



Video tutorial-based multimedia development for the Bridal Makeup subject at SMK Pemda Lubuk Pakam

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ABSTRACT

The dearth of understanding and the paucity of accessible learning materials concerning the concept of Batak Toba bridal makeup have resulted in substandard achievement of the minimum completion criteria and challenges in practical work in bridal makeup lessons. In response to these issues, the objective of this study is to develop a multimedia-based video tutorial for the Batak Toba bridal makeup subject at SMK Pemda Lubuk Pakam. The tutorial is designed to serve as a practical, engaging, and effective learning tool. The research method employed is the Borg and Gall research and development method, consisting of eight stages: needs analysis, validation, student testing, and final product development. The research subjects consisted of 30 students, who were divided into an experimental group and a control group. Experts in design, content, and media conducted the validation of product development. The study's results indicate that the developed media are suitable for use and are considered practical and effective in supporting the learning process. The Batak Toba bridal makeup video tutorial will likely serve as an alternative learning medium for bridal makeup, thereby enhancing students' skills in this area.

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ABSTRAK

Keterbatasan pemahaman serta minimnya media pembelajaran yang dapat diakses oleh siswa terkait konsep tata rias pengantin Batak Toba berdampak kepada rendahnya ketercapaian kriteria ketuntasan minimal dan kesulitan praktikum pada mata pelajaran make-up pengantin. Berkaitan dengan permasalahan tersebut, penelitian ini bertujuan untuk mengembangkan multimedia berbasis video tutorial untuk mata pelajaran tata rias pengantin Batak Toba di SMK Pemda Lubuk Pakam sebagai media yang praktis, menarik, dan efektif. Metode yang digunakan dalam penelitian ini adalah metode penelitian dan pengembangan Borg and Gall dengan delapan tahapan, mulai dari analisis kebutuhan, validasi, uji coba siswa hingga produk akhir. Subjek penelitian melibatkan 30 siswa yang dibagi dalam kelas eksperimen dan kelas kontrol. Validasi pengembangan produk dilakukan kepada ahli desain, materi dan media. Hasil penelitian menunjukkan bahwa media yang dikembangkan sudah layak untuk digunakan dan dinilai praktis serta efektif dalam mendukung proses pembelajaran. Berdasarkan hal tersebut, diharapkan dengan adanya video tutorial make up pengantin Batak Toba yang dihasilkan ini dapat menjadi alternatif media pembelajaran make-up penganti yang mampu untuk meningkatkan keterampilan tata rias pengantin siswa.

Kata Kunci: Borg and gall; mata pelajaran tatarias pengantin; multimedia; video tutorial

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INTRODUCTION

Vocational High Schools (SMK) play a strategic role in preparing graduates who are ready to work in their respective fields. One of the vocational programs that continues to grow and is highly relevant to the needs of the service industry is the beauty program. This program emphasizes the mastery of practical skills, including makeup application and bridal makeup, which require practical and targeted learning methods.

However, in its implementation, various challenges are still faced. One of which is the low number of students meeting the *Kriteria Ketuntasan Minimal* (KKM). This situation indicates that students' learning outcomes are not yet fully optimized, particularly in terms of skills. The low achievement of KKM can be attributed to several factors, including the limited and monotonous use of learning materials, the dominance of lecture-based methods, and the minimal utilization of technology in practical learning processes (Arum & Dimyati, 2024; Cahyadi, 2016; Rustiani et al., 2019).

This gap is believed to be caused by students' limited understanding of traditional makeup concepts and difficulties in practicing specific techniques, such as applying foundation before powder, which can cause makeup to smudge when sweating or being touched. This issue requires an innovative and contextual learning approach, such as the use of multimedia-based video tutorials. This medium can visually demonstrate techniques, allowing students to learn repeatedly and adjust their learning pace at their own pace.

