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Assessing Knowledge Acquisition and Perceptions in Hands-On Video Editing Workshop for Non-Technical Students

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ABSTRACT

In the era of digital technology, video editing is now a priority skill in various fields like education, marketing, and business. Nevertheless, non-technical students tend to lack video editing skills because of their limited exposure to montage elements and video editing software. This research explores the effects of practical video editing workshops on knowledge and perceptions of non-technical students. The workshops were aimed at imparting knowledge of montage elements, a key component of video production. With a quantitative research design, 30 students from non-technical disciplines have participated in guided workshops with Microsoft PowerPoint and CapCut. The findings indicate a significant improvement in the comprehension of montage elements, including visual organization, audio synchronization, transitions, and pacing among the students, with high mean knowledge scores (3.97 - 4.05) on a 5-point scale. In addition, regression analysis shows a significant relationship (p-value < 0.05), confirming its effectiveness in engaging non-technical students and achieving a better understanding of video editing concepts. The results of this research contribute to the development of instructional strategies that promote improved learning experiences for groups of students with varying backgrounds.

1. INTRODUCTION

In an increasingly digital world, the necessity for video editing skills has extensively spread across many disciplines, including education, marketing, and business, in addition to its initiation in media studies (Brown & Green, 2021). Video production is no longer confined to professional filmmakers but has become an essential skill for educators, students, and content creators across industries (Snelson, 2018). However, mastering the key montage elements, such as visual, audio, text, graphic, transition, and pacing, remains a challenge for non-technical students due to limited exposure to video editing techniques and editing software. Moreover, many traditional classroom approaches focus on theoretical knowledge rather than

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hands-on application, limiting students' ability to develop practical skills (AlKhaibary et al., 2020). Without adequate exposure to these elements, non-technical students may struggle with video composition and effective content delivery. It is important to understand these elements as they help drive the overall narration, coherence, and appeal of a video project (Wan et al., 2022). Integrating digital literacy into higher education curricula supports student readiness for the digital workplace and helps bridge competency gaps (Kayyali, 2024). Additionally, positive attitudes toward digital technology significantly predict students' confidence and engagement in online learning environments (Getenet et al., 2023).

Hands-on workshops provide an experiential learning opportunity where students learn technical and creative skills by doing things under supervision. According to experiential learning theories, active participation in supervised tasks enhances conceptual knowledge and skill development (Kolb, 1984). Therefore, this study focuses on addressing two key objectives: (1) To evaluate the knowledge level of montage elements after attending the Hands-On Video Editing Workshops, and (2) To evaluate the relationship between students' knowledge of montage elements and their perceptions of the Hands-On Video Editing Workshops.

This research also aims to provide insights into teaching instructional strategies that can improve learning outcomes among non-technical students by evaluating the effectiveness of practical video editing workshops. Understanding how students view these workshops and how they affect their understanding of montage elements will help create more engaging and effective multimedia teaching and learning experiences.

2. LITERATURE REVIEW

Evaluating the impact of hands-on video editing workshops on participants' understanding of montage elements is crucial for assessing the effectiveness of such educational programs. The field of video editing has long been shaped by both theoretical frameworks and practical innovations. Dancyger (2018) highlights the transition from linear analogue editing systems to non-linear digital platforms, underscoring the transformative impact of software like Adobe Premiere Pro and Final Cut Pro on creative workflows. He argues that these advancements have not only increased efficiency but also expanded the creative possibilities for editors, enabling them to experiment with complex narratives and visual styles. This literature review explores the significance of montage elements in video editing, the benefits of hands-on workshops, and methods for evaluating knowledge acquisition in this context. Besides, it also explores how students' knowledge and perceptions interact in the context of hands-on video editing workshops, drawing from established educational theories and empirical studies.

2.1 The role of montage elements in video editing

A montage is defined as "the production of a rapid succession of images in a movie to illustrate an association of ideas" (Merriam-Webster, 2025). According to Xiang et al. (2022), montage is one of the vital components of a film, where it can create a story by rearranging images and shots, and it can even illustrate the essence of ideas to the viewer. They further explained that this technique is used to shorten time, shows growth in a character and even expresses complex information effectively. Understanding the elements is crucial for beginners learning video editing, as these elements form the building blocks of effective storytelling. Each montage is unique, and not all montages incorporate every element. However, certain elements are commonly used to enhance the storytelling impact.

