

# COMPARATIVE PATHWAYS TOWARD SUSTAINABLE AND EMPATHETIC CINEMATOGRAPHY EDUCATION IN SOUTHEAST ASIA: INTEGRATING THEORY, PRACTICE, AND HUMAN DEVELOPMENT IN THE CREATIVE MEDIA CURRICULUM

Arif Datoem<sup>1</sup>, Bambang Suhartono Mohd Said<sup>2\*</sup>  
& Lah Wan Yee<sup>3</sup>

<sup>1</sup>Siji Arts Management Jakarta

<sup>2&3</sup> Southern University College, 64888, Jalan Selatan Utama, Johor, Malaysia

\*Corresponding Author: [bambang@sc.edu.my](mailto:bambang@sc.edu.my)

## ABSTRACT

The rapid digitalization of television and broadcasting in Southeast Asia, particularly in Malaysia, has heightened the need for graduates who are technically proficient and creatively adaptable. This paper examines how vocational and degree-level cinematography and television production programs, positioned along a theoretical-practical continuum, prepare students for an evolving media landscape. Vocational programs prioritize immediate industry readiness through intensive technical training, while degree programs emphasize theoretical foundations and gradually integrate practical experience to develop critical thinking and adaptability. The study identifies effective strategies for bridging the gap between academic learning and professional application by drawing on policy analyses, institutional case studies, and industry collaboration models. Central to this analysis is integrating technical competence, creative practice, and passion-building through a holistic and empathetic educational approach. The paper argues that aligning vocational and degree pathways through dual training systems, curriculum co-design, and empathetic pedagogy is vital to cultivating a sustainable, future-ready creative workforce in Malaysia and the broader Southeast Asian region.

**Keywords:** *vocational education; cinematography; television production; industry collaboration; empathetic pedagogy; sustainable creative workforce*

## INTRODUCTION

Over the past two decades, Southeast Asia's television and broadcasting sectors, including Malaysia, have undergone a profound transformation driven by digital technologies, audience fragmentation, and the rapid expansion of multi-platform

content delivery (Setiadi, Afifi, & Suparno, 2021). The proliferation of streaming services, over-the-top (OTT) platforms, and mobile-first viewing habits has disrupted conventional broadcasting models, compelling media organizations to reconfigure production workflows, distribution strategies, and audience engagement methods (Adam et al., 2024). These shifts have not only altered the technological landscape but have also redefined creative processes and industry expectations.

In Malaysia, such transformations have heightened the demand for graduates with advanced technical competencies in cinematography and broadcasting. Employers increasingly prioritize proficiency in digital cinema cameras, drone systems, and complex post-production workflows that incorporate color grading, compositing, and digital effects (Misni, Mahmood, & Jamil, 2020; Halik Bassah & Mohd Asri Mohd Noor, 2023). These evolving skill requirements align with Malaysia's TVET Policy Framework (MOHE, 2023), which emphasizes employability, digital literacy, and innovation as key pillars of workforce development. Beyond technical mastery, the industry increasingly values graduates who demonstrate adaptability, problem-solving, and collaborative creativity, which are essential for navigating high-pressure, fast-paced production environments.

While traditional degree programs in media and communication studies have focused on theoretical and analytical competencies, the region's vocational education and training (VET) prioritizes applied learning and workplace immersion to produce industry-ready professionals (UNESCO-UNEVOC, 2020; Wheelahan & Moodie, 2021). Nevertheless, this dual system reveals an ongoing tension between conceptual depth and operational fluency. A purely theoretical orientation can leave graduates unprepared for the technical realities of production. In contrast, a strict vocational approach may limit the capacity for critical reflection, innovation, and long-term career advancement (Balraj-Ambigapathy, 1997).

The challenge, therefore, lies in aligning educational structures with the evolving realities of the media industry. This alignment demands active collaboration between higher education institutions, vocational training providers, and industry stakeholders to ensure that graduates acquire technical proficiency, cultural literacy, and creative flexibility to meet the demands of contemporary media production (Briggs & Burke, 2018). In Southeast Asia, where globalized media flows intersect with local storytelling traditions and technological innovation, curricular integration is both a strategic and an ethical imperative.

Accordingly, this paper examines the relationship between theoretical and practical orientations in cinematography and television production education, with a primary focus on Malaysia as a case study within the broader Southeast Asian context. Through a comparative analysis of vocational and degree-level programs, supported by policy reviews and institutional case studies, this study aims to contribute to the discourse on

how creative education can best prepare the next generation of media professionals for sustainable, adaptable, and meaningful careers in an increasingly dynamic media ecosystem.

## LITERATURE REVIEW

### **Theoretical–Practical Continuum in Education**

Educational pathways in the creative and media industries can be positioned along a continuum from theoretical to practical orientations (Wheelahan & Moodie, 2011). At one end of this continuum, degree programs often begin with a strong theoretical foundation, emphasizing media history, aesthetics, narrative structure, and ethics, before progressively incorporating applied training through studio practice and internships. Conversely, vocational programs typically start with hands-on skill acquisition in areas such as cinematography, editing, and lighting, with theoretical understanding introduced as a supportive layer to inform and contextualize practice (OECD, 2023).

This distinction reflects two distinct epistemological orientations: universities privilege abstract reasoning and conceptual analysis, while vocational institutions emphasize technical mastery and workplace readiness. As UNESCO-UNEVOC (2020) argues, the contemporary workforce increasingly requires graduates with hybrid skill sets, namely individuals who can combine creative innovation, technical expertise, and conceptual literacy to respond to the fluid demands of digital and innovative economies.

Recent research underscores that education should prepare learners for employment and foster well-being, reflective thinking, and adaptability. Ely-Harper and Rizzo (2024) highlight that effective tertiary education must integrate students' emotional and social development with skill-building processes, such as personal values, mental health, and social behaviors directly influence learning outcomes. Media education requires institutions to maintain robust connections with industry and community partners while fostering creative and ethical awareness among learners.

Goldsmith and O'Regan (2013) extend this discourse by situating film and creative industry education within broader debates on cultural capital and professional identity. They argue that practical expertise in media fields must be legitimized through theoretical framing and critical reflection to achieve professional recognition. If positioned as merely technical, vocational pathways risk marginalization; conversely, academic programs that neglect industry realities risk producing graduates disconnected from professional workflows. Hence, integrating both domains is essential for nurturing graduates who are intellectually grounded and technically agile. In summary, the theoretical–practical continuum is not merely a pedagogical distinction but a reflection of how graduates are socially and professionally positioned. In cinematography and television production education, striking a dynamic balance

between theoretical inquiry and practical execution is crucial for cultivating adaptable professionals who can navigate the industry's creative and technological transformations.

### **Vocational Education in Southeast Asia and Malaysia**

In Southeast Asia, Technical and Vocational Education and Training (TVET) has become a cornerstone of national strategies for workforce development, particularly amid the Fourth Industrial Revolution (IR4.0). The ASEAN framework positions TVET as a driver of regional competitiveness, labor mobility, and skills harmonization across member states (ASEAN, 2016). In Malaysia, the Ministry of Higher Education (MOHE) has prioritized TVET through the TVET Digital Program and related reforms, emphasizing digital literacy, employability, and creative innovation (MOHE, 2023). These initiatives are further supported by the TVET 4.0 Framework (2018–2025), which calls for aligning technical education with technological innovation and industrial transformation.

Empirical studies indicate that Malaysia's TVET system is increasingly integrating industry collaboration and competency-based training (CBT) frameworks to ensure that graduates remain aligned with workforce demands (Abdul Malek, Maziazaman, & Ahmad, 2022). The Academy in Factory (AiF) initiative exemplifies this approach, where industries co-develop curricula, provide on-site training, and participate in certification processes to enhance graduate employability (Jamaludin et al., 2023). However, challenges persist: the Malaysian Qualifications Framework (MQF) maintains structural distinctions between technical and higher education pathways, limiting vertical mobility for vocational graduates seeking managerial or creative leadership roles. This stratification risks perpetuating a divide where vocational education is undervalued relative to university degrees (Gill, 2019).

