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Assessing the Adoption and Experiences of Artificial Intelligence Technology in Film Post-Production Education

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Abstract: *This study examined practical experiences in film post-production education and the acceptance of artificial intelligence (AI) among students, teachers, and academic administrators. An exploratory sequential mixed-methods design was used. Qualitative data from interviews and open-ended responses informed the development of a four-point Likert-type questionnaire administered to 340 participants. Stakeholder ratings were generally positive for collaboration, independent task completion, timeline management, and narrative-oriented editing, while advanced visual-effects integration received the lowest rating. Participants also reported equipment and software-licensing constraints. Acceptance of AI was generally positive, especially for workflow efficiency and creative enhancement, although ease of learning and loss of creative control remained concerns. The findings support a gradual, project-based approach to AI integration that combines technical training, ethical reflection, faculty development, and improved access to industry-standard resources.*

Keywords: *Artificial Intelligence, Film Post-Production, Film Education, Mixed Methods, Technology Acceptance*

1. Introduction

Artificial intelligence is increasingly influencing film production and post-production through automated editing, data analysis, image enhancement, color matching, visual-effects support, sound processing, and workflow management. In education, these developments create opportunities to improve efficiency and broaden experimentation, but they also require students to understand when automated outputs support or weaken creative intention. Film post-production teaching must therefore address both operational competence and critical judgment.

Existing studies describe the growing use of AI in filmmaking and education. AI-assisted tools can reduce repetitive work, support decision-making, and expand access to complex production processes [1]-[3]. In educational contexts, adaptive systems may provide targeted feedback and help teachers respond to different learning needs [2], [4]. Their value, however, depends on instructional design, teacher readiness, resource availability, and ethical implementation [4]-[6]. Film education also faces a distinct challenge: students must learn to preserve authorship, narrative coherence, and aesthetic judgment while using tools that can generate or alter creative material.

Research on AI in film education remains limited, particularly in relation to post-production practice across different stakeholder groups. Many studies discuss technological possibilities, yet fewer examine how students, teachers, and academic administrators experience current post-production training, what barriers they encounter, and how they perceive AI-supported workflows. This study addresses that gap by combining qualitative accounts with quantitative descriptions of practical competence and AI acceptance.

The focus on post-production is important because this stage brings together technical execution and creative interpretation. Editing, color, sound, visual effects, and final workflow management require students to make decisions about rhythm, continuity, mood, and visual credibility. AI can assist these processes, but it can also create shortcuts that obscure the reasoning behind creative choices. For this reason, the study treats AI adoption as a pedagogical issue rather than only a technological issue.

ISSN 2522-6398 Vol. 9, Issue 8: 96-103, DOI: 10.25236/FER.2026.090813

1.1. Theoretical and Conceptual Framework

The study draws on four complementary perspectives. Constructivist and socio-cultural perspectives emphasize active knowledge construction, mediated learning, collaboration, and the role of cultural and technical tools [7]. The Technological Pedagogical Content Knowledge framework explains effective instruction as an alignment of technological, pedagogical, and discipline-specific knowledge [8]. The Technology Acceptance Model supports interpretation of perceived usefulness and perceived ease of use, which are reflected in participants' assessments of efficiency, creative enhancement, learning difficulty, and willingness to adopt AI [9].

Together, these perspectives connect practical experience with technology acceptance. Project-based learning provides the setting in which students develop editing and visual-effects competence; teachers shape how AI is introduced and assessed; institutional conditions influence access to equipment, licensed software, and training; and perceived usefulness and ease of use affect adoption. AI is therefore treated not as a replacement for creative work but as a mediated tool whose educational value depends on human judgment, pedagogy, and institutional support.

This framework also clarifies why acceptance alone is not sufficient. A student may view AI as useful while still lacking the skill to evaluate its output, and a teacher may value AI but lack the resources to integrate it into coursework. The interaction among learner experience, instructional design, and institutional support is therefore central to understanding whether AI can improve post-production education in a responsible way.

