

# Enhancing Theatrical Makeup Competency through Project-Based Learning, Tutorial Videos, and Adaptive Learning Styles

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## ARTICLE INFO

### Article history:

Received November 11, 2023

Accepted March 06, 2024

Available online April 25, 2024

### Kata Kunci:

Kompetensi Rias Panggung,  
Pembelajaran Berbasis Proyek,  
Video Tutorial, Gaya Belajar

### Keywords:

Theatrical Makeup Competency,  
Project-Based Learning, Tutorial  
Video, Learning Style



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## ABSTRAK

Kompetensi tata rias teater sangat diperlukan di era pembelajaran digital, namun pencapaian kompetensi tata rias teater masih menghadapi hambatan dan tantangan. Penelitian ini bertujuan untuk menganalisis variabel-variabel yang mempengaruhi pencapaian kompetensi tata rias teater. Survei kuantitatif digunakan sebagai metode penelitian dan kuesioner digunakan untuk mengumpulkan data. Respondennya adalah 105 mahasiswa Jurusan Tata Rias dan Kecantikan. Data dianalisis menggunakan Structural Equation Model-Partial Least Square (SEM-PLS) dengan software Smart PLS 4.0. Analisis prasyarat menggambarkan bahwa model pengukuran valid dan reliabel. Hasil penelitian menggambarkan bahwa pembelajaran berbasis proyek mempunyai pengaruh positif dan signifikan terhadap kompetensi tata rias teater dengan kategori pengaruh tinggi. Selain itu, video tutorial mempunyai pengaruh positif dan tidak signifikan terhadap kompetensi tata rias teater dengan kategori low effect. Selain itu, gaya belajar berpengaruh positif dan signifikan terhadap kompetensi tata rias teater dengan rentang pengaruh yang tinggi. Gaya belajar sebagai variabel mediator melakukan mediasi penuh pada korelasi kedua variabel. Hasil ini memberikan alternatif faktor pendukung pencapaian kompetensi.

## ABSTRACT

The competency of theatrical makeup is indispensable in the digital learning era, however achieving theatrical makeup competency is still facing barriers and challenges. This research aims to analyze variables influencing theatrical makeup competency achievement. A quantitative survey used as a research method and questionnaire used for collecting data. Respondents are 105 students of Makeup and Beauty Department. Data was analyzed using Structural Equation Model-Partial Least Square (SEM-PLS) with Smart PLS 4.0 software. The prerequisite analysis describe that the measurement model is valid and reliable. Study result describe that project-based learning has a positive and significant impact on theatrical makeup competency with the high effect category. Furthermore, tutorial videos exhibit a positive yet insignificant impact on theatrical makeup competency with low-effect category. Additionally, learning style has a positive and significant effect on theatrical makeup competency with the high-effect range. Learning style as mediator variable performs full mediation in both variable correlations. This result provides alternative factors supporting competency achievement.

## 1. INTRODUCTION

The competency of theatrical makeup is indispensable in the digital learning era. Theatrical makeup competency encompasses the mastery of knowledge pertaining to MC makeup, beauty pageant makeup, traditional and modern dancer makeup, fantasy makeup design, and the ability to apply it on models (Hall et al., 2020; Sihombing et al., 2021). Within the realm of digital learning, students are expected to attain expertise in these facets to contribute to the rapidly evolving performing arts industry, preserve cultural diversity, and engender distinctive characteristics across various forms of performances (Byrnes, 2022; Lee, 2021). Moreover, the comprehension of health and safety practices is important in the professional Theatrical Makeup domain, as it safeguards the well-being of makeup artists and models at

every phase of production. In an ideal condition, students are expected to possess an in-depth mastery theatrical makeup competency (Lestari & Saripah, 2020; Simone & Murty, 2021). They can seamlessly integrate profound knowledge of MC makeup and beauty pageant makeup, enabling them to craft appearances that align with character and event themes, while fostering creativity in makeup design. This proficiency extends to a robust understanding of traditional and modern dancer makeup, allowing students to contribute to various artistic productions with a high degree of precision and creativity (Morejón, 2021; Roche & Burrige, 2022). Furthermore, students also exhibit the ability to craft imaginative, unique, and innovative facial makeup designs and apply them to models with a high degree of precision. They are proficient in combining conceptual knowledge of fantasy makeup with technical makeup skills, resulting in appearances that complement the desired narratives and characters in performing arts productions (Malloy, 2022; Xie, 2021).