Thus, Malaysia's policy trajectory highlights the importance of enhancing technical proficiency and integrating creative, reflective, and transferable competencies to equip graduates for leadership and innovation in the media sector.

### **Fresh Graduate Transition Challenges**

The transition from education to employment remains one of the most significant challenges in the creative industries worldwide. Southeast Asian employers frequently report skill mismatches among fresh graduates, particularly in technical fluency, creative problem-solving, and adaptability (Ahmad Tajuddin et al., 2022). In cinematography and broadcasting, vocational graduates may excel in technical execution but often lack a theoretical foundation or aesthetic awareness. In contrast, graduates typically possess analytical and storytelling skills but frequently struggle with the operational demands of production environments (Baroy, 2023).

Hager and Holland (2006) conceptualize this challenge as "capability," which transcends mere competence by integrating judgment, adaptability, and contextual

understanding. In creative media education, capability entails synthesizing technical, aesthetic, and interpersonal dimensions under real-world conditions. Goldsmith, Ward, and O'Regan (2010) similarly emphasize that sustainable careers in the creative industries depend on individuals' capacity to innovate, respond to uncertainty, and learn continuously across evolving technological landscapes.

In Malaysia, these challenges are compounded by industry-specific expectations and structural factors. Many production houses report that graduates require extensive on-the-job training before they can make productive contributions to production pipelines, thereby imposing additional costs on employers (Ahmad Tajuddin et al., 2022). At the same time, the growth of the creative economy has intensified the demand for workers who are not only technically competent but also capable of creative collaboration and adaptive learning. As Akter Farhana (Akter, F. et al., 2024) notes, bridging this gap necessitates systemic reforms that foster sustained cooperation between industry and academia, ensuring that graduates are prepared for lifelong professional development rather than short-term employment.

## **CONCEPTUAL FRAMEWORK**

### **Rationale and Orientation**

This study begins with the premise that the divide between vocational and degree-level cinematography education extends far beyond differences in curricular content. It is a structural and epistemological divide that reflects contrasting worldviews about how knowledge and professional competence are formed. Vocational education frames learning as a process of technical mastery and immediate employability, emphasizing the application of skills in real-world contexts. In contrast, degree-level programs often position learning within a broader theoretical and critical framework, prioritizing analysis, creativity, and reflective thinking as the foundations of long-term professional adaptability. As Hager and Holland (2006) and Wheelahan (2010) observe, such divergence raises more profound questions about what constitutes legitimate knowledge in professional education, whether it lies in the "know-how" of practice or the "know-why" of theory.

To bridge these epistemic distinctions, this research employed the theoretical–practical continuum as its central analytical lens, conceptualizing cinematography education as a dynamic and reciprocal process. Instead of positioning theory and practice as separate or hierarchical domains, the continuum treats them as interdependent dimensions of professional formation. Within this framework, theory informs the intentionality and creativity behind technical acts, while practice grounds theoretical reflection in lived experience and problem-solving. This dual movement transforms learning into an iterative cycle of doing, reflecting, and reimagining, which is essential for nurturing professionals who can adapt to evolving technologies and shifting cultural landscapes in Southeast Asia's fast-changing media industries.

The framework posits that neither end of this continuum is sufficient in isolation. Vocational programs provide immediate employability through technical specialization, while degree programs nurture reflective, analytical, and innovative capacities. Bridging these pathways requires institutional collaboration and pedagogical innovation, enabling learners to develop both operational fluency and critical awareness. Within the creative industries, such integration is crucial for producing professionals who can execute technical tasks, make aesthetic judgments, and exhibit adaptive creativity in rapidly changing production environments.

### **The Theoretical–Practical Continuum**

At the heart of this framework lies the Theoretical–Practical Continuum (Figure 1), which positions educational programs in cinematography and broadcasting along two interrelated dimensions: epistemic orientation, referring to the balance between conceptual understanding and technical mastery, and pedagogical approach, concerning the sequencing of theoretical and practical experiences throughout the curriculum. Within this continuum, degree programs follow a theory-first trajectory, beginning with critical, historical, and aesthetic perspectives before progressing toward applied production practices. Conversely, vocational programs typically adopt a practice-first model, emphasizing hands-on technical training in camera operation, lighting, and editing, followed by reflective learning that situates these skills within broader creative and ethical contexts.

Both approaches hold distinct strengths: degree programs foster analytical depth and long-term adaptability, while vocational education accelerates immediate workplace readiness. However, the central challenge lies in integrating these pathways through shared learning outcomes, mutual recognition mechanisms, and industry collaboration frameworks that bridge the epistemic and practical divide (UNESCO-UNEVOC, 2020). By situating vocational and academic programs along this continuum, the framework facilitates comparative analysis at multiple levels: curricular design, graduate preparedness, and institutional responsiveness to industry demands. This positioning highlights both complementarities and structural gaps, guiding the development of hybridized educational models that align theory and practice, cultivate sustainable professional growth, and prepare graduates for the dynamic realities of Southeast Asia's creative industries.

### **Integrative Pathways and Holistic Competence**

The framework extends the theoretical–practical continuum by introducing holistic competence as a mediating construct that bridges the gap between theory and practice. Holistic competence represents an integrated synthesis of three interdependent capacities: technical capability, cognitive adaptability, and emotional intelligence. Technical capability refers to mastery of production tools, workflows, and emerging technologies. They form the core elements that ensure professional

competence in cinematography and broadcasting. Cognitive adaptability encompasses critical thinking, creative problem-solving, and the synthesis of interdisciplinary knowledge to respond effectively to changing production contexts. Emotional intelligence (EI), as articulated by Mayer, Caruso, and Salovey (2016), involves empathy, collaboration, and ethical awareness, qualities essential to teamwork, leadership, and sustained creativity in high-pressure media environments.

By weaving these dimensions together, education is transformed from a narrow, skill-based acquisition process into a broader, whole-person development process (Blaschke, 2012). In this regard, the holistic and empathetic approach becomes not a supplementary ideal but a foundational pedagogical principle, aligning emotional awareness with technical and intellectual capability. Such integration nurtures technically proficient graduates who are emotionally attuned, ethically grounded, and socially responsive. These qualities are indispensable for sustaining industry innovation and community well-being, reinforcing the notion that human-centered education underpins the long-term sustainability of the creative sector (Knowles, Holton, & Swanson, 2015).

### **Analytical Use of the Framework**

This framework serves as an analytical lens for understanding how various educational pathways impact graduate readiness in cinematography and television production. It provides a structured framework for evaluating how various program types, namely vocational and degree-based, prepare students to navigate an increasingly complex and technology-driven media landscape. The framework focuses on three key dimensions of inquiry: curricular orientation, graduate profile, and industry alignment. The first dimension, curricular orientation, examines how programs balance conceptual understanding with technical proficiency, sequencing theory and practice to respond to evolving industry demands. The second, graduate profile, assesses differences in workplace readiness, adaptability, and long-term career mobility between vocational and academic graduates. The third, industry alignment, explores the depth and quality of institutional partnerships with media organizations, emphasizing how collaborative curriculum design and professional engagement ensure curricular relevance and foster innovation.

By mapping programs along these dimensions, the framework enables a comparative analysis of their strengths, limitations, and areas of complementarity. It reveals that neither vocational nor degree-level education alone can fully meet the demands of today's creative industries without intentional integration. Thus, the model underscores the importance of innovative bridging mechanisms, including dual training systems, curriculum co-design, and capstone projects, that connect theoretical learning with authentic production contexts. These mechanisms help narrow the academic–industry divide, producing graduates who are technically proficient, conceptually agile, and

empathetically grounded. These are essential qualities for sustaining creativity, collaboration, and professional growth in a dynamic digital era.

