JOURNAL OF CRITICAL REVIEWS

ISSN- 2394-5125 VOL 06, ISSUE 03, 2019

Using Animation as a Tool to Spread Vocational Information Among School Drop Outs

KARNA DIKSHIT PURI, Department of Fine Arts , Graphic Era Hill University, Dehradun, Uttarakhand, India 248002,

Abstract

Animated videos are a great kind of media for supporting remote learning. Learning may proceed productively despite physical separation when animation is utilized as a distant learning medium (Kör et al., 2014;). One definition of animation is a "still picture showing moving objects or sequences" (Hwang et al., 2012).

The use of animated movies will facilitate the dissemination of educational content. Students will have an easier time grasping complex concepts that benefit their futures if they are accompanied by animated media.

The use of animation in education may pique students' interest, demonstrate a method or technique, and clarify the meaning of an idea (Priambodo & Arifin, 2019). When it comes to improving the level of education and student learning outcomes, animated video represents one of the media advancements in learning that may give a better visual depiction of abstract knowledge (Anjarwati et al., 2016).

Keywords: Appropriate media, distance learning, animated video, moving objects, sequences, media, development

Introduction:

The concept of "distance learning" refers to the use of various forms of media to facilitate communication between students and teachers from different locations (Costa et al., 2020; Rajendra & Sudana, 2017). The term "distance learning" refers to a method of instruction wherein students and teachers are physically separated yet (Bozkurt, 2019). Media and the internet are crucial to the success of students participating in distant learning (Hamilton, 2020;). Although if students and instructors are separated by distance, it is believed that educational technology would facilitate knowledge acquisition.

Those enrolled in vocational programs are given the tools they need to enter the workforce with confidence and competence (Pavlova, 2009; Sudira, 2017, 2018). The utilization of learning media is a crucial component in facilitating educational endeavors. The goal of using learning media by educators is to provide more engaging and effective instruction for their pupils. In order to attain the ultimate aim of making learning more effective and efficient, the usage of instructional media may improve students' knowledge of the material and motivate them to study (Priambodo & Arifin, 2019). In order to maintain the high standards of distance education and to increase students' comprehension and interest, the usage of media is crucial (Thaitami & Maksum, 2020; Wisada et al., 2019).

ISSN- 2394-5125 VOL 06, ISSUE 03, 2019

From what we can see, there are a number of issues that develop as a consequence of the use of distance learning in Vocational Schools, particularly in the competence of Mechanical Engineering knowledge.

1. Students aren't engaged in class because teachers don't supplement their lessons with engaging material.
2. Despite the numerous benefits animation might provide to distant learning, it has not been used.
3. The teacher's presentation of the content has not been an effective instructional stimulus.
4. Teachers are still seen as the primary resource for students.
5. The pupils' lathe machining skills do not meet an acceptable level of ability.

Case Study on the Use of Animation Tools for Drop Outs Through Distance Learning

Preliminary research shows that 42.40 percent of students' scores are below the minimal completeness requirement on the competence evaluation for learning lathe machining skills. Out of a total of 92 pupils divided into 4 groups, 53 fulfilled the average minimum completeness requirement value, while the remaining 39 did not. This issue demonstrates that pupils are still having trouble grasping the proper procedures for using a lathe.

Because of this, pupils' ability to use the lathe does not meet the bar. Students anticipate the technique to operate a lathe and the piece processing may be shown in a near-real form supplemented by learning media when the learning process is carried out through distant learning.

The purpose of distant education is to facilitate student learning via the use of readily available media, and animated movies serve this purpose well. Students' impressions of animated video media's educational use are a useful barometer of the format's potential for use in remote education.

Each person uses their own unique set of filters and communication styles to interpret the world around them. Meaning is created when people react instinctively to data that has been filtered via their senses (Robbins, 2000; Saragih, 2019). Considering the aforementioned benefits associated with the usage of interactive video media in distant learning. Consequently, the purpose of this research is to quantify vocational students' opinions on the efficacy of using animated video learning medium for distantly acquiring lathe operation abilities.

