Level Of Knowledge and Application Of Video Animation Among Students Of Teachers Training Institute in The Eastern Zone Of Malaysia

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A R T I C L E   I N F O

A B S T R A C T

Video animation is a teaching method designed to engage students' senses and promote active learning. However, previous data indicated that most teachers do not use animation video apps in their teaching, and Islamic Education trainee teachers (GPPI) lack full mastery of multimedia technology. This study aims to assess the knowledge and use of video animation among GPPI trainee teachers in Malaysia's Eastern Zone, and explore the relationship between knowledge and application levels. Involving 175 respondents, data were collected via a five-point Likert scale questionnaire on Google Forms and analyzed using JAMOVI 2.4.14. The results show that both the knowledge (mean = 4.32) and application (mean = 4.27) levels of video animation among GPPI are high, with a positive relationship between them. This indicates that GPPI teachers are adapting to new teaching methods and staying updated with educational trends.

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1. INTRODUCTION

Along with the time, information technology has rapidly developed to the extent that it indirectly has a positive impact on the process of Learning. This development has changed the education in Malaysia to experience a new wave in the phase of educational reform, namely 21st Century Education (PAK21) and the Fourth Industrial Revolution (RI 4.0). (Fatin Izzati Mohd Taher & Farah Hanan Abu Bakar, 2021). According to 'Adlina Abdul Khalil et al. (2020), the use of technology as a medium for teaching and learning is highly encouraged because it will ignite students' skills to become more creative, intellectual, and motivated. Therefore, there are various of technologies that has been introduced to assist the implementation of learning includes animation videos.

Animation videos are combining audio and visual aspects in an electronic display. Animation videos are also considered as a medium used in learning sessions aimed at stimulating various senses of the students (Sulfiana, 2019). Therefore, Islamic Education teachers (GPPI) must be creative and innovative, as well as wise in selecting the materials that meet the needs of students and the requirements of Education 4.0. So the learning objectives can be effectively delivered. This is in line with the statement by Abdul Halim and Zawawi Ismail (2016) that every Islamic Education teacher (GPI) should be equipped with various knowledge, including knowledge related to Islamic Education as well as technology and information.

Article Type

Based on previous studies, application of animation videos in learning process (PdPc) has been proven having a positive impact on student motivation and achievement. A study by Muhammad Khairulnazmi Musa et al. (2022) showed the student motivation in learning Arabic is increasing when using animation videos. While the data from Nasa Zata Dina et al. (2019) found that the visual approach improved

student scores compared to traditional methods. Meantime, L Rosdiana & R M Ulya (2021) reported that 97% of students agreed that animation videos helped them understand Science better. The other studies, Putu Jerry Radita Ponza et al. (2018) and Norhayati Che Hat et al. (2014), confirm the positive impact of animation videos on students' achievements in various subjects, including Arabic. However, the finding from Norhisham Muhammad et al., (2021) and Agus (2021) emphasize the success of using animation videos also depends on the skills and attitudes of teachers in handling the media, with some teachers facing technical challenges in creating and using educational videos. Overall, the use of animation videos has the potential to enhance learning, but it needs to be balanced with adequate training and technical support for teachers.

Generally, many issues related to the implementation of Islamic Education PdPc in primary schools have been discussed by various parties. Most of these issues indicated the integration of various media technologies by Islamic Education teachers is moderately high level (Muhammad Zulazizi Mohd Nawi et al., 2020). According to Fauziah Silaturrahmi et al. (2022), there are several teachers who have not yet optimized the use of tools that support the use of animation videos in learning. This is also supported by the study, where the level of knowledge about the components of multimedia technology is not fully mastered by Islamic Education teachers. Instead, only some are able managing parts of the multimedia technology. Same with Khodijah Abdul Rahman et al. (2018) finding, teachers at a Sekolah Rendah Agama (SRA) in Selangor, the teachers' knowledge of multimedia as a creative method and their knowledge in using audio, video, and animation elements were moderately high level. In Agus's (2021), it was found that the teachers found it was difficult to create learning videos. It took a long time, to settel down and meantime, the teachers were lack of skills. Therefore, they focused more on traditional methods such as modules and papers (Siti Fatihah Osman, 2023). Thus, this study aims to assess the level of knowledge and application of teachers trainee in the Eastern Zone regarding animation videos in the teaching and learning process.

2. METHOD, DATA, ANALYSIS

This research is using a quantitative approach. The respondets are 175 selected from the popupation of 318. They are selected using purposive sampling. The total is based on Krejcie and Morgan table, 1970. The respondents are Islamic Education trainee teachers from 4 IPGM institutions in the Eastern Zone. The analysis of this study was conducted in the form of descriptive statistics by examining frequency, mean, and standard deviation using Jamovi 2.4.14 software. Inferential statistical analysis is used to explain the relationship between the level of knowledge and application by referring to the Pearson correlation coefficient.

The instruments distributed online and the respondents answered through Google Form link. According to Cheong, Zakri Abdullah & Nee (2018), questionnaires are the easy way to understand the real situation and to get fastest respond. The instruments for the construct of knowledge are adopted and adapted from Roseann Euphrasia Welly & Intan Farahana Abdul Rani (2024), Maimun Aqsha Lubis et al. (2017), Nursafra Mohd Zhaffar et al. (2021), and Yagneswary Sundran et al. (2024). While for application construct, the instruments have been adopted and adapted from the Julianah Elman et al. (2023), and Johari Surif et al., (2014). The instruments got the validity and reliability from few expertises.