Research at SMK Banda Aceh by Huthoari in his dissertation entitled "*Pengembangan Media Pembelajaran Video Tutorial Tari Rapa'i Geleng Pada Mata Pelajaran Seni Budaya Untuk Pembelajaran Tari Sekolah Menengah Atas Kota Banda Aceh*" showed that the use of video tutorials can enhance students' motivation and learning effectiveness, particularly in the field of dance, which also requires mastery of technical movements and precision (see: <https://digilib.unimed.ac.id/id/eprint/35400/4/4.%20NIM%208136122018%20PREFACE.pdf>). This aligns with other findings in the "*Multimedia Learning*" book theory by Mayer, which states that the combination of visual and audio elements significantly improves knowledge retention and transfer compared to textual information delivery alone.

In beauty expertise programs, learning requires not only theoretical understanding but also mastery of precise procedural steps. Therefore, the learning media used must be able to facilitate students' understanding, observation, and practice of skills in a concrete and repeated manner. One medium proven effective in this context is multimedia-based video tutorials, which provide contextual, interactive, and flexible learning experiences tailored to learners' needs.

Video media has the advantage of conveying information both visually and auditorily, and it can also explain practical steps in a sequential, systematic, and contextual manner. This advantage is highly relevant to the characteristics of students in vocational high schools (SMK), who generally find it easier to understand the material through a visual-kinesthetic learning approach. In the context of learning theory, combining visual and verbal elements in the learning process, as described in Multimedia Learning Theory, has been proven to be more effective in improving memory retention and conceptual understanding (Mayer, 2021). This effectiveness is particularly evident in procedural and practical learning, such as skills

in the beauty field. Therefore, video media is considered ideal for supporting skills-based learning.

Previous research findings also reinforce the effectiveness of video media in skill-based learning. For example, the developed video tutorial media for makeup art lessons at SMK Negeri 2 Singaraja received a very positive response from students, with an average satisfaction rate of 94.2%. This indicates that students felt assisted in understanding the processes and techniques presented through direct visualization (Fitriana, 2022). Meanwhile, the use of video tutorials can significantly improve students' practical skills in everyday makeup lessons (Wulandari & Pritasari, 2020). These results suggest that integrating video media into the regular learning process is highly recommended as an effective learning strategy to enhance the quality of skills-based learning in SMK.

The use of video tutorials in vocational education can significantly improve students' cognitive and psychomotor skills (Navarrete et al., 2025). Videos enable the presentation of learning situations that resemble real-world industry practices while also serving as a supportive medium in task-based learning, a common approach in vocational education, including beauty education. Furthermore, the learning motivation is significantly influenced by variations in teaching methods and the use of interactive media such as online learning and video tutorials (Lee & Kwon, 2022; Rosyiddin et al., 2023). They conclude that such media can enhance both technical and academic skills among students. These media not only systematically visualize work procedures but also provide interactive, flexible learning experiences tailored to the characteristics of vocational school students.

Based on the explanation above, the students' achievements in Batak Toba bridal makeup practice remain low, particularly in terms of makeup durability and time efficiency, which is influenced by the frequency of remedial sessions. Additionally, challenges were identified in students' ability to understand and apply cosmetic techniques properly. That has become the main background of this research. On the other hand, the development of multimedia-based video tutorials on Batak Toba bridal makeup can hopefully be used as an alternative learning medium to support the improvement of students' skills. Therefore, the development of practical, engaging, and effective learning media, such as multimedia-based video tutorials, is still necessary. This media is expected to bridge the gap in the learning process and support the comprehensive enhancement of students' competencies in mastering Batak Toba wedding makeup skills.

LITERATURE REVIEW

Video-Based Learning Media in Vocational Education

Video-based learning media have been demonstrated to enhance student learning outcomes in vocational education, particularly in practical subjects. The use of video as a pedagogical tool has been shown to enhance student engagement and performance, particularly in practical subjects within the context of vocational education (Wijaya, 2025). Moreover, the integration of video-based learning into the educational curriculum has been shown to facilitate a more profound comprehension of practical work procedures among students, leading to significant time savings and an improvement in the accuracy of their performance in practical tasks (Komariah & Lutfi, 2024).

