International Journal of Modern Education
EISSN: 2637-0905
IJMOE
Volume 7 Issue 27 (October 2025) PP. 558-570
DOI: 10.35631/IJMOE.727034

INTERNATIONAL JOURNAL OF MODERN EDUCATION (IJMOE)
www.ijmoe.com

GLOBAL ACADEMIC EXCELLENCE

STUDENT DEVELOPMENT IN CREATIVE MULTIMEDIA IN MALAYSIA

Suguna Olakanathan[1*], Siti Nur Shahira Dahari[2], Rohayu Ahmad[3]

[1] Faculty of Information of Science, Universiti Teknologi MARA (UiTM), Cawangan Johor, Kampus Segamat, 85000 Segamat, Johor, Malaysia
Email: suguna@uitm.edu.my
[2] Faculty of Information of Science, Universiti Teknologi MARA (UiTM), Cawangan Johor, Kampus Segamat, 85000 Segamat, Johor, Malaysia
Email: nurshahira@uitm.edu.my
[3] Faculty of Information of Science, Universiti Teknologi MARA (UiTM), Cawangan Johor, Kampus Segamat, 85000 Segamat, Johor, Malaysia
Email: rohay555@uitm.edu.my
[*] Corresponding Author

Article Info:

Article history:
Received date: 30.07.2025
Revised date: 17.08.2025
Accepted date: 15.09.2025
Published date: 15.10.2025

To cite this document:

Olakanathan, S., Dahari, S. N. S., & Ahmad, R. (2025). Student Development in Creative Multimedia in Malaysia. *International Journal of Modern Education, 7* (27), 558-570.

DOI: 10.35631/IJMOE.727034

Abstract:

The field of student development in creative multimedia technology is expanding rapidly in Malaysia, driven by national initiatives aimed at integrating digital creativity into the education system. This study examines how government policies, educational reforms, and institutional practices contribute to the development of students' creative multimedia skills within the Malaysian context. Employing an empirical content analysis method, relevant policy documents, curriculum frameworks, and institutional reports were systematically reviewed and analysed using NVivo-based clustering techniques. The findings reveal that strategic government initiatives, curriculum reforms, and specialised institutions have collectively strengthened students' creative problem-solving skills and technological competencies. The results also highlight the importance of aligning policies with classroom practices to ensure effective integration of multimedia technologies in education. The study concludes that sustained policy support and curriculum innovation are crucial for enhancing students' skills in creative multimedia. Future research should assess the effects of multimedia strategies on student engagement, attitudes, and competency development. Embracing these approaches can lead to a more comprehensive understanding of their benefits in educational settings.

International Journal of Modern Education
IJMOE
EISSN: 2637-0905
Volume 7 Issue 27 (October 2025) PP. 558-570
DOI: 10.35631/IJMOE.727034

Keywords:

Creative Multimedia, Student Development, Technology, Malaysia, Education Policy

Introduction

Student development in creative multimedia technology is growing rapidly. Malaysia is actively promoting the integration of creative multimedia into its educational system to equip students for the digital economy. The Ministry of Communications and Multimedia has proactively developed the Communication & Multimedia Blueprint 2018-2025 to strengthen and elevate the Malaysian communications and multimedia industry as a frontrunner in the region (Ministry of Communications and Multimedia, 2018). This initiative aligns with the Malaysia Education Blueprint 2013–2025, which emphasises the significance of ICT proficiency and creative thinking skills among students. Its goal is to prepare students with the essential competencies needed to succeed in the digital era and make meaningful contributions to the workforce. Through the integration of coding into the curriculum, students will enhance their problem-solving skills, logical reasoning, and creativity, key attributes for thriving in the 21st century. A previous study by Dahlan et al. (2024) suggests that interactive video learning has a significant positive impact on higher education in Malaysia. Interactive video is a key element of creative multimedia, which involves combining various multimedia components, including text such as alphabetic or numeric symbols, images, audio, video, and animations (Abdulrahman et al., 2020; Guan et al., 2018). The incorporation of technology in education has undergone significant improvement. Multimedia University (MMU) offers specialised programs in creative multimedia, providing students with a comprehensive education that combines artistic creativity with technological proficiency (Multimedia University, 2024). The Ministry of Education Malaysia (MOE) has introduced coding and computational thinking at the primary school level (Ministry of Education Malaysia, 2019). Moreover, the development of student skills in technology and creative multimedia in Malaysia is a testament to the country's commitment to fostering a digitally competent and creative workforce. Three (3) strategies help foster creative multimedia-minded students. First, strategic government policies. Second, educational reforms. The third step involves the establishment of specialized institutions. Malaysia is well on its way to achieving its vision of becoming a leader in the global digital economy. Despite these efforts, challenges persist in ensuring that students fully develop creative and technological skills through multimedia education. These efforts can help students move forward with the evolution of digital technologies. The rapid evolution of digital technologies requires continuous curriculum updates and effective teaching methods to keep pace with industry demands. Apart from that, there is a need for stronger linkages between government policies, institutional practices, and real-world applications to ensure students gain not only theoretical knowledge but also hands-on experience and creative problem-solving abilities. While previous studies (Dahlan et al., 2024; Abdulrahman et al., 2020; Guan et al., 2018) have shown that interactive multimedia tools positively impact student learning, there is limited empirical research focusing specifically on how Malaysia's government policies, curriculum reforms, and industry collaborations collectively influence student development in creative multimedia technology. Additionally, there is a lack of studies assessing how these initiatives translate into improved multiple intelligences, skills, and workforce readiness. Through an empirical content analysis approach, this research seeks to reveal the educational practices that effectively foster student growth in creative multimedia programs, helping

