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The Effect of Using YouTube Animation Learning Media in Improving Gross Motor Skills in Early Age Children 4-5 Years at Ar-Rahim 1 Kindergarten, Simpang Tiga Village, North Kaur District, Kaur Regency

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Abstract

Early childhood is a critical period of rapid growth and development, during which children can easily capture adult cues. In early childhood education, children aged 0-8 years are classified as young children, each with unique potential that requires a supportive environment to maximize. Among the six domains of development highlighted in early childhood education standards are physical motor skills, which include both fine and gross motor skills. These skills are foundational and should be carefully cultivated as they relate to the child's overall physical and behavioral development. In early childhood education settings, physical motor development is particularly important, with fine motor skills involving small muscle coordination and gross motor skills involving larger muscle movements. Developing motor skills through engaging activities, such as games, physical exercises, and multimedia resources, helps children gain coordination, strength, and balance. Animated video learning media is a promising tool for stimulating motor skill development as it captures children's attention and motivates them to move. Previous research indicates that interactive media, including animations, can enhance children's motor coordination and overall engagement in physical activities. This study, conducted at TK Ar-Rahim 1, Simpang Tiga, Kaur Utara, explores the influence of animated video learning media on the gross motor skill development of early childhood students. Initial observations revealed limited use of engaging learning media due to constraints in resources and teacher creativity. Through analyzing the effects of animated video media on motor skills, this research seeks to provide insights into its potential benefits and to contribute to early childhood education practices that support optimal motor development.

Keywords: Early Childhood, Gross Motor Skills, Animation Media

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INTRODUCTION

Early childhood is a time of rapid growth and development for children; at this age, they can pick up on adult cues quickly. In early childhood education, children ages 0-8 are considered early childhood, according to the National Association for the Education of Young Children (NAECY). Different children at this age have different potential. Early childhood environments and educational institutions have a responsibility to help children reach their maximum potential. Therefore, simulations are needed from families and educational institutions to help them achieve their maximum potential. The six developmental domains included in

early childhood education standards and developed in PAUD are physical.(Saputra, 2018)

Children's physical motor development is one area that needs to be developed carefully. Every aspect of a child's development, including physical motor skills, is equally important. Being able to observe motor development is an early milestone in identifying a child's growth and development. Remembering the five senses allows us to witness changes in a child's body size. As a person grows, his motor behavior continues to change.(Nurazzana & Hartati, 2024)

Skills are the abilities a person has to carry out certain tasks or work well and efficiently. can be measured, such as foreign language skills, operating certain software, or expertise in engineering. Meanwhile, soft skills include interpersonal and intrapersonal abilities, such as communication, leadership, teamwork and time management. These skills are not only important in professional contexts, but also in everyday life, as they enable individuals to interact effectively, manage challenges, and achieve personal as well as professional goals. Skill development requires practice, continuous learning, and adaptation to changes and new challenges.(Hayati et. al., 2017)

One aspect that must be developed and stimulated for children in learning in early childhood education (PAUD) is the aspect of motor development in children. Motor development is influenced by elements of maturity and control of body movements. Meanwhile, motor skills are movements carried out by the whole body. Thus motor development is a development that is influenced by the presence of elements of maturity and movement control carried out by the entire body. According to Hurlock, motor development is a development of control over the body carried out by nerves, muscles which are coordinated with nerves, meaning that motorism is a development in body control which is carried out by nerves which coordinate with each other. Sukamanti in Endang believes that the principles of motor development are developments that depend on the maturity of muscles and nerves. (Sukamti., 2018)

Motor development is divided into fine motor development and gross motor development. Fine motor skills are the organization of the use of a group of small muscles such as the fingers and hands which often require precision and coordination with the hands, skills that include the use of tools to work on an object. Meanwhile gross motor skills are gross motor movements which are part of activities that include large muscle skills, these movements require more physical strength and balance.