Moreover, an international study has demonstrated that video-based learning has a positive impact on enhancing students' conceptual understanding and practical skills through immersive and repetitive visual simulations (Rosendahl & Wagner, 2022). The study's findings indicated that students who utilized video tutorials demonstrated an improvement in their practical abilities. The study also emphasizes that it allows students to learn at their own pace. Consequently, educational videos function not only as visual aids but also as pedagogical strategies, capable of bridging the gap between theory and practice in education.

Skill Development in Vocational School Students

Vocational education endeavors to provide students with the practical skills that align with industry demands. In the Beauty Care program, students are expected to develop a range of competencies. These include facial analysis, selecting color combinations suitable for a particular culture, identifying skin conditions, and applying cosmetics and accessories using proper techniques. The outcome of acquiring bridal makeup skills is the ability that an individual acquires after completing the bridal makeup training process. This ability encompasses a mastery of techniques, a comprehensive knowledge of products, and the ability to create makeup looks that align with the bride's characteristics and the wedding theme. Students must master the following makeup techniques (Toding, 2022):

1. Foundation: It is preferable to use a foundation with a lightweight formula and a natural finish, as this will help avoid the appearance of heaviness that can result from applying a thick foundation.
2. In the context of color selection, a preference has emerged for hues that exhibit a softer and more naturalistic character. These color choices have been shown to enhance the visual appeal of the eyes, imparting a sense of boldness and elegance. In contrast, the use of bold colors is less favorable.
3. Contouring and Highlighting Techniques: These techniques modify the facial structure, thereby adding dimensionality and ultimately achieving a more defined and contemporary aesthetic.
4. Eyebrows: The prevailing trend in eyebrow shaping is toward more defined and structured forms, although these are adapted to the individual's face shape. In contemporary times, the use of feathered eyebrows has become increasingly prevalent, often replacing thick eyebrows throughout various cultural expressions.
5. False Eyelashes: The use of false eyelashes, available in a variety of styles and sizes, creates the illusion of larger, more dramatic eyes. This is achieved through eyelash-sewing techniques that enhance the lashes' lift and adhesion.
6. Lip Gloss: Lip gloss has been demonstrated to enhance the appearance of the lips, bestowing them with a glossy and filled quality.

A curriculum grounded in learning outcomes prioritizes the attainment of these competencies through immersive, hands-on methodologies. In their research, Martini et al. in their research titled "A Learning Development of Beauty Skill Program at a vocational school in preserving local wisdom," stated that the use of video media in learning allows students to repeatedly view demonstrations of techniques, which aids in understanding and mastering

these skills. This perspective aligns with the view put forth by those who underscore the significance of cultivating beauty skills programs within vocational schools as a means to safeguard local wisdom and enhance the caliber of graduates (retrieved from: <https://www.researchgate.net/publication/362878012>).

Learning Outcomes of the Beauty Care Department

The learning outcomes in the Beauty Care department include the ability to apply makeup techniques in accordance with industry standards and local cultural norms. A 2024 study by AVI Education highlights the importance of practical training in beauty education, emphasizing the need to bridge the gap between theoretical knowledge and practical application (retrieved from: <https://avi.edu/the-importance-of-hands-on-training-in-beauty-education/>). The integration of video-based learning media enables students to access learning materials with greater flexibility, thereby allowing them to learn at their own pace and review difficult material.

Beyond the technical aspects, the learning outcomes encompass critical thinking skills, observational abilities, and precision in cosmetic application procedures. The efficacy of video tutorials in beauty education has been demonstrated by their ability to facilitate skill transfer from the learning environment to real-world practice (Kim & Park, 2023). It has been demonstrated that students who learn using video media exhibit significant advancements in several key areas. These advancements include, but are not limited to, enhanced makeup technique accuracy, improved hand-eye coordination, and heightened adherence to workplace hygiene standards. The study also noted that the integration of interactive multimedia can increase student engagement by up to 35% compared to traditional methods. Consequently, the efficacy of learning outcomes in the beauty program is contingent not solely on repetitive practical exercises but also on the integration of digital learning strategies that accurately represent work processes contextually and realistically.

