

Game Design for Moral Education among Pre-School Children: Towards Values Inculcation in Jom Niat!

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Abstract

Children are an important asset in a society. They will play a role in the development of the country and the nation. Moral education focused on the personal development of noble values among children so that they may demonstrate commendable morals and be able to function well in the society. Moral education today faces the challenges of growing technology and also involves children. As native users of information and communication technology, children are already exposed to smart devices as early as the age of their infancy. Moral education cannot be delivered effectively without considering children's nature and interest. Whilst constructing a strong connection between moral values and modern educational trends, the study intends to increase the interest and motivation of children to develop their exploration and understanding while learning, with respect of their own nature and habits. Thus, this study propose the design of game-based learning applications for moral education of pre-school children. This paper aims to highlight the serious game approach in pre-school education and identify appropriate game strategies for pre-school moral education. The methodology of this study is based on ADDIE model development. The results of the study demonstrate that the prototype provides children with a rich variety of serious gaming activities and challenging experiences in an interactive environment. The game design offers a fun and entertaining learning experience that makes moral education more stimulating and applicable for children. This study contributes to moral education mobile game research in the game design to balance the educational content and fun element through the deployment and study of pedagogical goal and learning engagement among children.

Keywords: Moral Education, Pre-School Children, Serious Games, Design

Introduction

In the era of globalization, the child is the most important asset in determining the direction and pattern of future a nation. They are the hope of the country that needs to be formed from an early age so that they become useful human beings and can serve

the community. Therefore, one of the ways for children to be educated from an early ages in terms of moral education.

Moral development refers to the process of personal growth of individuals to contain the elements of trust, integrity, responsibility, honesty and have high moral principles (Hakimi, 2014) In Malaysia, moral education is one of the concerned aspects for the holistic development of students, in line with the National Education Philosophy (Amirah et al., 2021; Shafie & Ling, 2017). Moral education also gets a touch of the modern era, aims to make children able to practice high-level thinking skills, form a strong identity and be able to communicate effectively (Norazri, 2015).

Moral education cannot escape the example of adults (Atiyah et al., 2019). Not only children, adults have also no exception to display a high morality even when dealing with younger people (Alias et al., 2019, 2020; Ridzuan, 2017). Children are more attracted to this approach because they have the opportunity to appreciate the personal effects shown. Icon that should be highlighted is of course a person with a noble personality, has high moral principles, integrity and trust (Lukman Hakimi, 2014). In line with this need, moral education is applied through the learning of Hadis which leads to praiseworthy practices in daily life based on the great personality of the Prophet Muhammad, peace and blessing upon him (Hamidah et al., 2013).

The personality and self-esteem of an individual is built from a young age even before the pre-school level. The individual's ability to overcome life's challenges and deal with stress is influenced by his or her identity. Parents and educators play a role in educating children to achieve the goal of building a strong personality (Abdul Munir et al., 2013). A Malay proverbs say " bees gather honey", which means doing a job should be with pure intention and clear objectives. Similarly, the rules apply to the role in educating children so that they practice the noble values (Munawar et al., 2012).

Moral education today faces the challenges of growing technology that also involves children. As a native users of digital equipment, many children have been through the exposure of smart devices as early as their infancy (Parycek et al., 2011). Moral education cannot be delivered effectively if there is no effort to meet the need of children (Erkir, 2015; Nursyahida et al., 2018, 2019).

Parents and teachers who serve moral education requires an effective approach to stimulate the desire to learn more about the topics studied and how the values can be implemented in many life experiences (Atiyah et al., 2019). The attraction and encouragement of interest in deepening moral education can be supported by serious game strategies.

By highlighting the above issues, this project proposes a game learning application for moral education based on serious games. The game aims to help children learn and master morality skills in a cheerful atmosphere. This paper aims to highlight the serious game approach in pre-school education and identify appropriate game strategies for pre-school moral education. This study focused on pre-school children aged four to six years.

Moral Values Inculcation using Serious Game

Moral education is an important component in education, to build the superior identity of an individual who is the backbone of a generation of noble morals. The morality guidelines clearly taught in the Qur'an in verse 17 of Surah Luqman. The message noticeably asks the follower to establish prayer, invite people to do good, prevent (them) from evil deeds, and be patient with what befell (Mastura & Farahwahida, 2020).

The verse also concludes some important lessons in the pedagogy (Atiyah et al., 2019). First, the method of educating the personality of children based on murabbi i.e. teachers or parents is an effective approach because children tend to emulate the behavior of adults. Parents or teachers play an important role in introducing basic concepts such as monotheism and worship, in the activities of educating, teaching, loving, cultivating and inculcating the talents and abilities of their students to develop a body of high moral values. Murabbi first exhibits personality traits such as being honest, telling the truth, adhering to ethics and being positive (Hamzah et al., 2018).

Second, there is an element of beauty and softness in the delivery of moral education through the strategies used. The soft approach through the language of 'my son' when calling his child to do something shows the importance of high interpersonal communication skills as parents (Alavi et al., 2015; Hassan et al., 2012). A gentle approach has the ability to attract the human soul because the human nature to love and obey politeness through good speech (Mastura & Farahwahida, 2020).