However, in reality, there exist a number of challenges in the learning of theatrical makeup competency in the digital era. One of the primary challenges is the difficulty in providing adequate practical experiences, particularly in the context of creating facial makeup designs and applying them to models, as students often face constraints in practicing directly. Additionally, direct supervision and feedback from instructors frequently become limited, potentially hindering the development of students' skills (Han & Xu, 2020; Liu et al., 2021). Consequently, the non-attainment of expected competencies can hinder students' growth in the field of theatrical makeup and impact the overall quality of performing arts productions. This issue is crucial as it pertains to the core competencies in the field of study that students pursue. Insufficient competence in this area can impede students' careers upon entering the workforce. Furthermore, a low level of competence in theatrical makeup can also hinder entrepreneurial opportunities for students, especially when the entertainment and tourism industries related to theatrical makeup are growing and in high demand (Astuti et al., 2021; Rasheed et al., 2020).

To address these challenges, creative and innovative solutions are required in the realm of digital learning. The number of previous studies analyzing makeup competence is still limited and has not yet focused on theatrical makeup competence (Brühwiler & Vogt, 2020; Kumar et al., 2021; Núñez-Canal et al., 2022). The research conducted so far has been centered on daily makeup competence and the utilization of audiovisual resources to enhance makeup competence (Miranda et al., 2021; Putri et al., 2022; Windayani et al., 2018). This research aims to fill the gap related to the limited number of studies in the field of makeup competence, particularly theatrical makeup competence. The study aims to analyze several elements with the potential to enhance theatrical makeup competence, such as the use of project-based learning, the utilization of tutorial videos, and considering the adaptation of student learning styles in the digital era. The novelty of this study focus considering key aspects of learning, such as learning models and approaches, instructional media, and student preference factors involved in the learning process. A comprehensive analysis of various factors and variables that have the potential to influence the enhancement of theatrical makeup competency will serve as a crucial foundation for designing effective and adaptive teaching strategies.

## 2. METHOD

A quantitative survey was employed in this research as a research design. A quantitative survey research design is a structured approach for collecting data from a specific population or sample through predetermined questions and response options. It's efficient for data collection, ensures consistency, reduces bias, and enhances reliability and validity (Mohajan, 2020; Story & Tait, 2019). Closed-ended questions with predefined responses aid in data analysis, simplifying statistical inferences. Researchers can generalize findings to a broader population with a representative sample. This method is closely in sync with the research's aim, which is to examine factors associated with theatrical makeup competency. The population refers to the entire group or set of individuals, items, or elements that the study aims to investigate. It represents the broader target of the research, often defined by specific characteristics or attributes. Sampling involves selecting a subset, or sample, from the larger population that represents it as accurately as possible. By studying this sample, researchers can draw conclusions and make inferences about the entire population and can generalize their findings with confidence. In this particular context, the population is represented by a total of 105 students who are affiliated with the Department of Makeup and Beauty, Faculty of Tourism and Hospitality at Universitas Negeri Padang. All the populations are considered as the research samples.