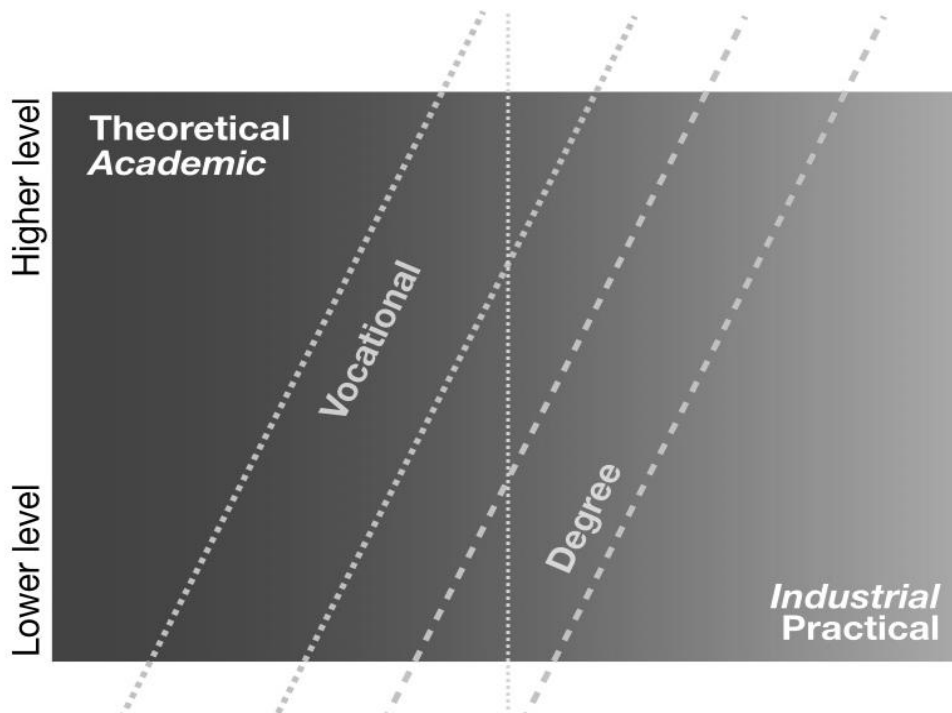


Figure 1: Theoretical-Practical Continuum in Cinematography and Television Education

## METHODOLOGY

### Research Design

This study employs a comparative qualitative design to examine how vocational and degree-level cinematography and television production programs in Southeast Asia, particularly Malaysia, Indonesia, Thailand, and Singapore, bridge the gap between education and industry. The approach combines policy analysis, document review, and institutional case studies to capture variations in curricular structure, pedagogical strategy, and industry collaboration.

A comparative qualitative framework was selected because it allows for a deep understanding of contextual nuances across national systems while highlighting transferable mechanisms for reform (Creswell & Poth, 2018). The study seeks not to generalize statistically but to interpret the relational dynamics between theory and practice, empathy and employability, and education and sustainability.

### Data Sources

Documents were selected based on three criteria: (1) official national policy relevance to media or TVET education, (2) institutional authority and credibility, and (3) direct linkage to curriculum implementation in cinematography and television production. The selected documents were analyzed using thematic analysis and subsequently compared across national contexts to identify convergent and divergent educational pathways.

The first source comprised policy and regulatory documents, including Malaysia's TVET Policy Framework (MOHE, 2023), Indonesia's Merdeka Belajar – Kampus Merdeka (MBKM) guidelines (Ministry of Education & Culture Indonesia, 2021), Thailand's Dual Vocational Training (DVT) framework (NBTC, 2021), and Singapore's SkillsFuture Initiative (SkillsFuture Singapore, 2021). These documents provided the foundation for analyzing how national education policies align with regional goals for employability, innovation, and sustainable development of the creative industry.

The second data source consisted of institutional documents and curricula obtained from selected universities and vocational institutions, including Universiti Teknologi MARA (UiTM), Multimedia University (MMU), the Polytechnic of Creative Media (Polimedia), Bangkok University, and Ngee Ann Polytechnic. These institutions were purposively selected as flagship or policy-linked providers of cinematography and media education within their respective national systems. Each plays a significant role in implementing or exemplifying contemporary education–industry reforms, such as Malaysia's TVET Policy Framework, Indonesia's Merdeka Belajar–Kampus Merdeka initiative, Thailand's industry-regulated media education model, and Singapore's SkillsFuture ecosystem.

The selected materials, comprising course syllabi, academic calendars, partnership agreements, and graduate competency frameworks, enabled comparative analysis of curricular design, pedagogical orientation, and modes of industry engagement across vocational and degree pathways. Complementing these institutional sources, scholarly and industry publications, including peer-reviewed journal articles, conference papers, and professional reports, were reviewed to situate institutional practices within broader regional and sectoral trends. This purposive, comparative sampling strategy supports analytical generalization, allowing insights into how different systems operationalize the integration of theory, practice, and employability within creative media education.

All data sources were validated through institutional repositories, official government portals, and reputable international databases, including UNESCO-UNEVOC, the ASEAN Secretariat, and OECD publications, to ensure the reliability and credibility of the study's analytical foundation.

## **Analytical Procedure**

The analytical process unfolded in three sequential and iterative stages to ensure conceptual rigor and contextual sensitivity. The first stage involved thematic coding to identify recurring themes across all data sources. These themes, including curricular orientation, industry engagement, capstone implementation, and empathetic pedagogy, were derived deductively from the study's conceptual framework and subsequently refined inductively based on patterns emerging from the data. This dual approach enabled the researcher to link theoretical constructs to empirical observations in a grounded, systematic manner.

In the second stage, comparative mapping was conducted to position each country's cinematography and television education system along the theoretical–practical continuum. This mapping process made visible the different ways institutions balance technical proficiency with conceptual understanding, as well as the extent of their industry collaboration and responsiveness to technological change.

The final stage focused on integration and interpretation. Findings were synthesized to identify the key bridging mechanisms, namely, dual training, curriculum co-design, capstone projects, and holistic empathetic approaches, and to evaluate their implications for sustainable creative workforce development. Through this iterative analysis, the study recognized cross-national patterns while remaining attentive to the unique cultural, institutional, and policy contexts that shape each country's educational landscape.

### **Validity and Reliability**

To enhance the credibility of this study, multiple data sources were rigorously triangulated to ensure consistency and coherence across policy documents, institutional reports, and scholarly analyses. This triangulation validated the accuracy of individual findings and allowed for a more nuanced understanding of how educational frameworks operate in practice. Each policy or institutional document was cross-referenced with secondary literature and supported by regional data from ASEAN and UNESCO-UNEVOC to verify its alignment with current trends in vocational and higher education reform. Furthermore, peer debriefing sessions with academic colleagues and cross-checking with recent ASEAN education and TVET reports were conducted to strengthen interpretive validity and mitigate potential researcher bias. This process ensured that interpretations remained grounded in verifiable evidence rather than subjective inference.

Reliability was addressed through meticulous documentation of all data collection and analysis stages. Detailed records of document sources, coding frameworks, and interpretive decisions were maintained to allow for potential replication or future follow-up studies. Coding consistency was reviewed at multiple stages to ensure analytical coherence and minimize interpretive drift. Although qualitative, the study adheres to the established standards of transparency, replicability, and reflexivity

articulated by Lincoln and Guba (1985). This reflective rigor ensures that the findings capture the complexity of regional educational practices and stand on a reliable methodological foundation that supports scholarly and policy-related applications.

