The Implementation of Slow Motion Learning Media on Forward-Roll Learning Achievement

By Irma Febriyanti

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Abstract

Study Purpose. The use of learning media has a role in the learning process. The use of appropriate media can improve student learning achievement. This study aimed to determine the effect of slow-motion learning media on forward-roll learning achievement.

Materials and methods. This research was a quantitative descriptive research in the form of a quasi-experimental. The population in this study was all classes of V at SDN Balonggabus with the sample used, namely 31 students. This research was conducted 4 times. The data collection technique used was the learning achievement test instrument. The analysis technique used was descriptive, normality test, and hypothesis testing to prove the influence of learning media on student learning achievement.

Results. Based on the analysis results, the results showed that there was influence as evidenced by the hypothesis test results of 0.00, which means <0.05.

Conclussion. Concluded that there was a significant influence of the application of slow-motion learning media on learning achievement of forward roll.

Keywords: Learning Media, Learning Achievement, Forward-Roll

Introduction

Education is one of the important components for every human being, with education a person can develop the potential that exists in him. Education has a function to educate students towards changes for the better and increase broader knowledge, and skills that can be utilized in a life full of competition (Anwar et al., 2018). Education is an important means to improve the quality of human resources. Increasing human resources is needed to face the era of technology that is increasingly advanced and continues to develop (Marhadi, 2015). Along with the times, educators play a very important role in the success of the learning process. Educators as determinants in the learning process, in the sense that educators must be able to adjust both

the methods and media used in learning in accordance with the progress and development of the time (Rohmawati, 2015). The two elements are interrelated to achieve learning objectives. Learning media is a teaching and learning tool that can be used to encourage, and stimulate the thoughts, attention, and abilities of students so as to create an active learning process (Sandyka et al., 2020). The teaching and learning process has been more teacher-centred, using only the lecture method so that students cannot be active and creative during the learning process. This results in many students who are afraid to express their opinions. The existence of learning media that is in accordance with the progress and development of the times can be a solution to learning difficulties. The use of learning media is considered to facilitate the learning process and optimize learning outcomes (Batubara, 2015). One of the media that can be utilized is slow-motion learning media. Slow motion video is a learning media that is packaged in the form of a video with slow motion. By using slow-motion media, students can observe movements easily, more clearly, and in more detail. The use of learning media can provide a stimulus to students' learning development if used appropriately (Nobre et al., 2020). The success of the learning process needs support from several interconnected aspects ranging from educators, and methods to the learning media used (Juliantine, 2019).

Physical education essentially prioritizes students' movement activities. But in reality, not all students have interest and motivation in practicing the material provided. One of the materials that is considered to have difficulty and density of material is floor gymnastics. Floor gymnastics is an exercise that contains acrobatic movements performed on the mat. Floor gymnastics is performed using a tool in the form of a mat, the use of a mat can reduce the risk of injury (Nurbakti, 2020). One of the materials contained in floor gymnastics is the front roll. The front roll is a forward rolling movement with the body position rounded (Mabrur, Anang Setiawan, 2021). The essence of the front roll movement is in the pedestal and rolling attitude starting with the front roll sequence from the nape, back, waist, and back pelvis, then landing in a squatting and standing position (Arifin & Febriyanti, 2013). Based on some of the above opinions, it can be concluded that the front roll is a forward rolling movement using a standing or squatting start, hands touching the mat, the nape lands first then is pushed forward to a sitting position and ends with a standing position.

The problems that occur in elementary school students are when they do not understand the concept of the forward roll movement, besides that there is also a fear of doing the movement. According to the author's observations and interviews with several students and educators at the school said that some of them claimed to have difficulty in understanding and practicing floor gymnastics material, especially in the front roll movement. Many students considered the material difficult to understand due to the absence of media used in the forward-roll practice. In addition, the teachers only did direct demonstrations. Recognition from students that when the physical education teacher demonstrated, the movements were carried out too quickly so it was difficult for students to observe correctly. This led to the learning objectives could not be achieved optimally. There needs to be a method that is suitable and can solve the problem of the low skill level of students in doing front roll movements. Therefore the authors are interested in researching "The Implementation of Slow Motion Learning Media on Front Roll Learning Achievement".