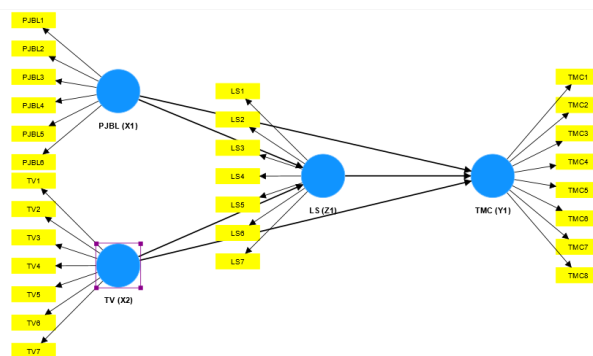
The research instrument was created by establishing indicators for each variable of interest. This research encompasses several variables, including project-based learning (PJBL) and Tutorial Video (TV) as exogenous variables, as well as Theatrical Makeup Competency (TMC) as an endogenous variable. In addition, Learning Styles (LS) are considered as a mediator variable, warranting its own examination.

These variables were further deconstructed into a set of statement items, thoughtfully designed to assess their respective characteristics. The study encompasses the evaluation of four variables, resulting in the inclusion of 28 questionnaire items within the research instrument. A detailed breakdown and structure of the instrument can be found in [Table 1](#).

**Table 1. Research Instruments**

No.	Indicators	Item Statements
Theatrical Makeup Competency		
1	The quality of practical work	1, 2,
2	the use of tools and job techniques	3, 4,
3	problem-solving abilities	5
4	in-depth conceptual understanding	6
5	Work Attitude	7, 8,
Project-Based Learning		
6	Student Engagement	9,
7	Project Objective Attainment	10,
8	Teamwork	11,
9	Application of Knowledge	12
10	Creativity and Innovation	13, 14,
Tutorial Video		
11	Number of Accessed Tutorial Videos	15,
12	Viewing Duration	16,
13	Accessibility	17,
14	Material Application	18,
15	Knowledge Assessment	19, 21,
16	Skill Assessment	20
Learning Styles		
17	Learning Preferences	22,
18	the Ability to Choose Learning Methods	23,
19	Learning Effectiveness	24,
20	Adaptability	25,
21	Motivation and Satisfaction	26,
22	Self-Teaching Capability	27,
23	Interaction with Instructors and Fellow Students	28.

The measurement and structural model outlines the function of individual items within the questionnaire, clarifying the interplay between exogenous, endogenous, and mediator variables. These models are visually depicted as show in [Figure 1](#).



**Figure 1. Measurement and Structural Model**

The research methodology incorporates a dual-data approach, utilizing primary data acquired through questionnaires to gather specific information on project-based learning, tutorial videos, theatrical makeup competency, and learning styles. Concurrently, secondary data is compiled through a comprehensive literature review, offering a broad theoretical understanding and identifying gaps in existing knowledge. To facilitate a thorough analysis of primary data, SmartPLS 4.0 software is employed for Measurement Model Evaluation (validity and reliability) and structural model assessment (correlation

test, significance test, and effect size assessment). All the test provide a deeper exploration of the complex relationships between variables. This integrative approach ensures a well-rounded and evidence-driven investigation of the factors and their interplay, ultimately enhancing the study's credibility and depth of insights.

### 3. RESULT AND DISCUSSION

#### **Validity Test Result**

The assessment of validity in this study encompasses two pivotal tests: Convergent Validity and Discriminant Validity. Convergent Validity focuses on the measurement model's strength by analyzing Factor Loadings and Average Variance Extracted (AVE) values. A valid measurement model is characterized by Factor Loadings exceeding the 0.7 threshold, along with an AVE value surpassing 0.5. In addition, Discriminant Validity encompasses two criteria, the Fornell Larcker criterion and Cross Loading analysis, to establish the uniqueness of each variable and its core constructs. A variable is considered valid when its core correlation is higher than its correlations with other variables, as determined through these criteria. These rigorous validity tests collectively ensure the measurement model's reliability and accuracy, thereby bolstering the credibility and robustness of the research findings. Analysis of the Factor Loadings reveals that all items within the instruments for theatrical makeup competency, project-based learning, video tutorials, and students' learning styles are deemed valid. This is attributed to the fact that the loading factor results consistently surpass the 0.7 threshold for all instrument items. Subsequent validity testing also takes into account the AVE values, as illustrated in [Table 2](#).