### **Scope and Limitations**

This study concentrates on four representative Southeast Asian countries: Malaysia, Indonesia, Thailand, and Singapore. Each country exemplifies a distinct stage and model of education–industry integration in the creative and media sectors. Malaysia serves as a model of policy-driven reform, with national frameworks that align vocational and higher education with the evolving needs of the creative economy. Indonesia represents a large-scale experimental framework through its Merdeka Belajar – Kampus Merdeka (MBKM) initiative, which promotes flexible learning and industry immersion. Conversely, Thailand's hybrid system adapts international best practices, notably the German-inspired Dual Vocational Training (DVT) model, to local contexts. Singapore stands as a globally benchmarked ecosystem, characterized by its structured integration of lifelong learning, technological innovation, and industry collaboration.

While this selection provides a well-balanced comparative view of regional trajectories, the findings are intended to be illustrative rather than exhaustive. The analysis primarily focuses on policy documents, institutional frameworks, and secondary data sources, providing a comprehensive yet interpretive synthesis of each country's approach. Primary data collection methods, such as in-depth interviews or participant observations, were beyond the scope of the present study. Future research could extend this inquiry through field-based studies, stakeholder engagement, and empirical validation to deepen understanding of how these systems operate in practice and contribute to sustainable creative education in the broader ASEAN context.

### **Ethical Considerations**

All data utilized in this study were obtained exclusively from publicly accessible, credible, and ethically approved sources, including government publications, institutional reports, and peer-reviewed academic literature. Each document and dataset was reviewed for authenticity, authorship, and relevance before inclusion. Institutional and policy documents were accurately cited and referenced in accordance with APA 7th edition standards, ensuring scholarly rigor and the traceability of all information presented.

The study upholds the highest standards of academic integrity and ethical responsibility by maintaining transparency throughout the research process. Transparency was observed throughout data selection and analysis, interpretation, and reporting. No confidential, proprietary, or personally identifiable information was used. Intellectual property rights were respected through proper citation and acknowledgment, and the study consciously avoids plagiarism, data manipulation, or

misrepresentation of sources. Furthermore, interpretive neutrality was maintained to prevent bias and ensure that conclusions reflect the data's original intent and context. By adhering to these principles, the research contributes responsibly to academic discourse and models ethical practice in media and education research.

## **FINDINGS AND DISCUSSION**

The comparative synthesis of policy frameworks, institutional practices, and scholarly literature suggests that cinematography and television production education across Southeast Asia exist along a continuum of fluid orientations between theoretical and practical approaches. Vocational institutions prioritize technical proficiency and operational readiness at one end of the spectrum, equipping students with immediate, job-focused competencies in camera work, lighting, and post-production. Conversely, universities emphasize conceptual understanding, creative literacy, and critical inquiry, fostering long-term adaptability and leadership potential.

However, the study found that these two educational domains are increasingly converging through hybrid models that blend industry collaboration, empathetic pedagogy, and sustainable talent development. Institutions are increasingly recognizing that neither technical skill nor theoretical knowledge alone can prepare graduates for today's rapidly evolving media landscape.

Accordingly, the findings of this study were organized into three core dimensions aligned with the conceptual framework: curricular orientation, graduate profile, and industry alignment. These dimensions highlighted the structural and pedagogical dynamics that shape media education in the region. The section synthesized the study's key bridging mechanisms, including dual training systems, curriculum co-design, capstone projects, and a holistic, empathetic approach, as essential strategies for achieving sustainable educational reform and ensuring that Southeast Asia's media graduates are industry-ready and humanistically grounded.

### **Curricular Orientation: Theory and Practice in Convergence**

Analysis of institutional curricula and policy documents across Southeast Asia indicates a persistent, though increasingly narrowing, divide between vocational and degree-based education in cinematography and television production. In Malaysia, curriculum frameworks implemented by public polytechnics under the Ministry of Higher Education emphasize practice-oriented training aligned with the national TVET Policy Framework, prioritizing immediate employability through modules in camera operation, lighting, sound design, and post-production workflows (MOHE, 2023). Similarly, Indonesia's Polytechnic of Creative Media (Polimedia), operating within the Merdeka Belajar–Kampus Merdeka (MBKM) framework, adopts a practice-first orientation that immerses students in technical production skills and industry

placements with broadcasters such as TVRI and MetroTV (Ministry of Education & Culture Indonesia, 2021).

While these vocational pathways are effective in producing graduates who are operationally ready for entry-level roles, existing curriculum documents and scholarly critiques note that they have historically offered limited engagement with theoretical, aesthetic, and socio-cultural dimensions of media production (Wheelahan, 2010; Wheelahan & Moodie, 2011). The absence of structured learning in areas such as narrative theory, audience interpretation, and visual semiotics may constrain graduates' capacity to participate in higher-level creative decision-making and long-term professional progression. This epistemic imbalance between technical competence and conceptual capability forms a central point of tension that recent reforms across the region are actively seeking to address.

Conversely, degree programs, such as those at Universiti Teknologi MARA (UiTM), Multimedia University (MMU), Chulalongkorn University, and Nanyang Technological University (NTU), tend to adopt a theory-first model, emphasizing conceptual frameworks drawn from film studies, media theory, and cultural analysis. Students engage with the history of cinema, narrative structure, visual aesthetics, and the sociopolitical contexts of media representation. Production practice is introduced progressively through laboratories, workshops, and capstone projects, enabling students to apply theoretical knowledge in increasingly complex creative contexts. While this approach nurtures reflective and analytical capacities, it can sometimes leave graduates underprepared for the fast-paced, technology-driven demands of professional production environments. As Wheelahan and Moodie (2011) note, this divergence represents an enduring epistemic divide between competence, which is the ability to perform, and capability, which is the ability to understand why, when, and how to act.

Many institutions are pursuing curricular convergence to address this divide, integrating theoretical learning within vocational programs and technical practice within university curricula. For example, UiTM's Bachelor of Film and Screen Production introduces a "Production Theory" module in the first year, combining lectures on narrative structure, ethics, and visual composition with immediate on-set applications. Similarly, Polimedia's partnership with TVRI, Indonesia's national broadcaster, embeds theoretical reflection on ethics, representation, and audience engagement into students' professional internships. These initiatives exemplify a hybrid pedagogy in which cognitive understanding reinforces technical skill, and vice versa.

This convergence signals a shift toward intellectual craftsmanship, a concept wherein creative professionals master both the material craft and the conceptual reasoning that guide their artistic choices. It aligns with broader global trends in innovative education, emphasizing the integration of critical thinking, creative problem-solving, and applied

production skills. In Southeast Asia, such a model enhances graduate employability and deepens their capacity for cultural interpretation, innovation, and reflective authorship. As institutions move toward this balanced model of theory–practice integration, cinematography and television education evolve into a more holistic discipline that cultivates both technical excellence and creative consciousness, ensuring graduates can navigate, adapt, and lead within the dynamic media ecosystems of the 21st century.

### **Graduate Profile: Bridging Employability and Emotional Intelligence**

While existing scholarship has long argued that employability in the creative industries extends beyond technical competence to include cognitive and emotional capacities (Clarke, 2010; Mayer, Caruso, & Salovey, 2016), this study's comparative analysis confirms that such perspectives are increasingly reflected in formal policy and institutional frameworks across Southeast Asia. Analyses of graduate competency statements, employability frameworks, and curriculum guidelines in Malaysia, Indonesia, and Singapore reveal a growing institutional recognition that graduate readiness in cinematography and television production must encompass more than operational mastery of cameras, lighting, and editing technologies.

Across national policy documents, such as Malaysia's TVET Policy Framework (MOHE, 2023) and Singapore's SkillsFuture and IMDA talent development initiatives, employability is articulated in terms of adaptability, collaborative capacity, and professional conduct alongside technical skills. Similarly, institutional curricula and graduate outcome statements in Indonesia and Thailand increasingly emphasize creative problem-solving, teamwork, and self-management as core competencies expected of media graduates (Ministry of Education & Culture Indonesia, 2021; NBTC, 2021). These findings suggest that emotional intelligence (EI) is not merely a theoretical ideal advanced in the literature, but an emergent outcome of evolving employability discourses and curriculum design in the region. Collectively, the evidence points to a reconceptualization of employability as a composite of technical, cognitive, and emotional capacities, one that aligns educational preparation with the realities of collaborative, high-pressure, and rapidly transforming media production environments (Halik Bassah & Mohd Noor, 2023).