International Journal of Modern Education
IJMOE
EISSN: 2637-0905
Volume 7 Issue 27 (October 2025) PP. 558-570
DOI: 10.35631/IJMOE.727034

Malaysia achieve its vision of becoming a leader in the global digital economy. This study, through empirical content analysis supported by NVivo clustering, seeks to fill this gap by identifying educational practices that effectively foster student growth in creative multimedia programs, thereby supporting Malaysia's vision of becoming a global digital economy leader.

Research Questions

1. How do government policies and initiatives, such as MyDIGITAL and the Malaysia Digital Economy Blueprint, foster the development of creative multimedia education in Malaysia?
2. In what ways do curriculum reforms contribute to enhancing students' multiple intelligences and technological skills?
3. How do institutional practices, particularly project-based learning and industry collaborations, influence student learning outcomes in creative multimedia education?

Research Objectives

1. To examine the role of government policies and initiatives (e.g., MyDIGITAL, Malaysia Digital Economy Blueprint) in fostering creative multimedia education.
2. To evaluate the extent to which curriculum reforms enhance students' multiple intelligences and technological skills.
3. To assess how institutional practices, such as project-based learning and industry collaborations, improve student learning outcomes in creative multimedia education.

Literature Review

Student development in creative multimedia in Malaysia is growing rapidly, indicating that the country is committed to integrating all digital creativity into educational and economic systems. Educational theories, government initiatives, academic reforms, industry partnerships, and the adoption of cutting-edge technology all contributed to this progress. This paper argues that these comprehensive initiatives are significantly enhancing the progress of student development in creative multimedia in Malaysia. As Malaysia moves closer to achieving this goal, it is essential to highlight the importance of the Communications and Multimedia (C&M) sector as a key driver in seizing new economic prospects and advancing Malaysia's evolution into a fully connected, well-informed, and digital society (Ministry of Communications and Multimedia, 2018).

Constructivist Learning Theory

Constructivist learning theory, as proposed by Piaget and Vygotsky, posits that learners construct knowledge through their experiences and subsequent reflections (Piaget, 1952; Vygotsky, 1978). What is the concept of constructivism? According to Hein (1991), it suggests that learners create their understanding and knowledge as they learn. Each learner constructs meaning individually and socially during the learning process. Learning is essentially the process of constructing meaning, with no other form of learning. This perspective has two major effects. When considering learning, the learner should be prioritized over the content or lesson. Second, knowledge is constructed by learners and is not separate from the meaning they assign to their experiences. Students actively participate in their learning process within the constructivist model. This approach allows for the successful expansion and exploration of this perspective (Bada, 2015). When applied to creative multimedia, this theory underscores the importance of students learning through hands-on projects that foster critical thinking, problem-solving, and collaboration. According to constructivist theory, the primary emphasis is placed on the learner throughout the learning process (Suhendi, 2018). Conversely, social

International Journal of Modern Education
EISSN: 2637-0905
IJMOE
Volume 7 Issue 27 (October 2025) PP. 558-570
DOI: 10.35631/IJMOE.727034
learning theory highlights the role of the instructor as a guide and role model, with learners acquiring knowledge by observing and engaging in social interactions. Both theories stress the significance of social interaction and interpersonal relationships, particularly within adult learning and vocational training contexts (Chuang, 2021). Together, constructivist and social constructivist perspectives provide a strong theoretical foundation for understanding how multimedia learning environments can enhance student development.

