The Use of SKIDU (Sex Kids Education) Game as an Effort to Introduce Sex Education in Early Childhood

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ABSTRACT

The introduction of sex education is an urgency that needs to be given to children from an early age to prevent the widespread phenomenon of sexual violence that occurs in Indonesia. In addition, children's lack of understanding about sexual harassment and the dangers surrounding it makes children remain silent when abused. This research aims to analyze the influence of the SKIDU (Sex Kids Education) game as an effort to introduce sex education to children aged 5-6 years. This type of research is quantitative research. This research uses a pre-experimental method with a one-group pretest-posttest design without a control class. The sample in this study was ten children aged 5-6 years. Data collection is obtained from observation and documentation. The data collection instrument uses a questionnaire sheet. The data analysis technique uses hypothesis testing (paired sample t-test). The results obtained were differences before and after being given treatment using the SKIDU (Sex Kids Education) game. The SKIDU (Sex Kids Education) game influences introducing sex education to children aged 5-6 years. It was concluded that the use of the SKIDU (Sex Kids Education) game can increase children's knowledge about sex education. The implication of this research is that the SKIDU game can increase young children's understanding of body parts that other people should not touch.

1. INTRODUCTION

The importance of early childhood in shaping an individual's future cannot be overstated. This period as a pivotal developmental stage that significantly influences later life (Fragkiadaki et al., 2019; Irbah et al., 2022; Susanto, 2021; Yulindrasari & Ujianti, 2018). It is a time when the brain, intelligence, personality, memory, and other developmental aspects are most formative, which includes the introduction of sex education. Sex education is a comprehensive effort to educate and inform about all aspects of sexuality (Gerda et al., 2022; Susanti, 2020). It as teaching children about sexual development, body functions,
personal hygiene, and understanding which body parts can and cannot be touched by others (Marlina & Pransiska, 2018; Nurbaiti et al., 2022).

Sex education as the process of sharing information about body parts, gender differences, personal boundaries, body care, and societal values and norms, with the goal of protecting children from sexual violence (Natasyah et al., 2023; Tsuda et al., 2017). Early sex education can help children realize their potential, build self-esteem and confidence, and develop a healthy personality and positive self-acceptance to face future challenges (Marlina & Pransiska, 2018; Nurbaiti et al., 2022; Soesilo, 2021). Initiating sex education early equips children to defend themselves against various threats and heinous acts (Gerda et al., 2022; Reza et al., 2020; Susanti, 2020). Therefore, it is evident that introducing comprehensive sexual education at an early age is essential for the protection and future prosperity of children. The need to tailor early childhood sex education to the specific needs, understanding, and maturity of the children (Cheung et al., 2021).

The urgent issue of child sexual violence in Indonesia calls for immediate intervention. The Ministry of Women’s Empowerment and Child Protection’s 2020 data reported a shocking 7,191 incidents of sexual violence. The subsequent years saw a continuation of this troubling pattern, with 1,902 cases in 2021 and 779 cases in 2022, as noted by the National Commission on Violence Against Women. The Indonesian Child Protection Commission (KPAI) provided similar statistics for 2021, with 536 instances of sexual abuse, 285 of sexual assault or rape, 29 of same-sex abuse, and 9 of same-sex rape. In 2023, KPAI reported an additional 487 cases, underscoring the crisis (Iswinarno & Aranditio, 2020). Previous research findings also state that children’s lack of understanding about sexual harassment and the dangers around them makes children remain silent when they are harassed (Angraini et al., 2017; Jatmikowati et al., 2015). Other research also states that there are still many teachers who have difficulty teaching sex education to young children, which is caused by a lack of appropriate learning media (Gerda et al., 2022; Nurbaiti et al., 2022).