Emotional intelligence has emerged as a defining marker of sustainable employability in the creative sector. Empirical studies have demonstrated that EI training enhances teamwork, conflict resolution, and leadership, which is essential for the high-pressure, collaborative settings of film and television production (Clarke, 2010; Mayer, Caruso, & Salovey, 2016). For vocational cinematography students, developing EI fosters effective communication and collaboration within multicultural crews, enabling smoother coordination on set. For degree-level students, EI nurtures reflective leadership, self-awareness, and the ability to manage diverse creative teams through empathy and ethical sensitivity.

Integrating holistic and empathetic education into vocational and academic programs thus becomes essential for bridging the human dimension of graduate readiness. Beyond employability, this involves passion-building, which includes cultivating intrinsic motivation and personal meaning in one's creative practice. When learners connect emotional engagement with their craft, they develop the perseverance and purpose needed to navigate uncertainty and innovation in the media landscape (Goleman, 1995; Blaschke, 2012).

In this sense, empathetic pedagogy complements technical and theoretical instruction by nurturing skill, intellect, resilience, ethical awareness, and creative authenticity. Together, these attributes enable graduates to evolve into emotionally intelligent, purpose-driven professionals capable of making meaningful contributions to their industries and the broader cultural sustainability of Southeast Asia's creative economy.

### **Industry Alignment: Co-Design and Collaboration**

Across Malaysia, Indonesia, Thailand, and Singapore, institutional–industry collaboration has emerged as a defining pillar of educational transformation in cinematography and television production. Such partnerships reshape how technical expertise, creative practice, and employability are developed, moving beyond traditional classroom-based instruction toward experiential, industry-embedded learning ecosystems. By aligning educational goals with real-world production processes, these collaborations bridge the longstanding gap between academic theory and professional application, ensuring that graduates are skilled technicians and adaptive thinkers attuned to the rapid shifts of the digital media landscape.

In Malaysia, the TVET Policy Framework and the Academy in Factory (AiF) initiative exemplify early successes in connecting education with industry needs through dual training systems (Jamaludin et al., 2023). Under this model, students alternate between institutional learning and direct participation in production environments, acquiring technical competence while developing soft skills such as communication, teamwork, and time management. This "learning by doing" model also encourages employers to actively shape curricula, thereby enhancing the authenticity and relevance of educational content. Similarly, in Indonesia, the Merdeka Belajar – Kampus Merdeka (MBKM) program (Ministry of Education & Culture Indonesia, 2021) institutionalizes industry immersion as part of the formal study program. Students in cinematography and broadcasting programs are given opportunities for semester-long placements at media organizations such as TVRI and MetroTV, where they participate in real-world production pipelines under the mentorship of both academic supervisors and industry practitioners. This framework promotes workplace readiness, enhances professional identity, and fosters cross-sectoral collaboration.

In Thailand, partnerships between universities and the National Broadcasting and Telecommunications Commission (NBTC) have led to the institutionalization of co-

designed curricula that directly address emerging challenges in media ethics, digital regulation, and advanced production technologies, such as virtual sets and 4K broadcasting (NBTC, 2021). These collaborative structures ensure that educational institutions remain responsive to the ethical and technological complexities of modern media. Thailand's model demonstrates how regulatory agencies can constructively shape academic curricula. It is an approach that promotes standardization, accountability, and innovation across public and private education sectors.

Meanwhile, Singapore represents a mature and highly integrated ecosystem, where SkillsFuture Singapore (SSG) and the Infocomm Media Development Authority (IMDA) co-develop programs such as the Story Lab Apprenticeship. This initiative combines structured mentorship, project-based assessment, and long-term industry engagement within diploma and degree programs, providing learners with an authentic bridge between classroom instruction and professional practice. The Singaporean model exemplifies the effectiveness of systemic collaboration, where government agencies, educational institutions, and industry bodies jointly govern curriculum design and graduate outcomes.

Compared with Malaysia, Indonesia, and Thailand, Singapore represents a qualitatively different stage of education–industry integration. While the latter three systems exhibit transitional models characterized by program-level dual training, internships, and curriculum co-design initiatives, Singapore operates within a mature and systemically integrated ecosystem. Through coordinated governance by SkillsFuture Singapore (SSG) and the Infocomm Media Development Authority (IMDA), initiatives such as the Story Lab Apprenticeship embed structured mentorship, project-based assessment, and sustained industry participation directly within diploma and degree programs. Unlike the more fragmented or pilot-based collaborations observed in Malaysia, Indonesia, and Thailand, Singapore's model institutionalizes collaboration at the national level, aligning curriculum design, skills frameworks, funding mechanisms, and graduate outcomes under a shared strategic vision. This systemic integration enables Singapore to move beyond short-term employability toward a lifelong learning paradigm, positioning graduates not only for immediate industry entry but for continuous professional adaptation in a rapidly evolving media economy.

These cases demonstrate that industry co-design is more than a mechanism for enhancing employability—it is a process of mutual evolution between education and the creative industries. By embedding collaboration into curriculum structures, institutions can maintain alignment with technological advancements such as AI-assisted editing, OTT (Over-The-Top) distribution, and virtual production pipelines. This continuous dialogue ensures that graduates are equipped not only for today's media environment but also for its future disruptions. Moreover, co-design grounded in empathy and mentorship fosters an educational culture that values creativity,

adaptability, and human connection—qualities essential for sustaining innovation and ethical practice in Southeast Asia's fast-evolving media ecosystem.

### **Bridging the Gap: The Role of Dual Training, Co-Design, and Capstone Projects**

Best practices for bridging the gap between vocational and degree-based cinematography education highlight the need for models that combine structural innovation with holistic development. Three strategies stand out: dual training systems, curriculum co-design, and capstone projects. Dual training systems allow students to alternate between classroom learning and industry immersion, reinforcing theoretical knowledge with immediate application in real-world contexts. Curriculum co-design, implemented collaboratively with broadcasters, production houses, and streaming platforms, ensures that program content evolves with industry practices, including new technologies such as virtual production, OTT workflows, and immersive media. Capstone projects, assessed jointly by academic staff and industry mentors, provide an integrative platform where students synthesize conceptual and technical competencies, demonstrating their readiness for the workplace.

This study centers on Malaysia as the object of inquiry, with Indonesia, Thailand, and Singapore as comparative cases. The rationale for this selection is policy relevance and analytical diversity within Southeast Asia.

The paper focuses on advancing vocational education in cinematography and television production nationwide, with Malaysia serving as the anchor case study. Malaysia has positioned Technical and Vocational Education and Training (TVET) as a national priority through initiatives such as the TVET Policy Framework (MOHE, 2023) and TVET 4.0, emphasizing employability, digital literacy, and industry collaboration. These policies reflect Malaysia's intent to strengthen the creative industry workforce's readiness, making it the primary lens for examining the theoretical–practical continuum in Southeast Asia.

To broaden this analysis, three Southeast Asia neighbors, namely Indonesia, Thailand, and Singapore, were selected for comparative inquiry because they illustrate diverse but complementary approaches to bridging education and industry in the creative media sector:

- Indonesia provides insight into large-scale systemic reforms through the Merdeka Belajar–Kampus Merdeka (MBKM) framework, which mandates industry immersion and creative projects as integral components of higher education. With its massive student population and expanding creative economy, Indonesia highlights the opportunities and challenges of aligning academic curricula with real-world industry practices at scale.
- Thailand illustrates the adaptation of international models, particularly the German-inspired Dual Vocational Training (DVT) system, contextualized for creative media

education. Supported by the National Broadcasting and Telecommunications Commission (NBTC) and the Thai Media Fund, Thailand demonstrates how regulatory frameworks, industry mentorship, and curriculum co-design can collectively bridge the academic–industry divide.

