# Evaluating the Effects of Mastery of Techniques (MT), Painting Materials (PM), Choice of Subject Matter (SM), Teaching Methods (TM) on Teaching Effect of Oil Painting (TE) Using PLS-SEM Approach

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## ABSTRACT

This article focuses on the discussion of the four factors affecting the teaching effectiveness of oil painting courses. The factors examined are Mastery of Techniques (MT), Painting Materials (PM), Choice of Subject Matter (SM) and Teaching Methods (TM). This study engaged a survey of oil painting students in several universities in China. The PLS-SEM method was utilised by using Smart-PLS version 3. The findings of the study have confirmed that these four factors, namely Mastery of Techniques (MT), Painting Materials (PM), Choice of Subject Matter (SM) and Teaching Methods (TM), have positive and significant effects on Teaching Effect (TE). Therefore, related implications and suggestions are proposed to help enhance the level of Teaching effects (TE) on the students.

Keywords: Mastery of Techniques (MT), Painting Materials (PM), Choice of Subject Matter

(SM), Teaching Methods (TM), Teaching Effect (TE)

## INTRODUCTION

People's material living standards are improving daily, and their spiritual needs are becoming more and more diverse. Under the macro background of diversified art development, to effectively enhance the overall effect of oil painting teaching in colleges and universities, teachers need to uphold the guiding ideology of openness, development and keeping pace with the times, take effective measures to optimise the landing measures of oil painting teaching in colleges and universities and look at the current practical problems from the perspective of development. Only in this way can we improve college students' comprehensive and professional quality and create favourable conditions for developing China's hard social and soft power. Based on analysing the main problems existing in the current oil painting teaching in Colleges and universities, this paper puts forward relevant solutions and suggestions. Under the background of promoting the development of art in an all-round and multi-angle, this paper hopes to provide some reference for improving the overall effect of oil painting teaching in Colleges and universities.

The consequence of not conducting this research is the potential for ineffective teaching methods in oil painting, leading to suboptimal learning outcomes for students (Gordon, 2019). Furthermore, it may result in a lack of understanding regarding the factors contributing to effective oil painting teaching, hindering the development and advancement of pedagogy.

## LITERATURE REVIEW

This study's major is the teaching Effect of oil painting (TE). Perceptions of Oil painting education and teaching effectiveness have to be evaluated. Oil painting teaching in colleges and universities must be improved (Wu, 2017).

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Mastery of techniques (MT) refers to the method used to create a painting. Fan (2018) stated, "Paying attention to and advocating the quality of the paint will inevitably make it impossible for patterning and shoddy manufacturing. The research on the traditional materials and techniques of classical oil painting can broaden the horizons of artists, enrich the artistic language of oil painting, consolidate the foundation of realism and picture control, and let people stand on the shoulders of previous artists and go further."

Choice of subject matter (SM) refers to the choosing of the initial content, direction and meaning of the painting. Yan (2014) has stated that "the choice of subject matter is a very important issue in oil painting creation. Painters can only express their thoughts and feelings, express their inner world, and create works that move the audience by choosing the appropriate subject matter. The choice of theme should not only accumulate long-term through loving life and diligent thinking but also do short-term excavation to clarify the theme."

While Teaching methods (TM) are often related to the teaching and guidance methods used by teachers in the education process, Li (2017) has stated that "Only by paying attention to cultivating students' innovative thinking, creating a good learning environment for students and tapping students' creative potential in the teaching process can we ensure that students' creation will not become a stagnant water and that students can promote the further development of oil painting art with a steady stream of creative inspiration."

Lastly, Painting materials (PM) refers to the types of pigments used in oil painting, and choosing more materials can better express the content they want. Fan (2018) stated, "Oil painting tools and materials determine the complexity of oil painting techniques. For centuries, from the early classical realistic oil painting to the contemporary new realistic oil painting, realistic oil painting has occupied a certain position in the history of painting. Even when seeking novelty, tradition is gradually ignored and forgotten, and many painters are still keen on it. Classical realistic paintings cannot be defined simply by a certain style or technique."

Research question:

What factors influence the teaching effect of oil painting, and to what extent do they contribute to the effectiveness of oil painting pedagogy?

Research objective:

To evaluate the impact of mastery of techniques, choice of subject matter, teaching methods, and painting materials on the teaching effect of oil painting using the PLS-SEM approach to identify the most significant factors and provide insights for improving oil painting pedagogy.

In sum, there are four research hypotheses in this study. They are:

H1: The student's mastery of oil painting techniques has obviously positively influenced the teaching effect of oil painting.

H2: The students' choice of oil painting theme positively influences oil painting teaching.