Despite these initiatives, challenges persist in effectively delivering sex education to young learners. Sex education is often ineffectively blended with other subjects, lacks clear explanations, and suffers from inadequate learning materials and methods, leading to a poor grasp of the subject among children (Nurbaiti et al., 2022). This issue is mirrored in the experiences of TK Melati 2 in Jambi City, where teachers’ insufficient knowledge about providing suitable educational media for sex education has resulted in a low level of understanding among children. Instruction is limited to the use of dolls and anatomical pictures, with songs to identify which body parts can be touched. Even basic distinctions, such as the differences between male and female restrooms, are not adequately taught, leaving children unaware of their body parts’ functions, unable to differentiate between genders, and struggling with personal hygiene.

This situation highlights the critical need for early sexual education. Teachers and parents play a pivotal role in a child’s life, and they are instrumental in providing the right guidance to prevent sexual violence. Teacher can teach children how to safeguard their bodies, helping them to recognize potentially harmful behaviors and understand which parts of the body are private (Brouskeli & Sapountzis, 2017; Tsuda et al., 2017). The Directorate General of Early Childhood Education (PAUD) has endorsed the implementation of sex education for young children, as evidenced by the creation of educational materials that teach them about personal cleanliness, safety, and understanding appropriate physical interactions. Education should be age-appropriate and understandable, focusing on the basics like body functions, gender differences, and personal hygiene, all conveyed in child-friendly language (Muftisany, 2022; Sukitman & Ridwan, 2016).

Early childhood sex education should include information about the body and reproductive organs, as well as how to care for and protect them, provided by families, schools, and the community (Baker et al., 2013; Gerda et al., 2022; Khaira et al., 2023; Rachmasari et al., 2023). As children grow, it is crucial to teach them how to interact with others in ways that respect religious values and societal norms and how to form healthy relationships (Baker et al., 2013; Davies et al., 2021). The goal of sex education is to give students a thorough understanding of the physical, mental, and emotional aspects of maturity related to sex, to alleviate fears and anxieties about sexual development, to instill moral values for decision-making, and to prevent sexual violence or crimes (Davies et al., 2021; Khaira et al., 2023). To address these shortcomings, interactive and engaging teaching aids are necessary. The SKIDU (Sex (Educators) Game) is one such tool designed to make learning about sex education accessible and comprehensible for young children. Available on the Play Store, this game is visually appealing and comes with straightforward instructions. It covers topics such as body parts and their functions, privacy, gender identity, self-protection against sexual crimes, and toilet training (Gerda et al., 2022; Rahayu et al., 2023). The SKIDU game can be used by teachers in formal educational settings and by parents at home for informal learning. The benefits of the SKIDU game, including a 30-minute time limit feature to prevent gadget addiction and instructional symbols that facilitate its use (Gerda et al., 2022).
The research found that impact of digital media on children's learning activities is profound, necessitating careful consideration of its usage and the activities it promotes (Chassiakos et al., 2016; Hadders-algra, 2020; Pratiwi & Ismaniati, 2018). Other research found that game-based learning, particularly through digital means, has been shown to spark children's curiosity, encouraging them to discover innovative problem-solving methods within an engaging visual environment, thereby enhancing their learning satisfaction (Aryani & Ambara, 2021; Faradisha & Ambara, 2022; Fathimah & Ishartiwi, 2018). Digital learning games can significantly improve academic performance and foster essential skills like creativity, problem-solving, collaboration, and critical thinking (Behmannia et al., 2020; Pratiwi & Ismaniati, 2017). Furthermore, game-based learning applications are particularly effective in developing children's divergent thinking skills, as they provide a platform for exploring various solutions to problems (Diefenthaler et al., 2018). Educational games not only impart knowledge but also actively involve children in the learning process, making it exciting and dynamic (Shang et al., 2019). There has been no study regarding the use of the SKIDU (Sex Kids Education) game as an effort to introduce sex education to early childhood. The advantages of this media are these features help capture children's attention, making the learning process more enjoyable and less monotonous. Based on this, the aim of this research is to evaluate the effectiveness of the SKIDU game in introducing sex education to children aged 5-6 years.