**Table 2. Result of AVE**

	Average variance extracted (AVE)	Validity
LS (Z1)	0.753	Valid
PJBL (X1)	0.763	Valid
TMC (Y1)	0.7	Valid
TV (X2)	0.758	Valid

The AVE results demonstrate that all variables have values exceeding 0.5, affirming their validity. Subsequently, the discriminant validity test is carried out, guided by the Fornell-Larcker criterion and Cross Loading values. A variable is considered valid when its primary correlation with other variables exceeds its correlations with other variables. The test results are outlined as show in [Table 3](#).

**Table 3. Result of Fornell Larcker Criterion**

	LS (Z1)	PJBL (X1)	TMC (Y1)	TV (X2)	Result
LS (Z1)	0.868				Valid
PJBL (X1)	0.852	0.874			Valid
TMC (Y1)	0.841	0.864	0.837		Valid
TV (X2)	0.824	0.845	0.82	0.871	Valid

The results of the Fornell-Larcker Criterion and Cross Loading tests imply that the validity of all variables is established. This judgment is based on the observation that the primary correlation values for each variable exceed their correlations with other variables.

#### **Reliability Test Result**

The Reliability assessment involves the evaluation of Composite Reliability and Cronbach's Alpha scores. Variables and indicators are deemed reliable when both the Composite Reliability and Cronbach's Alpha values surpass 0.7. The test outcomes are show in [Table 4](#).

**Table 4. Result of Composite Reliability and Cronbach's Alpha**

	Croncach's Alpha	Composite Reliability (Rho_a)	Composite Reliability (Rho_c)	Result
LS (Z1)	0.945	0.95	0.955	Reliable
PJBL (X1)	0.938	0.94	0.951	Reliable
TMC (Y1)	0.939	0.943	0.949	Reliable
TV (X2)	0.946	0.95	0.956	Reliable

Table 4 presented test results above indicate that both the Composite Reliability values and Cronbach's Alpha scores exceed 0.7 for all variables. This signifies the reliability of the variables, indicators, and items employed in this research.

#### **Correlation Test Result**

The correlation assessment entails the examination of the R Square value, which serves to assess the predictability of endogenous variables through exogenous variables. The findings are available in Table 5.

**Table 5. Result of R Square**

	<b>R-Square</b>	<b>Predictability</b>
LS (Z1)	0.754	75.4%
TMC (Y1)	0.797	79.7%

Table 5 mentioned suggest that the learning style variable serves as a mediator, capable of functioning as both an exogenous and endogenous variable in the context of this study. When treated as an endogenous variable, learning style can be predicted to the extent of 75.4% by the predictor variables. Furthermore, the theatrical makeup competency variable can also be predicted up to 79.7% by the exogenous variables. The subsequent phase involves an analysis to ascertain whether the relationships between these variables are positively or negatively oriented. This examination relies on the path coefficient outcomes, where a coefficient exceeding 0 implies a positive relationship. The test results are detailed as show in Table 6.

**Table 6. Result of Path Coefficients**

	<b>Path Coefficients</b>	<b>Corelations</b>
LS (Z1) -> TMC (Y1)	0.3	Positive
PJBL (X1) -> LS (Z1)	0.169	Positive
PJBL (X1) -> TMC (Y1)	0.546	Positive
TV (X2) -> LS (Z1)	0.72	Positive
TV (X2) -> TMC (Y1)	0.1	Positive

Table 6 offers a summary of path coefficient values corresponding to variable correlations. Analysis of the data presented reveals that all path coefficients exceed the threshold of 0. Hence, it is reasonable to conclude that all relationships between variables are positive.