Multiple Intelligences Theory

Howard Gardner's theory of multiple intelligences suggests that people have various types of intelligences, including visual-spatial and logical-mathematical intelligences, which are highly relevant in creative multimedia (Gardner, 1983). Summary of Gardner's Multiple Intelligences includes verbal-linguistic intelligence, which involves strong verbal skills and an awareness of the sounds, meanings, and rhythms of words (Northern Illinois University Center for Innovative Teaching and Learning, 2020). Based on the study, Gardner (2013) argues that no matter what kind of subject is being taught, whether it be the arts, sciences, history, or math, it is important to present learning materials in various forms. In addition to discussing personalising instruction, Gardner also explored topics related to creativity and offered examples of how individuals have cultivated their creative abilities using the various intelligences he identified (Morgan, 2021). Another crucial element related to creativity is its distinction from intelligence. Psychologists typically view individuals with creative potential as those who engage in divergent thinking. Conversely, intelligent individuals are often considered those who think more narrowly. While intelligence is associated with creativity, it is possible for someone to be highly intelligent but lack impressive creative abilities, or vice versa (Morgan, 2021; Gardner, 2011c). Robust theoretical frameworks and significant government and institutional efforts underpin student development in creative multimedia in Malaysia. The constructivist and experiential learning theories, alongside Gardner's multiple intelligences theory, provide a solid foundation for understanding the educational strategies employed. Integrating Gardner's framework into multimedia education in the Malaysian context nurtures students' diverse learning strengths, thereby enhancing both creative and cognitive growth.

Research Methodology

Conceptual Framework

Developing student competencies in creative multimedia is crucial for Malaysia’s aspiration to build a digitally skilled workforce. Constructivist learning theory and multiple intelligences theory form the foundation of this study's conceptual framework. Constructivist learning theory and multiple intelligences theory form the foundation of this study's conceptual framework. Multiple Intelligences Theory complements this perspective by recognizing that diverse talents such as visual-spatial, logical-mathematical, and linguistic intelligences can be cultivated through multimedia-based education. As illustrated in Figure 1, the framework identifies three independent variables (IVs), such as government policies and initiatives, educational reforms, and institutional practices, that collectively influence the dependent variable (DV), which is student development in creative multimedia. The model assumes that policies set the strategic direction, reforms establish a supportive curriculum, and institutions operationalise these efforts through teaching practices, thereby enhancing student outcomes in creativity, problem-solving, and technological proficiency.

International Journal of Modern Education
EISSN: 2637-0905
Volume 7 Issue 27 (October 2025) PP. 558-570
DOI: 10.35631/IJMOE.727034

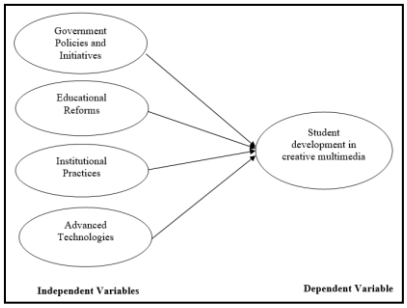

Figure 1: Conceptual Framework of the Study

Source: Author's Own Work

Research Design

This study employed a qualitative content analysis approach to examine how policies, reforms, and institutional practices contribute to student development in creative multimedia. Content analysis was chosen because it enables the systematic coding and interpretation of textual data, allowing patterns and themes to emerge. NVivo software was used to cluster data and generate insights across documents.

Sample

The study analysed a total of 18 documents published between 2013 and 2024, including government blueprints, institutional reports, and academic publications. These were selected for their relevance to creative multimedia education in Malaysia.

Table 1: Sources of Data for Content Analysis

Category	Documents Analysed
Government Policies & Initiatives	Malaysia Digital Economy Blueprint (2021); MyDIGITAL Blueprint; Malaysia Education Blueprint 2013–2025; 12th Malaysia Plan (2021–2025); MDEC Annual Reports
Educational Reforms	Malaysia Education Blueprint 2015–2025 (Higher Education); Ministry of Education curriculum guidelines; Northern Illinois University CITL Framework (2020)
Institutional Reports	Multimedia University Strategic Plan (2020–2024); Universiti Tunku Abdul Rahman Institutional Report (2022); Taylor's University Curriculum Reform Report (2021)
Industry & Media Sources	Star Media Group Reports (2023, 2024); Digital News Asia (2013); Metro News (2024); New Straits Times (2024)
Academic Studies	Neo (2003); Siew et al. (2022); Abdulrahman et al. (2020); Guan et al. (2018); Dahlan et al. (2024)