Apart from that, if the child moves a lot, the child will get more benefits as he becomes more skilled at mastering his motor movements. Stimulation of the development of children's fine and gross motor skills is attempted to be packaged in the form of games/competitions so that children feel interested and have fun. Gymnastic movements are a form of gross motor stimulation that is packaged in an interesting form because it is accompanied by songs that make children excited to move. To develop children's movement patterns, it is best to do this through activities such as watching animated videos that can stimulate children's development, dancing, games, sports and gymnastics. According to research by Badrul Mudaris et al., several things that can influence children's motor development include animation media .(Mudarris et al., 2022) Media is anything

that can be used to channel messages from sender to recipient so that it can stimulate children's thoughts, feelings, concerns and interests in such a way that the learning process occurs. According to Briggs in Ega Rima, media is any physical tool that can present a message and stimulate children to learn. Books, films, photo frames that can be displayed, seen or heard that can present a message. (Wati., 2017)

According to Munir, he explained that video is a digital media that shows the arrangement or sequence of images and provides illusions, images and fantasies in moving images. Meanwhile, according to Purwati, video is a medium for conveying messages that are factual or fictitious, informative, educational or instructional. Meanwhile, Rayandra in Muhammad Ridwan explains that video is a recording of images and sound on a videotape cassette onto magnetic tape which can provide a real picture, and is able to manipulate time and place.Muhammad Ridwan Apriansyah, "Pengembangan Media Pembelajaran Video Berbasis Animasi Mata Kuliah Ilmu Bahan Bangunan Di Program Studi Pendidikan Teknik Bangunan Fakultas Teknik Universitas Negeri Jakarta", Jurnal PenSil, Vol 9. No 1, (2020), h. 18

In this regard, according to Elin Sepiwan Putri, "Development of animated video media to improve gross motor skills in children aged 5-6 years at the one-roof kindergarten in Pondok Kubang, Central Bengkulu". In this research, it can be concluded that based on research conducted on animated video media to improve the gross motor skills of children aged 5 to 6 years, the results obtained from the observation activity sheet for assessing children's pre-test activities were 70%, with the largest getting a score of 90%. So it can be said that the product of developing animated video media to improve gross motor skills for children aged 5-6 years is suitable for use in the learning process. (Septiawan., 2022)

According to Novi Nurlela, Widya Astuti, Zahrina Amelia "Use of Learning Videos in Developing Gross Motor Skills in Children Aged 4-6 Years". In this study it can be concluded that the number of respondents in this study was 21 parents who had children aged 4-6 years in Bojong Menteng Village. The results of the research show that the learning videos used to develop gross motor skills in children aged 4-6 years in Bojong Menteng Village are still not optimal because in some types of gross motor skills, not all of the components are fulfilled. The locomotor types that have not been achieved are climbing movements, the non-locomotor types that have not been achieved are jumping in place, bending, stretching, pushing, twisting, shaking your head, nodding, bending and swinging your arms, and the manipulative types that have not been achieved are hitting, bouncing movements. , rotate the rope, and catch the object. The role of parents is very important to monitor and continue to train children's gross motor development. (Nurlela, dkk., 2022)

In relation to previous research findings, the Use of Animation-Based Learning Media to Enhance Gross Motor Skills in Early Childhood (Ages 4-5) has shown that interactive media, including animation, can enhance children’s engagement during learning activities. Children exposed to animation displayed improvements in movement coordination. Studies evaluating the effectiveness of animated videos in physical education have found that children using these media demonstrated significant improvement in skills such as running and jumping.

Using animation-based learning media is expected to support optimal development of gross motor skills in young children. Previous studies indicate that learning media, including animation, effectively capture children's attention and enhance learning motivation. Visual media use can make learning more engaging and interactive. Research shows that well-designed animation improves children's understanding of basic movements and techniques in physical activities. Several studies comparing animation-based methods with traditional methods found that groups using animation showed significant improvement in gross motor skills.

However, despite many positive outcomes, the effectiveness of animation-based learning media varies depending on design, duration, and context of use, underscoring the need for further research. Additional studies are needed to understand the long-term impact and various factors influencing the effectiveness of animation media. Animation-based learning media shows great potential in enhancing young children's gross motor skills. Further research is necessary to explore factors impacting its effectiveness, including cultural context, parental involvement, and methodologies used. The novelty of this study lies in its use of interactive and effective animation media to enhance early childhood gross motor skills through a holistic and contextual approach.

Animation is a sequence of frames that, when played quickly enough in flash, creates smooth, moving images similar to a film or video. Animation is also interpreted as "bringing images to life." Therefore, it's essential to know each character detail precisely, from front, back, 3/4, and side views, along with facial details in various expressions, such as neutral, still, angry, smiling, laughing, and frustrated. It's also crucial to capture the character's unique style when performing characteristic activities(Asmoro & Siwi Widi.,2019) So animation is a moving image, while animated video media is a tool used in learning in the form of a video in the form of an illusory image that moves and has sound so that it attracts children to see it and indirectly stimulates children to move

Therefore, watching animated videos that stimulate movement can be a valuable tool for enhancing young children's gross motor skills. It supports children's physical development by strengthening their physical power and muscles. In today's era of advanced technology, there are many ways to stimulate children's motor skills through educational videos available on social media platforms. Young children are naturally inclined to move; they are always active and rarely sit still.