Materials and Methods

This research was a quantitative descriptive study in the form of a quasi-experiment. A quasi-experiment was used of research methods and procedures that were close to real experiments, with the aim of directly testing the effect of variables on other variables and testing the hypothesis of a causal relationship (Sugiyono, 2019). The design used was one group pretest-posttest where a group will be measured and observed before and after being given treatment (Hermawan, 2019). the population in this study was all grade V at SDN Balonggabus, the sample used was 31 students. The research was conducted 4 times. The data collection technique used was a learning achievement test instrument. the analysis techniques used were descriptive analysis, normality test, and hypothesis testing to prove the effect of media on student learning achievement.

$$O \qquad X \qquad O$$
Pretest   Treatment   Posttest

Figure 1. The One-Group Pretest-Posttest Design

Results

Based on the results of research and hypothesis testing, it can be described in more detail and in more detail in the following table presentation:

Table 1. Data calculation results

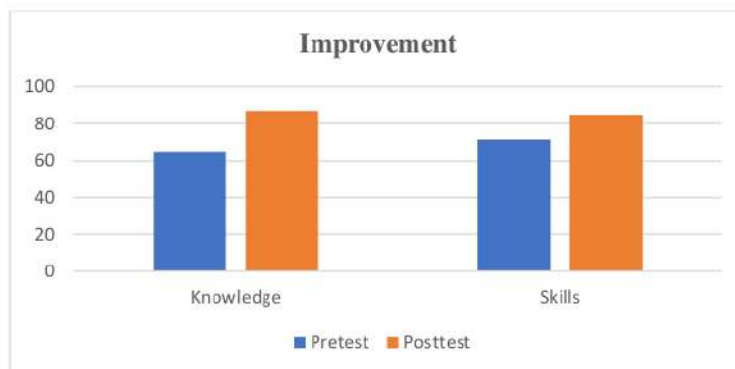| Variabel	Test	Min	Max	Mean	Std. dev	Varian
Knowledge	Pretest	37	79	64,77	11,48	131,98
	Posttest	79	98	86,97	5,18	26,83
Skills	Pretest	60	80	71,29	5,98	35,81
	Posttest	80	92	84,90	4,27	18,29

Figure 2. Pretest and posttest data results

From the description of the table above, it can be seen that the results of the pretest and post-test data on the knowledge and skills variables had increased, this can be seen through the mean values obtained in the pre-test and post-test scores.

Table 2. Normality Test Results

Variabel	Test	Stat.	Sig
Knowledge	Pretest	0,899	0,00
	Posttest	0,944	0,10
Skills	Pretest	0,945	0,11
	Posttest	0,869	0,00

Based on the results of the Shapiro-Wilk normality test above, it can be seen that the pretest knowledge data and posttest skill data were not normally distributed because the significance value was 0.00 <0.05. While posttest knowledge data and pre-test skill data were normally distributed because the significance value> 0.05.

Table 3. t Test Results

Variabel	Test	N	Sd	T Stat	Sig.	Informations
Knowledge	Pretest	31	2,075	-10,695	0,00	Signifikan
	Posttest					
Skills	Pretest	31	1,264	-10,772	0,00	Signifikan
	Posttest					

Through the explanation above, it can be seen that there was a significant effect of the application of slow-motion teaching media on the learning achievement of the front roll. This statement was proven through the significant value obtained of 0.00 which means <0.05.

Discussion

Learning is a process where a person can improve their ability in terms of knowledge, skills, and attitudes. In addition, learning is able to make a person gain many changes in terms of moral, intellectual, emotional, and spiritual. Learning is an effort made to facilitate the learning process in students (Hanafy, 2014). The world of education is changing with the times. The development of the times or what is often referred to as the Industrial Revolution 4.0 is characterised by the rapid development of information technology. Technological advances today are inevitable because technology goes hand in hand with scientific progress (Maritsa et al., 2021). The existence of technological advances requires students to implement technology into the learning process. Learning in this century must be able to prepare young people who are ready to welcome advances in information and communication technology in social life (Syahputra, 2019). In this century we often call it the digital century, where almost the entire human population in the world utilizes digital technology for life needs. Almost all of their life activities are not far from digital utilization, both in work and education (Anih, 2016). Inevitably that is what we have to face with all the changes that exist, and we are required to immediately adjust to the current technological advances (Arsanti et al., 2021). Even teachers, students, and parents must be aware of the importance of technology for life, with technology we can communicate easily, besides that we can also solve problems that occur during the learning process. In the 21st century, education is very important to ensure that students have the ability and learning skills and can innovate using technology and information media (Andrian, 2013). The rapid development of technology demands changes in teaching methods and strategies. Teachers are not the only source of learning that can provide knowledge and information for students (Maryanti & Kurniawan, 2017). The existence of learning media that

