

Enhancing Students' Creativity in Draping through a Project-Based Learning Video Tutorial

Tri Mutmainnah*, Imami Arum Tri Rahayu, Mein Kharnolis

Universitas Negeri Surabaya, Surabaya, Indonesia

*Corresponding Email: trimutmainnah@unesa.ac.id

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ABSTRACT

Creativity in fashion education requires students to combine procedural accuracy with the ability to generate, evaluate, and refine design ideas. This study developed a Project-Based Learning (PjBL)-based draping video tutorial and evaluated its feasibility, practicality, instructional effectiveness, and contribution to student creativity. The study employed educational Research and Development using the ADDIE model. A limited trial involved 60 Fashion Education students, followed by an expanded trial with 120 different students. Five experts validated the product and instruments, while three practitioners assessed practicality and instructional effectiveness. Data were analyzed descriptively using Aiken's V, means, percentages, standard deviations, and frequency distributions. The video achieved an Aiken's V of 0.90 and a mean expert rating of 3.92, indicating very high feasibility. Student-practicality scores were 3.60 and 3.64, while practitioner-rated practicality and effectiveness reached 91.67% and 95.00%, respectively. Creativity means were 88.50 and 90.00, demonstrating strong support for creative draping instruction.



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Introduction

Creativity is a fundamental competency in vocational education because it enables students to transform technical knowledge and skills into innovative products. In fashion education, creativity includes generating ideas, developing design alternatives, evaluating their suitability, and refining products according to aesthetic and technical criteria. The OECD defines creative thinking as the capacity to generate diverse and original ideas and to evaluate and improve them until they produce

effective and meaningful outcomes (Chen and Yang, 2019; OECD, 2024; Zhang and Ma, 2023) . This competency is essential because fashion students are expected not only to follow procedures but also to create garments characterised by originality and responsiveness to users' needs.

Draping is a core fashion-design skill that combines technical proficiency with creative exploration. It involves developing garment patterns or designs by manipulating fabric directly on a dress form. Unlike flat-pattern construction, draping requires students to understand the relationships among fabric properties, body contours, balance, volume, silhouette, design lines, and garment structure. Students must observe three-dimensional fabric behaviour, determine pinning positions, establish pattern lines, make corrections, and develop details. Success therefore depends on procedural accuracy as well as fluency, flexibility, originality, and elaboration.

Because draping is visual and procedural, it requires clear and repeatable demonstrations. The preliminary study showed that the Draping course was allocated two credit hours, or approximately 100 minutes per meeting, while 200–250 students were distributed across seven classes. During each meeting, lecturers had to explain concepts, demonstrate techniques, supervise practice, provide consultation, and assess students' work. Direct demonstrations consumed class time and limited students' opportunities to revisit unclear procedures. Consequently, consultation and design exploration were constrained, and students tended to reproduce the lecturer's examples rather than develop alternatives.

Video tutorials can address these constraints by providing procedural visualisations that students can access repeatedly. Technical movements can be presented sequentially, clarified through close-up shots, and paused or replayed according to individual needs. Instructional videos can improve draping instruction in higher education by allowing students to revisit processes previously available only through classroom demonstrations Widjningsih et al (2014). Draping tutorial videos have also been found valid and practical for explaining visual and procedural content that is difficult to communicate through printed job sheets alone Hasanah et al (2026). Related studies in vocational fashion education have also shown that audiovisual and video-based media can increase student activity and learning outcomes in garment-construction practice and can serve as feasible instructional resources for developing sewing competencies (Mutmainnah, 2014; Rihadah and Rahayu, 2025). More broadly, Fyfield et al (2022) found that instructional videos are more effective when coherently designed, appropriately segmented, learner-controlled, and connected to relevant activities.

However, tutorial videos do not automatically promote creativity. A video that presents one model and a fixed procedure may support imitation while limiting independent decisions. Students may achieve technical accuracy without producing diverse or original ideas. Video should therefore be embedded in a strategy that requires students to interpret information, experiment, solve problems, receive feedback, and revise their work. In this role, video functions as procedural scaffolding that frees time and cognitive resources for design exploration.