21st century skills include critical, creativity, communication and collaborative skills (Fong et al., 2014). 21st century learning also requires teachers to focus on the development of children holistically including moral education and strong identity. A variety of programs across the curriculum that incorporated elements of the stabilization of the personality, to promote moral education (Abdul Munir et al., 2013). The education aims to prepare children with skills that will be a shield to face the challenges of life by adolescence and adulthood (Hakimi, 2014).

In line with the native digital profile of young people including children, the approach in moral education should be appropriate. Serious games inject learning elements through education indirectly using interesting interactions and environments in a fun and exciting environment (Reynolds et al., 2017; Zaini et al., 2018). Conventional serious games for learning and education have been extensively studied and discussed potentially at home or abroad (Fleming et al., 2017; Hopia et al., 2018; Lau, 2017; Miller, 2015; Norhana et al., 2014; Turner, 2016).

Serious games that highlight the message and teachings brought by Islam, especially for the purpose of moral education have not been much explored (Nugrahani & Wibawanto, 2017). The personality approach emphasizes the healthy use of cognitive to be broad-minded and open-minded to bring content that is comprehensive and coincides with the needs of many members of society who profess Islam, the official religion in Malaysia. There are general and specific practices organized to ensure that human beings perform their responsibilities to the best of their ability.

Games and children are inseparable because their instincts want fun (Abd El-Sattar, 2016). Game elements are usually intended for mere entertainment but game based learning has some specific learning objectives (Baytak & Land, 2010). Serious games not only provide an entertaining and enjoyable learning environment, they even capable of increasing the active involvement of children in learning and increase interest and motivation (Paracha et al., 2013).

At the pre-school level, most learning is driven by teachers. Games are organized to have elements such as planned games, structured games, flexible games to help children's development and meet cognitive, psychomotor and affective needs (Ab Rahman et al., 2017). Among the planning is the selection of game materials whether the material is concentrated or divergent. Among the benefits of divergent type games are encouraging imagination, giving children the opportunity to create and try, encouraging children to work together and

social relationships, building self-confidence and being non-productive process oriented (Erkir, 2015).

The strategy chosen in this study was cognitive play. The basis of cognitive ability is able to help children understand the importance of personality and apply it in daily life (Nurhidayu, 2019). The use of mind games to cultivate children's mental development should be age-appropriate and progressive in nature (Abd El-Sattar, 2016). In this way, the skills learned can be utilized in learning and real life.

Serious games have the opportunity to have real-life applications for children to speed up their learning process (Catalano et al., 2014). This ability is able to encourage and motivate children to apply the concepts learned in daily activities. Social game strategies can be applied to include social and emotional input in decision making or judgment.

Research Methodology

The game development takes place using ADDIE Model that consists of five phases: planning, design, development, implementation and evaluation.

In the planning process, user requirements and comparison related to other socio-technical game theme takes place. The comparison (presented in Table 1) highlight among others, game activities and messages. Most games-based learning applications for pre-school children today focus heavily on learning the alphabet, numbers, shapes presented through colorful stories and visuals. Four learning applications with different strategies and types were selected to perform comparisons namely ABCYa!, Tiger Neighborhood, DressUp for Celebration and alQaswa. ABCYa! aims to help children in learning literacy. Tiger Neighborhood, on the other hand, serves to reveal how social interactions with peers and adults. Tiger Neighborhood enriched by the system visual and audio to attract the interest of children to explore and play.

The prototype development and implementation applies Android Studio to generate game interfaces, together with Java as programming languages to execute the functions. Game application evaluation utilises smartphone emulator with the aim to demonstrate the application operation and responses for the given input.

Table 1

Comparison of Game-Based Learning Applications





Features	ABCYa!	Tiger Neighborhood	Dress Up for AIQaswa Celebration	Famous Camel	Jom Niat!
System Type	Online	Online	Online	Online	Portable
Registration	Need to register id and password	Need to register id and password	Need to register id and password	Need to register id and password	Need to register id and password
Data storage	None	None	None	None	Game data and documents are saved
Interface	Combines text, audio and visuals	A combination of colorful text, audio and visuals	A combination of colorful text, audio and visuals	A combination of colorful text, audio and visuals	Combines lively text, audio and visuals
Interaction	press one element to the next element	Continuous interface	Continuous interface	Continuous interface	Press the button to advance to the next
Game type	Cognitive oriented basic skills	Social through interaction	Social through interaction	Social through interaction	Cognition if behavior- based
Game Level	Choices are given according to age, and level of difficulty	General game without levels	General game without levels	Easy, intermediate, hard	Choices are given according to difficulty.
Game activities	Various, including mind games and puzzles	Various, including exploration and puzzles	Various, including drag and drop	Various, including exploration and puzzles	Various, including exploration games and puzzles
Game message	Have fun learning	Friendship, please help	Have fun on special Eid day bond	Animal and human strong bond	Practice laudable morals and noble personalities
Game Genre	Mode driven	Action driven	Purpose driven	Context driven	Purpose driven
Practical life	Mastery of words and numbers	Social and community	Social and faith	Social and worship	Social and moral

The game play

The game implementation produces game prototype that fits the intended objective. The application named 'Jom Niat!' or literally means let's put our intention clear, first!. Among the main game activities in the application are described in Table 2.