H3: The teacher's teaching method obviously influences oil painting teaching.

H4: The painting material of oil painting has an obvious influence on oil painting teaching.

## METHODOLOGY

This study will be quantitative research. To test the hypothesised relationships, the quantitative survey research design will be employed (Zikmund et al., 2013).

A-priori Sample Size Calculator is a viable tool for sample size estimation for structural equation models (Soper, 2020). The sampling process of this study is shown in Figure 1 below. The sample calculator of Daniel Soper can be accessed at

https://www.danielsoper.com/statcalc/calculator.aspx?id=89. The anticipated effect size is set at 0.3, the acceptance effect size. The desired statistical power level is set at 0.8, a high-power level. There are five latent variables, one dependent variable and 4 Independent variables in this study. There are altogether 28 observed variables which represent the 28 items in this questionnaire. The probability level is set to 0.05. Thus, the minimum sample size is 148, and the recommended sample size is 150. However, to obtain better results and prepare for any invalid data found, 300 to 400 samples will be used in this study.

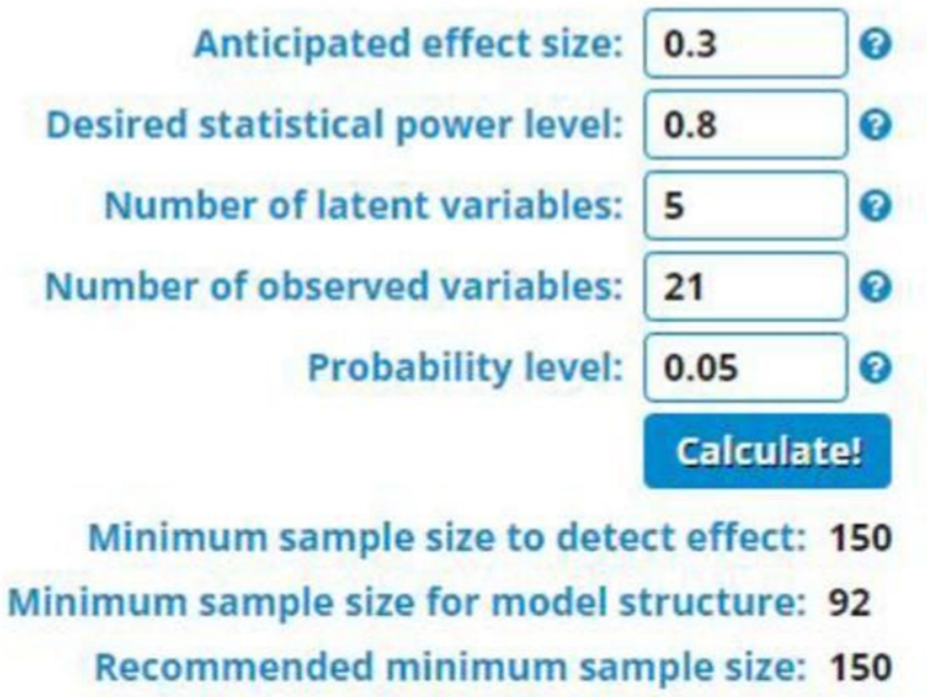


**Figure 1:** Sampling result

The survey items used to measure the model's constructs in this study are included in Table 1. Table 2 shows Cronbach's Alpha value if the item is deleted. All values are above 0.7, indicating higher and stronger reliability indices. The reliability indices for all dimensions were above 0.7 and below 0.95. Thus, no issues of multicollinearity and auto-collinearity occurred.

This instrument is suitable for PLS-SEM analysis later in this study.

**Table 1:** Items in the Instrument of This Study.

| | Item | Reference and Justification |
|---|---|---|
| DV. Teaching Effect of oil painting (TE)<br>Perceptions on Oil painting education and teaching effectiveness. | TE1. I am confident that I can master the oil painting course well.<br>TE2. I can draw good works by studying this course<br>TE3. The painting course is very helpful for my learning of oil painting.<br>TE4. I can master my painting style by taking this oil painting course. | "At present, influenced by various factors, there are many problems in teaching oil painting in colleges and universities in China. Therefore, in oil painting teaching, teachers should give full play to their leading role, help students establish self-confidence and bravely face various challenges in learning and creation. While emphasizing that students should master the basic knowledge and skills of oil painting, they should also cultivate students' aesthetic consciousness and innovative thinking so that students can form independent personalities with their personality, inject their views and thoughts into oil painting creation, and strive to cultivate a new generation of oil painting art talents. In short, there is still a long way to go in reforming and developing oil painting teaching in colleges and universities in China. Only by finding suitable ones in continuous exploration can we make the road of oil painting art in China icing on the cake." （Li，2015） 。 |
| IV1. Mastery of techniques (MT): The method used in the creation of a painting. | MT1. I am able to master the traditional realistic oil painting techniques on my oil painting works.<br>MT2. I am able to master the oil painting techniques that my instructor taught.<br>MT3. I am proficient the use | "In the era of masters, every successful painter is a part of the artistic tradition, just like a link in a solid chain. They have added their lifelong practice and efforts to the tradition. At first, through their apprenticeship in the painting workshop, they were |