Project-Based Learning connects procedural competence with creative production. It positions students as active participants who address authentic problems through planning, implementation, monitoring, product evaluation, and reflection. A meta-analysis of 66 studies found positive effects of Project-Based Learning on academic achievement, learning attitudes, and thinking skills compared with conventional instruction Zhang and Ma (2023). Another meta-analysis reported positive effects on creativity, although the magnitude varied across instructional designs and contexts Kwon et al (2025). In fashion education, Project-Based Learning is relevant because students connect design ideas with material selection, technical execution, collaboration, evaluation, and professional expectations (Indarti, 2016; Zakaria et al., 2025).

In this study, the video tutorial was designed not only to demonstrate draping techniques but also to support six phases of Project-Based Learning: formulating an essential question, developing a project plan, establishing a schedule, monitoring product development, assessing project outcomes, and evaluating the learning experience. Students selected a design theme, planned the project, prepared tools and materials, constructed designs on a dress form, evaluated and presented their work, and revised it in response to feedback. The video provided procedural guidance, while project activities enabled exploration of forms and design solutions.

Previous studies have demonstrated the usefulness of video in draping instruction and the contribution of Project-Based Learning to fashion education. Nevertheless, draping-video research has largely focused on product development, validity, practicality, instructional effectiveness, or technical competence. It has rarely examined how tutorial videos can be integrated with all phases of Project-Based Learning to develop creativity. Conversely, Project-Based Learning studies in fashion education have generally focused on garment-production projects or fashion collections without positioning video as procedural scaffolding in creative draping. Evidence therefore remains limited on how repeatable visual guidance and iterative project activities can help students generate, evaluate, and refine draping ideas.

The novelty of this study lies in integrating a procedural video tutorial with the six phases of Project-Based Learning to enhance creativity in draping. The video supported independent technical mastery, while Project-Based Learning structured idea generation, experimentation, feedback, reflection, and iterative refinement. Creativity was conceptualised through diversity of ideas, flexibility of design solutions, originality, elaboration, and technical appropriateness. Accordingly, this study aimed to examine the enhancement of students' creativity in draping through a Project-Based Learning video tutorial and to provide empirical and practical guidance for more exploratory fashion instruction.

Method

Research Design and Participants

This study employed educational Research and Development using the ADDIE model, consisting of Analysis, Design, Development, Implementation, and Evaluation. The product was a Project-Based Learning (PjBL) video tutorial for draping. In this study, draping refers to the development of three-dimensional garment patterns and designs by manipulating and securing fabric directly on a dress form.

The study was conducted in the undergraduate Fashion Education programme at Universitas Negeri Surabaya, Indonesia. The limited trial involved 60 students enrolled in the Draping course, while the expanded field trial involved a different group of 120 students. Five experts validated the product and instruments: three academics specialising in instructional design, learning evaluation, and educational technology, and two fashion practitioners. Three practitioners also assessed implementation practicality and instructional effectiveness.

ADDIE Development Procedure

To clarify the relationship between the ADDIE development model and the research procedures, Table X presents the research activities, corresponding trial phases, and expected outputs at each stage of the development process. This mapping demonstrates how each ADDIE phase was systematically implemented in developing, validating, testing, and evaluating the Project-Based Learning (PjBL)-based draping video tutorial.

During Analysis, the researchers examined curriculum requirements, student characteristics, learning resources, and constraints in practical draping instruction. The course was allocated two credit hours, approximately 100 minutes per meeting. Direct demonstrations consumed substantial instructional time and limited opportunities for repeated observation, consultation, and design

exploration. These findings indicated the need for a repeatable visual resource that could support technical independence and creative project work. Relationship Between the ADDIE Development Phases, Research Procedures, Trial Phases, and Expected Outputs explain in Table 1.