#### **Significance Test Result**

The assessment of significance can be carried out through the calculation of the T statistic, and a significant relationship between variables can be confirmed when the T Statistic score exceeds 1.96. The subsequent test results are detailed as show in Table 7.

**Table 7. Result of T Statistic**

	<b>T statistics</b>	<b>Result</b>
LS (Z1) -> TMC (Y1)	2.107	Significant
PJBL (X1) -> LS (Z1)	1.272	Insignificant
PJBL (X1) -> TMC (Y1)	3.777	Significant
TV (X2) -> LS (Z1)	5.906	Significant
TV (X2) -> TMC (Y1)	0.536	Insignificant

Based on Table 7, it can be concluded that there are three significant correlations and two correlations that do not meet the criteria for significance. Specifically, the correlation between project-based learning and learning styles, as well as the correlation between tutorial videos and theatrical makeup competency, did not exhibit statistical significance.

#### **Direct Effect Size**

The assessment of direct effect size involves an examination of the F Square value, which is then compared to predefined threshold values indicating the extent of the direct effect. These magnitudes are classified as low (0.005), moderate (0.01), and high (0.025) following the categorization. The results of this evaluation are outlined for your consideration is show in Table 8.

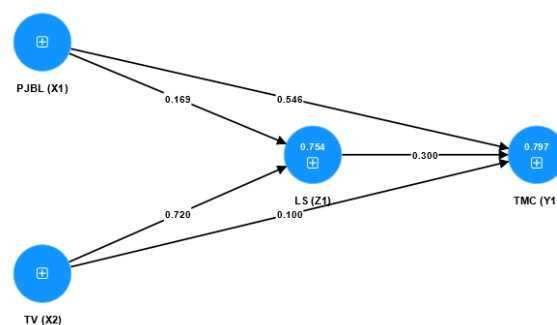
**Table 8.** Result of F Square

	TMC (Y1)	Direct Effect Size
LS (Z1)	0.109	High
PJBL (X1)	0.405	High
TV (X2)	0.009	Low

Base on [Table 8](#), the analysis results of the F Square values depict the direct effect sizes and their respective categories. Theatrical Makeup Competency functions as an endogenous variable, and the analysis quantifies the extent of the direct effect size of the predictor variable on Theatrical Makeup Competency. The analysis outcomes indicate that the Tutorial Video variable has a direct effect on Theatrical Makeup Competency, measuring 0.009, falling within the low category. In contrast, Learning Styles and Project-Based Learning exhibit direct effect values categorized as high concerning the Theatrical Makeup Competency variable.

### Indirect Effect Size

The evaluation of indirect effect size entails the calculation of the SmartPLS output utilizing the Upsilon V formula. The resulting SmartPLS output, which provides insights into the effect size between variables, is detailed as show in [Figure 2](#).

**Figure 2.** Output of SmartPLS related effect size

The value presented in [Figure 2](#) is subsequently determined through the utilization of the Upsilon V formula, specifically involving the  $\beta_2 \cdot MX \cdot \beta_2 Y M \cdot X$  formula. The computed results are then compared against predefined threshold values categorizing the indirect effect size as low (0.01), moderate (0.075), or high (0.175). The concept of indirect effect size involves the exploration of correlation values between exogenous and endogenous variables, mediated by an intermediary variable. Notably, the results of the analysis pertaining to indirect effect size reveal distinct correlation categories in contrast to those observed for direct effect size. Specifically, the indirect effect size of the Project-Based Learning variable on Theatrical Makeup Competency through Learning Styles as the mediator yields a value of 0.0026, classifying it within the Low category. Conversely, the Tutorial Video variable's indirect effect size on Theatrical Makeup Competency through the mediator variable Learning Styles is characterized as moderate, with a value of 0.047. In the subsequent analysis, a more comprehensive understanding of the mediator variable's role will be gained by comparing the values of direct effect size with those of indirect effect size.