Case Study of Vocational Learning Through Animation

The fundamental skills involved in lathe machining method have been included into the design of many studies' worth of video-animated vocation-learning media. Machine kinds and components, equipment, workpiece requirements, parameters, health and safety in the workplace, step work, quality outcomes, and references are only some of the topics covered in the eight classes that make up the content for lathe machining method. The steps involved in making a video animation are outlined. The findings of the evaluation or validation by subject matter experts and members of the media demonstrate the viability of animation youtube clip as a medium for remote learning. The animated video-based content on the lathe machining method fits this category, suggesting that it may be utilized to facilitate distant learning. Two media professionals validated it across five criteria: aesthetics; usability; consistency; structure; and graphics; the final result was 145/160 (90.625%), placing it in the extremely viable category. Media in the form of animated videos

ISSN- 2394-5125 VOL 06, ISSUE 03, 2019

detailing the lathe machining method fall into this category, suggesting that they might be effectively used to facilitate distant education. Experts in the field of both the medium and the materials used in animation have validated every step of the process before it is shown to the audience.

A total of 73 students participated in an evaluation of animated video-based media depicting lathe machining procedures, with consideration given to their reactions to the content's topic, language, visuals, and advantages. Students' views as a whole scored 4400 out of 5256, with 83.714 percent falling into the "extremely feasible" group. These findings suggest that students get a deep understanding of the content presented in animation video and that animation video-based media is an effective tool for facilitating remote learning.

Previous research, including this one, has shown that media based on animated videos is possible. Teachers should think about incorporating animated video-based media into the classroom since it may be employed as an effective learning medium and has an impact on students' understanding (Shiu, 2020). In addition, the usage of animation-based video-based media in education has been shown to improve quality and promote student-teacher dialogue (Bello-Bravo, 2019). Motivating students to engage in online learning may be achieved via the use of media such as animated videos (Rachmavita, 2020).

Benefits of Distance Learning Through Animation

Using animated video-based instruction can not only improve learning results but also facilitate remote learning (Simarmata, 2020). Previous research has shown that one factor, namely media consumption, may affect successful distant learning practices (Macinko, 2020). Distance education may benefit from the usage of digital virtualization tools, such as animated video-based material (Skripak, 2020). Supporting distance learning with animation video-based material helps boost student motivation. The quality of the education process and the results may be improved if students are more motivated to study (Leow, 2014).

This animated video-base meets the definition of multimedia since it may be viewed by a learner using a mobile device. The study results support the idea that internet-based computers, videos, and audio integrated in hardware and software may be used to create effective learning facilities for unique student requirements. Learning may be made more engaging, long-lasting, and intensive via the use of multimedia tools both within and outside of the classroom (H. Almara'beh, E. F. Amer, 2015). Animation video-based remote learning allows students to study regardless of time or location.

How students feel about being able to access and enjoy appealing material has a significant impact on their desire to continue studying (Yusuf et al., 2017). This research builds on prior studies that found media based on animated videos to be an effective tool for facilitating distant education. In addition, media with animated videos may boost both learning results and students' motivation to study. This is mostly due to the positive effects of the media itself as a learning tool.

As a result, educators in a wide range of vocations may benefit from using animation videos as a teaching tool.

ISSN- 2394-5125 VOL 06, ISSUE 03, 2019

Animation's Success in Vocational Learning

The vast majority of respondents agree with the statements made, proving the usefulness of the video animation in improving viewers' ability to visualize and use their imagination. According to Cheung, Slavin, Kim, and Lake (2015), students may benefit from using the video to stimulate their imaginations. According to research by Cahyani and Karyanto (2016), using videos in the classroom boosts students' interest and retention. Students' engagement with learning and their ability to retain information may both benefit from the use of instructional videos (Setyosari, & Malang, 2016).

The results of the video animation's content demonstrate that the responses obtained are of a high standard. Respondents were generally receptive to the materials provided, and the data revealed that video animations may aid learners. This suggests that viewers accept the video animation's presentation of the themes of engineering drawings and incorporating them into prior knowledge. Overall, the engineering drawing video animation met the requirements of the engineering drawing syllabus topics and accomplished the goals of the engineering drawing subjects and assessing the respondent's current knowledge.