Table 1. Relationship Between the ADDIE Development Phases, Research Procedures, Trial Phases, and Expected Outputs

ADDIE Phase	Research Activities	Trial Phase	Output
Analysis	Needs analysis	–	Learning needs identified
Design	Storyboard, objectives, instruments	–	Prototype design
Development	Video production, expert validation, revision	Expert validation	Validated prototype
Implementation	Product testing	Limited trial (n = 60) → Expanded trial (n = 120)	Practicality, effectiveness, and creativity data
Evaluation	Formative and summative evaluation	Conducted throughout and after implementation	Final revised product

During Design, the researchers formulated learning objectives, organised the content, prepared a storyboard, mapped learning activities to the six PjBL phases, and developed assessment instruments. The six phases were formulating an essential question, developing a project plan, establishing a schedule, monitoring project progress, assessing project outcomes, and evaluating the learning experience. The video comprised six segments: opening, PjBL introduction, draping introduction, project procedures, project presentation, and reflection, with a planned duration of 10–15 minutes.

The planned duration of 10–15 minutes was determined based on instructional video design principles that recommend concise and well-segmented videos to sustain learners' attention and reduce cognitive load during procedural learning. This duration was considered sufficient to demonstrate the essential draping procedures while enabling students to pause, replay, and review specific techniques as needed throughout the project activities (Brame & Perez, 2016; Fyfield et al., 2022; Mayer et al., 2020).

During Development, the storyboard was transformed into a complete tutorial through recording, editing, voice-over narration, text labelling, and sequencing. The video presented theme

selection, dress-form and muslin preparation, fabric manipulation, pinning, marking, correction, pattern transfer, product presentation, feedback, and reflection. The initial version was reviewed by five validators and revised according to their recommendations.

During Implementation, the revised video was tested in two stages. The limited trial with 60 students was used to identify usability problems and instructional barriers. After revision, the expanded field trial was conducted with 120 students. Students accessed the video before and during project activities and used it as a procedural reference while developing draping designs. After the activities, students completed the practicality and creativity instruments.

Three practitioners evaluated the practicality of implementation and the instructional effectiveness of the video. Evaluation was formative and summative. Formative evaluation was conducted during storyboard preparation, video production, expert validation, and the limited trial. Summative evaluation examined the feasibility, practicality, practitioner-rated effectiveness, and student creativity profiles associated with the final version.

Instruments and Data Collection

Four instruments were used. The video-feasibility instrument contained 14 indicators rated on a four-point scale. Six indicators assessed pedagogical and content quality, including objective clarity, curriculum relevance, systematic presentation, content accuracy, communicative language, and support for student engagement. Eight indicators assessed technical presentation, including attractiveness, typography, text readability, layout, music, image quality, and sound quality.

The student-practicality questionnaire assessed ease of use, time efficiency, compatibility with available facilities, content engagement, perceived learning benefits, and learning comfort. The practitioner instrument assessed five aspects of implementation practicality and instructional effectiveness. The creativity instrument assessed fluency, flexibility, originality, elaboration, and sensitivity to design problems. All instruments used a four-point Likert scale.

To enhance the transparency and replicability of the assessment procedure, the practitioners evaluated students' creativity using an analytic rubric covering the five creativity indicators described above. Each indicator was rated using a four-point scale, with higher scores indicating higher levels of creative performance. Creativity Assessment Indicators and Operational Definitions explain in Table 2.

Table 2. Creativity Assessment Indicators and Operational Definitions

Indicator	Operational description in draping project
Fluency	Ability to generate multiple draping ideas and alternative garment designs during project development.
Flexibility	Ability to modify techniques, materials, or design approaches to solve draping problems.
Originality	Ability to produce unique and innovative draping designs that differ from common classroom examples.
Elaboration	Ability to develop design ideas with detailed construction, finishing, and aesthetic refinement.
Sensitivity to design problems	Ability to recognize fitting, balance, silhouette, and fabric manipulation problems and propose appropriate solutions.