The analysis of the mediator variable's role delineates its full mediating function. However, it is noteworthy that the mediation provided in both effect sizes differs; one is negative, and the other is positive. This divergence is evident when examining the correlation between the Project-Based Learning variable and Theatrical Makeup Competency. Initially, when considering the direct effect, the correlation falls within the high category. In contrast, the indirect effect mediated by the Learning Styles variable places this correlation in the low category, indicating a reduction in effect size between these variables.

Conversely, the effect size in the correlation between the Tutorial Video variable and Theatrical Makeup Competency experiences an increase. This shift is observed through the transformation of the direct effect size from a low category to a moderate one in the indirect effect mediated by the Learning Styles variable. This emphasizes the significance of Learning Styles in effectively mediating the correlation between the Tutorial Video variable and Theatrical Makeup Competency within the research context

## Discussion

### ***The Effect of Project-Based Learning on Theatrical Makeup Competency***

Based on the analysis, it can be concluded that Project-Based Learning has a positive and significant impact on Theatrical Makeup Competency, as indicated by the Path Coefficients (0.546) and t statistics values (3.777). Additionally, the effect size analysis underscores this impact by revealing a substantial effect size of 0.405 for Project-Based Learning on Theatrical Makeup Competency, placing it within the high effect category. Research findings consistently support the notion that Project-Based Learning has a substantial and positive impact on Theatrical Makeup Competency. Numerous studies in the field of theater and education have shown that students engaged in PBL for theatrical makeup demonstrate increased skill acquisition, enhanced creativity, and improved problem-solving abilities (Reedy et al., 2020; Vijayalakshmi & Raikar, 2021; Zhang & Hwang, 2023). PBL not only boosts their makeup skills but also instills confidence, encourages teamwork and collaboration, and provides more authentic assessments, making it a highly effective method for developing competency in theatrical makeup (Biazus & Mahtari, 2022; S. Seo et al., 2023). The benefits extend beyond the classroom, as longitudinal research has indicated that individuals who have undergone PBL for makeup continue to excel in their craft throughout their careers. This evidence underscores the significance of integrating project-based learning into the theatrical makeup education curriculum.

Furthermore, several scientific justifications describe that Project-Based Learning significantly enhances Theatrical Makeup Competency. Its dynamic and hands-on approach fosters skill development while promoting cognitive engagement and critical thinking, facilitating a profound understanding of makeup techniques (Chua & Islam, 2021; Saleh et al., 2020). Project-Based Learning (PBL) is in harmony with situated learning, providing experiences rich in context that ease the transfer of knowledge into real-world theatrical environments (Nurhadiyati et al., 2021; Sukackè et al., 2022).

### ***The Effect of Tutorial Video on Theatrical Makeup Competency***

Based on the analysis outcomes, the results derived from Path Coefficients (0.1) and t statistics (0.536) suggest that Tutorial Videos exhibit a positive yet notably insignificant impact on Theatrical Makeup Competency. Additionally, the effect size analysis reveals a value of 0.009 for Tutorial Videos' influence on Theatrical Makeup Competency, positioning it within the low-effect category. Several research findings consistently support the result that tutorial videos have a positive yet generally insignificant effect on Theatrical Makeup Competency. These studies suggest that tutorial videos, while serving as a valuable resource for enhancing the theoretical understanding of makeup techniques, often fall short in facilitating the practical application of these skills in a theatrical context (Chen & Dermawan, 2020; Zhou et al., 2020). The limited transfer of knowledge from video instruction to real-world performance appears to be a common challenge. One key contributing factor to this limited impact is the absence of personalized feedback within tutorial videos (Kim et al., 2021; Wu et al., 2020). Makeup artists and learners often benefit significantly from tailored guidance and correction, which is challenging to provide through pre-recorded video content.