METHODS

The study employs a Research and Development approach, utilizing a simplified version by Borg and Gall development model who adapted with 8 stages by Sugiyono in his book titled "*Metode Penelitian dan Pengembangan*". This approach is particularly suitable for developing learning media in the context of vocational education, as evidenced by its implementation in the Beauty Care Department at vocational high schools. The model under consideration is designed to produce valid, practical, and effective educational products through a systematic and continuous process. Plomp and Nieveen, in their book titled "*Educational Design Research: Introduction and illustrative cases*" the authors state that development is also highly suitable in the context of vocational education because it allows teachers and researchers to integrate learning innovations directly with the conditions. The selection of samples in this study was conducted by randomly selecting test students, ensuring equal opportunities for all students. The eight stages of research conducted by the researcher include:

1. Analysis of Potential Problems. At this stage, the author will conduct field activities, also known as observation, and analyze the needs of teachers and students. The observation stage is to be conducted at SMK Pemda Lubuk Pakam, Class XI, Tata Kecantikan. This stage is conducted to identify the issues that are causing learning activities to be ineffective.
2. Data Collection. At this stage, the author gathers data and information based on the material that will be presented in the media. At this stage, the data will be collected using a questionnaire that will be administered to teachers and students. At this stage, the researcher will also collect materials that will be included in the video tutorial-based multimedia to be created.
3. Product Design (Storyboard). The design consists of a series of images and graphics that must be created, followed by the implementation of the techniques. The multimedia script contains information regarding the title of the material, text display, image display, and other pertinent details. At this stage, the author designs a storyboard, which the designer will use to illustrate the ideas.
4. Media Validation. Media validation is defined as the process of designing products suitable for use from video tutorial-based multimedia content. The assessment is conducted by experts in each field of education, who are then asked to provide input. The validation will be carried out by design experts, material experts, and media experts. The design experts are lecturers from Medan State University; the material experts are also lecturers from the same institution; and the media experts are media professionals.
5. Individual Trial. The present study was conducted in a single trial stage with five students enrolled in the XI-grade beauty therapy course at SMK Pemda Lubuk Pakam. The five respondents were selected at random to ensure that each student had an equal opportunity to participate. The students were provided with a video tutorial-based multimedia presentation and subsequently requested to complete a questionnaire.
6. Small group trial. This individual trial phase was conducted on 10 students in the XI grade of the beauty program at SMK Pemda Lubuk Pakam. The 10 respondents were selected at random, and the individuals who participated in the individual trial were excluded from this small group trial. This was implemented to ensure that each student had an equal opportunity. The students were provided with video-based multimedia tutorials and subsequently requested to complete a questionnaire.
7. Field trial. This individual trial stage was conducted on 30 grade XI beauty therapy students at SMK Pemda Lubuk Pakam. The students were provided with a video tutorial-based multimedia presentation and subsequently asked to complete a questionnaire.
8. Final Product. It is evident that the media development stage has been completed and is now suitable for use in educational settings.

RESULTS AND DISCUSSION

The development of multimedia employing video tutorials was evaluated through three aspects: feasibility, practicality, and effectiveness. The methods employed in this study are classified as research and development (R&D) to produce learning products. The product developed is a multimedia video tutorial on Batak Toba bridal makeup, with a specific focus on the techniques employed in Batak Toba bridal makeup. The steps in this study refer to

the Borg and Gall development model, adapted with eight stages by Sugiyono in his book titled "*Metode Penelitian dan Pengembangan*".