Government Policies and Initiatives

The aim of the Malaysia Digital Economy Blueprint (MyDIGITAL) is to transform Malaysia into a digitally driven nation by 2030, emphasizing the development of digital skills and creative multimedia competencies among students (Economic Planning Unit, Prime Minister's Department, 2021). MyDIGITAL Corporation (MyDIGITAL) is confident that all 58 initiatives outlined in the Malaysian Digital Economy Blueprint (RTEDM) for the first phase (2021 to 2022) will be completed by the end of the year (Bernama, 2024). Additionally, he highlighted that Malaysia Digital Economy Corporation (MDEC) is dedicated to implementing 200 Malaysian Intellectual Properties (IPs) and maintaining an eight percent export growth rate

International Journal of Modern Education
IJMOE
EISSN: 2637-0905
Volume 7 Issue 27 (October 2025) PP. 558-570
DOI: 10.35631/IJMOE.727034
from 2021 to 2025 as part of the MyDigital Blueprint and the 12th Malaysia Plan (12MP). The MADANI Government has reiterated its support for industry players. It will drive the nation's digital initiatives to support industry growth, which is crucial for fostering the next generation of industries and workforce, as well as enhancing and future-proofing the digital ecosystem (Bernama, 2024). Since the early 2000s, the Malaysian Dasar Industri Kreatif Negara (DIKN: National Creative Industry Policy) has recognized the creative industries as a key area of focus, aligning with the objectives of Vision 2020. In early 2021, the government launched MyDIGITAL and the Malaysia Digital Economy Blueprint, initiatives aimed at positioning Malaysia as a high-income nation propelled by technological advancement and digitalisation (Fleming, 2021). Government policies highlighted the significant role in shaping creative multimedia education. Malaysia Digital Economy Blueprint (MyDIGITAL) is a driving force behind the integration of digital skills and multimedia competencies in the education system. Educators and policymakers noted that these initiatives have increased funding and resources for creative multimedia programs. Given these findings, government policies and initiatives are considered an important factor in determining student development in creative multimedia. Industry is also one of the outcomes based on the word cloud result that addresses the shortage of workers in the creative industry. Anima Vitae and Circle Studio, a Malaysian animation studio, announced at the conference that they have established an animation apprenticeship program to bridge the fundamental skill gap among Malaysian talent and cultivate a workforce that is industry-ready for the creative sector (News Straits Times, 2024).

Educational Reforms

The Malaysia Education Blueprint 2013 to 2025 emphasizes the need to cultivate a range of talents and intelligences, in line with Gardner's Multiple Intelligences Theory (Ministry of Education Malaysia, 2013). This philosophy is reflected in the incorporation of visual arts, music, and technology into the educational curriculum. Representatives from partner institutions such as Tunku Abdul Rahman University College, Taylor's University College, International Islamic University Malaysia, and Multimedia University (MMU) will present research on various facets of the creative industry aimed at enhancing educational quality (New Straits Times, 2024). MMU's President and CEO, Prof. Datuk Dr. Mazliham Mohd Su'ud, reaffirmed the university's commitment to equipping students with training in cutting-edge digital technologies. He noted ongoing enhancements in MMU's artificial intelligence (AI) and creative multimedia programs, as well as the integration of emerging technologies into the curriculum. Additionally, he highlighted that MMU's vibrant ecosystem fosters collaboration, innovation, and entrepreneurial spirit (Chua, 2024).

Institutional Reports

One of the renowned universities, Multimedia University (MMU), offers specialised programs that cater to multiple intelligences, such as spatial and logical-mathematical, through project-based learning and industry collaborations (Multimedia University, 2024). Curriculum and teaching strategies in Malaysia's higher education are being modernised to incorporate key elements such as experiential learning, adaptable and dynamic course structures, and the promotion of lifelong learning. These reforms are designed to equip graduates with the competencies needed for future challenges. Students can experience future challenges through real-world practices in specific institutions before entering the real working world. This experience will motivate students to perform better. Additionally, students are being trained with enhanced skill sets to effectively engage with opportunities in the gig economy. E-learning, as a prominent technological advancement, supports ongoing education and demands

International Journal of Modern Education
EISSN: 2637-0905
IJMOE
Volume 7 Issue 27 (October 2025) PP. 558-570
DOI: 10.35631/IJMOE.727034
a strong foundation in digital literacy. The Malaysia Education Blueprint 2015–2025 (Higher Education) points to digital literacy, critical thinking, and problem-solving as essential competencies for thriving in the era of the Fourth Industrial Revolution (IR4.0) (Malaysian Investment Development Authority (MIDA), 2021). Prof. Datuk Dr. Mazliham Mohd Su'ud, President and CEO of Multimedia University (MMU), highlighted that students benefit from direct engagement with industry experts through guest lectures, site visits, and the innovative Final Year Project (FYP), which involves collaboration with industry partners on research initiatives. This hands-on approach ensures that MMU graduates are not only academically grounded but also industry-ready upon graduation (Chua, 2024).