1.2. Significance of the Study

The study may help film educators identify gaps in advanced technical training, AI literacy, and project-based assessment. It may also assist academic administrators in planning laboratory investment, software access, faculty development, and industry partnerships. By examining both practical experiences and AI acceptance, the study provides a basis for integrating AI into post-production curricula without separating technical efficiency from creative responsibility.

The findings may further support curriculum review by showing which areas students already perceive as strengths and which require more structured support. In particular, the combined attention to practical competence, resource limitations, and AI acceptance can guide decisions about course sequencing, laboratory scheduling, software licensing, faculty workshops, and industry-based learning activities.

1.3. Objectives of the Study

The study sought to:

Examine stakeholders’ perceptions of practical experiences, post-production competencies, and resource accessibility in film post-production education;

Assess stakeholders’ acceptance of AI technology in film post-production education in terms of perceived benefits, perceived ease of learning, and willingness to use AI, and explore their concerns and training needs.

2. Methodology

2.1. Research Design

An exploratory sequential mixed-methods design was used. During Phase 1, semi-structured interviews and open-ended responses were collected from students, teachers, and academic administrators. The qualitative phase explored practical experiences, resource conditions, perceived benefits and barriers, training needs, and expectations for future AI integration. Themes identified in Phase 1 guided the construction and wording of the Phase 2 questionnaire. The two strands were integrated by comparing areas of convergence and complementarity.

This design was appropriate because the study first needed to understand how stakeholders described their experiences before measuring broader response patterns. The qualitative strand helped identify issues that might not appear in a purely quantitative instrument, such as creative control, access

ISSN 2522-6398 Vol. 9, Issue 8: 96-103, DOI: 10.25236/FER.2026.090813

to licensed software, and confidence in using AI tools. The quantitative strand then provided a concise profile of how strongly these issues appeared across the larger participant group.

2.2. Participants and Sampling

Purposive sampling was used to recruit stakeholders with prior exposure to AI tools in learning, teaching, or program management. The questionnaire was completed by 340 participants: 300 students, 30 teachers, and 10 academic administrators. Interviews involved 20 students, 10 teachers, and 5 administrators. Technical support personnel and external industry experts were excluded because the study focused on educational experience and institutional implementation.

2.3. Instruments and Data Collection

The Phase 1 interview protocol covered practical experience, curriculum integration, perceived benefits and barriers, training needs, and future use of AI. The Phase 2 questionnaire used a four-point scale ranging from 4 (Strongly Agree) to 1 (Strongly Disagree). It measured practical post-production competencies, resource accessibility, AI acceptance, perceived benefits, concerns, and training adequacy. Items were written in role-neutral language when applicable so that the three groups could respond to a common set of indicators.

Data collection lasted three months. Interviews were conducted in person or online, audio-recorded with consent, and transcribed verbatim. The questionnaire was distributed online after the qualitative themes had been reviewed and converted into survey indicators. Participation was voluntary, responses were de-identified, and data were stored securely with access limited to the researcher.

Before the questionnaire was administered, the interview responses were reviewed to identify recurring language used by participants when describing post-production tasks and AI-related concerns. This helped ensure that questionnaire indicators were connected to actual educational practice rather than imposed only from the literature. The process was especially important because students, teachers, and administrators did not always discuss AI in the same terms: students tended to emphasize tool usability and access, teachers emphasized instructional design and assessment, while administrators emphasized resources and implementation.

2.4. Treatment of Data

Quantitative data were summarized using the mean and standard deviation. Mean scores were interpreted as follows: 1.00-1.75, Strongly Disagree; 1.76-2.50, Disagree; 2.51-3.25, Agree; and 3.26-4.00, Strongly Agree. Qualitative data were analyzed through iterative coding and thematic grouping. Frequencies refer to the number of participants who mentioned a sub-theme at least once; participants could contribute to more than one sub-theme. Quantitative and qualitative findings were integrated through triangulation. Jamovi was used for descriptive statistical computation. Because students constituted most of the survey sample, aggregate means primarily reflect student responses; no subgroup comparisons were reported.