These elements include music, quick cuts, voiceover narration, minimal or no dialogue, and repeated camera movements (DeGuzman, 2024). Music plays a crucial role in setting the tone and pacing, guiding the audience's emotional response. Quick cuts maintain energy and urgency by rapidly transitioning between shots, while voiceover narration provides additional context or insight to reinforce the montage's

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message. In many cases, minimal or no dialogue is used, emphasizing visual storytelling through expressive imagery and action. Additionally, repeated camera movements create a sense of rhythm and cohesion, making the montage feel seamless and engaging. Together, these elements enhance storytelling impact, ensuring the montage effectively conveys its intended message. For non-technical students learning video editing, understanding these elements is particularly important. Hands-on workshops that focus on applying montage techniques can help students grasp the interplay between visuals, audio, and pacing, enabling them to create cohesive and engaging videos.

In educational contexts, such workshops have proven effective in teaching montage techniques to beginners, enabling them to develop both technical skills and creative confidence. Montage elements play a vital role in video editing by enhancing storytelling and creating engaging visuals. Understanding these elements is essential for beginners, particularly non-technical students, who aim to develop video editing skills. The hands-on video editing workshop in this study focuses on teaching these elements, providing students with the tools they need to create effective montages. The following sections will explore how knowledge of montage elements influences students' perceptions of the workshop.

2.2 Impact of hands-on lab on non-technical students

Hands-on labs are a transformational way to teach technical skills to students without a background in technology. For instance, in this research, the students involved are from programs like Public Administration or Halal Management at UiTM Sarawak and have little to no experience with video editing tools. A study done by Kirk (2015) highlighted how student-centered hands-on labs bridge this gap by allowing students to learn through practice. He noted that the "learn by doing" approach helps non-technical students gain confidence faster than traditional lectures. In the context of this study, students used tools like CapCut and PowerPoint to edit videos, which aligns with the modern approach to experiential learning.

One major advantage of hands-on labs is that they make abstract ideas clearer. For example, when learning montage elements like pacing or transitions, students might struggle to understand these concepts in theory. However, when they received hands-on instruction to create a short video, the concepts became easier to grasp. Research by Zhang et al. (2022) highlights that students taking hands-on activities often thrive when they see their work come to life, such as editing a montage for a class project. In certain cases, students can feel overwhelmed by tools like CapCut at first. To help them, tasks were broken down into smaller steps, with step-by-step guidance, a strategy Theobald et al. (2020) call "scaffolding," which reduces frustration and builds confidence.

As shown by Knoblauch (2022), students who went through experiential learning with a focus on the experience had gained new skills and knowledge. He reported that this approach had helped the students immensely. In the case of this study, the hands-on lab focused on practical tasks, like arranging visuals or syncing music, thus making sure students can develop their creativity while learning technical skills.

2.3 Benefits of hands-on video editing workshops

Immersive learning experiences that connect theoretical knowledge with practical application are offered by practical, hands-on workshops. Engaging directly with editing software and projects enables participants to develop both technical proficiency and creative decision-making skills. Such workshops often cover essential aspects of video editing, including technical proficiency, creative techniques and critical analysis.

The first aspect, technical proficiency, involves participants gaining a solid foundation for professional editing by learning how to use editing software, control timelines, and apply effects. The second aspect, creative techniques, oversees how a workshop emphasizes the artistic aspects of editing, such as storytelling, pacing, and the effective use of montage to convey complex ideas succinctly. Finally, critical

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analysis encourages learners to critique their own work and that of others, fostering a deeper understanding of editing choices and their impact on audiences.

Dorfman et al. (2019) highlight the importance of personalized multimedia content in educational settings. Their study, titled "Teachers personalize videos and animations of biochemical processes: results from a professional development workshop", demonstrates how hands-on workshops empower educators to customize educational videos and animations to better suit their students' learning needs. This personalization not only enhances the clarity and effectiveness of instructional materials but also helps teachers develop their technical proficiency and creative confidence in multimedia production.

Collaboration and industry networking are also key benefits of video editing workshops. Jeong and Lim (2024), in their paper "Implementing a video production collaboration system with information marker overlay technique", emphasize the role of collaborative systems in enhancing team-based video production. Their study illustrates how collaborative environments foster efficient communication, idea sharing, and division of labor, ultimately leading to more polished and innovative multimedia content. The integration of industry-standard tools and techniques further provides participants with networking opportunities, connecting them with professionals and potential collaborators in the field.

