehicle for intuitive of metaphorical mind • Dynamic, active, constructive behavior
Activities during play	Explore, imagine, construct, discuss, plan, manipulate, problem solving, dramatize, create, experiment, use logic, critical thinking, visualize, discover
Foundation skills	Memory, self-regulation, oral language abilities, symbolic generalizations, distancing & de-contextualization, reflective thinking, & meta-cognition, better social skill, abstract thinking & imagination

Table 2: The effectiveness of “learn through play” and “edutainment”

	Effectiveness
Social behavior	Self control, more positive social interacts and companionship, more altruistic behavior, less stereotyped views of other, cooperative, helping, sharing, solving social problems, understand their life experiences, ability to take turn, negotiate, compromise, work out conflict
Cognitive development	Memory, creativity & divergent thinking, extending skills of mathematical reasoning, basic skills such as counting, reading, and writing
Intellectual development	Resolving problems, understanding how things work, devising strategies
Emotional development	Love, caring, empathy, curiosity, focusing attention on task, lower anxiety
Physical development	Develop gross muscle control, eye-hand coordinative, coordination of movement & speed, a critical precursor to reading and writing skills
Therapeutic effects	<ul style="list-style-type: none"> • Health care (learn good eating habits from computer game) • Hyperactivity (active play may reduce impulsivity) • Brain development (increase neural structure)

At its most basic, edutainment is playing [13]. However there are some differences between these two areas. When people think about edutainment, they tend to think of them as services that someone else provides to learners or players. On the contrary, learn through play or playful learning is things that learners intend to do by themselves [14]. The differences in term of applying technology, commercial concept, visual materials, places, and delivery are shown in table 3

Table 3: Differences between “learn through play” and “edutainment”

	Learn through play	Edutainment
Technology (digital environment)	With or without	Mostly required
Commercial concept	With or without	Mostly with
Visual materials	With or without	Always required
Places	Indoor or outdoor	Mostly indoor
Deliver	Not necessary	Mostly

5. CASE STUDY

The success of learn through play and edutainment are found in many areas of learning. Mathematics, sciences and language, for instance, are among the subjects of paving the foundation in school. Science is hard; its content is not easily comprehended for everyone. To fully appreciate science, learners need to concentrate on reading, writing and mathematics as well as handling the language barrier[1].

The idea of making learning mathematics more fun is used widely in India. People in traditional society teach their children in mathematics with recreational activities involving puzzles, paradoxes and riddles [20].

To make learning science interesting, play can be used as a tool for discovery. David, the student in first grade bilingual class, used his playful attitude to discover many details about nature. He told his teacher the reason why polar bear is white because the snow around them is white. He was able to articulate a reasonable explanation for his finding. This is the foundation of scientific knowledge. During play, children find out and more through their explorations [1].

Learning English language is a complex and long process, especially for non English native speakers. Play and literacy activity using technology is one challenging ways of language learning. The research of Sconduto [16] using desktop videoconferencing (DVC) in English as a second language education shows that 40 high beginning English proficiency students of Guangxi College of Technology in Liuzhou, China enjoy and excite to participate in the lesson. He integrates computing, video, and communication technologies to allow participants at different locations to see and hear each other in real time. By adding more entertaining program using animate objects in video and other media, the students were get themselves more involve in learning. This is achieved through interactive activities to challenge and develop learners’ listening, speaking, reading, and writing skills. The study concluded that overall this English instructional unit was successful. Lanqiumi, one of the ESL students, wrote his appreciation letter back saying that he is happy to communicate through the DVC and he enjoyed the lesson and hope to have a chance to learn using this method again.

Play is central not only to the development of children but also extended to adults. Scientific literacy can be achieved because children can learn together with play. Moreover, children’s play activities have an important role in shaping their language.

6. DISCUSSION

Even though learn through play and edutainment have attracted attention over the year, the success of them is continuously controversial. Most educators believe that the combination of education and entertainment is one of the key factors of the educational success, while others disagree and believe that the problem of joining play and learning is not easy. When learners play, in a computer game for instance, they are focus to the experience of play itself like how to follow the rules; how to move the objects; when to hit the ball, “but there can be no guarantee that we will learn just what someone else plans we will learn” [12]. Some teachers commented that adding entertainment in the classroom will

make the content and value of education down [17]. They then argue that learning should not be fun, and therefore edutainment is dangerous. Of course the questions here are whether there is anything wrong with making education fun and whether edutainment software is really harmful. As Buckingham argues [8], a lot of learning can be done through play, but not all play is learning. Edutainment software is a great idea, if it is used in the correct manner.

Most studies show that play-based learning session proved to be successful in both formal and informal situations [11] and they agreed that play is an important educational rule, especially during their childhood [4]. Researchers suggest that education administrators should consider play as a method of learning with new technologies beyond the foundation stages [11]. The school of future may look more like a park or interactive museum than the traditional classroom [3]. They also forecast that within the next decade the technologies and content development will allow policy makers to rethink the entire process of education [10]. Teachers will play significant role as guide and nurturers. They can use more interactive edutainment mediums and act as the entertainment actors. Learner can enjoy more interactive classroom while teachers can also monitor and analyze the performance of students.

7. CONCLUSION

“Learn through play” and “edutainment” are important areas that both use entertainment activity for learning. While learn through play is a much broader term in fun activity, edutainment relies heavily on technology, especially computer software. They are effective teaching strategy both inside and outside school. Play activity has a vital role in shaping learners’ scientific, mathematics literacy as well as their language skill. This paper has presented an analyst into the two areas: “learn through play” and “edutainment”. Similarities and dissimilarities have been presented.

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