Conclusion

Teachers at technical high schools may greatly benefit from the use of animated videos to help their students learn how to use lathes for distance learning courses in mechanical engineering. Various studies have shown that both instructors and students benefit from using animated video material for distant education. The animated film may be customized so that it better suits the individual learner. Instructors are required to be able to generate animated movies as learning material, since this is seen as an effective way to improve students' skill sets and learning outcomes.

Reference

1. Alnahdi, G. H. (2020). Factors influencing the decision to major in special education in Saudi Arabia. South African Journal of Education, 40(2), 1–9. https://doi.org/10.15700/saje.v40n2a1742.
2. Anjarwati, D., Winarno, A., & Churiyah, M. (2016). Improving learning outcomes by developing instructional media-based adobe flash professional cs 5.5 on principles of business subject. IOSR Journal of Research & Method in Education, 6(5), 1–6. https://doi.org/10.9790/7388-0605010106.
3. Bello-Bravo, J. (2019). Facilitated discussions increase learning gains from dialectically localized animated educational videos in Niger. Information Technology for Development, 25(3), 579–603. https://doi.org/10.1080 /02681102.2018. 1485004.
4. Bozkurt, A. (2019). From Distance Education to Open and Distance Learning: A Holistic Evaluation of History, Definitions, and Theories (In S. Sism). IGI Global.
5. Çetin, Z., Danacı, M. Ö., & Kuzu, A. (2020). The effect of psychological violence on preschool teachers' perceptions of their performance. South African Journal of Education, 40(1), 1–11. https://doi.org/10.15700/saje.v40n1a1738.
6. Cheung, A., Slavin, R. E., Kim, E., & Lake, C. (2015). Effective Secondary Science Approaches : A Best-Evidence Synthesis, (June).

7. Cahyani, R., & Karyanto, P. (2016). Penggunaan Media Video Untuk Meningkatkan Motivasi Dan Hasil Belajar Materi Biosfer Pada Siswa Kelas XI IPS, 2(2).
8. Cheung, A., Slavin, R. E., Kim, E., & Lake, C. (2015). Effective Secondary Science Approaches : A Best-Evidence Synthesis, (June).
9. Costa, R. D., Souza, G. F., Valentim, R. A. M., & Castro, T. B. (2020). ScienceDirect The theory of learning styles applied to distance learning. Cognitive Systems Research, 64, 134 – 145. https://doi.org /10.1016 /j.cogsys.2020.08.004.
10. Daryono, R. W., & Rochmadi, S. (2020). Development of learning module to improve competency achievement in the department of civil engineering education in Indonesia. Psychology, Evaluation, and Technology in Educational Research, 3(1), 34–43. https://doi.org /10.33292 / petier. v3i1 .54.
11. H. Almara'beh, E. F. Amer, and A. S. (2015). The effectiveness of multimedia learning tools in education. Int. J. Adv. Res. Comput. Sci. Softw. Eng, 5(12), 761–764.
12. Hamilton, C. (2020). From blended to e-learning: Evaluating our teaching strategies. In ASp (Issue 78). https://doi.org/10.4000/ASP.6611.
13. Hwang, I., Tam, M., Lam, S. L., & Lam, P. (2012). Review of use of animation as a supplementary learning material of physiology content. The Electronic Journal of E-Learning Volume, 20(4), 368–377.
14. Kör, H., Aksoy, H., & Erbay, H. (2014). Comparison of the Proficiency Level of the Course Materials (Animations, Videos, Simulations, E-books) Used in Distance Education. Procedia - Social and Behavioral Sciences, 141, 854–860. https://doi.org/10.1016/j.sbspro.2014.05.150.
15. Kurniawati, N. (2020). Creating Low-Cost Animation Video Using Online Platform: a Learning Media User Review. Jurnal Pendidikan Kedokteran Indonesia: The Indonesian Journal of Medical Education, 9(1), 26. https://doi.org/10.22146 /jpki.53166.
16. Leow, M. F. (2014). Interactive multimedia learning: Innovating classroom education in a Malaysian University. The Turkish Online Journal of Educational Technology, 13(2), 99–110.
17. Macinko, M. (2020). Distance learning: Examples of good practice, analysis and experience. In 2020 43rd International Convention on Information, Communication and Electronic Technology, MIPRO 2020 - Proceedings (pp. 843–847). https://doi.org/10.23919 /MIPRO48935.2020.9245207.
18. Pavlova, M. (2009). The Vocationalization of Secondary Education: The Relationships between Vocational and Technology Education. In R. Maclean, D. Wilson, & C. Chinien (Eds.), International Handbook of Education for the Changing World of Work, Bridging Academic and Vocationa. Germany: Springer.
19. Priambodo, A., & Arifin, Z. (2019). Interactive Animation Based Learning Media on. 25(2), 187–193. https://doi.org /10.21831/ jptk.v25i2.20026.
20. Rachmavita, F. P. (2020). Interactive media-based video animation and student learning motivation in mathematics. In Journal of Physics: Conference Series (Vol. 1663, Issue 1). https://doi.org /10.1088/1742-6596/1663/1/012040.