Career development and portfolio building are additional crucial outcomes of hands-on video editing workshops. Yen and Yang (2024), in their study "The Integration of Artificial Intelligence and Video Production Skills in Workplace Development: A Study from the Perspective of Vocational Training", discuss how practical video editing skills, combined with emerging technologies like artificial intelligence, are becoming essential for workplace readiness. Workshops that emphasize real-world projects enable participants to create high-quality portfolios that showcase their technical capabilities and creative vision. These portfolios serve as vital tools for job applications and career advancement, helping participants stand out in competitive job markets.

The role of video in education is another important dimension of video editing workshops. Priandika et al. (2022), in their paper "Video Editing Training to Improve the Quality of Teaching and Learning at SMK Palapa Bandarlampung", demonstrate how video editing training enhances the quality of educational content. Their study shows that teachers who participate in video editing workshops produce more engaging and effective instructional materials, leading to improved student understanding and participation. By equipping educators with the skills to create customized, high-quality videos, these workshops contribute directly to enhancing the teaching and learning experience.

2.4 Utilizing online questionnaires for assessing knowledge and skills in hands-on workshops

Online questionnaires have become a popular tool for evaluating student learning in hands-on workshops, especially in technical fields like video editing. These surveys are practical because they allow immediate feedback collection after an activity, ensuring good and effective responses that can help future planning (So & Chan, 2018). For non-technical students, online questionnaires are user-friendly, as they can be completed on smartphones or laptops, aligning with how Malaysian students typically interact with technology in their daily lives.

A key advantage of online questionnaires is their ability to measure knowledge (e.g., understanding of montage elements) and skills (e.g., ability to use editing tools like MS PowerPoint and CapCut). A study by Sufi et al. (2018) mentioned that the usage of a questionnaire is to measure the impact of a workshop. They found that questionnaires effectively captured improvements in both technical knowledge and practical abilities. Similarly, Scheef and Johnson (2017) highlighted that online tools like Google Forms or SurveyMonkey simplify data analysis, allowing educators to quickly identify areas where students struggle, such as syncing audio or applying transitions.

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2.5 Student perceptions of hands-on video editing workshops

Anas (2019) suggests that student-created video projects enhance active learning by encouraging students to take a more engaged role in their education. This reinforces the idea that video projects are both enjoyable and beneficial for students. Perceptions about hands-on learning experiences are also crucial to understanding the effectiveness of video editing workshops. Nelson (2018), in their doctoral dissertation "Perceptions about Hands-On Art Making by Online Students", explores how students engaged in hands-on art-making activities perceive their learning experiences compared to virtual-only instruction. The findings indicate that students value the tactile and interactive elements of hands-on work, which contribute to a greater sense of engagement, creativity, and satisfaction. This aligns with the principles of video editing workshops, where hands-on practice enhances both technical proficiency and creative expression.

2.6 Knowledge acquisition through hands-on video editing workshops

Hands-on learning approaches, particularly in video editing, have been shown to enhance students' technical skills and conceptual understanding. Engaging directly with video production tasks allows students to apply theoretical knowledge in practical settings, fostering deeper learning. For instance, a study by Galatsopoulou et al. (2022) found that students who participated in video-based active learning scenarios demonstrated improved comprehension of course material. The interactive nature of these workshops encourages learners to experiment with editing techniques, leading to a more robust grasp of the subject matter.

Knowledge acquisition through hands-on video editing workshops is further supported by Fleischmann (2021) in their study "Hands-on versus virtual: Reshaping the design classroom with blended learning". Fleischmann argues that hands-on learning environments provide more effective knowledge retention and skill development compared to purely virtual formats. By engaging in practical, real-world tasks, participants gain a comprehensive understanding of video editing tools and techniques, while also developing critical problem-solving and creative thinking abilities. This hands-on approach ensures learners are better prepared to apply their knowledge in professional and educational settings.

2.7 Relationship between knowledge acquisition and student perceptions

The relationship between knowledge acquisition and student perceptions in video editing workshops is also a critical area of exploration. Aggad (2023), in their doctoral dissertation "Challenges, Opportunities, and Success Factors of Integrating Video Production Education in Lebanon", investigates how students' perceptions of video production education influence their knowledge acquisition and engagement. The study reveals that students who perceive video editing workshops as interactive and practically valuable tend to demonstrate higher levels of motivation and a deeper understanding of multimedia concepts. This connection between positive perceptions and enhanced learning outcomes underscores the importance of designing workshops that balance technical training with creative exploration and collaborative opportunities.