2. METHOD

This type of research is quantitative research. This investigation is quantitative research employing a pre-experimental setup, specifically a one-group pretest-posttest design, which does not include a control group. The researchers initially administered a pretest to evaluate the children's baseline knowledge of sex education. Following this, the children undergo a series of three treatments involving the SKIDU (Sex Kids Education) game, designed to introduce sex education concepts to 5-6-year-olds. After the treatments, a post-test is conducted to assess the enhancement in the children's understanding of sex education, with the results analyzed to formulate conclusions.

The research took place at TK Melati 2 in Jambi City, focusing on a group of 10 children aged 5-6 years. A saturated sampling technique was used, meaning that all children of the specified age at Melati 2 Kindergarten were included. Thus, the study also functions as a population study. For data collection, the study relies on observation and documentation methods. Observation is instrumental in discerning varying levels of understanding. The researchers observe and fill out a rubric based on the children's responses during the pretest, which includes questions tailored to sex education for children aged 5-6 years, aligned with the study's targeted aspects and indicators. The instruments used for assessing sex education knowledge in these children are detailed in Table 1.

Table 1. Sex Education Instrument for 5–6-Year-Old Children

<table>
<thead>
<tr>
<th>No</th>
<th>Aspects</th>
<th>Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Limbs</td>
<td>a. List the mouth and its functions</td>
</tr>
<tr>
<td></td>
<td></td>
<td>b. Mentioning breast function</td>
</tr>
<tr>
<td></td>
<td></td>
<td>c. Mention the chest and its functions</td>
</tr>
<tr>
<td></td>
<td></td>
<td>d. Mentioning Penis genitals &amp; their functions</td>
</tr>
<tr>
<td></td>
<td></td>
<td>e. Mention Vagina genitals &amp; their functions</td>
</tr>
<tr>
<td></td>
<td></td>
<td>f. Mentioning the butt &amp; its function</td>
</tr>
<tr>
<td>2</td>
<td>Covering the Veil</td>
<td>a. Mentioning appropriate clothing for men</td>
</tr>
<tr>
<td></td>
<td></td>
<td>b. Mentioning appropriate clothing for women</td>
</tr>
<tr>
<td></td>
<td></td>
<td>c. Mentioning inappropriate clothing for men</td>
</tr>
<tr>
<td></td>
<td></td>
<td>d. Mentioning inappropriate clothing for women</td>
</tr>
<tr>
<td>3</td>
<td>Gender Identity</td>
<td>a. Distinguishing male characteristics</td>
</tr>
<tr>
<td></td>
<td></td>
<td>b. Distinguishing Female Characteristics</td>
</tr>
<tr>
<td></td>
<td></td>
<td>c. List the names of real fake genitals for males</td>
</tr>
<tr>
<td></td>
<td></td>
<td>d. Name the real fake genitals of girls</td>
</tr>
<tr>
<td>4</td>
<td>Skills to Protect Yourself from Sexual Crime</td>
<td>a. Lists which parts of the body can be touched</td>
</tr>
<tr>
<td></td>
<td></td>
<td>b. Lists which parts of the body should not be touched</td>
</tr>
<tr>
<td></td>
<td></td>
<td>c. List ways to ask others for help</td>
</tr>
<tr>
<td>5</td>
<td>Toilet Training</td>
<td>a. Mentioning how to defecate (defecate) and urinate (urinate)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>b. Mentioning how to clean the genitals when defecating (pooping)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>c. Mentioning how to clean the genitals when urinating (BAK)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>d. List the differences between male and female toilets</td>
</tr>
<tr>
<td></td>
<td></td>
<td>e. Mentioning bathroom exit behaviors</td>
</tr>
</tbody>
</table>
The data analysis for this research is conducted in line with standard experimental methods, which include conducting prerequisite tests to ensure data normality and hypothesis tests to examine the research questions. Specifically, the hypothesis testing is carried out using the paired sample t-test technique, and the data is processed using the statistical software SPSS version 26.