Industry & Media Sources

The integration of advanced technologies such as virtual reality (VR) and augmented reality (AR) has been recognised as a key contributor to the enhancement of creative multimedia education. These technologies offer immersive learning experiences that particularly support the development of spatial intelligence. In response to the COVID-19 pandemic, higher education institutions in Malaysia accelerated the implementation of e-learning strategies, with a strong emphasis on Open and Distance Learning (ODL). ODL has gained popularity as a means of delivering quality education while promoting lifelong learning, offering flexible study options, and providing a supportive environment for diverse learner groups, including school leavers, university students, and working professionals. MIDA encourages investment in high-value, knowledge-intensive technologies to foster an engaging and effective lifelong learning ecosystem in Malaysia. There are two (2) collaborative initiatives launched to enhance collaboration among academia, industry, government, and communities. There were two (2) collaborations with the Collaborative Research in Engineering, Science, and Technology Centre, known as CREST, which was established in 2012. Another was the Public-Private Research Network, known as PPRN, which was launched in 2014. The initiative aims to commercialise an innovative concept. Additionally, the initiative seeks to address the expertise gap between educational institutions and the industry (MIDA, 2021). Augmented reality (AR) and virtual reality (VR) are experiencing growth in the Malaysian market through applications in gaming, education, training, and healthcare. The widespread adoption of these technologies is impeded by a general lack of awareness and understanding among consumers. Despite their transformative potential in creating immersive experiences across sectors, consumers continue to lack awareness and understanding. The existing knowledge gap continues to pose a significant barrier to growth (6Wresearch,2024).

Instrument

The research instrument consisted of a coding scheme developed to capture key dimensions of each variable. First, the research instrument examined government policies and initiatives, which included strategic goals, skills emphasis, and digital economy priorities. Second, educational reforms (curriculum integration of ICT, multiple intelligences, creative pedagogy). Third, institutional practices (project-based learning, industry collaborations, experiential learning). Lastly, student development (DV) (creativity, problem-solving, digital literacy, competency growth). The coding categories were adapted from prior studies (Siew et al., 2022; Neo, 2003) and aligned with international education frameworks. NVivo was used to code the documents according to these categories and identify recurring patterns.

International Journal of Modern Education
EISSN: 2637-0905
Volume 7 Issue 27 (October 2025) PP. 558-570
DOI: 10.35631/IJMOE.727034

Result

The results are drawn from document analysis of government policies, institutional reports, and education blueprints, complemented by NVivo-assisted clustering of key themes.

Figure 2: NVivo Word Cloud Analysis of Government Policies and Initiatives

Source: Author's Own Work

This study examines the impact of government policies and initiatives on creative multimedia education. The analysis indicates that government policies such as the Malaysia Digital Economy Blueprint (MyDIGITAL) and the National Creative Industry Policy (DIKN) play a central role in shaping creative multimedia education. These initiatives provided greater funding, resources, and structural support for integrating digital and multimedia competencies into the education system. Educators and policymakers highlighted that MyDIGITAL has accelerated the inclusion of digital skills in curricula, while agencies such as the Malaysia Digital Economy Corporation (MDEC) continue to facilitate industry-academia collaboration. For instance, the 2022 SEA Digital Creative Content Industry Talent Research Report outlined strategic opportunities for talent development and industry partnerships. An overview of the report, Mohan Low, MDEC's director of digital creative content, stated that the report highlights the strategic opportunity for consolidation, mergers, acquisitions, and partnerships among Southeast Asia's diverse, smaller-scale businesses to collectively grow in the digital economy. Industry is also one of the outcomes based on the word cloud result that addresses the shortage of workers in the creative industry. Anima Vitae and Circle Studio, a Malaysian animation studio, announced at the conference that they have established an animation apprenticeship program to bridge the fundamental skill gap among Malaysian talent and cultivate a workforce that is industry-ready for the creative sector (News Straits Times, 2024). Government policies and initiatives are crucial for students' development in creative multimedia. Word cloud analysis further emphasised "industry," "digital skills," and "innovation" as dominant themes, confirming that policy initiatives are perceived as enablers of student development in creative multimedia.