The interplay between knowledge acquisition and student perceptions is evident in several studies. Positive perceptions of hands-on activities often correlate with enhanced learning outcomes. For example, Galatsopoulou et al. (2022) found that students' positive attitudes towards video-based learning were significantly related to their intention to engage with the material, which in turn improved their knowledge acquisition. This suggests that when students find learning activities enjoyable and relevant, they are more likely to invest effort, leading to better understanding and retention of information. For instance, Hsieh and Knudson (2020) found that active learning strategies in undergraduate biomechanics courses positively influenced students' learning outcomes. It shows that there is a significant correlation between students' positive perceptions of hands-on learning activities and enhanced learning outcomes.

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3. METHODOLOGY

This study used a quantitative research design with a survey approach to assess students' understanding of montage elements and a correlational design to investigate the relationship between their knowledge and perceptions toward the hands-on video editing workshop. The study involved 30 students enrolled in the "Computer and Information Processing" course during the March-October 2024 semester, from the Diploma in Public Administration (AM110) and the Diploma in Halal Management (IC120) at Universiti Teknologi MARA Sarawak, Kampus Samarahan 2. These students possessed no formal education in video editing or computer science. Questionnaires were completed by 27 out of the 30 students and a response rate of 90% was attained.

The "Video Montage Workshop: Hands-on Editing" was held in two sessions. The main aim was to develop video editing skills using widely available software tools, Microsoft PowerPoint and CapCut. The workshop aimed to give a hands-on experience. It had two main parts: "Guided Practical Sessions," which taught how to use the elements of montage in video editing through step-by-step instructions, and "Introduction to Video Editing Software," introducing the participants to the interface and the basics.

Data collection was conducted using online questionnaires administered immediately after the workshop ended. The questionnaires were designed to evaluate students' video editing skills and assess their knowledge of video editing software.

The survey data was analysed using descriptive statistics, correlation analysis, and regression analysis. Descriptive statistics summarised the data by calculating measures such as means and frequencies. Correlation analysis investigated the association between students' knowledge and their perceptions of the workshop, whereas regression analysis assessed the significance of this association by assessing how much knowledge influenced students' perceptions. Fig. 1 shows the overall workflow of the research methodology, including the workshop implementation, data collection approach, and subsequent data analysis.

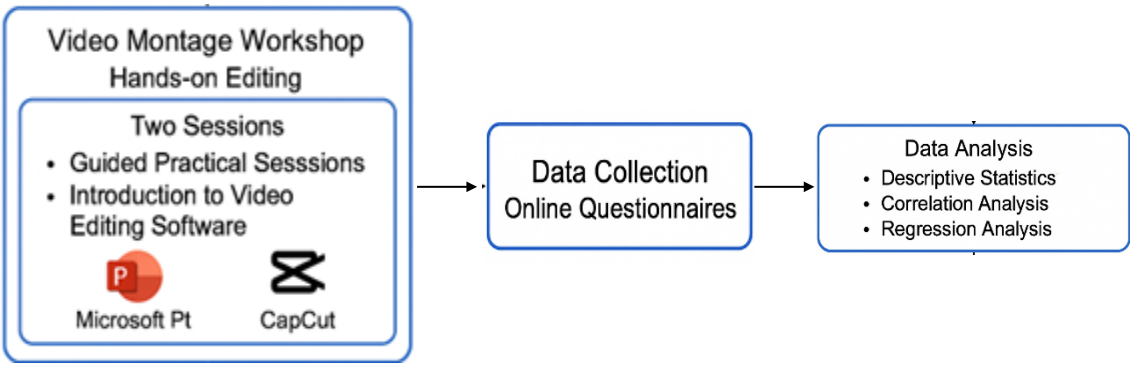

Fig. 1. Research methodology workflow

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4. ANALYSIS AND DISCUSSION

4.1 Demographic profile

Table 1. Demographics of respondents

Demographic	Label	Frequency	Percentage (%)
Gender	Male	3	11.1
	Female	24	88.9
Semester of study	1	13	48.1
	2	14	51.9
Faculty	Academy of Contemporary Islamic Studies	14	51.9
	Faculty of Administrative Science and Policy Studies	13	48.1
Course	Diploma in Halal Management	14	51.9
	Diploma in Public Administration	13	48.1