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|---|---|---|
| | of oil painting techniques in completing my artwork.<br>MT4.I always like to practice oil painting techniques taught by my instructors. | familiar with the structure and function of various materials, and then mastered various painting skills, fully mastered the necessary painting materials and techniques, so as to lay the foundation of their personal painting style and ensure the permanent charm and artistic value of their works. The formation of painting style is inseparable from the innovation and progress of painting materials and techniques.（GUI，2014） |
| IV2. Choice of subject matter. (SM).<br>Choose the initial content, direction and meaning of the painting. | SM1. It is important to choose suitable themes for oil paintings.<br>SM2. It is not difficult for me to choose the theme of oil painting since I attend this course.<br>SM3. I am able to master landscape themes of oil painting by attending this course.<br>SM4. I am able to master figure themes of oil painting by attending this course.<br>SM5. I am able to master still-life themes of oil painting by attending this course. | “The choice of subject matter is a very important issue in oil painting creation. Painters can only express their thoughts and feelings, express their inner world, and create works that move the audience by choosing the appropriate subject matter. The choice of theme should not only accumulate long-term through loving life and diligent thinking but also do short-term excavation to clarify the theme.” (Xing, 2013) |
| IV3. Teaching methods (TM)<br>Teaching methods and guidance methods used by teachers in the process of education. | TM1. This course's teaching methods can help me learn oil painting better.<br>TM2. I am willing to follow exactly as the teacher taught the oil painting techniques.<br>TM3. I will revise my work after the teacher corrects my painting.<br>TM4. The way teachers communicate in class makes it easy for me to understand. | "Oil painting teaching in Colleges and universities is an effective means to improve students' comprehensive quality and professional quality. The rationality of teaching content and the completeness of the teaching system have an important impact on the training quality of artistic talents. Therefore, colleges and teachers should pay attention to the innovation and reform of oil painting teaching in |

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|---|---|---|
| | | Colleges and universities. Under the background of diversified development of art, colleges and teachers should innovate teaching methods with long-term vision and positive attitude and gradually realise the initial teaching educational objectives. Based on the in-depth analysis of the problems existing in the current oil painting teaching in Colleges and universities, this paper puts forward some suggestions, such as establishing new teaching ideas and teaching consciousness, continuously improving the innovation level of oil painting teaching, improving students' cultural heritage and flexible and flexible use of advanced science and technology, hoping to provide help for improving the overall effectiveness of oil painting teaching in colleges and universities."（ZHOU,2021） |
| Iv4. Painting materials (PM) The types of pigments used in oil painting and the choice of more materials can better express the content they want to express. | PM1. I need the right paint for me to draw better works.<br>PM2. I need appropriate painting tools to draw better oil paintings.<br>PM3. I can make a perfect oil frame that suits me.<br>PM4. In this course, I can learn about the selection of oil painting materials and material production. | "As a tangible art form, oil painting has a strong artistry. The most obvious manifestation of this artistry is the role of expressing feelings in the scene through lines, colors and other aspects. In the current era's oil painting, materials and painting skills are very important for oil painting creation, and improving painting skills is also the prospect trend of the development of oil painting in China."（XU,2019) |

**Table 2:** Reliability Indices of the Dimensions

| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Cronbach's Alpha if Item Deleted |
|---|---|---|---|---|
| TE1 | 74.83 | 407.047 | .777 | .937 |
| TE2 | 74.80 | 404.807 | .796 | .937 |
| TE3 | 74.74 | 397.630 | .857 | .927 |
| TE4 | 74.56 | 403.950 | .822 | .927 |
| MT1 | 74.81 | 413.286 | .684 | .947 |
| MT2 | 74.81 | 403.512 | .833 | .927 |
| MT3 | 74.83 | 414.255 | .577 | .945 |
| MT4 | 74.70 | 406.892 | .704 | .943 |
| ST1 | 74.72 | 397.072 | .842 | .942 |
| ST2 | 74.57 | 405.759 | .790 | .943 |
| ST3 | 74.61 | 399.072 | .848 | .942 |
| ST4 | 74.83 | 400.142 | .837 | .942 |
| ST5 | 74.74 | 405.479 | .799 | .943 |
| TM1 | 74.70 | 408.024 | .771 | .943 |
| TM2 | 74.76 | 409.318 | .783 | .943 |
| TM3 | 74.59 | 395.076 | .901 | .942 |
| TM4 | 74.74 | 402.082 | .807 | .942 |
| PM1 | 74.85 | 406.846 | .769 | .943 |
| PM2 | 74.67 | 406.075 | .764 | .943 |
| PM3 | 74.69 | 400.861 | .809 | .942 |
| PM4 | 74.69 | 402.371 | .808 | .942 |