Validation Data Analysis

The results of the material's feasibility test analysis, as presented in the multimedia video tutorial on Batak Toba bridal makeup, have been validated by material experts. The material's feasibility was assessed with an average percentage score of 95%, its presentation aspect was assessed with an average percentage score of 94%, and its language use was assessed with a percentage score of 95%. The assessment yielded a score of 94%, with each component contributing to the overall evaluation. This finding suggests that the developed multimedia video tutorial is deemed to be "Very Feasible." The category "Very Feasible" signifies that the multimedia video tutorial on Batak Toba bridal makeup at SMK Pemda Lubuk Pakam is capable of effectively meeting learning needs.

Table 1. Expert material evaluation analysis data

Evaluation Aspect	Respondents	Mean Score (%)	Category
Feasibility	Content Eligibility	95%	Very feasible
	Presentation	94%	Very feasible
	Use of Language	95%	Very feasible

Sources: Research Finding 2025

The results of the media feasibility test analysis on multimedia video tutorials for Batak Toba bridal makeup materials, which have undergone validation by media experts, demonstrate that, in terms of content feasibility, the media experts assigned an average percentage score of 92%. Regarding language use, the experts assigned an average percentage score of 95%. In terms of media layout, the experts assigned an average percentage score of 95%. The assessment yielded a 94% score, with each component contributing to the overall evaluation. This finding suggests that the multimedia video tutorial developed is deemed to be within the "Very Feasible" range, indicating its potential to address learning objectives effectively. A synopsis of the validation results is provided in **Table 2**.

Table 2. Media Expert Evaluation Data Analysis

No	Evaluation Aspects	Mean Score (%)	Category
1	Content Eligibility	92%	Very feasible
2	Language use	95%	Very feasible
3	Media layouts	95%	Very feasible

Sources: Research Finding 2025

The results of the feasibility test analysis conducted by design experts on multimedia video tutorials on Batak Toba bridal makeup materials, which have undergone validation stages by design experts, indicate that the content feasibility has been assessed at an average percentage score of 93%. The graphic aspect has been assessed at an average percentage score of 94%. The assessment yielded a score of 93%, based on the two aforementioned

criteria. This finding suggests that the multimedia video tutorial developed is deemed to be within the "Very Feasible" range, indicating its potential to address the learning requirements of the Batak Toba bridal makeup tutorial at SMK Pemda Lubuk Pakam. A synopsis of the validation results is provided in **Table 3**.

Table 3. Design Expert Evaluation Data Analysis

No	Evaluation Aspects	Mean Score (%)	Category
1	Content Eligibility	93%	Very feasible
2	Graphics	94%	Very feasible

Sources: Research Finding 2025

Practicality of the Multimedia

The results of the practicality trial analysis on the multimedia video tutorial on Batak Toba bridal makeup material indicate that the average percentage score of the teacher's assessment was 96% in the practicality test, 91% in the individual practicality trial, and 90% in the small group trial. A limited series of field trials was conducted, resulting in an average percentage score of 92%. According to the assessment findings, the percentage score is 91%.

Effectiveness of the Multimedia

The objective of this study is to ascertain whether there is a statistically significant discrepancy between the learning outcomes of students in the experimental class and the control class. The employment of the t-test facilitates the analysis of whether the treatment administered to the experimental class has a statistically distinct effect compared to the control class. The following data are derived from the t-test results presented in **Table 4**.

Table 4. t-test result

Class	t _{Hitung}	t _{tabel}	Criteria
Independent Sample t-test	13,25	1,701	There is a difference in learning outcomes between the experimental and control classes.