Table 1 summarizes the demographic profile of the respondents according to gender, semester of study, faculty, and program. Most of the respondents were female students, with 24 students (88.9%), while only 3 male students (11.1%) were involved in this study. Out of 27 respondents, 13 respondents were semester 1 students (48.1%) and the remaining 14 respondents were from semester 2 (51.9%). Students in Semester 1 pursuing a Diploma in Public Administration from the Faculty of Administrative Science and Policy Studies. Additionally, 14 students from semester 2 were enrolled in the Diploma in Halal Management program at the Academy of Contemporary Islamic Studies.

4.2 Evaluate the knowledge level of montage elements after attending the hands-on video editing workshops

All respondents were asked to rate the knowledge level of the montage elements used during the workshop. The ratings were using a 5-point Likert scale, where 1 indicates "very low" and 5 indicates "very high". To assess the knowledge level, the scores were averaged and categorized into five difficulty levels: very low, low, medium, high, and very high, as tabulated in Table 2 (Moidunny, 2009).

Table 2. Level of knowledge

Mean Score	Mean interpretation table
1.00 – 1.80	Very Low
1.81 – 2.60	Low
2.61 – 3.20	Medium
3.21 – 4.20	High
4.21 – 5.00	Very High

Source: Moidunny (2009)

With mean scores for all montage elements ranging from 3.9778 to 4.0519, the knowledge level is classified as "High," indicating the overall effectiveness of the hands-on video editing workshops. This suggests that the workshops were well-executed and served as an effective teaching approach. Furthermore, hands-on workshops provide a practical alternative to traditional educational methods, ensuring that students develop the essential skills needed to excel in video editing.

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Table 3. Mean score for knowledge

Variables	Mean Score	Level of Difficulty
Visual	3.9778	High
Music	4.0000	High
Graphics	3.9852	High
Transition	4.0519	High
Rhythm	4.0296	High

4.3 Evaluate the relationship between knowledge and students' perceptions towards the hands-on video editing workshops

(i) Normality Test

A normality test is an essential analysis that is conducted to determine if the distribution of data is normally distributed or not, before proceeding to further analysis. Additionally, normality can be assessed using the Skewness value, where data with a Skewness value between -2 and +2 is generally considered normally distributed (Pallant, 2011).

Table 4. Summary of skewness value

Variable	Skewness
Knowledge	-0.369
Perception	-0.159

Table 4 summarizes the skewness values for two variables, namely knowledge and perception that are involved in this study. The result concluded that both variables are normally distributed, as their skewness values fall within the range of -2 to +2.

(ii) Reliability Analysis

The reliability of the item used in this study was assessed through a reliability test. According to Pallant (2011), an item is considered reliable if the Cronbach's Alpha value exceeds 0.7. As shown in Table 5, the Cronbach's Alpha values for both variables were above 0.7 (knowledge = 0.986 and perception = 0.979), confirming that the data used in this study is reliable.

Table 5. Reliability analysis

Variable	Number of Items	Cronbach's Alpha
Knowledge	5	0.986
Perception	7	0.979

(iii) Regression Analysis

A regression analysis was conducted to answer the second research objective. As tabulated in Table 6, the result reveals that knowledge of montage elements has a significant relationship with perception towards the Hands-On Video Editing Workshops (p-value < 0.05). This suggests that students' knowledge on montage elements can influence their perception towards the workshop.

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Value of r^2 from Table 6 indicates that 30.8% of the variation in students' perception towards the workshops can be attributed to students' knowledge of montage elements. The remaining 69.2% is explained by other factors. Overall, the regression model shows significant results (p-value < 0.05). In summary, the significant relationship between knowledge of montage elements and participants' perceptions highlights the crucial role of montage techniques in influencing how participants assess and interact with video editing workshops.