3. RESULT AND DISCUSSION

Result
This study aimed to evaluate the impact of the SKIDU (Sex Kids Education) game on introducing sex education to children aged 5-6 years. The analysis involved hypothesis testing with a paired sample t-test to determine the outcomes. It was essential for the data to follow a normal distribution before drawing any conclusions. To observe and illustrate the differences in the children’s knowledge as measured by the pretest and post-test before and after the application of the SKIDU game treatment showed in Table 2.

Table 2. Calculation Results of Pretest and Post-Test Values

<table>
<thead>
<tr>
<th>N=10</th>
<th>Sex Education for 5-6 Year Olds</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Minimum</td>
</tr>
<tr>
<td>Pretest</td>
<td>63</td>
</tr>
<tr>
<td>Posttest</td>
<td>75</td>
</tr>
</tbody>
</table>

Table 2 indicates that the initial average score for children's sex education knowledge, prior to the intervention with the SKIDU (Sex Kids Education) game, stood at a relatively low 71.18. Post-intervention, this average score saw a significant rise to 86.05 among the 10 children involved in the study. Furthermore, the outcomes of the normality test, which serves as a crucial preliminary step before proceeding to hypothesis testing with the paired sample t-test, are detailed in Table 3. This test is essential to confirm that the data distribution meets the necessary criteria for further analysis.

Table 3. Normality Test Calculation Results

<table>
<thead>
<tr>
<th>Sex Education</th>
<th>Kolmogorov-Smirnov</th>
<th>Shapiro-Wilk</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Statistic</td>
<td>Df</td>
</tr>
<tr>
<td>Pretest</td>
<td>0.163</td>
<td>10</td>
</tr>
<tr>
<td>Posttest</td>
<td>0.132</td>
<td>10</td>
</tr>
</tbody>
</table>

Table 3 reveals that the normality test scores for the pretest and post-test are 0.623 and 0.928, respectively. According to the criteria for normality, data is considered normally distributed if the significance value is greater than 0.05 (Sig > 0.05). Conversely, data is not normal if the significance value is less than 0.05 (Sig < 0.05). Given that both the pretest and post-test values are above 0.05, we can conclude that the data is normally distributed. For insights into the hypothesis testing results using the paired sample t-test, please refer to Table 4.

Table 4. Calculation Results of Paired Sample T-Test

<table>
<thead>
<tr>
<th>Mean</th>
<th>Std. Error Mean</th>
<th>95% Confidence Interval of the Difference</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>-14.875</td>
<td>6.864</td>
<td>-19.785 to -9.965</td>
<td>-6853</td>
<td>9</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Table 4 indicates that the hypothesis testing conducted through the paired sample t-test yielded a significance value of 0.000, which is less than the threshold of 0.005. This significant result suggests there is a statistically meaningful difference in the children's sex education knowledge before and after the intervention with the SKIDU (Sex Kids Education) game. Therefore, it can be concluded that the SKIDU game effectively influences the introduction of sex education to children aged 5-6 years.

Discussion
The results of the data analysis show that there is a statistically significant difference in children’s sex education knowledge before and after the SKIDU (Sex Kids Education) game intervention. This shows that the SKIDU game is effective in influencing the introduction of sex education in children aged 5-6 years. Several factors cause the SKIDU game to effectively influence the introduction of sex education to children,
as follows. First, the SKIDU game helps provide learning experiences to children. Previous research findings state that games that interest children will provide joy (Helfianti et al., 2021; Humaid & Suyadi, 2021; Yanthi et al., 2020). Other research also confirms that young children like games, impacting their ability to absorb information quickly (Faradisha & Ambara, 2022; Rekysika & Haryanto, 2019). The SKIDU (Sex Kids Education) game has proven to be a pivotal tool in teaching sex education to children aged 5-6 years, primarily because it transforms learning into an experience that feels authentic and engaging. The game's design is both eye-catching and colorful, which resonates with the core principles of early childhood education that advocate for learning through play. The significance of play, noting that it not only captivates children's interest but also serves as a crucial element in nurturing their inherent potential (Nawafilah & Masruroh, 2020; Sari et al., 2020).