Based on an initial observation at Ar-Rahim 1 Kindergarten in Simpang Tiga, North Kaur, which is a private institution, the school has two classes: Class A and Class B. The total number of children in these two classes is 29, with 15 children in Class A and 14 in Class B. Ar-Rahim 1 Kindergarten has five teachers, including the principal, and has recently implemented the Merdeka Curriculum in its early childhood education program.

Through an interview with one of the teachers, it was revealed that animated learning media have not yet been used due to reliance on limited teaching tools. The researcher identified that the lack of engaging learning media, insufficient teacher creativity in creating educational tools, and the use of unappealing media were hindering children's engagement. Given these challenges, the author aims to

investigate and analyze the effects of using animation-based learning media on the gross motor development of early childhood students. This interest has prompted the author to conduct an analysis at Ar-Rahim 1 Kindergarten in Simpang Tiga, North Kaur District

The animated learning video used in this study is sourced from YouTube, specifically the Baby Shark video from Cocomelon. The researcher chose this video because of its popularity among children, high production value, and use of bright colors, all of which are likely to capture children's attention. Through this animated learning video, the author aims to analyze whether such videos can indeed influence the development of gross motor skills in children. The study will also examine whether there are differences in outcomes between using animated learning media and traditional ball-throwing games in enhancing gross motor skills in early childhood.

This study involves two classes: Class A will use animated video media, while Class B will continue using traditional methods, like ball-throwing games, which are commonly used by teachers to improve children's gross motor skills. The comparison of gross motor skill development between the two groups of children at Ar-Rahim 1 Kindergarten will provide insight into the effectiveness of these approaches.

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RESEARCH METHOD

The type of research in this proposal is quantitative research with a quasi-experimental design, using a nonequivalent control group design approach. In this research the population is some of the children in class A and B aged 4-5 years, Kindergarten Ar-Rahim 1 data collection technique observation questionnaire sheet , documentation

RESULTS AND DISCUSSION

a. Uji Normalitas Data

The normality test aims to test whether the dependent and independent variable data is normally distributed or not. Good data will have a normal distribution when the data meets the normality assumption of 0.05 using the Shapiro Wilk method

The results of this normality test were carried out with the help of SPSS vesri 26. The calculated results of the normality test on the pretest and posttest on the research sample with Kolmorov Smirnov and Shapiro Wilk are as follows

Hasil Normality
Tabel 1

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
Pretest eksprimen	.204	15	.094	.904	15	.108
Postest	.186	15	.171	.953	15	.567
Prettest kontrol						
Posttest	.193	15	.136	.915	15	.163
	.163	15	.200	.926	15	.234

Based on the results of the normality test using the SPSS 26 program with Kolmogrov Smirnov and Shapiro Wilk, the pre-test and post-test scores on children's gross motor skills were distributed normally. The table shows the Kolmogrov Smirnov scores in the pre-test and posttest of the experimental class with scores of 0.94 and 0.171, both greater than 0.05 (sig > 0.05), while in the pretest and posttest of the control class with scores of 0.136 and 0.200, both are greater than 0.05 (sig > 0.05) so both are normally distributed. Shapiro Wilk's scores on the pre-test and posttest for the experimental class were with scores of 0.108 and 0.567 and the pretest and posttest for the control class with scores of 0.163 and 0.234, both of which correspond to (sig > 0.05) which means the scores are normally distributed. So the analysis continues with.

b. Uji Homogenitas

Tabel 2

Test of Homogeneity of Variances

Variabel

Levene Statistic	f1	f2	ig.
1.950		8	174

Based on the output of homogeneity of variances, a sig (significance) value of 0.174 is greater than 0.05 (0.174 > 0.05), so it can be concluded that the data has homogeneous variations.

c. Uji Hipotesis

Paired Samples Statistics

		Mean		Std. Deviation	Std. Error Mean
Pair 1	Postest Eksperimen	50.93	5	2.604	.672
	Posttest Kontrol	40.4	5	1.957	.505

d. Uji t

The t test aims to see whether or not the influence of YouTube animation media learning is significant on the gross motor skills of children aged 4-5 years. So it can be done using the t test statistical analysis. In order to answer the problem formulation, the hypothesis test was carried out using the t test. This calculation is assisted by using the statistical data processing application SPSS version 26. The results of the t test are shown in the following table:

Paired Samples Test

		Paired Differences					T	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	Postest kelas Eksperimen	50.93	2,604	.657	8.811	12.256	12.525	28	.000
	posttest kelas Kontrol	40,40	1,957	.505	8.805	12.262	12.525	25.988	.000

Based on the descriptive analysis above, the average post-test score for the children was 50.93, with a standard deviation of 2.604. For the pretest, the average score was 40.40, with a standard deviation of 1.957. This demonstrates an improvement in the children's gross motor skills, indicating that learning through YouTube animation can enhance the cognitive aspects of early childhood development.