Table 6. Regression Analysis

Variable	Result of Regression				
	Coefficient	t	P - value	r^2	F test
Constant	3.156	9.101	0.005	0.308	11.147 (0.003)
Knowledge	0.338	3.339	0.003		

5. CONCLUSION

At the end of this study, it was found that hands-on video-editing workshops significantly increase montage-element knowledge among non-technical students. The high mean scores suggest that students have found montage elements easy to learn, confirming the success of the workshops. Regression analysis showed a significant relationship between the familiarity of students with montage elements and their perception of the workshops; the more they knew, the better they perceived the experience. The study highlights the necessity of hands-on methods in video editing courses for an effective and interactive experience. However, this study is not without limitations. The relatively small sample size (n=27) and the short duration of the intervention may limit the generalizability of the findings. Future research should examine the long-term effects of hands-on workshops on skill retention and their applicability in real-world contexts. Moreover, studies may focus on fostering active learning through collaborative methods, the integration of advanced editing techniques, and the implementation of practical workshop sessions. Expanding the scope to include larger and more diverse student populations would further enhance the generalizability of the findings. Furthermore, integrating emerging technologies such as artificial intelligence into video editing education may further enhance student engagement and learning outcomes.

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7. CONFLICT OF INTEREST STATEMENT

The authors declared that they have no conflicts of interest to disclose.

8. AUTHORS' CONTRIBUTIONS

Satria Arjuna Julaihi played a crucial role in shaping the project's direction by contributing to its initial conceptualization. **Norizuandi Ibrahin, Abdul Hadi Abdul Talip**, and **Zubaidah Bohari** were responsible for executing the workshop and contributed to the writing process. They collaborated on

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drafting the original article and refining it through meticulous revisions. Meanwhile, **Rumaizah Che Md Nor** applied her expertise in data analysis, utilizing statistical and computational methods. Together, their combined efforts highlight a well-rounded and collaborative approach, showcasing the diverse skills and responsibilities each team member undertook to ensure the successful execution of the research.

9. REFERENCES

Aggad, S. (2023). *Challenges, opportunities, and success factors of integrating video production education in Lebanon* [Doctoral dissertation, Lebanese American University]. SoAS – Theses and Dissertations. https://doi.org/10.26756/th.2023.647

AlKhaibary, A. A., Ramadan, F. Z., Aboshaiqah, A. E., Baker, O. G., & AlZaatari, S. Z. (2020). Determining the effects of traditional learning approach and interactive learning activities on personal and professional factors among Saudi intern nurses. *Nursing Open, 8*, 327–332. https://doi.org/10.1002/nop2.633

Anas, I. (2019). Behind the scene: Student-created video as a meaning-making process to promote student active learning. *Teaching English with Technology, 19*(4), 37–56.

Brown, A., & Green, T. (2021). *The essentials of instructional design*. Routledge. https://doi.org/10.4324/9780429439698

Dancyger, K. (2018). *The technique of film and video editing: History, theory, and practice* (6th ed.). Routledge. https://doi.org/10.4324/9781315210698

DeGuzman, K. (2024, December 30). *What is a montage? Definition, examples & 6 ways to use them*. StudioBinder. https://www.studiobinder.com/blog/what-is-a-montage-definition/

Dorfman, B. S., Terrill, B., Patterson, K., Yarden, A., & Blonder, R. (2019). Teachers personalize videos and animations of biochemical processes: Results from a professional development workshop. *Chemistry Education Research and Practice, 20*(4), 772–786. https://doi.org/10.1039/C9RP00057G

Fleischmann, K. (2021). Hands-on versus virtual: Reshaping the design classroom with blended learning. *Arts and Humanities in Higher Education, 20*(1), 87–112. https://doi.org/10.1177/1474022220906393

Galatsopoulou, F., Kenterelidou, C., Kotsakis, R., & Matsiola, M. (2022). Examining students' perceptions towards video-based and video-assisted active learning scenarios in journalism and communication courses. *Education Sciences, 12*(2), 74. https://doi.org/10.3390/educsci12020074

Getenet, S., Cantle, R., Redmond, P., & Albion, P. (2023). Students' digital technology attitude, literacy and self-efficacy and their effect on online learning engagement. *International Journal of Educational Technology in Higher Education*, 21, 3. https://doi.org/10.1186/s41239-023-00437-y

Hsieh, C., & Knudson, D. (2020). Students' perception on teaching style and learning outcome. *ISBS Proceedings Archive, 38*(1), Article 7. https://commons.nmu.edu/isbs/vol38/iss1/7/

Jeong, H. D. J., & Lim, J. (2024). Implementing a video production collaboration system with information marker overlay technique. *International Journal of Advanced Media and Communication, 8*(1), 77–92. https://doi.org/10.1504/IJAMC.2024.140661