- Singapore represents a mature, highly systematized model where national policy (SkillsFuture), institutional design (polytechnic and university-led work-integrated programs), and regulatory support (Infocomm Media Development Authority initiatives) are tightly coordinated. Singapore thus provides a benchmark for integrated lifelong learning and industry-responsive curricula in creative industries.

Consequently, these four countries capture a spectrum of educational–industry integration within Southeast Asia. Malaysia serves as the anchor case, illustrating a policy-driven reform agenda that faces implementation challenges. Indonesia emerges as a model for large-scale reform and experimentation, particularly through the Merdeka Belajar–Kampus Merdeka framework. Thailand represents a hybrid approach, adapting international models such as the German-inspired Dual Vocational Training system while strengthening alignment through robust regulatory support. Ultimately, Singapore is a globally competitive ecosystem where lifelong learning and industry alignment are deeply institutionalized, supported by a coordinated national policy, a robust higher education system, and strategic partnerships with key industries. This spectrum highlights the strategies of ASEAN countries to bridge the gap between education and industry in the creative sectors.

By positioning Malaysia in relation to these comparative cases, the study highlights commonalities and contrasts in bridging mechanisms, providing insights into how Southeast Asian nations can collaboratively advance graduate readiness in cinematography and television production for a sustainable future.

The comparative analysis demonstrates that bridging mechanisms, such as dual training, curriculum co-design, and capstone projects, are crucial in achieving a balance between theoretical understanding and practical expertise in cinematography and television production education. These mechanisms serve as structural and pedagogical bridges, ensuring learners transition seamlessly between classroom-based conceptual learning and industry-based experiential application.

Dual training offers students alternating cycles of academic instruction and workplace immersion, enabling them to contextualize theoretical concepts within authentic production environments. This approach reinforces technical mastery and fosters adaptability and problem-solving under real-world conditions. Curriculum co-design, meanwhile, establishes collaborative partnerships between educators and industry stakeholders, ensuring that program content, assessment methods, and learning outcomes remain aligned with evolving professional standards and technological trends.

Capstone projects further function as transformative gateways to professional practice. Jointly supervised by academic and industry mentors, these projects challenge students to integrate creative and technical competencies while producing portfolio-ready works that signal their readiness for employment (Bridgstock, 2013). When implemented within an empathetic and reflective learning environment, these mechanisms transcend mere employability training, they cultivate passion, confidence, and a sense of professional identity.

The holistic integration of dual training, co-design, and capstone experiences lays the groundwork for a sustainable creative education ecosystem across Southeast Asia. By combining structural innovation with human-centered pedagogy, this model ensures that graduates emerge not only as technically proficient professionals but as emotionally intelligent, motivated, and socially responsible contributors to the region's dynamic media industries.

### Conceptual Integration Diagram

The diagram illustrates how these elements intersect to produce balanced, industry-

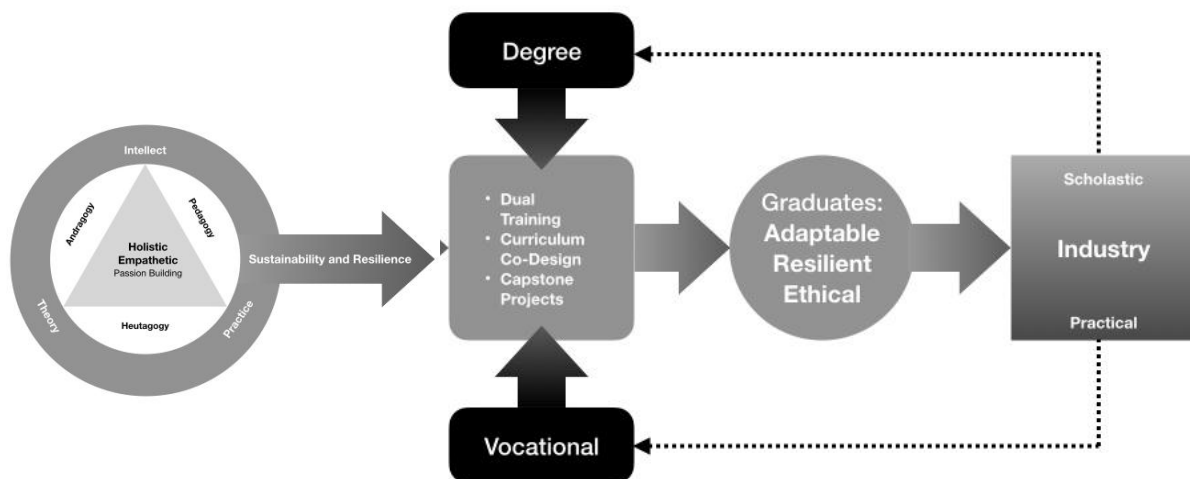


Figure 2: Integrative Framework for Bridging Vocational and Degree Pathways through Dual Training, Co-Design, Capstone Projects, and a Holistic Empathetic Approach.

ready, and emotionally grounded graduates. The outer circle represents sustainability, indicating that empathy and passion-building sustain long-term learning and creative innovation beyond initial employability.

### KEY FINDINGS

The study revealed that vocational and degree programs in cinematography and television production occupy distinct yet increasingly convergent positions along a

theoretical–practical continuum. Vocational pathways emphasized immediate technical readiness, while degree programs prioritized conceptual grounding and critical inquiry; together, they formed complementary routes toward comprehensive professional formation.

Central to maintaining relevance in today's rapidly evolving media landscape is the continuous alignment of education with industry needs through curriculum co-design, ensuring that academic learning remains responsive to technological innovation and creative practice. Beyond technical mastery, emotional intelligence and empathy are vital competencies that strengthen teamwork, leadership, and sustainable professional growth, particularly in collaborative and high-pressure production environments. Passion-building transforms education into a lifelong, purpose-driven process, moving beyond skill acquisition toward personal and creative fulfillment.

Sustainability in media education is achieved when institutions cultivate graduates who are both technically competent and emotionally intelligent, who are capable of adapting to the intertwined technological and social transformations that define the future of the creative industries.

### **Policy and Practice Implications**

The analysis reveals that advancing vocational cinematography and television production education in Southeast Asia requires a multi-layered policy response that bridges academic and vocational systems, integrates industry collaboration, and embeds holistic human development. Policies must prepare graduates for employability and equip them with adaptive, ethical, and empathetic capacities that sustain long-term participation in creative economies.

This section outlines key policy and practice implications across six dimensions—curriculum integration, industry collaboration, capstone professionalization, holistic empathy, sustainability, and regional responsiveness.

### **Curriculum Integration and Hybrid Learning Pathways**

A significant implication of this study is the urgent need to institutionalize hybrid educational pathways that effectively combine the theoretical rigor of university education with the practical, technical depth of vocational training. The future of cinematography and television production education in Southeast Asia depends on integrating these dual orientations into a cohesive system that values conceptual insight and operational expertise. Such integration enhances academic relevance and ensures that graduates possess the intellectual flexibility and technical fluency necessary to adapt to rapidly evolving media industries.

Malaysia's TVET Policy Framework (MOHE, 2023) and Indonesia's Merdeka Belajar—Kampus Merdeka (MBKM) initiative already demonstrate progressive models for this

kind of hybridization. Both frameworks promote flexible, modular learning architectures that enable students to move fluidly between classroom-based instruction, creative laboratories, and real-world production environments. These models recognize that effective learning in creative fields does not occur in isolation, but rather through iterative cycles of theory, practice, reflection, and application. In doing so, they erode the artificial boundaries separating vocational and academic domains.