is in accordance with the characteristics of students can help educators solve problems that exist during the learning process. Learning media is a very important element in the learning process because it can be a tool or teaching material that can be used to convey information, besides that learning media can also increase motivation and become a communication tool in effective learning. There are several benefits to using learning media, namely that it can facilitate interaction between teachers and students, and it can be used anywhere (Cahyaningtias & Ridwan, 2021). Given the many types of media that can be used in the learning process, educators must be more careful in choosing the appropriate learning media, so that it can be used optimally (Supatri et al., 2021). Media is divided into three types, namely visual media, audio media, and audio-visual media (Magdalena et al., 2021).

In the current era of technology, there are many types of learning media that can be used, one of which is audio-visual media in the form of slow-motion videos. Slow motion video is a video creation effect that is used to slow down movement. Slow-motion video media can provide a variety of understanding for students and can stimulate students to improve their critical thinking skills in an effort to solve problems in the teaching and learning process (Maulidia & Ridwan, 2021). The use of slow-motion media in the learning process can be an attraction in itself, besides that students will find it easier to understand even difficult movements (Yin, 2021). This is also in line with research (Sa'adah et al., 2020) which states that slow-motion media can stimulate students to create an active learning process.

Learning effectiveness can be used as a measure of the success of students in understanding the material (McEntyre et al., 2018). If the learners' response is active, then the media used is in accordance with the character of the learners. It can be seen when learning physical education floor gymnastics material, especially in the front roll sub-material. The front roll which essentially has a fairly complicated movement can be overcome by using a slow-motion video. That way, the stages of the forward-roll movement can be understood easily, because in a fairly complex forward-roll video movement can be understood in detail and in detail, so students who are confused and have difficulty practicing the movement will be facilitated by the slow motion video learning media. Learning media using videos tends to be easy to remember and understand, the use of media is believed to increase memory from 14% to 38% (Purwanti, 2015). In addition, another advantage of using slow-motion media in forward-roll material is that when we miss a stage, we can repeat it so that there will not be one stage that we do not observe and understand (Isra & Asnaldi, 2020). Another similar study explains that there is an effect of the application of audiovisual learning media on the learning achievement of the front roll, in his research he also explains that the media can focus students' attention on learning material (Surjadi, 2021).

Conclusion

Based on the results of the research and discussion above, it can be concluded that there was an effect of the application of slow-motion learning media on forward-roll learning achievement. this is evidenced by the t-test results obtained of 0.00 which means a significant value <0.05.

For further research, researchers suggest exploring more research on methods, media, and learning models that are carried out to improve student learning achievement.

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Conflict of interest

  The author states that there is no conflict of interest whatsoever in this study.

References

Andrian. (2013). Century learning in curriculum 2013. *Jurnal Penelitian Ilmu Pendidikan*, *12*(1), 14–23.

Anih, E. (2016). Modernisasi Pembelajaran Di Perguruan Tinggi Berbasis Teknologi Informasi Dan Komunikas. *Jurnal Pendidikan UNSIKA*, *4*(2), 185–196. http://journal.unsika.ac.id/index.php/judika

Anwar, K., Ari, T., Sri, S., Widodo, A., & Pendahuluan, A. (2018). Pengaruh Model Pembelajaran Kooperatif Tipe Numbered Heads Together (Nht) terhadap Prestasi Belajar Matematika Siswa. *Prosiding Seminar Nasional Etnomatnesia*, *6*, 790–794.