Sources: Research Finding 2025

According to the data presented in the table, the t-value is 13.25, while the t-value is 1.701. According to the stipulated decision-making criteria for the t-test, rejection of H₀ and acceptance of H_a are warranted when the t-value exceeds the t-table value or μ_1 exceeds μ_2 . The null hypothesis, H₀, posits that the learning outcomes of Batak Toba bridal makeup students instructed with video tutorial-based multimedia are equivalent to or smaller than those of Batak Toba bridal makeup students taught with PowerPoint media. Furthermore, the learning outcomes of Batak Toba bridal makeup students who utilize video tutorial-based multimedia are superior to those of Batak Toba bridal makeup students who employ PowerPoint presentations. A substantial discrepancy in student learning outcomes emerges between the experimental class and the control class, suggesting a statistically significant difference in their academic performance. In this study, the experimental class was administered treatment using video tutorial-based learning media, while the control class

was given PowerPoint media. The findings of the t-test demonstrated that the use of video tutorials as a learning medium had a more substantial impact on enhancing student learning outcomes compared to the use of PowerPoint presentations. This discrepancy is manifest in the substantial difference observed between the two groups.

The research results indicate that the implementation of video tutorial-based multimedia as an educational tool for teaching makeup skills to students is a feasible, practical, and effective approach. In terms of feasibility, the validation results meet the criteria for high feasibility. In terms of practicality, the media content was found to be highly usable and clear by both teachers and students. In terms of effectiveness, the t-test results indicate that students who engaged with video tutorials demonstrated significantly higher learning outcomes in comparison to students who utilized PowerPoint media. The findings of this study indicate that integrating multimedia, such as video tutorials, can enhance the comprehension of practical procedures, expedite the learning process, and significantly improve students' makeup skills.

Discussion

Multimedia Suitability

The results of the feasibility test for the Batak Toba bridal makeup tutorial video media indicate that the developed media was deemed highly feasible by all three validators: the subject matter expert, media expert, and design expert. The media have been found to meet the appropriate standards for use in bridal makeup lessons to improve makeup skills at vocational high schools (SMK).

The video tutorial media developed have been deemed valid and suitable for use, particularly in the context of distance learning, as they have the capacity to enhance student learning outcomes (Dhana, 2021). Another study demonstrated that the developed video tutorial media effectively enhanced students' makeup skills and was considered suitable by experts in terms of content and presentation (Habsari et al., 2023; Nurhaliza et al., 2025). The efficacy of video media in promoting learning outcomes has been validated through empirical research. Vocational school students have demonstrated a notable increase in learning outcomes when exposed to instructional videos, which are "highly suitable" and have exhibited a significant impact on learning outcomes in comparison to conventional video formats (Sari & Siagian, 2020; Wahida et al., 2023).

The efficacy of interactive video media in facilitating practical learning has been demonstrated, and its feasibility in enhancing student learning outcomes, particularly in the domain of skills development, has been established (Navarrete et al., 2025). Furthermore, research conducted in South Korea has demonstrated that multimedia designed with integrated cognitive and visual principles can enhance satisfaction and learning effectiveness in beauty training programs (Natarajan et al., 2022).

The findings of this study further substantiate the efficacy, viability, and suitability of multimedia-based video tutorials as a medium for enhancing Batak Toba bridal makeup skills in a self-directed, systematic, and efficient manner. This conclusion aligns with the results of research conducted in the domains of beauty education and vocational education at both national and international levels.

Practicality of Multimedia

The results of the practicality test on the Batak Toba bridal makeup video tutorial media show that both teachers and students gave very positive ratings. It indicates that the media is easy to use, easy to understand, and suitable for the needs and characteristics of students at vocational high schools (SMK).

The use of project-based videos in beauty practice is efficient because it enables students to learn in a contextually relevant and flexible manner (Rangkuti et al., 2025; Qonitalila et al., 2024). Students feel more confident because they can follow video tutorials independently outside of class hours. Students' skill scores increased significantly after using this media. Similar research has been conducted, concluding that the use of video tutorials in practical skill learning can enhance time efficiency and encourage students to learn more independently (Maghfiroh et al., 2025; Sari & Nugroho, 2023).

A similar finding was reported, emphasizing that video-based media greatly assists students in gradually and systematically understanding each step of the learning process (Fitriana, 2022). A vocational school in the field of Beauty Care also revealed that the use of video tutorials can improve students' learning efficiency and reduce errors in practice (Lestari, 2023). Teachers also noted that students became more independent and less reliant on direct instructions when completing tasks.