Kayyali, M. (2024). Digital literacy in higher education: Preparing students for the workforce of the future. *International Journal of Information Science and Computing, 11*(1), 53–73. https://doi.org/10.30954/2348-7437.1.2024.6

http://dx.doi.org/10.24191/jcrinn.v10i2.531

Kirk, B. (2015). *A proactive, experiential and student-centered learning approach: A case study of the effects of a social media video editing "App" in a traditional classroom setting* [Doctoral dissertation, Liberty University]. Doctoral Dissertations and Projects. https://digitalcommons.liberty.edu/doctoral/1084

Knoblauch, C. (2022, June). Experiential learning in digital contexts - A case study. In *The Learning Ideas Conference* (pp. 181–191). Springer. https://doi.org/10.1007/978-3-031-21569-8_17

Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development*. Prentice Hall.

Merriam-Webster. (2025, February 22). *Montage*. Merriam-Webster.com dictionary. https://www.merriam-webster.com/dictionary/montage

Moidunny, K. (2009). *The effectiveness of the national professional qualification for educational leaders (NPQEL)* [Unpublished doctoral dissertation, The National University of Malaysia].

Nelson, G. L. (2018). *Perceptions about hands-on art making by online students* [Doctoral dissertation, Walden University]. ProQuest.

Priandika, A. T., Permata, P., Gunawan, R. D., Ardiansah, T., Fahrizal, M., Maylani, A., & Anggraini, A. (2022). Video editing training to improve the quality of teaching and learning at SMK Palapa Bandarlampung. *J. Eng. Inf. Technol. Community Serv, 1*(2), 26–30. https://doi.org/10.33365/jeit-cs.v1i2.134

Pallant, J. (2020). *SPSS survival manual: A step by step guide to data analysis using SPSS program*. Allen & Unwin. https://doi.org/10.4324/9781003117452

Scheef, A. R., & Johnson, C. (2017). The power of the cloud: Google Forms for transition assessment. *Career Development and Transition for Exceptional Individuals, 40*(4), 250–255. https://doi.org/10.48550/arXiv.1805.03522

Snelson, C. (2018). Video production in content-area pedagogy: A scoping study of the research literature. *Learning, Media and Technology, 43*(3), 294–306. https://doi.org/10.1080/17439884.2018.1504788

So, J., & Chan, V. (2018). Impact of using online questionnaires in collecting student feedback in development activities. *Proceedings of the 2018 International Conference on Learning and Teaching in Computing and Engineering*, 31–34. https://doi.org/10.1145/3183586.3183597

Sufi, S., Nenadic, A., Silva, R., Duckles, B., Simera, I., de Beyer, J. A., ... Higgins, V. (2018). Ten simple rules for measuring the impact of workshops. *PLoS Computational Biology, 14*(8), e1006191. https://doi.org/10.1371/journal.pcbi.1006191

Theobald, E. J., Hill, M. J., Tran, E., Agrawal, S., Arroyo, E. N., Behling, S., ... Freeman, S. (2020). Active learning narrows achievement gaps for underrepresented students in undergraduate science, technology, engineering, and math. *Proceedings of the National Academy of Sciences, 117*(12), 6476–6483. https://doi.org/10.1073/pnas.1916903117

Wan, X., Perumal, V., & Neo, T. K. (2022). A critical review on the use of montage technique in film and television. In *Proceedings of the 2nd International Conference on Creative Multimedia 2022* (pp. 189–196). Atlantis Press. https://doi.org/10.2991/978-2-494069-57-2_25

Xiang, W., Perumal, V., & Neo, T. K. (2023, February). A critical review on the use of montage technique in film and television. In *Proceedings of the 2nd International Conference on Creative Multimedia 2022*. https://doi.org/10.2991/978-2-494069-57-2_25

http://dx.doi.org/10.24191/jcrinn.v10i2.531

Yen, C. S., & Yang, S. C. (2024). The integration of artificial intelligence and video production skills in workplace development: A study from the perspective of vocational training. *The Review of Socionetwork Strategies, 18*(2), 373–386. https://doi.org/10.1007/s12626-024-00162-6

Zhang, I. Y., Tucker, M. C., & Stigler, J. W. (2022). Watching a hands-on activity improves students' understanding of randomness. *Computers & Education, 186*, 104545. https://doi.org/10.1016/j.compedu.2022.104545

http://dx.doi.org/10.24191/jcrinn.v10i2.531