Figure 3: NVivo Word Cloud Analysis of Educational Reforms

Source: Author's Own Work

International Journal of Modern Education
EISSN: 2637-0905
IJMOE
Volume 7 Issue 27 (October 2025) PP. 558-570
DOI: 10.35631/IJMOE.727034

The role of educational reforms in fostering diverse intelligences and skills. Findings show that the Malaysia Education Blueprint 2013 to 2025 has been instrumental in embedding creative subjects such as visual arts, music, and technology into school curricula. This aligns with Gardner's Multiple Intelligences Theory, which stresses the cultivation of diverse talents. For example, schools and universities now encourage portfolio-based assessments, where students showcase projects in animation, design, and digital media. This reflects reforms emphasising creative, cultural, and technological skills. Statements by cultural leaders, such as Datuk Kamil Othman of FINAS, further emphasize how important it is to provide students with broad creative platforms through film, music, and audiovisual clubs. Apart from that, UTAR Faculty of Creative Industries (FCI) dean David Tneh Cheng Eng noted that parents' attitudes towards the creative industries have shifted due to the growing interest in the field and the Malaysian government's National Creative Industry Policy Quick Wins (Dasar Industri Kreatif Negara) initiative in 2022 (Star Media Group Berhad, 2023). The curriculum also focuses on developing various skills, including cultural intelligence. Word cloud analysis reinforced this by clustering terms such as "creativity," "skills," and "knowledge." Empirical studies (e.g., Siew et al., 2022) also support the finding that project-based multimedia learning enhances motivation and positive student attitudes.

Figure 4: NVivo Word Cloud Analysis of Institutional Practices

Source: Author's Own Work

Institutional practices that support project-based and industry-linked learning. Institutional practices in Malaysian higher education emphasise project-based learning and industry partnerships as mechanisms to bridge theory and practice. The Faculty of Creative Industries (FCI) is particularly renowned as a top choice for individuals aspiring to pursue careers in the creative field (En, 2024). The rise of e-learning in higher education presents substantial business opportunities for technology providers. For example, Multimedia University (MMU) and Universiti Tunku Abdul Rahman (UTAR) are recognized for strong industry linkages, where students engage in live projects, studio visits, and apprenticeships. Reports confirm that these practices equip students with workforce-ready skills, particularly in game development, animation, and graphic design. Institutions are also embedding skills linked to Industry 4.0, including immersive technologies and mobile media. Programs like digital animation, game development, game design, and graphic design are encouraged to create portfolios, which are reviewed by industry professionals. Through student attachments, studio visits, live projects, competition wins, and alumni sharing their experiences, new students are encouraged to explore opportunities in the creative industries. Word cloud results clustered around "projects," "collaboration," "creative", and "industry," reflecting the strong emphasis on experiential learning and partnerships. These findings reinforce the role of institutional reforms in cultivating practice-oriented skills in creative multimedia education.

International Journal of Modern Education
EISSN: 2637-0905
IJMOE
Volume 7 Issue 27 (October 2025) PP. 558-570
DOI: 10.35631/IJMOE.727034

Figure 5: NVivo Word Cloud Analysis of Integration of Advanced Technologies
Source: Author's Own Work

The integration of advanced technologies in creative multimedia education. The incorporation of advanced technologies such as virtual reality (VR) and augmented reality (AR) emerged as a key theme. Higher education has increasingly adopted VR and AR to enhance immersive learning and spatial intelligence, as evidenced by document analysis. During the COVID-19 pandemic, many institutions accelerated e-learning and Open and Distance Learning (ODL), integrating virtual reality (VR) or augmented reality (AR) modules to sustain interactive learning. However, challenges remain in terms of awareness, cost, and access. Collaborative initiatives such as the Collaborative Research in Engineering, Science, and Technology (CREST) and the Public-Private Research Network (PPRN) further support industry-academia collaboration for innovative technology adoption. The widespread adoption of these technologies is impeded by a general lack of awareness and understanding among consumers. Despite their transformative potential in creating immersive experiences across sectors, consumers continue to lack awareness and understanding. Word cloud analysis highlighted "technology" and "innovation" as frequent terms, underscoring their centrality to student development in creative multimedia. The existing knowledge gap continues to pose a significant barrier to growth (6Wresearch,2024).