Embedding interdisciplinary courses, such as storytelling, media ethics, cultural literacy, and innovation, alongside technical modules in camera operation, lighting design, and post-production, cultivate graduates who understand both the "how" and the "why" of production practice (Wheelahan & Moodie, 2011). This approach nurtures critical and creative thinking while reinforcing the importance of ethical and cultural sensitivity in visual storytelling. Moreover, such curricular design supports students in developing employability skills and a broader professional identity rooted in empathy, critical awareness, and social responsibility.

Furthermore, integrating technology-enhanced learning environments, including virtual production simulations, augmented reality (AR) sets, and AI-assisted editing suites, can mirror the evolving conditions of professional studios. These innovations enable authentic, immersive learning experiences that align with the industry's transition toward digital-first workflows and sustainable production methods. Institutions must invest in continuous curriculum updating, staff retraining, and collaborative resource sharing to maintain pedagogical relevance.

In sum, hybrid learning pathways represent a sustainable and human-centered direction for film and television education in Southeast Asia. By aligning technical proficiency with conceptual inquiry and digital innovation with ethical reflection, such pathways ensure that graduates are not merely job-ready but future-ready. It enables them to navigate complexity, embrace change, and contribute meaningfully to the region's creative economies.

### **Capstone Projects as Professional Gateways**

Capstone projects are among the most effective mechanisms for bridging the gap between education and professional practice in cinematography and television production. When jointly assessed by academics and industry mentors, they serve as evaluative milestones and transformative gateways to employment. These projects require students to integrate technical proficiency, such as cinematography, sound design, editing, and production management, with theoretical understanding of narrative construction, aesthetics, and media ethics. The outcome is a portfolio-ready body of work that embodies both creative originality and professional competence, signaling a student's readiness to transition into the competitive, innovative industries.

However, the capstone experience extends far beyond skill demonstration. When structured effectively, it becomes a transformative learning environment where students are encouraged to take creative risks, experiment with form and content, and engage in reflective dialogue with mentors from both academia and industry. Such processes enable learners to navigate the tension between creative autonomy and industry expectations, fostering adaptability, resilience, and an understanding of real-world constraints, such as deadlines, budgets, and collaborative dynamics. As Bridgstock (2013) argues, these dual forms of validation, consisting of academic rigor and professional authenticity, enable graduates to internalize the dynamic balance between creativity and practicality that defines sustainable artistic practice.

In this context, capstone projects also serve as catalysts for passion building. They allow students to experience ownership of their creative vision and witness its tangible impact, reinforcing intrinsic motivation and emotional investment in their craft. When guided by empathetic mentorship, the process fosters self-efficacy, confidence, and a sense of professional identity. These are qualities essential for sustaining long-term engagement in project-based industries. Mentors who model empathy, collaboration, and constructive critique play a crucial role in helping students understand that filmmaking is not only a technical pursuit but also a profound human enterprise that thrives on communication, reflection, and shared purpose.

Moreover, institutionalizing capstone projects within regional policy frameworks—such as Malaysia's TVET Policy Framework, Indonesia's Merdeka Belajar–Kampus Merdeka (MBKM), and Singapore's SkillsFuture initiative. can formalize the link between academic achievement and employability. Embedding these projects as capstones across vocational and degree pathways ensures that graduates are equipped with creative portfolios and professional networks upon entering the workforce. Within the broader Southeast Asian context, this approach transforms capstone projects into sustainable bridges that link educational theory, industrial practice, and personal growth. Through empathy-driven mentorship and passion-infused creativity, such projects cultivate reflective practitioners who can shape the region's evolving media and storytelling landscape.

### **Embedding Holistic, Empathetic, and Passion-Building Approaches**

Policy frameworks and institutional practices must embed holistic, empathetic, and passion-building approaches within cinematography and television production education to nurture technically competent, emotionally intelligent, resilient, and purpose-driven graduates. This perspective redefines education as an integrated form of human development, where learners are recognized as active participants in shaping their creative identities and professional futures (Knowles, Holton, & Swanson, 2015). Rather than treating technical skills and emotional growth as separate domains, such an approach positions them as mutually reinforcing elements of lifelong learning.

By integrating the principles of emotional intelligence (Goleman, 1995), self-determined learning (Blaschke, 2012), and empathetic pedagogy, institutions can cultivate passion as a sustaining force. This renewable emotional resource fuels creativity, perseverance, and engagement throughout a learner's career. Passion-building becomes the foundation for motivation and resilience, allowing students to sustain enthusiasm even in demanding production environments or uncertain job markets. This learning dimension is particularly crucial in Southeast Asia's culturally and economically diverse educational landscape. Students bring unique aspirations, insecurities, and lived experiences; thus, empathetic curriculum design and mentorship enable inclusivity, build confidence, and foster the intercultural collaboration that creative industries increasingly require.

A comprehensive framework that effectively combines pedagogical (teacher-led), andragogical (adult-focused), and heutagogical (self-directed) methods facilitates a seamless shift from guided learning to independent expertise. This multi-tiered process boosts employability and promotes emotional sustainability, enabling graduates to adapt, rejuvenate, and develop throughout their careers. By incorporating empathy and passion-building into creative education, learners can achieve a balanced integration of intellect, emotion, creativity, and purpose. This strategy ensures Southeast Asia's creative workforce stays human-centered and prepared for the future.

### **Continuous Curriculum Updating and Regional Responsiveness (Expanded)**

Educational institutions have a valuable opportunity to establish ongoing and structured processes for regularly updating their curricula. By doing so, they can remain competitive and relevant within the rapidly evolving global media and creative sectors. In a world characterized by continuous technological advancement, it is essential to develop curricula that effectively meet the needs of both students and employers.

Implementing dynamic and flexible learning systems is crucial, enabling institutions to anticipate and proactively adapt to industry changes. This approach integrates emerging technologies, innovative production techniques, and ethical considerations into the design, delivery, and evaluation of cinematography and broadcasting education. Through these efforts, educational institutions can better prepare students for successful careers and make a positive contribution to the industry. To sustain global relevance, cinematography and broadcasting programs must evolve beyond traditional media production skills and incorporate comprehensive training in emerging technologies, including 4K/8K high-resolution workflows, drone cinematography, virtual and augmented reality environments, real-time virtual production, and AI-assisted post-production. These skills are no longer peripheral but central to the media production pipeline, reflecting the growing dominance of digital-first storytelling and cross-platform content delivery. However, curriculum renewal must go hand in hand with critical reflection on the social, cultural, and environmental

impacts of these technologies, ensuring that graduates not only master new tools but also use them responsibly and ethically.

Equally vital is integrating sustainability literacy into creative education. Future filmmakers and media professionals must be equipped with the knowledge and sensitivity to adopt eco-conscious practices, including low-carbon filming, energy-efficient lighting systems, waste reduction, and sustainable studio management. These competencies align education with the global sustainability agenda, positioning media programs as active contributors to the United Nations Sustainable Development Goals (SDGs), particularly SDG 4 (Quality Education), SDG 8 (Decent Work and Economic Growth), and SDG 12 (Responsible Consumption and Production). By teaching students to consider the life cycle of creative production, from pre-production planning to post-production and distribution, educational institutions can foster a culture of accountability and environmental stewardship within the creative industries.

At the regional level, continuous curriculum updating should also embrace ASEAN's collaborative framework for Technical and Vocational Education and Training (TVET) and creative education (ASEAN, 2016). Such cooperation offers opportunities to harmonize qualification standards, facilitate labor mobility, and promote cross-border film and media collaborations. Shared accreditation systems and regional co-productions could strengthen Southeast Asia's collective creative economy while enhancing each nation's competitiveness in the global market. Moreover, regional responsiveness fosters intercultural exchange, knowledge sharing, and mutual capacity-building, thereby reinforcing a sense of solidarity and shared purpose among ASEAN member states.