Furthermore, the variable quality of tutorial videos, coupled with their inconsistent educational approaches, can influence the effectiveness of these resources. The mixed results arising from these variations in video quality, coupled with limitations in offering hands-on practice opportunities, contribute to the generally insignificant effect on Theatrical Makeup Competency. Additionally, the lack of meaningful interaction with instructors and peers, a vital component of practical skill development, can further hinder the effectiveness of tutorial videos (van Alten et al., 2020; Vlachopoulos & Makri, 2019). Overall, while tutorial videos offer valuable insights into makeup techniques, their impact on Theatrical Makeup Competency tends to be more positive in theory than significantly transformative in practice.

### ***The Effect of Learning Style on Theatrical Makeup Competency***

Based on the results of the analysis, the data from Path Coefficients (0.3) and t-statistics (2.107) indicate a positive and statistically significant relationship between Learning Style and Theatrical Makeup Competency. Furthermore, when examining the effect size, it becomes evident that Learning Style exerts a substantial impact, with an effect size of 0.109, categorizing it within the high-effect range. The empirical evidence strongly substantiates the claim that Learning Style has a positive and significant influence on Theatrical Makeup Competency. Multiple studies have underscored the importance of aligning an individual's preferred learning style with the instructional method, which enhances knowledge retention and skill development in the context of theatrical makeup (Clark et al., 2010; Hsieh & Knight, 2008). Research findings in cognitive psychology, educational sciences, and educational technology research and development demonstrate that individuals are more likely to excel when instructional methods are adapted to their learning style preferences (Fahim et al., 2021; Payaprom & Payaprom, 2020). Moreover, a

personalized approach not only leads to improved makeup competency but also fosters higher engagement, motivation, and positive attitudes toward learning (Averill & Major, 2020; Kossybayeva et al., 2022). Furthermore, the empirical data point to the long-term impact of accommodating learning styles. Longitudinal studies in educational psychology reveal that the effects of learning style-based instructional methods endure over time, resulting in sustained improvements in makeup competency (Avecilla et al., 2023). By emphasizing the significance of recognizing and tailoring instruction to learning styles, this research offers valuable insights for educators and instructional designers in the field of theatrical makeup, promoting a more effective and personalized approach to skill development.

### ***The Effect of Project-Based Learning on Theatrical Makeup Competency through Learning Style as Mediator Variabel***

The indirect effect of the Project-Based Learning variable on Theatrical Makeup Competency through Learning Style as a mediator has an indirect effect size of 0.0026, falling within the Low category. This can be observed in the correlation between the Project-Based Learning variable and Theatrical Makeup Competency. Initially, when observed in terms of direct effects, this correlation showed a high effect size. However, on the other hand, the indirect effect mediated by the Learning Style variable indicates a low effect size. This leads to the conclusion that there is a reduction in the effect size between these variables. In contemplating the potential for Learning Style as a mediator to decrease the effect size between Project-Based Learning and competency achievement, several hypothetical scenarios and empirical reasons come into focus. Firstly, the diversity in participants' learning style preferences could lead to varying responses to PBL (Arifin et al., 2019; Bokhari & Zafar, 2019). While some participants may directly benefit from PBL, others might rely on their learning style preferences to mediate the relationship, thus introducing variability and diminishing the overall effect size. Secondly, the possibility of complex pathways, involving other mediators or moderators, could complicate the straightforward relationship between PBL and competency achievement, ultimately resulting in a reduced effect size (Choi et al., 2019; dameem Nsaif et al., 2023).

Moreover, the inconsistent adaptation of participants to their learning styles in the context of PBL presents another perspective. Those who effectively align their learning style with the PBL approach might experience a more pronounced impact, while others may not, contributing to variability and a smaller overall effect size (Condliffe et al., 2017; Royle, 2021). Additionally, the influence of external factors and the combined impact of various variables could affect the outcome of the mediation process, further reducing the effect size. Lastly, the unique characteristics of the study sample, including prior experience, motivation, and cognitive abilities, can shape the efficacy of Learning Style as a mediator. Variations in these characteristics within the sample may introduce complexity and, consequently, a decrease in the effect size.