Table 3. Analytic Rubric for Assessing Creativity in the Draping Project

Creativity Indicator	Score 1 (Beginning)	Score 2 (Developing)	Score 3 (Proficient)	Score 4 (Highly Proficient)
Fluency	Generates only one design idea with minimal variation.	Generates a few design ideas with limited variation.	Generates several relevant design ideas.	Generates numerous diverse and relevant design ideas.
Flexibility	Uses only one design approach.	Demonstrates limited adaptation of techniques.	Uses different approaches appropriately.	Flexibly applies multiple innovative approaches.
Originality	Design closely resembles existing examples.	Design contains minor original features.	Design demonstrates originality.	Design is highly original and innovative.
Elaboration	Design lacks refinement and detail.	Design includes some technical and aesthetic details.	Design is well developed with clear refinement.	Design is highly refined with excellent technical and aesthetic detail.
Sensitivity to Design Problems	Rarely identifies design problems.	Identifies problems after guidance.	Independently identifies and solves most problems.	Consistently anticipates and creatively solves design problems.

The rubric was used by the practitioners to evaluate students' creative performance during the implementation phase of the project. The analytic scoring criteria enabled consistent assessment across the five creativity indicators while maintaining objectivity in evaluating students' draping products.

The creativity instrument was developed to evaluate students' creative performance during the draping project. Creativity was operationalized through five dimensions: fluency, flexibility, originality, elaboration, and sensitivity to design problems. These dimensions reflect students' ability to generate multiple design ideas, adapt alternative solutions, produce original garment concepts, refine technical and aesthetic details, and identify as well as solve design-related problems encountered during the draping process. Each indicator was assessed using a four-point Likert rating scale completed by trained evaluators.

Data Analysis and Decision Criteria

Content validity was analysed through expert judgement using Aiken's V. The coefficient was calculated from validator ratings by considering the number of validators and response categories. A coefficient of at least 0.80 was considered acceptable.

Feasibility was also interpreted from the mean expert rating: 3.25–4.00 indicated very feasible and usable without revision; 2.50–<3.25 indicated feasible with minor revision; 1.75–<2.50 indicated feasible with major revision; and 1.00–<1.75 indicated not feasible. Student practicality was analysed using means and percentages. Mean scores of 3.25–4.00 were classified as very practical, 2.50–<3.25 as practical, 1.75–<2.50 as moderately practical, and below 1.75 as less practical.

Practitioner practicality and effectiveness scores were converted into percentages by comparing the observed score with the maximum possible score. Percentages of 90–100% were classified as very practical or very effective; 80–<90% as practical or effective; 65–<80% as moderately practical or moderately effective; 55–<65% as less practical or less effective; and below 55% as very impractical or very ineffective.

Creativity scores were converted to a 0–100 scale. Scores of at least 80.89 were classified as high, 50.20–<80.89 as moderate, and below 50.20 as low. The video was considered effective in supporting creativity when practitioner ratings reached at least the effective category and the dominant student creativity profile was moderate or high.

Data were analysed descriptively using IBM SPSS Statistics version 25.0 and spreadsheet software. The analyses included means, standard deviations, percentages, and frequency distributions. Because the limited and expanded trials involved different student groups, their results were compared descriptively to examine consistency across implementation scales. No pretest–posttest gain analysis or paired inferential test was applied to creativity data.

Result and Discussion

Development of the PjBL-Based Draping Video Tutorial

The product developed in this study was a draping video tutorial integrated with the six phases of Project-Based Learning (PjBL). The video was designed to allow students to study draping procedures visually and repeatedly while completing an independent design project. The six phases comprised formulating an essential question, developing a project plan, establishing a schedule, monitoring project progress, assessing the project outcome, and evaluating the learning experience.

The procedural content included selecting a design theme, preparing the dress form and muslin, manipulating and pinning fabric directly on the dress form, marking design lines, correcting the draped form, transferring the draped pattern, presenting the product, receiving feedback, and revising the product. The content was organised into short and systematic segments so that students could pause, replay, and revisit particular procedures according to their needs.