In this way, continuous curriculum updating is not merely an administrative necessity. It is a strategic pathway toward educational and industrial sustainability. By embedding technological innovation, environmental responsibility, and regional collaboration into the core of media education, Southeast Asian institutions can ensure that their graduates become adaptable, ethical, and globally competent creative professionals who contribute to a sustainable, human-centered future.

### **Toward a Sustainable and Human-Centered Future**

Together, these policy directions point toward developing a sustainable educational ecosystem grounded in a balance between theory and practice, intellect and empathy, and technology and humanity. Such an equilibrium ensures that cinematography and television production education do not merely respond to market demands but actively shape a more reflective, ethical, and resilient creative industry. In this sense, sustainability transcends its conventional association with environmental stewardship. It extends to social, emotional, and intellectual sustainability, enhancing learners' and educators' capacity to sustain creativity, curiosity, and compassion across their professional lives (Sterling, 2010).

A sustainable learning environment in media education recognizes the interconnectedness of human well-being and technological innovation. While the digital transformation of broadcasting and screen industries demands continuous skill development, it also requires emotional resilience and ethical awareness. By incorporating empathy and passion-building into the curriculum, future cinematographers and producers are equipped with advanced technical skills and the ability to craft stories that foster understanding, inclusivity, and cultural continuity (UNESCO, 2022). This approach redefines education as a lifelong journey of self-renewal, empowering creative professionals to adapt without compromising their human essence.

Recent research emphasizes that integrating sustainability-oriented creativity and innovation within education strengthens individual and institutional capacity for long-term adaptability (Shu, Ho, & Huang, 2020). When education systems consciously prioritize empathy, passion, and reflective learning alongside technical mastery, they nurture creative professionals who thrive—not just survive—within the rapidly evolving digital landscape.

By aligning dual training, co-design, capstone projects, and empathetic pedagogy with long-term sustainability goals, Malaysia and its regional partners can redefine cinematography and television education as a transformative force that builds both employability and humanity.

### **The Eco-systemic Framework**

The integrative diagram in Figure 2 visualizes how sustainable cinematography and broadcasting education emerge from the convergence of internal pedagogical balance and external systemic collaboration. On the left, the model foregrounds a holistic, empathetic learning core in which passion-building becomes the central pedagogical force. This approach emphasizes that education is not merely the transfer of skills but the cultivation of emotional intelligence, creativity, and human-centered values. Within this framework, pedagogy, andragogy, and heutagogy function as interrelated layers of learning development, progressing from structured instruction to self-directed mastery. This continuum ensures that learners advance from guided understanding to independent creative problem-solving, thereby integrating theory, practice, and intellect into a cohesive whole.

On the right-hand side of Figure 2, the model expands this internal learning ecosystem into a broader collaborative network involving government, industry, educational institutions, and students and parents. The sector occupies a central position within this triangular relationship, mediating between government policy and regulation, teaching and learning in educational institutions, and guidance and aspirations from students and their families. Such positioning underscores the importance of shared

responsibility in education reform, where policy direction, institutional innovation, and learner engagement interact to ensure that creative programs remain relevant, equitable, and future-oriented.

Connecting the two models is an arrow symbolizing the bridge between holistic formation and industry application. This transition represents how empathetic, passion-driven learning within classrooms translates into professional environments where collaboration, innovation, and ethical awareness are essential.

Figure 2 illustrates the central argument of this study by demonstrating that the alignment of vocational and academic pathways requires the integration of human development with professional advancement. Figure 2 projects a forward-looking vision in which graduates are prepared not only with technical proficiency but also with compassion, social awareness, and ethical sensitivity. These are essential qualities for navigating the dynamic, evolving creative industries of Southeast Asia.

This expansive vision for revitalizing cinematography and broadcasting education asserts that the foundation of sustainable creative education does not arise from isolated academic or vocational reforms. Instead, it emerges from the vibrant interplay of pedagogy, andragogy, and heutagogy, which are three distinct yet interconnected modes of learning that together foster the growth of intellect, theoretical understanding, and practical skills.

Central to this vision is a holistic and compassionate foundation in which the cultivation of passion evolves into a pedagogical philosophy and serves as a catalyst for lifelong inquiry and growth. This internal dimension is closely interwoven with the broader industry ecosystem, encompassing government agencies, educational institutions, and student communities. Functioning as a translational bridge, it connects human-centered learning with practical, real-world applications.

When policy, industry, and education align around principles of empathy, reflection, and sustainability, the outcome extends beyond merely preparing a workforce for technical tasks. Instead, it cultivates a vibrant community of creative professionals poised to enrich Southeast Asia's media landscape with social, cultural, and environmental richness.

## **CONCLUSION AND REMARKS**

The evolution of cinematography and television production education in Southeast Asia, particularly in Malaysia, reveals a field situated at the intersection of artistic practice, technological change, and human development. The comparative analysis presented in this study demonstrates that bridging the divide between vocational and academic pathways cannot be achieved solely through curriculum reform or

technological upgrades. Instead, it requires a systemic reconceptualization of education as an integrated, empathetic, and sustainable ecosystem, one that harmonizes theoretical understanding, practical proficiency, and humanistic growth.

Within the creative industries, education must move beyond narrow notions of job preparation toward the cultivation of whole persons. By embedding holistic and empathetic approaches, such as emotional intelligence development (Goleman, 1995), reflective learning (Kolb, 2015), and self-directed learning (Blaschke, 2012), technical training is transformed into a human-centered educational experience. This shift ensures that graduates emerge not only as competent camera operators or editors but also as ethical storytellers, empathetic collaborators, and culturally conscious creative professionals. Central to this transformation is passion-building: when learning environments foster purpose, agency, and emotional engagement, creative practice becomes a sustained professional commitment rather than short-term skill acquisition.

In this context, sustainability extends beyond environmental responsibility to encompass emotional, social, and intellectual dimensions, defined as the capacity of individuals and institutions to adapt, renew, and thrive amid ongoing change. By embedding sustainable values into pedagogy, curriculum design, and industry collaboration, cinematography and broadcasting education can meaningfully contribute to the United Nations Sustainable Development Goals, particularly quality education (SDG 4), decent work and economic growth (SDG 8), and responsible consumption and production (SDG 12). Within ASEAN's broader framework for TVET cooperation and creative economy development, this integration of empathy and sustainability positions the region as a model for culturally grounded yet globally responsive education.

This study contributes to media, creative industries, and TVET scholarship in three keyways. First, it extends the theoretical–practical continuum by situating cinematography education within a Southeast Asian regional context, demonstrating how structural integration enhances graduate adaptability. Second, it advances a holistic, empathetic, sustainability framework that foregrounds emotional intelligence, passion-building, and human-centered pedagogy as central to creative education. Third, it offers a comparative analysis of Malaysia, Indonesia, Thailand, and Singapore, illuminating shared challenges and transferable strategies in a domain that remains under-explored in existing literature.

The findings further indicate that dual training systems, curriculum co-design, and industry-supervised capstone projects function as critical bridging mechanisms between education and professional practice. When implemented within empathetic and reflective learning environments, these mechanisms do more than improve employability; they foster creative resilience, ethical awareness, and long-term professional sustainability.

Ultimately, the future of cinematography and television production education lies not merely in producing technically proficient graduates but in cultivating reflective, emotionally intelligent, and purpose-driven creative professionals. By aligning educational structures with empathy, adaptability, and sustainability, institutions across Southeast Asia can help build a resilient, creative ecosystem, one that supports industry innovation while sustaining the human values at the heart of storytelling and visual culture.

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### **INFORMED CONSENT STATEMENT**

Any research article describing a study involving humans should contain this statement: 'Informed consent was obtained from all subjects involved in the study. For studies not involving humans, please exclude this statement.

### **CONFLICTS OF INTEREST**

The authors declare no conflict of interest.

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