### ***The Effect of Tutorial Video on Theatrical Makeup Competency through Learning Style as Mediator Variabel***

The indirect effect value on the Tutorial Video variable on Theatrical Makeup Competency through the Learning Style variable as a mediator is 0.047, categorizing it as "moderate." Notably, the effect size in the correlation between the Tutorial Video variable and Theatrical Makeup Competency experiences an enhancement. This can be observed in the transformation of the direct effect size, initially categorized as "low," into a "moderate" category in the indirect effect mediated by the Learning Style variable. It is essential to emphasize that Learning Style effectively mediates the correlation between the Tutorial Video variable and Theatrical Makeup Competency within this context. The influence of Learning Style as a mediator in the context of Tutorial Videos and Theatrical Makeup Competency is important to evaluate, and several scientific reasons could support its potential to increase the effect size. Firstly, Learning Style may enhance information processing, enabling individuals to absorb and retain makeup techniques more effectively when aligned with the presentation format of Tutorial Videos (Budiastra et al., 2020; Cabual, 2021). This alignment is likely to contribute to a more substantial effect on Theatrical Makeup Competency. Moreover, a congruence between learning style and the video format can lead to focused attention, with learners more engaged and attentive, fostering better comprehension and ultimately resulting in an increased effect size (Ángeles López-Cabarcos et al., 2022; Perez, 2022).

Additionally, aligning Learning Style with Tutorial Videos can boost motivation and engagement, making the learning material more captivating (Donkin et al., 2019; Puspitarini & Hanif, 2019; K. Seo et al., 2021). Heightened motivation can positively influence skill acquisition (Di Natale et al., 2020), consequently elevating the effect size in achieving theatrical makeup competency. Learning Style may also influence how individuals retain and apply information (Zainuddin et al., 2020), with video content that aligns with their learning style preferences more likely to lead to effective retention and application of



makeup techniques. Furthermore, Learning Style can impact the effectiveness of learning process (Huang et al., 2020), and assist students' academic learning achievement (Wahono et al., 2020). Lastly, the alignment of learning Style with video content may encourage learners to actively seek interaction, clarification, and feedback, fostering a more enriching learning experience and enhancing the effect size (Bahiyah, 2023).

The findings of this study can serve as a foundation for designing learning focused on enhancing competencies, particularly in the field of theatrical makeup. An effective instructional design to improve theatrical makeup competence may involve the collaboration of project-based learning with instructional videos. However, on the other hand, the instructional design must also be tailored to students' learning style preferences. A limitation of this study is that the exploration of analyzed variables is still confined to project-based learning, video tutorials, and students' learning styles associated with the improvement of theatrical makeup competencies. Further research recommendations may include analyzing other variables with the potential to enhance theatrical makeup competencies. Additionally, future research could design the development of instructional designs involving project-based learning, video tutorials, and students' learning styles in enhancing theatrical makeup competencies. Such instructional designs can be tested by being implemented directly in the learning process.

#### 4. CONCLUSION

Conclusions of this research are Project-Based Learning, Tutorial Video and Learning Style perform a correlation with Theatrical Makeup Competency. It can be factors to consider by educator to design better learning strategy. Furthermore, when Learning Style was positioned as mediator variable, it described different trend (possibly positive and negative) on correlation among variables. The findings of this study may be considered in designing effective learning approaches to enhance the achievement of the targeted learning competencies, with attention to relevant variables. The scope of this research is confined to the number of variables analyzed as influential factors affecting the attainment of stage makeup competency. Further research could explore additional factors such as the digital environment and the increasing utilization trend of artificial intelligence in education.

#### 5. ACKNOWLEDGE

The researcher conveyed deep gratitude and appreciation to the Institute for Research and Community Service of Universitas Negeri Padang. This acknowledgment is extended for their financial support in facilitating the research under contract number 1168/UN35.15/LT/2023.

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