The analysis emphasized descriptive interpretation rather than causal claims. Mean scores were used to identify general tendencies, while qualitative themes were used to explain how participants understood those tendencies in practice. This approach was suitable for a study that aimed to describe adoption, experience, and perceived training needs rather than test an experimental intervention.

To strengthen credibility, quantitative and qualitative findings were compared around the same research objectives. For example, low or high mean scores were interpreted alongside interview statements that described the classroom conditions behind those scores. This helped prevent overgeneralization from numerical averages and allowed resource constraints, training needs, and creative concerns to be interpreted as part of the same instructional context.

3. Results and Discussion

3.1. Practical Experiences in Film Post-Production

Table 1 presents the descriptive statistics for stakeholders' perceptions of practical post-production competencies.

ISSN 2522-6398 Vol. 9, Issue 8: 96-103, DOI: 10.25236/FER.2026.090813

Table 1: Descriptive statistics for practical experiences (N = 340).

Indicator	Mean	SD	Interpretation
Basic editing software proficiency	2.91	0.66	Agree
Advanced visual-effects integration	2.54	0.66	Agree
Narrative-oriented editing	3.09	0.56	Agree
Problem-solving during post-production	3.06	0.64	Agree
Independent task completion	3.29	0.62	Strongly Agree
Timeline management	3.29	0.62	Strongly Agree
Collaboration	3.31	0.58	Strongly Agree
Project organization	3.14	0.60	Agree
Overall	3.08	0.62	Agree

Collaboration received the highest mean (M = 3.31, SD = 0.58), followed by independent task completion and timeline management (M = 3.29 for both). Advanced visual-effects integration received the lowest mean (M = 2.54, SD = 0.66). The overall mean of 3.08 indicates a generally positive assessment of practical competence rather than objective proof of mastery.

Table 2 summarizes the qualitative themes related to practical experiences in film post-production education.

Table 2: Qualitative themes related to practical experiences.

Theme	Sub-theme	Frequency	Illustrative Quote
Skills development	Editing software proficiency	12	"I learned Premiere and DaVinci through class projects and self-study."
Skills development	Storytelling integration	8	"Editing is not just technical; it is about pacing and emotion."
Collaboration	Peer teamwork	9	"Group projects taught us how to work efficiently as a team."
Resource accessibility	Equipment limitations	10	"Sometimes we wait days to access the editing lab."
Resource accessibility	Software licensing	6	"We need more licensed industry-standard software."

The qualitative findings supported and expanded the survey results. Interview accounts of peer teamwork converged with the high collaboration rating, while comments about laboratory access and software licensing helped explain why advanced practice was less consistent. Participants described confidence in editing and narrative decision-making, but access conditions limited sustained work with complex visual-effects pipelines.

These findings suggest that foundational editing activities provide useful experience in pacing, continuity, teamwork, and project organization. Higher-level courses, however, should progressively introduce compositing, advanced color workflows, motion graphics, and AI-assisted review. Industry-standard VFX practice increasingly requires competence in compositing, 3D integration, and complex post-production pipelines [10]. Technical exercises should therefore be linked to narrative problems so that students learn why a visual or editorial intervention supports the scene.

The gap between general editing confidence and advanced visual-effects experience is pedagogically important. Students may be able to complete conventional editing tasks while still lacking exposure to more complex workflows that are now common in streaming, advertising, short-form media, and virtual production. This suggests that advanced post-production training should not be treated as a specialist add-on only for a few students, but as a progressive component of professional preparation.

A further implication concerns the relationship between access and confidence. Participants may report positive competence in tasks they encounter frequently, such as editing, organizing timelines, and collaborating with peers. By contrast, advanced VFX and AI-assisted workflows require repeated access to appropriate hardware, software, and guided practice. Without sufficient laboratory time and licensed tools, students may understand the importance of advanced workflows but remain unable to develop fluency. This helps explain why resource accessibility appeared as a major qualitative theme.

