

Study of the Serious Games Capacity in Promoting Financial Literacy

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ABSTRACT:

the accurate definition of financial literacy can be proposed by distinguishing it from economic literacy. Financial literacy does not essentially include economic literacy. Financial literacy is the subset and a part of economic literacy that is about being aware of financial value and purchase power of money regarding optimal consumption of financial power. In 2011, the Organization for Economic Co-operation and Development (OECD) defined financial literacy as the ability for informed judgment and effective decisions made for money management and use. In addition to financial literacy, videogames are defined as interactional products based on a set of accepted rules and limitations to achieve a goal in a challenging way. These games send feedback to the player's behavior by giving a score or changing the game world to see what path they choose to reach the designed target. According to the abovementioned definition, serious games are defined as games with a more primary purpose other than entertaining the audience. Entertainment is only a value-added that improves the quality of practice, education, accuracy, and public policy, and goals of the communicational strategy. The lack of a precise and comprehensive definition of financial literacy, uncertainty about its importance, and undetermined proper instruments for its enhancement are among those problems that could be depicted as the problem and purpose of the present study. This study analyzed the existing resources through the thematic analysis method. Consequently, it should be stated that the games affect the learning process in two ways: the effect on cognition and motivation. The interactional nature of games is matched with the opinion of educational psychologists who introduce the active cognition process as an effective and consistent factor for learning. Serious games should receive more attention compared to other games. Researches have proved that serious games are effective information messengers that develop capabilities. In the core of capacities considered for serious games, the cognitive and motivational effects are substantial factors that occur in the critical thinking of the player.

KEYWORDS:

Videogame, Serious Game, Financial Literacy

INTRODUCTION:

To address the purpose and problem of the present study which is scrutinizing the notion of financial literacy and serious games alongside the expression of perplexities resulted from ignoring the financial literacy and its capacities in concurrence with the games, we can start from the angle that says Technology has been always exploiting to cover the new capacities of the learning process. Technology has different impacts on three aspects of the learning process including teacher, educational system and field, and learner. For example, edutainment provides the most common model of education with some fun and entertainment. In edutainment, an entertaining incentive is proposed to the learner to achieve a more attractive learning process. The interface between entertainment, education, and technology produce "serious games." However, the definition of these games is a debatable issue. Designers of serious games use the capacity of videogames to attract the attention of the player to their products with purposes that are not essentially entertaining. In contrary to videogames that only are games, serious games provide serious purposes that are designed to teach something to the learner. This study not only examined serious games as educational instruments but also studies financial literacy as an educational field. We are always making decisions about different events that cause different consequences. Some of these decisions are financial and economic ones that highlight the importance of financial literacy. All of us deal with money daily, and although the value and form of money changes in time, its application has always been the same in different eras. Therefore, to better manage life we are obliged to learn its correct use and effective management. Put simply, we must understand what we should use our money for, how much should we spend, and how to use it to make ends meet and to be able to make appropriate decisions for the financial issues of our life. This process is called financial literacy and it is so important that UNESCO has included it among the other criteria of literacy in the new era. Financial literacy has received considerable attention so that important international institutions have paid great attention to financial literacy promotion. For instance, in 2005, OECD recommended setting financial education in the school, and people should learn about financial literacy as soon as possible. Obviously, individuals without a primary financial knowledge about the financial issues would face difficulties in making investments or at least maintain the value of their existing capital, and these difficulties would not only beset the individuals themselves, but they would also beset the government and the society if spread throughout the majority of the people. In a different view, Anthes (2004) not only holds that the financial literacy situation is disastrous, but he also considers it as a unique opportunity to create correct structures in the people's minds. In the extant study, the key concepts of serious games and financial literacy are investigated accurately, and then the capacity obtained from the application of serious games in education and promotion of financial literacy is examined.

METHOD:

In this research, thematic analysis (also known as content analysis) was applied. Thematic analysis is a method used to recognize, analyze, and report the patterns existing in qualitative data. The pattern here means a model obtained from the conceptual order to extracted data. This method is a process for analyzing text data, and various data to enrich and detail them. King and Horrocks (2010) reviewed and summarized the previous studies and presented a three-step process for thematic analysis that comprised basic themes, organizer, and integration with inclusive themes. As this is a fundamental study, the statistical population of it differs from quantitative studies. The sampling method of the extant paper is theoretical. It means that those references are chosen that provide the most information and data to answer the research questions. This study was validated by using the validity-interpretive method then the results are proposed based on the opinions of experts. To assess the validity of this study, the conceptual framework and background were used besides inclusive themes by consideration of ideas and guidelines proposed by experts in this case. There were few studies on the research subject; hence, Holsti's Method was not used.

RESULTS:

Games, in fact, transfer the user to a simulated reality that reacts based on his/her decisions, and such unforgettable interaction creates an experience full of information and learning, and experience of positive feeling and motivation. Games affect the learning process in two ways: effect on the cognition process and effect on the motivation. The interactive nature of games is in line with the opinion of educational psychologists who introduce the active cognition process as an essential factor for effective and stable learning. We should make sure that the designed game helps enhance the user's awareness and knowledge in the long run acting as a building block for education, and more importantly, assure that it instructs the manner of learning. Riddle and Baalsrud carried out a study on the application of serious games for business education and concluded that the objective and subject of the serious game should be determined at the first steps of development. They also introduced serious games as an active educational method that improves the hard and soft abilities of individuals. The development of these games is an interdisciplinary and multidimensional subject, which can be simulated or perceived based on a real subject of life. As an endpoint, the application of these games requires the presence of a human facilitator. Yee's researches have proved that some age groups, especially school ages, show a positive approach to the games; hence, this is a golden age for the application of serious games. A high percentage of students believe that videogames can help them to learn; therefore, they prefer this method to other traditional methods. Naturally, the western approach to education and financial literacy differs from Iranian and Islamic teachings. Hence, the design our own financial model should not negate the teachings of the western model but it should consider that such teachings are rooted in their intellectual and philosophical foundations.

CONCLUSION:

The game is an interactive and simulated environment based on the real world in which the player can see the results of his/her different decisions. This kind of interaction deepens the learning process by increasing the users' motivation for more repetition and involvement. It should be mentioned that games could affect the learning process by affecting the cognition process and motivation. The two aforementioned options can be seen in the major capacity of serious games more than other issues. The serious game is an active educational method that expands both the hard and soft abilities of people. Therefore, it is justifiable to apply serious games in teaching financial literacy, particularly in the lower age range. The effects of serious games on the learning process of financial literacy can be summarized as follows:

- Serious games increase learning percent in the education process.
- Serious games lead to higher stability and durability of teachings in education compared to conventional educational methods.
- Serious game-based education creates more motivation for the learner.
- Application of serious games besides other method has more impact on the use of these games alone.
- Serious games-based learning is better than educational sessions based on traditional methods.
- Game and education in groups will be more efficient.

•In absence of a dramatic story, serious games are more effective although the difference is not much considerable.