This study aims to determine the effect of the Baby Shark YouTube animation on gross motor skills in children aged 4-5 at Ar-Rahim 1 Kindergarten, Simpang Tiga Village, North Kaur District, Kaur Regency. Using an experimental learning method, the study seeks to foster the development of gross motor skills in children. The purpose is to identify any improvement and differences in skills between children taught using a lecture-based method and those learning through YouTube animation.

During the research in the experimental class (TK Ar-Rahim), an initial pretest was conducted, where the children were first engaged in activities like ball-throwing and various movements. Following this, in the post-test phase, the researcher introduced the theme and sub-theme, which focused on ball games and movements using the Baby Shark YouTube animation. The children were then encouraged to perform movements from the animation video, allowing the researcher to assess the influence of the Baby Shark animation. In contrast, at TK Pembina North Kaur (Control Class), the researcher did not use the animation media but instead engaged children in ball games as a learning tool.

In the experimental class, a pretest was first conducted to determine the children's initial skill levels. This was followed by a learning session involving ball games. At the end of the learning process, a post-test using YouTube animation was administered. The control class did not use YouTube animation. The post-test scores were then compared with the pretest scores to identify any improvements in the children's skills after exposure to the animation media.

From the pretest, the average initial skill level for the control class was 40.2, while for the experimental class, it was 40.4. Both control and experimental classes showed similarly low initial scores, likely due to the children's unfamiliarity with the testing material and lack of prior instruction on the subject. The pretest scores in both classes were nearly identical, indicating that the classes had similar baseline abilities. Post-test data were collected to measure learning outcomes after the instructional sessions. The average post-test score for the control class was 40.4, while for the experimental class, it was 50.9.

The study revealed a difference in learning outcomes between children using ball game media and those using YouTube animation for gross motor skills development. The YouTube animation appeared to have a positive effect on the gross motor skills of children aged 4-5 at Ar-Rahim 1 Kindergarten. To determine if the improvement in learning outcomes was statistically significant, hypothesis testing was conducted. This testing required that the samples be homogenous and normally distributed, as confirmed through homogeneity and normality analyses. Based on the homogeneity analysis (as shown in Table 4.10), the sample was derived from the same variance or was homogeneous. Additionally, the sample was normally distributed, as indicated in Table 4.9.

With the prerequisites for hypothesis testing met, hypothesis testing proceeded using the T-test. Results from the initial hypothesis test (Table 4.12) revealed an increase in scores between the control and experimental classes: 606 for the control class and 767 for the experimental class. This clearly shows that the score increase in the experimental class was greater than that in the control class.

CONCLUSION

Based on the analysis and previous discussion, the researcher concludes that the use of Baby Shark animation media in learning has a positive effect on improving gross motor skills in children at TK Ar-Rahim 1, located in Kelurahan Simpang Tiga, Kecamatan Kaur Utara, Kabupaten Kaur. There is a significant impact of the experimental method, where before and after the implementation of Baby Shark animation media, there was an improvement in children's gross motor skills compared to the control class, which only used the lecture method.

The validation of the impact of using animated learning media in enhancing motor skills in early childhood (ages 4-5) at TK Ar-Rahim 1, Kelurahan Simpang Tiga, Kecamatan Kaur Utara, Kabupaten Kaur, shows that during the pre-test in the experimental class, the skills were in the "not yet developed" category with an average score of 40.4. Initially, in the pre-test, the development was not optimal, but subsequently, in the post-test, the average score increased to 50.9, falling into the "developing as expected" category, showing an improvement of 10.5 points. In comparison, the control class did not show a significant impact, with a pre-test score of 40.2 and a post-test score of 40.4, indicating minimal change without any specific intervention. Compared to the control class, the experimental class, which utilized animated learning media, demonstrated a noticeable improvement in motor skill development among early childhood students.