The findings also suggest that practical competence should be assessed through both product and process. A completed edited video may show technical output, but it may not reveal how students

ISSN 2522-6398 Vol. 9, Issue 8: 96-103, DOI: 10.25236/FER.2026.090813

solved problems, negotiated creative differences, or revised decisions after feedback. Post-production assessment can therefore include project logs, editing rationales, peer collaboration records, and reflective notes on how technical choices support narrative goals. Such assessment would better capture the combined technical and creative nature of post-production learning.

3.2. Acceptance of AI Technology

Table 3 presents the descriptive statistics for stakeholders' acceptance of AI technology.

Table 3: Descriptive statistics for AI acceptance (N = 340).

Indicator	Mean	SD	Interpretation
AI improves workflow efficiency	3.43	0.50	Strongly Agree
AI tools are easy to learn	2.91	0.61	Agree
AI supports creative enhancement	3.40	0.55	Strongly Agree
I am willing to use AI in future work	3.06	0.59	Agree
Overall	3.20	0.56	Agree

The strongest agreement concerned workflow efficiency (M = 3.43, SD = 0.50) and creative enhancement (M = 3.40, SD = 0.55). Ease of learning received the lowest mean (M = 2.91, SD = 0.61), indicating that positive attitudes did not eliminate the need for structured training.

Table 4 summarizes the qualitative themes concerning the perceived benefits of AI, related concerns, and training needs.

Table 4: Qualitative themes related to AI acceptance.

Theme	Sub-theme	Frequency	Illustrative Quote
Perceived benefits	Time efficiency	9	"AI tools can save hours of repetitive work."
Perceived benefits	Creative enhancement	6	"AI color matching helps maintain visual consistency."
Concerns	Loss of creative control	5	"AI suggestions do not always align with my artistic vision."
Concerns	Learning curve	4	"It takes time to understand and trust AI features."
Future integration	Training needs	8	"AI editing workshops would help us feel more confident."

The qualitative themes converged with the survey findings. Participants valued automation for scene organization, color consistency, and repetitive work, but they also described difficulty learning new functions and concern that algorithmic suggestions could weaken artistic control. Research on AI-assisted filmmaking supports the potential for workflow gains [1], [2]. At the same time, generative assistance can increase individual creativity while narrowing the collective diversity of outputs [11], reinforcing participants' concern about creative control. Photorealistic style-transfer research also demonstrates the potential for visual-consistency gains [12].

AI should therefore be taught as a collaborative tool rather than as an automatic substitute for human decision-making. A staged curriculum may begin with awareness of AI functions and limitations, move to guided practice in editing and visual-effects tasks, and then require critical reflection on authorship, bias, originality, and professional responsibility. Process-based assessment is especially useful: students can document tools used, parameters tested, outputs rejected, and reasons for final creative choices. This makes AI literacy part of creative reasoning rather than a separate software topic.

The acceptance results also show that usefulness and ease of use do not develop at the same pace. Participants recognized AI's value for efficiency and creative enhancement, but they were less confident about learning the tools. This means that institutional adoption should not assume that availability automatically leads to meaningful use. Students and teachers need guided demonstrations, practice time, examples of acceptable use, and criteria for evaluating AI-assisted outputs.

In addition, the concern over creative control should be treated as a productive learning issue rather than a reason to reject AI. Students need opportunities to compare AI-generated suggestions with human-made decisions and to explain why one option better supports the intended emotional tone, continuity, or visual style. When AI outputs are discussed critically, students can learn that efficiency is not the same as quality and that creative authorship depends on selection, revision, and justification.

AI acceptance may also vary across roles. Students may focus on whether AI tools are easy to learn

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and useful for completing assignments, while teachers may be more concerned with assessment integrity and the preservation of creative judgment. Administrators may evaluate AI in relation to cost, infrastructure, and program competitiveness. Recognizing these role-based differences can help institutions design support systems that address practical needs at multiple levels.