Discussion

The study highlights four interrelated factors. These are government policies, educational reforms, institutional practices, and advanced technologies, which shape student development in creative multimedia education in Malaysia. Government policies such as MyDIGITAL and DIKN provide structural support and resources, aligning educational goals with national digital economy strategies. This confirms the importance of policy frameworks in guiding curriculum design and talent development. Educational reforms inspired by the Malaysia Education Blueprint 2013–2025 support Gardner's Multiple Intelligences Theory by embedding creative and technological subjects into curricula. These reforms foster students' diverse skills and intelligences, equipping them for multiple career pathways in the creative sector. Institutional practices at leading universities demonstrate the application of constructivist learning theory. Through project-based learning and collaboration, students actively construct knowledge, engage in peer learning, and gain practical exposure. This strengthens their motivation and readiness for the industry. Finally, advanced technologies such as VR and AR enhance spatial intelligence and provide immersive, engaging learning experiences. Their integration reflects both theoretical frameworks. Firstly, it incorporates Constructivism, which fosters interactive, student-centered environments, and secondly, Multiple Intelligences, which fosters the development of technological and spatial abilities. Overall, the findings show that aligning policies, reforms, institutional strategies, and technologies creates a comprehensive ecosystem that fosters creativity, innovation, and digital competency among Malaysian students. This

International Journal of Modern Education
EISSN: 2637-0905
IJMOE
Volume 7 Issue 27 (October 2025) PP. 558-570
DOI: 10.35631/IJMOE.727034
contributes to Malaysia's broader vision of building a creative, future-ready workforce in the digital economy.

Future Research

While this study provides valuable insights, several limitations present opportunities for future inquiry. The reliance on content analysis and publicly available documents means that the results primarily reflect policy intentions and institutional narratives, rather than direct learner experiences. Future research should therefore conduct empirical investigations involving students, educators, and industry professionals to capture lived experiences, perceptions, and competency outcomes of multimedia education. Conduct comparative studies with countries that have developed advanced creative multimedia ecosystems to identify best practices and policy models that are adaptable to the Malaysian context. Explore longitudinal impacts of policies and technologies by tracking student skill development, career progression, and industry engagement over time. Investigate cultural and contextual influences on the adoption of creative multimedia education across different regions in Malaysia, exploring how cultural diversity shapes learning preferences and outcomes. Addressing these areas would enrich the theoretical and practical understanding of creative multimedia education and inform future strategies to strengthen Malaysia's position in the global digital creative landscape.

Funding

This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

Authors' Contribution

Olakanathan. S conceived and planned the experiments. I carried out the experiments and took the lead in writing the manuscript. Other co-authors planned and contributed to the interpretation of the results, provided critical feedback, and helped shape the research, analysis, and manuscript.

Conflict of Interest Declaration

The author(s) must certify that they have No Conflict of Interest in the subject matter or materials discussed in this manuscript. I/We certify that the article is the Authors' and Co-Authors' original work. The article has not received prior publication and is not under consideration for publication elsewhere. This research/manuscript has not been submitted for publication, nor has it been published in whole or in part elsewhere. We testify to the fact that all Authors have contributed significantly to the work, validity, and legitimacy of the data and its interpretation for submission to the International Journal of Modern Education.

Acknowledgements

The authors would like to acknowledge and extend special gratitude to the Global Academic Excellence (M) Sdn Bhd, which granted the Publication Grant Scheme for this project. The researcher expresses gratitude to all the Ministry of Government portals for providing access to policies and blueprints that were instrumental in the development of our work. Additionally, we appreciate the feedback from anonymous referees, which has enhanced the presentation of our work.

International Journal of Modern Education
IJMOE
EISSN: 2637-0905
Volume 7 Issue 27 (October 2025) PP. 558-570
DOI: 10.35631/IJMOE.727034

References

6Wresearch. (2024). Malaysia augmented and virtual reality market (2024–2030) outlook | Size, revenue, companies, trends, analysis, value, forecast, share, growth & industry. 6Wresearch. https://www.6wresearch.com/industry-report/malaysia-augmented-and-virtual-reality-market

Bada, S. O. (2015). Constructivism: A paradigm for teaching and learning. IOSR Journal of Research & Method in Education (IOSR-JRME), 5(6), 66–70. https://doi.org/10.4172/2151-6200.1000200

Bernama. (2024, March 5). MyDIGITAL confident to achieve all 58 RTEDM initiatives by year-end. Ministry of Communications. https://www.bernama.com