The video was positioned as procedural scaffolding rather than as a replacement for project activity. Students remained responsible for selecting themes, generating alternative forms, solving design problems, evaluating outcomes, and refining their products. Thus, the video provided a stable technical reference, whereas PjBL created space for exploration, decision making, reflection, and creativity.

Feasibility of the Video Tutorial

Five validators assessed the video in relation to instructional design, learning evaluation, educational technology, fashion content, and vocational practice. The assessment covered content relevance, clarity of objectives, procedural accuracy, organisation, language, visual attractiveness, text readability, image quality, sound quality, and alignment with the PjBL phases.

The validation produced an Aiken's V coefficient of 0.90, exceeding the minimum criterion of 0.80. The mean expert rating was 3.92 out of 4.00, placing the video in the very feasible category. The content aspect reached 99%, while the presentation aspect reached 100%.

The validation results indicate that the video met the instructional and technical requirements for draping instruction. The content score suggests that the procedures were consistent with the learning objectives, the characteristics of draping, and the project sequence. The presentation score indicates that the combination of visual demonstrations, narration, text, and audio made complex procedures observable beyond a single classroom demonstration. Summary of the Video Tutorial Evaluation explain in Table 4.

Table 4. Summary of the Video Tutorial Evaluation

Evaluation aspect	Result	Category
Content validity	Aiken's V = 0.90	Very valid
Mean expert rating	3.92/4.00	Very feasible
Content aspect	99%	Very feasible
Presentation aspect	100%	Very feasible
Student practicality, limited trial	3.60/4.00	Very practical
Student practicality, expanded trial	3.64/4.00	Very practical
Overall student practicality	3.62/4.00 or 90.50%	Very practical
Practitioner practicality	91.67%	Very practical
Practitioner effectiveness	95.00%	Very effective

These findings are consistent with Widjiningsih et al (2014), who reported that video-supported draping instruction in higher education improved instructional effectiveness and efficiency by allowing students to revisit procedures. Hasanah (2026) likewise found a draping tutorial video to be highly valid and practical for explaining visual and procedural content that was difficult to communicate through printed job sheets. The present study extends those findings by integrating the tutorial with all six PjBL phases instead of using it solely as a demonstration resource.

These results are also supported by studies in vocational fashion education showing that audiovisual and video-based instructional media can increase student activity and learning outcomes in baby-garment construction and basic sewing instruction. Video tutorials have also been found highly feasible for teaching specific sewing competencies, such as rever-collar construction (Kristiana et al., 2025; Lesman et al., 2023; Mutmainnah, 2014; Mutmainnah et al., 2020; Rihadah & Rahayu, 2025).

The high presentation rating can also be interpreted through evidence-based principles of instructional-video design. Fyfield et al. (2022) and Guo et al. (2014) concluded that learning videos are more effective when their content is coherent, segmented, learner-controlled, and connected to meaningful activities. Biard et al. (2018) similarly showed that segmentation and pacing support procedural learning by dividing complex actions into manageable stages. In the present study, sequential demonstrations, voice-over explanations, text labels, and playback control enabled students to review procedures at the point of need.

The video's instructional value therefore resulted not merely from moving images but from the alignment of audiovisual representation, procedural sequencing, and project activities. Brame (2016) emphasised the need to manage cognitive load, maintain engagement, and promote active learning in educational videos. Mayer et al. (2020) also argued that instructional video becomes more effective when learners undertake generative activities rather than watch passively. In this study, students applied the demonstrated procedures to their own projects, made design decisions, evaluated products, and revised their work.

Practicality of the Video Tutorial

Practicality was evaluated in a limited trial involving 60 students and an expanded trial involving 120 students. The limited trial produced a mean score of 3.60 out of 4.00, while the expanded trial produced a mean of 3.64. Both were classified as very practical. The combined mean was 3.62, equivalent to 90.50%.

The six evaluated aspects were ease of use, time efficiency, compatibility with available facilities, content engagement, perceived learning benefits, and learning comfort. The aspect means ranged from 3.42 to 3.72 in the limited trial and from 3.51 to 3.75 in the expanded trial. Content engagement received the highest ratings, at 3.72 and 3.75, whereas time suitability received the lowest ratings, at 3.42 and 3.51, although it remained within the very practical category.