Table 2

Game activities concerning the importance of intention and its outcomes.

Activities and tasks : Introducing Intention	Activities and tasks : Teaching of the prophet
	
<p>Game goal and Guidelines: This activity help children recognizing the meaning of intention, its importance, example of intention in our life, and its connection to other events and experience. Using basic letters to make up the intended word, children observe how the new learned word has its own story to be told. It has the pedagogical goal to make these children recognise and familiar with the concepts of intention, action and outcome.</p>	<p>Game goal and Guidelines: This game teaches the children a hadith, which is the prophet saying regarding intention. The game incorporates audio and animation in addition to text and graphics to allow children to repeat the hadith in Arabic and its translation in Malay. This game has the pedagogical goal to emulate the prophet’s manners in our life by observing and imitating the manner of prophet Muhammad.</p>
Activities and tasks : Ladder and snake game	Activities and tasks: Exploring outcomes
	
<p>Game goal and Guidelines: This game shows the children how to practice counting and recognising numbers. Children will be able to check how their current position moves forward based on the number on the dice. They also observe how the ladder helps them to elevate to the next level but the snake quietly brings them a few levels back. It has the pedagogical goal to engage these children to learn about intention and action.</p>	<p>Game goal and Guidelines: This puzzle activity is about chances and outcomes of actions they do to highlight possibility of getting good and bad experiences in any situation. Although we might get unfavourable results, with clear and right intention, everything will be taken care of. This game has the pedagogical goal to help children understand the importance of intention for every action.</p>
<p>Activities and tasks: Results of watering seeds and plants</p>	<p>Activities and tasks : Capturing beautiful intentions</p>

	
<p>Game goal and Guidelines: This game teaches the children the act of kindness and its results by making their watering activity providing so much fun in seeing how the seeds grow to become a big and beautiful tree where human and animals can enjoy their fruits and shades. This game has the pedagogical goal to practice act of kindness and clear intention.</p>	<p>Game goal and Guidelines: We can use this game as a motivational point to recognise and practice intention in life. By observing beautiful surrounding and scenery, we would like to capture the moment to be stored in physical memories for future access and visit. Likewise, children are encouraged to reflect on their experiences related to intention and regard them as beautiful intentions as much as beautiful memories to be kept for life lesson.</p>

Discussion and Conclusions

This study highlights the serious game approach in pre-school education and identifies appropriate game strategies for pre-school moral education. Suitable for pre-school child users, the Jom Niat! app considers applying a variety of behavior-based cognitive games. The selection coincided with moral education focus on constructing individual with high moral principles (Luqman Hakimi, 2014). Preparation from an early stage is highly organized in moral education to form noble thoughts and personalities that encompass the development of children holistically (Shafie & Ling, 2017). Moral education is emphasized to make children have a strong identity in the face of various social and moral challenges that can be addressed effectively (Norazri, 2015).

Moral education emphasizes following an icon for example the great personality of the Prophet Muhammad (Syukri & Abidin, 2018) in the form of practices, actions, advice and life guidance (Siti Atiyah et al., 2019). Thus, game activities and messages, which are dedicated towards the game strategies: attention, repetition, engagement and application. Game practices based on illustration, audio and text message provide sharp and precise elaboration of morality concepts (Iliya et al., 2015).

The application itself, Jom niat! has some pleasing messages to be delivered to children. Although the children are yet to join main stream education in at least one more year, they could appreciate intention as a substantial concept in life. Being the starting point of every dream, intention empowers individual to fulfil the responsibilities, task, or needs. Furthermore, a clear intention provides an anchor for being purposeful, to look for opportunities to achieve great things in life (Tarwiyani et al., 2020). The intentions help individuals to direct them on what and how things to be done, which reflects the inner principles and values. Other moral values could be explored such as being patient in turn, cooperating, helping each other, being modest and respectful (Norazri, 2015).

Game activities in Jom Niat! include snake and ladder, watering trees, capturing intention aim to create a fun and exciting atmosphere through interesting interactions and environments (Reynolds et al., 2017). In accordance with the elements of beauty and gentleness in the delivery of moral education, a soft approach using serious game strategies is able to attract the attention of children who tend to play and explore (Abd El-Sattar, 2016).

In conclusion, this paper highlights serious game strategies in the learning applications of pre-school children leading to moral education. This paper discusses the elements that need to be strengthened based on the existing system. This paper demonstrates the game strategy to elaborate the understanding of intention concept, examples of practices from the great icon, and examples of activities to explore how intention might be applied in real-life situations. Game plays pertinent role to the development of social, emotional, linguistic and intellectual of children. Game provides wide opportunity for children to discover the world and flourish, develop their confidence, autonomy and enjoyment to acquire and practice morality.

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