Chua, R. (2024, March 10). Shaping the future at MMU. Star Media Group Berhad, 1–10. https://www.thestar.com.my/news/education/2024/03/10/shaping-the-future-at-mmu

Chuang, S. (2021). The applications of constructivist learning theory and social learning theory on adult continuous development. Performance Improvement, 60(3), 6–14. https://doi.org/10.1002/pfi.21963

Dahlan, M. M., Halim, N. S. A., Kamarudin, N. S., Ahmad, F. S. Z., Zainal, H. A. A. M., Hussin, A. A. A., & Yahya, M. F. (2024). Connecting classrooms: Empowering higher education in Malaysia through interactive video learning. International Journal of Religion, 5(1), 110–117. https://doi.org/10.61707/99sj3p10

Malaysian Investment Development Authority. (2021, October 15). Evolution of e-learning in the Malaysian higher education institutions. Bernama Thoughts. https://www.bernama.com/en/thoughts/news.php?id=1928731

Mardhiah, A. (2023, March 15). Making creative arts a main contributing sector. The Malaysian Reserve. https://themalaysianreserve.com/2023/03/15/making-creative-arts-a-main-contributing-sector

Metro News. (2024, March 28). Getting students 'industry-ready' key for university. Star Media Group Berhad, 1–7. https://www.thestar.com.my/metro/metro-news/2024/03/28/getting-students-industry-ready-key-for-university

Ministry of Communications and Multimedia Malaysia. (2018). Communications & multimedia blueprint 2018–2025. https://www.kkmm.gov.my/images/171211_kkmm_blueprint2018_2025.pdf

Ministry of Higher Education Malaysia. (2021). Programme standards: Creative multimedia technology. Malaysian Qualifications Agency. https://doi.org/10.1088/1751-8113/44/8/085201

Morgan, H. (2021). Multiple intelligences theory and his ideas on promoting creativity. In Who's who in creativity research and related fields. ERIC. https://files.eric.ed.gov/fulltext/ED618540.pdf

Multimedia University. (2020). Sustainable development goals report 2020. https://www.mmu.edu.my/wp-content/uploads/2021/10/MMU-SDG-Report-2020.pdf

Neo, T.-K. K. (2003). Using multimedia in a constructivist learning environment in the Malaysian classroom. Australasian Journal of Educational Technology, 19(3), 293–310. https://doi.org/10.14742/ajet.1721

New Straits Times. (2024, February 20). Catalyst for Malaysia's creative content industry. Ministry of Communications. https://www.kkd.gov.my/en/public/news/23151-catalyst-for-malaysia-s-creative-content-industry

Northern Illinois University Center for Innovative Teaching and Learning. (2020). Gardner's theory of multiple intelligences: Instructional guide for university faculty and teaching assistants. https://www.niu.edu/citl/resources/guides/instructional-guide

International Journal of Modern Education
EISSN: 2637-0905
IJMOE
Volume 7 Issue 27 (October 2025) PP. 558-570
DOI: 10.35631/IJMOE.727034
Siew, P. H., Wee, K. P., Beh, H. C., Lew, H. L., & Lim, J. T. (2022). Students' perceptions of multimedia-mediated project-based remote learning environments in the tertiary context. International Journal of Education and Pedagogy, 4(4), 45–58.

Star Media Group Berhad. (2023, April 10). UTAR nurturing creative folks of the future. Star Media Group Berhad. https://www.thestar.com.my/starpicks/2023/04/10/utar-nurturing-creative-folks-of-the-future

Star Media Group Berhad. (2024, February 25). UTAR student art features in UN campaign. Star Media Group Berhad. https://www.thestar.com.my/news/education/2024/02/25/utar-student-art-features-in-un-campaign

Suhendi, A., & Purwarno. (2018). Constructivist learning theory: The contribution to foreign language learning and teaching. KnE Social Sciences, 3(4), 87–95. https://doi.org/10.18502/kss.v3i4.1921

Fleming, T. (2021). Malaysia country overview: Cultural cities profile East Asia. British Council Malaysia. https://www.britishcouncil.my/sites/default/files/malaysia_cultural_cities_profile_malaysia.pdf

Universiti Tunku Abdul Rahman. (2022). UTAR R&D annual report 2021 (Vol. 7, Issue 1). UTAR.

UTAR Education Foundation. (2021). Sharing the development process of a virtual guided tour. UTAR Education Foundation. https://doi.org/10.1007/978-1-4302-4210-9_2