Taken together, the results show that AI integration should be understood as a gradual educational change. It cannot be reduced to the introduction of new software, because effective use depends on curriculum design, teacher guidance, student reflection, and institutional resources. The strongest opportunity lies in using AI to extend students' ability to test alternatives and refine creative work, while the greatest risk lies in using it to bypass the reasoning process that post-production education is meant to develop.

A useful curriculum model may therefore combine three forms of learning activity. The first is demonstration, in which teachers show how AI tools operate and where their limitations appear. The second is guided production, in which students apply AI to a clearly defined editing, color, sound, or visual-effects problem. The third is critique, in which students evaluate whether the AI-assisted output serves the story, respects creative intention, and meets professional standards. Combining these activities can prevent AI from being treated as a shortcut and instead position it as part of disciplined creative practice.

Assessment should also reflect this model. Instead of grading only the final video, teachers can assess production journals, before-and-after comparisons, prompt or parameter records, peer feedback, and reflective explanations. These materials can show whether students understand the relationship between tool use and creative purpose. Such assessment is particularly important in AI-supported work because two students may produce similar-looking outputs while demonstrating very different levels of judgment, revision, and ethical awareness.

3.3. Synthesis of Findings

The findings from the two research objectives are closely related. Participants' ratings suggest perceived strengths in collaboration, task completion, timeline management, and narrative editing. These strengths create a useful foundation for AI integration because AI-assisted workflows still require students to organize material, evaluate alternatives, and coordinate decisions with others. However, the weaker rating for advanced visual-effects integration indicates that students may not yet have enough exposure to the complex technical environments where AI tools are increasingly used.

The acceptance findings add another layer to this issue. Participants recognized that AI can improve efficiency and support creative enhancement, but they were less confident about ease of learning and creative control. This means that the adoption problem is not simply whether stakeholders approve of AI. Rather, the central issue is how AI can be introduced in a way that strengthens existing competencies while addressing gaps in advanced technical training. If AI is added before students understand the underlying workflow, it may encourage surface-level use. If it is integrated after foundational skills have been established, it can extend students' capacity for experimentation and refinement.

The combined results therefore support a balanced model of post-production education. Foundational courses should continue to build editing judgment, narrative awareness, collaboration, and project organization. Intermediate and advanced courses should add VFX, compositing, color, sound, and AI-assisted review through authentic production tasks. Across all levels, assessment should require students to explain decisions and evaluate the relationship between tool output and creative intention. This model allows AI to become part of professional formation rather than merely a convenient production shortcut.

4. Conclusion and Recommendations

Students, teachers, and academic administrators reported generally positive practical experiences and attitudes toward AI in film post-production education. Collaboration, independent work, timeline management, and narrative-oriented editing were perceived as strengths, while advanced visual-effects integration remained less developed. Equipment access and software licensing also affected opportunities for sustained practice. AI was valued for efficiency and creative support, but learning difficulty and concerns about creative autonomy remained important.

ISSN 2522-6398 Vol. 9, Issue 8: 96-103, DOI: 10.25236/FER.2026.090813

Film post-production programs should strengthen advanced VFX, compositing, color, and AI-assisted editing through project-based coursework. Institutions should improve access to suitable workstations, editing laboratories, and licensed software. Faculty development should combine tool operation with assessment strategies, ethics, and creative supervision. Programs may begin with short workshops, followed by assignments that compare AI-assisted and manually produced outputs. Students should be required to explain how AI was used and why specific outputs were accepted, revised, or rejected.

A practical implementation plan may include three levels. First, introductory courses can expose students to AI functions, limitations, and ethical concerns through demonstrations and guided exercises. Second, intermediate courses can require students to apply AI tools to specific post-production problems such as scene organization, color matching, sound cleanup, or visual-effects planning. Third, advanced courses can require students to justify AI-assisted choices in relation to narrative intention, authorship, and audience impact. This sequence would allow AI literacy to develop alongside creative and technical maturity.