The difference of only 0.04 between the two trials indicates stable user responses when implementation was expanded. Because the trials involved different student groups, this difference does not represent repeated measurement. Nevertheless, the consistency suggests that the video's practicality was not confined to a small trial setting. Three practitioners also awarded a practicality score of 91.67%, supporting the student results and indicating that the video could be implemented without substantial technical or organisational barriers.

Practicality was closely related to flexible access. Students could view the video before project work and revisit it while manipulating fabric. Procedures such as fabric placement, pinning, marking, correction, and pattern transfer could be replayed without requiring the lecturer to repeat the entire demonstration. Consequently, the lecturer could devote more time to consultation and to the different technical and design problems encountered by individual students.

This finding directly addresses the initial problem of limited instructional time and relatively large student cohorts. The video did not eliminate the time needed to manipulate fabric, correct forms, complete products, and revise designs. Instead, it enabled students to use their time more strategically by accessing relevant procedures when required.

Learner control over pacing and replay is consistent with Fyfield et al. (2022), while the high user ratings also support the practicality findings of Hasanah et al. (2026). In the present study, however, practicality concerned not only ease of operation but also the video's integration with project planning, monitoring, presentation, and reflection.

Effectiveness in Supporting Students' Creativity

Instructional effectiveness was assessed by three practitioners and through student creativity profiles. The practitioner rating reached 95.00%, which was classified as very effective. The assessment covered the video's contribution to the learning process, project implementation, student engagement, procedural understanding, and creative product development.

Creativity was assessed through fluency, flexibility, originality, elaboration, and sensitivity to design problems. The results are presented in Table 2, and Student Creativity Profiles in Table 5.

Table 5. Student Creativity Profiles

Trial stage	N	Mean	High	Moderate	Low
Limited trial	60	88.50	40 (66.67%)	18 (30.00%)	2 (3.33%)
Expanded trial	120	90.00	85 (70.83%)	32 (26.67%)	3 (2.50%)

In the limited trial, the creativity mean was 88.50; 66.67% of the students were classified as high, 30.00% as moderate, and 3.33% as low. In the expanded trial, the mean was 90.00; 70.83% were classified as high, 26.67% as moderate, and 2.50% as low. The proportion in the high category was 4.16 percentage points greater in the expanded trial, while the proportion in the low category was 0.83 percentage points smaller. These differences cannot be interpreted as individual improvement because the two trials involved independent groups and did not use matched pretest-posttest measurements. They instead indicate that a predominantly high creativity profile was reproduced when the video was implemented with a larger group. This finding supports the consistency of the product's implementation but does not establish a causal effect.

The creativity profiles indicate that the video did not restrict students to reproducing one demonstrated design. Most students reached the high category, suggesting that they could apply common procedural foundations while developing different themes, silhouettes, fabric arrangements, details, and solutions. The complementary functions of video and PjBL help explain this pattern. The video reduced uncertainty about technical procedures, while PjBL required students to plan projects, select alternatives, solve design problems, present products, use feedback, and revise their work (Kokotsaki et al., 2016; Loyens et al., 2023).

This distinction is important because tutorial videos may encourage imitation when learners are required only to reproduce a fixed example. In this study, the demonstration established technical principles without prescribing a single final product. Students therefore retained creative agency.

The instructional design reflects the OECD's (2024) conception of creative thinking as the capacity to generate diverse and original ideas and to evaluate and improve them. Theme exploration supported idea generation, whereas presentation, feedback, correction, and revision supported idea evaluation and refinement.

The findings are consistent with Zhang and Ma's (2023) and Chen, C. H., and Yang, Y. C. (2019) meta-analysis, which reported positive effects of PjBL on academic achievement, learning attitudes, and thinking skills. Kwon and Lee (2025) also found that STEM project-based learning positively influenced creativity. Although STEM differs from fashion education, relevant mechanisms-including problem solving, experimentation, product construction, and iterative improvement-are also present in draping projects. This evidence therefore supports the general creativity potential of PjBL but should not be treated as direct evidence for fashion education.