3. RESULT AND DISCUSSION

Result

The results for the objectives are as below :

3.1. The level of knowledge and application of video animation among Islamic Education trainee teachers (GPPI) IPGM in Eastern Zone of Malaysia.

Based on Table 1, the mean value for the construct of the knowledge is 4.32 with standard deviation is 0.465. These findings indicate that GPPI has a high level of knowledge about the usage of animation videos in creating the effectiveness of learning process. While for the construct of the application, the mean value is 4.27 with a standard deviation is 0.657. This shows that GPPI has a high frequency of applying animation videos in Islamic Education learning and facilitation process.

Descriptive Statistical Analysis :

Table 1 : *Result of Minimum Score Value*

	N	Mean	SD
Level of Knowledge	175	4.32	0.465
Level of Application	175	4.27	0.657

3.2 To examine the relationship between the level of knowledge and the level of application.

Referring to Table 2, the correlation between the level of knowledge and the level of application animation videos in Islamic Education learning is r = 0.669. This result shows that the knowledge has a strong relationship with the application of animation videos in Islamic Education learning. Therefore, these findings indicate that there is a positive and significant relationship between the level of knowledge and the level of application of GPPI IPGM Eastern Zone towards animation videos in Islamic Education learning.

a)   Inferential Statistical Analysis

Table 2 : *Correlation Between the Level of Knowledge and the Level of Application*

		Knowledge		Application
Level of Knowledge	Pearson's r	—		
	df	—		
	p-value	—		
Level of Application	Pearson's r	0.669	***	—
	df	173		—
	p-value	<.001		—

Note. * p < .05, ** p < .01, *** p < .001

Discussion

Overall, this study found that the mean value of knowledge level regarding animation videos among Islamic Education trainee teachers at IPGM East Zone intake June 2021 was higher compared to the level of their active application in learning and facilitation process. The difference in mean values for the lower application level compared to the level of knowledge shows that although GPPI has high knowledge about animation videos, but the actual application for this technology in teaching may not be fully utilized by GPPI due to several obstacles or constraints that affect it. Yet, both have the relationship. Meaning that when the teachers have the knowlwdge, they will apply that knowledge. This results become the support data to the previous research. We hope these students (respodents) consistant apply and implement animation video during their carrier. This coincides with the findings of the study by Intan Marfarrina Omar et al. (2021), which shows that the level of technology application in education is at a simple level but it was found that the level of ICT knowledge among teachers is high.

The findings of this study also indicate a positive and significant relationship between knowledge and the application of animation videos in Islamic Education teaching, highlighting the importance of knowledge mastery in influencing the level of usage. According to Fadilla Anak Layang & Zamri Mahamod (2019), knowledge is one of the important elements in human life to carry out daily tasks. In the context of this study, teachers need to have knowledge and understanding of the use of animation videos in line with the changing landscape of technology- based education to make the learning and facilitation process more engaging and effective.

4. CONCLUSION

Overall, this study aims to determine the level of knowledge and application of IPGM East Zone trainee teachers regarding animation videos in Islamic Education teaching and learning. This study also aims to examine the relationship between knowledge and application of animation videos in Islamic

Education teaching and learning. This survey study also involved 175 respondents from 4 IPGM campuses, namely IPGM Sultan Mizan Campus, Kota Bharu Campus, Dato' Razali Ismail Campus, and Tengku Ampuan Afzan Campus.

The data findings indicate that the mean value for the level of knowledge of animation videos among GPPI in the Eastern Zone is 4.32, which is higher than the mean value for the application level of GPPI trainee teachers in the Eastern Zone, which is 4.27. Both findings indicate that Islamic Education practicum teachers understand the use of animation videos and actively engage in using animation videos to implement enjoyable learning both inside and outside the classroom. Finally, the study findings indicate that there is a strong and positive relationship between the level of knowledge and the level of application of IPGM East Zone trainee teachers towards animation videos in Islamic Education teaching and learning. This indicates that the aspect of knowledge is closely related to the aspect of application. Therefore, future educators need to equip themselves with knowledge related to animation videos in order to apply animation videos optimally in teaching.

As an improvement for future studies, researchers are advised to expand the scope of the study to include all IPGs in Malaysia or involve newly appointed Islamic Education teachers, in addition to using a multi-method approach, such as interviews and observations, to obtain more comprehensive findings and assess the issues and challenges faced in its application to enhance student motivation in PdPc.

The findings of this study have positive implications for trainee teachers, Islamic Education teachers, and the IPG authorities. In terms of trainee teachers, this study raises awareness of the importance of knowledge and skills in using animation videos as a teaching method, which is relevant not only for Islamic Education but also for other fields. This study also indirectly enhances the knowledge of IPGM East Zone or IPGM regarding the use of animation videos in greater depth and provides important feedback on the involvement of trainee teachers. This enables IPGM to take the initiative to strengthen teachers' knowledge and skills in this technology through specific courses or workshops to support the effectiveness of teaching and learning. Therefore, prospective educators are encouraged to equip themselves with relevant knowledge about animation videos to ensure more effective use in teaching.

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