Arifin, B., & Febriyanti, I. (2013). Pengaruh Media Pembelajaran Audio Visual Terhadap Hasil Belajar Senam Roll Depan. (Siswa Kelas V MI Al-Azhar Modung Bangkalan). *Jurnal Pendidikan Olahraga Dan Kesehatan*, *01*, 222–224.

Arsanti, M., Zulaeha, I., Subiyantoro, S., & Haryati, N. (2021). Prosiding Seminar Nasional Pascasarjana ISSN 26866404 Pascasarjana Universitas Negeri Semarang Tuntutan Kompetensi 4C Abad 21 dalam Pendidikan di Perguruan Tinggi untuk Menghadapi Era Society 5.0. *Arsanti, M., Zulaeha, I., Subiyantoro, S., & Haryati, N. (2021). Prosiding Seminar Nasional Pascasarjana ISSN 26866404 Pascasarjana Universitas Negeri Semarang Tuntutan Kompetensi 4C Abad 21 Dalam Pendidikan Di Perguruan Tinggi Untuk Menghadapi Era Societ*, 319–324. http://pps.unnes.ac.id/prodi/prosiding-pascasarjana-unnes/

Batubara, H. H. (2015). Penelitian Penelitian Pengembangan Media PembelajaranInteraktif pada Materi Operasi Bilangan Bulat Pengembangan Media PembelajaranInteraktif pada Materi Operasi Bilangan Bulat INFORMASI. *Jurnal Madrasah Ibtidaiyah*, *1*(1), 1–12.

Cahyaningtias, V. P., & Ridwan, M. (2021). Efektivitas Penerapan Media Pembelajaran Interaktif terhadap Motivasi. *Riyadhoh : Jurnal Pendidikan Olahraga*, *4*(2), 55. https://doi.org/10.31602/rjpo.v4i2.5727

Hanafy, M. S. (2014). Konsep Belajar Dan Pembelajaran. *Lentera Pendidikan : Jurnal Ilmu Tarbiyah Dan Keguruan*, *17*(1), 66–79. https://doi.org/10.24252/lp.2014v17n1a5

Hermawan. (2019). *Metodologi Penelitian Pendidikan (Kualitatif, Kuantitatif dan Mixed Method)*.

Isra, Z., & Asnaldi, A. (2020). Analisis Koordinasi Teknik Jump Smash Pemain Bulutangkis PB. Formula Padang Panjang. *Jurnal Kepelatihan Olahraga*, *12*(1), 45–55. https://doi.org/10.17509/jko-upi.v12i1.24013

Juliantine, T. (2019). The Effect of Learning Model and Intelligence Quotient on Critical Thinking and Handball Games Performance. *Jurnal Pendidikan Jasmani Dan Olahraga*, *4*(1), 37–42. https://doi.org/10.17509/jpjo.v4i1.16100

Mabrur, Anang Setiawan, M. Z. M. (2021). Pengaruh Model Pembelajaran Direct Instruction Terhadap Hasil Belajar Teknik Dasar Guling Depan Senam Lantai The Effect of Direct Instruction Learning Model on Learning Outcomes for the Basic Technique of Front Roll Gymnastics. *Aktivitas Fisik*, *2*(April), 194–204. http://jos.unsoed.ac.id/index.php/paju/article/download/4014/2153

Magdalena, M., Triana, D. D., & Sari, K. M. (2021). Media Audio Visual Dalam Pembelajaran Seni Tari. *Journal of Dance and Dance Education Studies*, *1*(2), 31–38.

Marhadi, H. (2015). Penerapan Model Pembelajaran Kooperatif Tipenumbered Heads Together (NHT) Untuk Meningkatkan Hasil Belajar Siswa Kelas Vd SDN 184 Pekanbaru. *Primary: Jurnal Pendidikan Guru Sekolah Dasar*, *3*(2), 73. https://doi.org/10.33578/jpfkip.v3i2.2497

Maritsa, A., Hanifah Salsabila, U., Wafiq, M., Rahma Anindya, P., & Azhar Ma'shum, M. (2021). Pengaruh Teknologi Dalam Dunia Pendidikan. *Al-Mutharahah: Jurnal Penelitian Dan Kajian Sosial Keagamaan*, *18*(2), 91–100. https://doi.org/10.46781/al-mutharahah.v18i2.303

Maryanti, S., & Kurniawan, D. T. (2017). Pengembangan Media Pembalajaran Video Animasi Stop Motion untuk Pembelajaran Biologi Dengan Aplikasi Picpac. *Jurnal Program Studi Pendidikan Biologi*, *8*(1), 26–33.