Implementation should also include faculty support. Teachers need time and training to evaluate new AI tools, redesign assignments, and create rubrics that distinguish responsible assistance from uncritical dependence. Industry collaboration can strengthen this process by providing current workflow examples, guest critiques, and realistic expectations for entry-level post-production roles. These partnerships would help keep classroom practice aligned with changing professional standards.

At the institutional level, administrators should consider AI integration as a sustained resource plan rather than a one-time software purchase. Effective implementation requires laboratory scheduling, maintenance of high-performance workstations, license management, data privacy safeguards, and technical support. Without these conditions, AI integration may remain uneven and dependent on individual initiative rather than becoming part of a coherent curriculum.

Several limitations should guide interpretation. Purposive sampling, unequal stakeholder group sizes, and a student-dominated aggregate sample limit generalizability and may obscure differences among stakeholders. The study relied on single-time-point self-reports; this report also does not present independent psychometric evidence for the questionnaire or inter-coder agreement statistics for the qualitative analysis. The results should therefore be treated as descriptive rather than causal or as objective evidence of competence.

Future studies should use multi-institutional and longitudinal samples, report subgroup analyses, and incorporate portfolio assessment, employer feedback, and learning-gain measures. Experimental or quasi-experimental designs could test whether structured AI instruction improves editing efficiency, VFX quality, reflective decision-making, and employability. Qualitative follow-up studies could also examine how students negotiate authorship when AI tools contribute to visible parts of a final production.

References

[1] Tang B. Analysis of AIGC in film and television production[J]. Communications in Humanities Research, 2024, 31: 97-104.

[2] Yang W, Lee H, Wu R, Zhang R, Pan Y. Using an artificial-intelligence-generated program for positive efficiency in filmmaking education: Insights from experts and students[J]. Electronics, 2023, 12(23): 4813.

[3] Dayo F, Memon A A, Dharejo N. Scriptwriting in the age of AI: Revolutionizing storytelling with artificial intelligence[J]. Journal of Media & Communication, 2023, 4(1): 24-38.

[4] Chiu T K F, Xia Q, Zhou X, Chai C S, Cheng M. Systematic literature review on opportunities, challenges, and future research recommendations of artificial intelligence in education[J]. Computers and Education: Artificial Intelligence, 2023, 4: 100118.

[5] Lin X F, Chen L, Chan K K, Peng S, Chen X, Xie S, Liu J, Hu Q. Teachers' perceptions of teaching sustainable artificial intelligence: A design frame perspective[J]. Sustainability, 2022, 14(13): 7811.

[6] Chow P S. Ghost in the (Hollywood) machine: Emergent applications of artificial intelligence in the film industry[J]. NECSUS, 2020, 9(1): 193-214.

[7] Vygotsky L S. Mind in society: The development of higher psychological processes[M]. Cambridge, MA: Harvard University Press, 1978.

[8] Mishra P, Koehler M J. Technological pedagogical content knowledge: A framework for teacher knowledge[J]. Teachers College Record, 2006, 108(6): 1017-1054.

ISSN 2522-6398 Vol. 9, Issue 8: 96-103, DOI: 10.25236/FER.2026.090813

[9] Davis F D. Perceived usefulness, perceived ease of use, and user acceptance of information technology[J]. MIS Quarterly, 1989, 13(3): 319-340.
[10] Okun J A, Zwerman S, eds. The VES handbook of visual effects: Industry standard VFX practices and procedures[M]. 3rd ed. Focal Press, 2020.
[11] Doshi A R, Hauser O P. Generative AI enhances individual creativity but reduces the collective diversity of novel content[J]. Science Advances, 2024, 10(28): eadn5290.
[12] Luan F, Paris S, Shechtman E, Bala K. Deep photo style transfer[C]//Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition. 2017: 4990-4998.