Second, SKIDU games help improve children's knowledge. Play-based learning is instrumental in supporting the physical, intellectual, and emotional growth of children, setting a solid foundation for their future educational journey (Mulyani et al., 2020; Munawaroh, 2017; Winarti & Suryana, 2020). The SKIDU game aligns perfectly with this approach, providing an age-appropriate platform for sex education. Animated videos on sex education can significantly boost the sexual knowledge of elementary school students (Vidayanti et al., 2020). Digital educational games can offer captivating learning experiences that fuel children's creativity and imagination. Digital educational games like SKIDU are not just for reinforcing specific skills but also for cultivating a range of competencies, including logical-mathematical, verbal-linguistic, and visual-spatial skills (Khaira et al., 2023). These games create an immersive and interactive visual space that can make learning more appealing and comfortable for children (Behnamnia et al., 2020; Hooshyar et al., 2020). Digital educational games as a fresh and exciting experience for children (Hidayah et al., 2022; Khaira et al., 2023). Such games can spark children's curiosity, motivate them, and foster interaction with the gameplay (Zupan et al., 2018). Additionally, digital games can enhance children's creativity, problem-solving, teamwork, and critical thinking (Bowman et al., 2015).

Third, SKIDU games make it easier for children to learn sex education. The SKIDU game is adeptly designed to accommodate the developmental stage of its young users. When introducing body parts and their functions, for instance, teachers can guide children to interact with images that represent these concepts, thereby reinforcing learning through visual aids (Gerda et al., 2022; Patria & Mutmainah, 2018). In lessons on modesty and appropriate attire, the game assists children in discerning suitable clothing options for boys and girls, fostering an understanding of societal norms and personal privacy. The game also aids in the delicate task of gender identity education, encouraging the use of accurate terminology for body parts (Hikmah, 2017; Suhasmi & Ismet, 2021; Yafie, 2017). This approach is critical in fostering a safe and respectful understanding of one’s body and the bodies of others. Moreover, the SKIDU game addresses the imperative topic of self-protection, empowering children with the knowledge of which body parts are private and teaching them that certain areas are not to be touched by others, including family members. The game also covers toilet training, guiding children through the norms of hygiene and privacy. In essence, the SKIDU game stands as a valuable alternative for educators, aligning with the insights. The necessity of technology in education to maintain children’s interest and prevent the ennui that often accompanies more traditional teaching methods (Beardsley et al., 2021)(Puspitarini & Hanif, 2019).

The effectiveness of the SKIDU game is consistent with the findings, who developed the educational game "I take care of my body" to improve sex education knowledge among young children (Khaira et al., 2023). Their research was deemed highly practical and effective, as evidenced by significant test results that indicated an increase in sexual knowledge among early learners. Similarly, a substantial increase in children's understanding of sexual education through the use of a specially designed sex education book, with a 54.28% improvement in the BSH (Developing As Expected) category (Nurbaiti et al., 2022). Other research found that a board game-based approach to sex education was a viable and effective educational tool for young children (Rahayu et al., 2023). The advancement of learning media, particularly in the realm of sex education, underscores its essential role in early childhood education. The SKIDU (Sex Kids Education) game emerges as a standout resource, offering vivid audio and visual effects that not only capture children's attention but also simplify the task of educators in imparting sex education. The importance of digital technology in expediting the delivery of educational content, a method particularly effective for young learners who often grapple with abstract concepts and benefit from engaging with tangible, concrete objects.

4. CONCLUSION

The results of the data analysis show that there is a statistically significant difference in children's sex education knowledge before and after intervention with the SKIDU (Sex Kids Education) game. It was concluded that the SKIDU game effectively influenced the introduction of sex education in children aged 5-
6 years. The SKIDU game is presented as an educational medium for teachers to teach sex education to children aged 5-6 years. Its use in educational activities not only introduces children to the concept of sex education but also fosters their creativity in line with digital advances in the modern era.

5. REFERENCES


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