Maulidia, T. R., & Ridwan, M. (2021). Efektivitas penerapan media pembelajaran interaktif terhadap sikap kritis pendidikan jasmani, olahraga, dan kesehatan. *Altius: Jurnal Ilmu Olahraga Dan Kesehatan*, *10*(2), 206–214. https://doi.org/10.36706/altius.v10i2.15686

McEntyre, K., Baxter, D., & Richards, K. A. R. (2018). Coordinating Effective Field Experiences: Recommendations for Cooperating Teachers. *Journal of Physical Education, Recreation and Dance*, *89*(3), 9–16. https://doi.org/10.1080/07303084.2017.1417931

Nobre, J. N. P., Vinolas Prat, B., Santos, J. N., Santos, L. R., Pereira, L., Guedes, S. da C., Ribeiro, R. F., & Morais, R. L. de S. (2020). Quality of interactive media use in early childhood and child development: a multicriteria analysis. *Jornal de Pediatria*, *96*(3), 310–317. https://doi.org/10.1016/j.jped.2018.11.015

Nurbakti, N. H. (2020). Upaya Meningkatkan Kemampuan Senam Lantai Tanpa Alat Siswa Sekolah Dasar melalui Pendekatan Bermain. *PEDADIDAKTIKA: Jurnal Ilmiah Pendidikan Guru Sekolah Dasar*, *7*(3), 36–45. https://doi.org/10.17509/pedadidaktika.v7i3.28023

Purwanti, B. (2015). Pengembangan Media Video Pembelajaran Matematika dengan Model Assure. *Jurnal Kebijakan Dan Pengembangan Pendidikan*, *3*(1), 42–47. http://ejournal.umm.ac.id/index.php/jmkpp/article/view/2194

Rohmawati, A. (2015). Efektivitas Pembelajaran. *Jurnal Pendidikan Usia Dini*, *9*(1), 15–32.

Sa'adah, M., Suryaningsih, S., & Muslim, B. (2020). Pemanfaatan multimedia interaktif pada materi hidrokarbon untuk menumbuhkan keterampilan berpikir kritis siswa. *Jurnal Inovasi Pendidikan IPA*, *6*(2), 184–194. https://doi.org/10.21831/jipi.v6i2.29680

Sandyka, D., Made Putrama, I., Gede, D., & Divayana, H. (2020). Kombinasi Animasi Stop Motion, 2 Dimensi Dan Infografis Dalam Media Pembelajaran Ipa Materi Gaya. *Kumpulan Artikel Mahasiswa Pendidikan Teknik Informatika (KARMAPATI)*, *9*(2), 125–132.

Sugiyono. (2019). *Metode Penelitian Pendidikan (Kuantitatif, Kualitatif, Kombinasi, R&D dan Penelitian Pendidikan)* (ke 3, ceta). Alfabeta.

Supatri, D., Hidasari, F. P., & Haetami, M. (2021). Peningkatan Hasil Belajar Shooting Bola Basket Menggunakan Media Audiovisual Pada Peserta Didik Sma Negeri 1 Sungai Raya. *Jurnal Pendidikan Dan Pembelajaran Khatulistiwa (JPPK)*, *10*(2), 1–9.

Surjadi, A. (2021). Penggunaan Media Audiovisual dalam Meningkatkan Maju Hasil Pembelajaran Gymnastics Roll. *Jurnal Pendidikan Jasmani Dan Olahraga Indonesia*, *7*(2), 18–23.

Syahputra, E. (2019). Pembelajaran Abad 21 dan Penerapannya di Indonesia. *Prosiding Seminar Nasional SINASTEKMAPAN (E-Journal)*, *1*(1), 1276–1283.

Yin, et al. (2021). The Effect of Slow Motion Video on Costumer Inference. *Journal of Marketing Research*, *58*(5), 1007–1024. https://doi.org/10.1177/00222437211025054

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