21. Rajendra, I. M., & Sudana, I. M. (2017). the influence of interactive multimedia technology to enhance achievement students on practice skills in mechanical teacnology. The 2nd International Joint Conference on Science and Technology (IJCST).
22. Robbins, S. P. (2000). Organizational behavior: concepts, controversies and application. Prentice Hall of India.
23. Saragih, A. (2019). Student Perception of Student Centered e-Learning Environment (SCeLE) as Media to Support Teaching and Learning Activities at the University of Indonesia. In IOP Conference Series: Earth and Environmental Science (Vol. 248, Issue 1). https://doi.org/10.1088 /1755-1315/248/1/012001.
24. Setyosari, P., & Malang, P. D. P. (2016). Penerapan Pendekatan Savi Berbantuan Video Pembelajaran Untuk Meningkatkan Siswa Kelas Iv Sdn I Sanan, 1235–1241.
25. Shiu, A. (2020). The effectiveness of animated video and written text resources for learning microeconomics: A laboratory experiment. Education and Information Technologies, 25(3), 1999–2022. https://doi.org/10.1007/s10639-019-10025-1.
26. Simarmata, J. (2020). Development of Hybrid Learning-Based Animation Media to Improve the Learning Outcomes of Multimedia Learning. In Journal of Physics: Conference Series (Vol. 1477, Issue 4). https://doi.org/10.1088/1742-6596/1477/4/042067.
27. Skripak, I. A. (2020). Digital virtualization technologies in distance learning. International Journal of Advanced Trends in Computer Science and Engineering, 9(2), 1808–1813. https://doi.org/10.30534 /ijatcse/2020/138922020.
28. Sudira, P. (2017). TVET Abad XXI Filosofi, Teori, Konsep, dan Strategi Pembelajaran Vokasional (Kedua). UNY Press.
29. Sudira, P. (2018). Metodologi Pembelajaran Vocational: Inovasi, Teori dan Praksis. In UNY Press.
30. Sugiyono. (2017). Metode Penelitian dan Pengembangan (Research and Development. Alfabeta.
31. Tayo, O., Noah, O., Tosin, A., & Alabi, T. (2020). Survey dataset on open and distance learning students ' intention to use social media and emerging technologies for online facilitation. Data in Brief, 31, 105929. https://doi.org/10.1016/j.dib.2020.105929.
32. Thaitami, S. H., & Maksum, H. (2020). Development of Web-Based Learning Media in Western Bridal Makeup Course at Make-Up and Beauty Education Department. Journal of Education Technology, 4(3), 264–272. http://dx.doi.org/10.23887/jet.v4i3.27895.
33. Tømte, C. E. (2020). Online or offline – Does it matter?: A study of in-service teachers' perceptions of learning outcomes in Norway. Nordic Journal of Digital Literacy, 15(4), 259–273. https://doi.org/10.18261/ISSN.1891-943X-2020-04-04.
34. Wisada, P. D., Sudarma, I. K., & Yuda S, A. I. W. I. (2019). Pengembangan Media Video Pembelajaran Berorientasi Pendidikan Karakter. Journal of Education Technology, 3(3), 140. https://doi.org/10.23887 /jet.v3i3.21735.
35. Yusuf, M. M., Amin, M., & Nugrahaningsih, N. (2017). Developing of instructional media-based animation video on enzyme and metabolism material in senior high school. Jurnal Pendidikan Biologi Indonesia, 3(3), 254. https://doi.org/10.22219/jpbi.v3i3.4744.