The video tutorials in daily makeup lessons at vocational schools are considered very practical by both students and teachers (Rahmiati & Devi, 2022). This is evident from the positive responses regarding the ease of accessing the material, the clarity of the instructions provided, and the integration between the visual presentation and the content of the material. This practicality supports the achievement of learning objectives as students can study the material independently and repeatedly as needed. Meanwhile, a study confirms that the use of video tutorial-based learning media can enhance the effectiveness of the learning process in skill-based subjects (Yanita et al., 2023). Video tutorials help students understand work procedures visually and systematically, thereby strengthening mastery of the skills being taught and promoting overall learning outcomes.

The use of educational videos in vocational learning not only improves effectiveness but also promotes learning time efficiency and student independence (Nurmaliyah et al, 2024). The advantage of video media lies in its flexibility and ability to accommodate diverse learning needs, making it highly suitable for use in skill-based education contexts.

Thus, these findings further reinforce that multimedia video tutorials on Batak Toba wedding makeup are not only feasible but also highly practical for implementation in education. This medium holds significant potential to enhance students' skills independently, efficiently, and sustainably, aligning with the characteristics of practical learning in vocational schools (SMK).

Effectiveness of Multimedia

The results of this study indicate that the use of multimedia-based video tutorials in teaching Batak Toba bridal makeup has a significant impact on improving student learning outcomes. Students who used video media demonstrated a better understanding and achieved higher

results compared to those who used conventional learning media, such as PowerPoint. Data analysis through statistical tests also revealed significant differences between the two groups, indicating that video media is more effective in supporting the overall learning process of skills.

The use of video tutorial media can enhance learning effectiveness compared to lecture methods (Musthofa & Murdani, 2018). Similar results were found, showing that students who used videos in their learning experienced a significant improvement in learning outcomes compared to the control group (Wijaya et al., 2025). Additionally, the video media is highly beneficial in vocational education contexts as it can visually connect theory with practice in a structured and repeatable manner according to students' needs (Susilowati et al., 2023).

Another study demonstrates that instructional videos are effective in developing students' practical skills, particularly in subjects that require visual demonstrations, such as makeup artistry (Pitakusuma & Juniastuti, 2024). The use of interactive videos can enhance concentration, improve understanding of work steps, and increase accuracy in performing makeup techniques (Triwidarti et al., 2025).

The use of interactive videos in teaching beauty skills significantly improves learning outcomes compared to traditional methods and improve their independent learning skills (Xiong et al., 2023; Yensharti & Riyadi, 2024). It confirms that video media not only facilitates the delivery of material but is also effective in improving the overall quality of learning. Therefore, the results of this study reinforce that multimedia-based video tutorials are a highly effective medium for significantly improving Batak Toba bridal makeup skills. This medium is highly relevant for application in practical learning at vocational high schools, as it facilitates self-directed, flexible, and repeatable learning, thereby greatly assisting students in achieving optimal skill competencies.

CONCLUSION

Video-based multimedia tutorials have proven to be a viable, practical, and effective learning medium in supporting the learning process of Batak Toba bridal makeup skills in vocational schools. The development of this medium bridges the gap between theoretical understanding and practical application, and encourages active student engagement in independent and contextual learning. This media not only meets quality standards in terms of content, presentation, and language but is also easy to operate by both teachers and students, thereby enhancing time efficiency and competency achievement. Additionally, the implementation of video tutorials has been shown to significantly improve learning outcomes, making it a superior alternative compared to conventional learning media. Overall, the use of multimedia video tutorials is recommended as an innovative solution for practical learning in vocational schools, particularly in the field of cosmetology, and has the potential to be applied to other vocational competencies, thereby strengthening the quality of vocational education.

AUTHOR'S NOTE

The authors declare that there is no conflict of interest related to the publication of this article. The authors emphasize that the data and content of the article are free from plagiarism.

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