The data analysis also indicates that the experimental method had an effect on the changes in children's motor skills from the pre-test to the post-test. This was validated through a validity test, which indicates the consistency of data variance. According to Table 3.6, the Validity Testing of the Observation Sheet for Gross Motor Skill Ability Trial showed that only 5 question items were invalid, while 20 items were valid. Therefore, it can be concluded that animated learning media has a positive effect on improving motor skills among children at TK Ar-Rahim 1

BIBLIOGRAPHY

Apriansyah, M. R. (2020). Pengembangan Media Pembelajaran Video Berbasis Animasi Mata Kuliah Ilmu Bahan Bangunan Di Program Studi Pendidikan Teknik Bangunan Fakultas Teknik Universitas Negeri Jakarta. *Jurnal PenSil*, *9*(1), 9–18. https://doi.org/10.21009/jpensil.v9i1.12905

Hayati et. al. (2017). Kata kunci : keterampilan kognitif, anak usia dini. *Pendidikan Anak Is Licensed under a Creative*, *6*(2), 181–189.

Mudarris, B., Rozi, F., & Islamiyah, N. (2022). Penggunaan media animasi dalam pengembangan kamampuan motorik anak. *Jurnal Ilmiah Potensia*, *7*(1), 1–10.

Nurazzana, A., & Hartati, S. (2024). *Pengaruh Media Tiktok Edukasi Terhadap Kemampuan Motorik Kasar Anak Usia 5-6 Tahun di TK Iqra ` Tunggul Hitam Padang Pendidikan Guru Pendidikan Anak Usia Dini , Universitas Negeri Padang*. *8*, 13901–13908.

Saputra, A. (2018). Pendidikan Anak pada Usia Dini. *At-Ta'dib : Jurnal Ilmiah Pendidikan Agama Islam* , *10*(2), 192–209.

Apriansyah, M. R. (2020). Pengembangan Media Pembelajaran Video Berbasis Animasi Mata Kuliah Ilmu Bahan Bangunan Di Program Studi Pendidikan Teknik Bangunan Fakultas Teknik Universitas Negeri Jakarta. *Jurnal PenSil*, *9*(1), 9–18. https://doi.org/10.21009/jpensil.v9i1.12905

Hayati et. al. (2017). Kata kunci : keterampilan kognitif, anak usia dini. *Pendidikan Anak Is Licensed under a Creative*, *6*(2), 181–189.

Mudarris, B., Rozi, F., & Islamiyah, N. (2022). Penggunaan media animasi dalam pengembangan kamampuan motorik anak. *Jurnal Ilmiah Potensia*, *7*(1), 1–10.

Nurazzana, A., & Hartati, S. (2024). *Pengaruh Media Tiktok Edukasi Terhadap Kemampuan Motorik Kasar Anak Usia 5-6 Tahun di TK Iqra ` Tunggul Hitam Padang Pendidikan Guru Pendidikan Anak Usia Dini , Universitas Negeri Padang*. *8*, 13901–13908.

Saputra, A. (2018). Pendidikan Anak pada Usia Dini. *At-Ta'dib : Jurnal Ilmiah Pendidikan Agama Islam* , *10*(2), 192–209

Ningsi, D.Y & Watini, S. 2022. *Implementasi Model ATK untuk Meningkatkan Motorik Halus Anak dalam Kegiatan Menggambar Menggunakan Crayon di PAUD Saya Anak Indonesia*. Jurnal Ilmiah Ilmu Pendidikan.

Nurazzana, Ardilla, and Sri Hartati, 'Pengaruh Media Tiktok Edukasi Terhadap Kemampuan Motorik Kasar Anak Usia 5-6 Tahun Di TK Iqra ` Tunggul Hitam Padang Pendidikan Guru Pendidikan Anak Usia Dini , Universitas Negeri Padang', 8 (2024), 13901–8

Priadana Sidik, Denok Sunarsi. 2021. *Metode Penelitian Kuantitatif* .Tangerang : Pascal Books.

Ridhahani. 2020. *Metodologi Penelitian Dasar*. Banjarmasin: Pascasarjana Universitas Islam Negeri Antasari

Setyawan, Danang Aji, Husnul Hadi, and Ibnu Fatkhu Royana, 'Kemampuan Motorik Kasar Anak Usia 5-6 Tahun Di Tk Negeri Pembina Kota Surakarta', *Jurnal Penjakora*, 5.1 (2018), 17–27

Siregar Syofian. 2013. *Metode Penelitian Kuantitatif*. Jakarta: Kencana.

Siregar, Syofian. 2018. *Metode Penelitian Kuantitatif Dilengkapi Dengan Perbandingan Perhitungan Manual dan SPSS*. Jakarta: Kencana Prenada Media.