Fashion-specific literature provides closer contextual support. Indarti (2016) and Rizal, Y. (2026) and Falah (2024) showed that PjBL in a final fashion collection connected trend research, design development, material selection, production, teamwork, and problem solving. Zakaria et al. (2025) concluded that PjBL in fashion education can strengthen technical proficiency, creativity, problem-solving ability, professional readiness, and learner autonomy. The present study adds to this literature by showing how a video tutorial can serve as procedural scaffolding within a fashion-design project.

Contribution and Limitations

The main contribution of this study is the integration of a draping video tutorial with all six PjBL phases. Previous draping-video studies have mainly addressed media validity, practicality, procedural understanding, or technical performance. This study connected repeatable procedural visualisation with project planning, monitoring, presentation, feedback, reflection, and revision. The video supported technical learning without replacing creative decision making Kirschner et al (2006).

The findings also show that feasibility, practicality, and creativity are interrelated. A feasible video makes procedures clear; a practical video can be accessed repeatedly during project work; and PjBL converts procedural support into opportunities for experimentation and iterative refinement. The instructional contribution therefore emerged from the relationship between media

design and pedagogical design Ainsworth et al (2002).

The implementation of the PjBL-based draping video tutorial in other educational institutions may require adaptation to local contexts and available resources. Institutions with limited access to dress forms, sewing laboratories, audiovisual equipment, or stable internet connectivity may encounter challenges in providing learning experiences comparable to those in the present study. In addition, successful implementation depends on teachers' readiness to facilitate Project-Based Learning activities and to provide continuous guidance and feedback throughout the creative design process.

Although the video tutorial provided clear procedural guidance, draping remains a tactile and psychomotor skill that requires direct hands-on practice, immediate instructor feedback, and repeated manipulation of fabric on a dress form. Certain aspects of draping, such as controlling fabric tension, evaluating garment balance, and responding to subtle material characteristics, cannot be fully conveyed through video alone. Therefore, the video tutorial should be viewed as a complementary instructional resource rather than a substitute for supervised studio practice within Project-Based Learning activities.

Several limitations should be acknowledged. Creativity was analysed descriptively, and the two trial stages involved different groups. The absence of a control group and matched pretest–posttest data means that the study cannot establish that the video caused the observed creativity profiles. Creativity assessment would also be strengthened by independent ratings of actual draping products and inter-rater reliability analysis.

Future research should employ comparison groups, longitudinal measurements, and product-based creativity rubrics. Within the scope of educational development research, however, the convergence of expert validation, student practicality, practitioner effectiveness, and favourable creativity profiles indicates that the video tutorial is suitable for supporting project-based draping instruction.

Conclusion

The PjBL-based draping video tutorial developed through the ADDIE model met the established feasibility, practicality, and instructional-effectiveness criteria. Expert validation produced an Aiken's V coefficient of 0.90 and a mean rating of 3.92, indicating that the video was highly feasible. Student practicality scores were consistently high in the limited and expanded trials, with mean scores of 3.60 and 3.64, respectively. Practitioner assessments also classified the video as very practical and very effective. Student creativity profiles were predominantly high, with mean scores

of 88.50 in the limited trial and 90.00 in the expanded trial. These findings indicate that the video provided appropriate procedural support for project-based draping activities.

The contribution of this study lies in positioning video as procedural scaffolding within all six phases of PjBL. Repeatable visual guidance supported students' technical independence, while project planning, experimentation, feedback, reflection, and revision provided opportunities for creative decision making. However, the descriptive design, independent trial groups, and absence of a control group or matched pretest–posttest creativity data limit causal interpretation. Future studies should employ comparison groups, longitudinal measurements, and product-based creativity rubrics assessed by independent raters. Within the scope of educational development research, the video tutorial is suitable for supporting exploratory, student-centred, and creativity-oriented draping instruction.

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