## FINDINGS

## DESCRIPTIVE STATISTICS

Table 3 gives some information about the participants' demographics, respectively, calculated in SPSS.

**Table 3:** Demographic Information of the Study

| Name | Missing | Mean | Median | Scale min | Scale max | Observed min | Observed max | Standard deviation | Excess kurtosis | Skewness |
|---|---|---|---|---|---|---|---|---|---|---|
| Gender | 0 | - | 2 | 1 | 2 | 1 | 2 | 0.5 | -2.004 | -0.074 |
| Year of Study | 0 | - | 2 | 1 | 2 | 1 | 2 | 0.5 | -2.004 | -0.074 |
| Result | 0 | - | 1 | 1 | 2 | 1 | 2 | 0.397 | 0.375 | 1.54 |
| Item 1 | 0 | 3.782 | 4 | 1 | 5 | 1 | 5 | 1.237 | -0.008 | -0.973 |
| Item 2 | 0 | 3.853 | 4 | 1 | 5 | 1 | 5 | 1.244 | -0.208 | -0.927 |
| Item 3 | 0 | 3.797 | 4 | 1 | 5 | 1 | 5 | 1.235 | -0.15 | -0.929 |
| Item 4 | 0 | 3.797 | 4 | 1 | 5 | 1 | 5 | 1.243 | -0.046 | -0.974 |
| Item 5 | 0 | 3.873 | 4 | 1 | 5 | 1 | 5 | 1.254 | -0.022 | -1.027 |
| Item 6 | 0 | 3.831 | 4 | 1 | 5 | 1 | 5 | 1.231 | -0.074 | -0.963 |
| Item 7 | 0 | 3.868 | 4 | 1 | 5 | 1 | 5 | 1.254 | 0.049 | -1.049 |
| Item8 | 0 | 3.863 | 4 | 1 | 5 | 1 | 5 | 1.214 | 0.033 | -0.996 |
| Item9 | 0 | 3.848 | 4 | 1 | 5 | 1 | 5 | 1.22 | 0.039 | -0.997 |
| Item10 | 0 | 3.804 | 4 | 1 | 5 | 1 | 5 | 1.259 | -0.135 | -0.955 |
| Item11 | 0 | 3.851 | 4 | 1 | 5 | 1 | 5 | 1.231 | -0.05 | -0.968 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Item12 | 0 | 3.814 | 4 | 1 | 5 | 1 | 5 | 1.227 | -0.297 | -0.853 |
| Item13 | 0 | 3.79 | 4 | 1 | 5 | 1 | 5 | 1.268 | -0.11 | -0.978 |
| Item14 | 0 | 3.807 | 4 | 1 | 5 | 1 | 5 | 1.237 | -0.064 | -0.959 |
| Item15 | 0 | 3.866 | 4 | 1 | 5 | 1 | 5 | 1.166 | 0.08 | -0.973 |
| Item16 | 0 | 3.856 | 4 | 1 | 5 | 1 | 5 | 1.242 | -0.128 | -0.963 |
| Item17 | 0 | 3.861 | 4 | 1 | 5 | 1 | 5 | 1.232 | -0.018 | -0.992 |
| Item18 | 0 | 3.841 | 4 | 1 | 5 | 1 | 5 | 1.279 | -0.255 | -0.933 |
| Item19 | 0 | 3.848 | 4 | 1 | 5 | 1 | 5 | 1.218 | -0.063 | -0.947 |
| Item20 | 0 | 3.822 | 4 | 1 | 5 | 1 | 5 | 1.272 | -0.259 | -0.92 |
| Item21 | 0 | 3.819 | 4 | 1 | 5 | 1 | 5 | 1.246 | -0.177 | -0.926 |

## OUTER LOADINGS

Table 4 depicts the measurement model of this study. In this research, the factor outer loadings between items and their underlying constructs calculated by Smart-PLS version 3 showed that each item had an indicator loading greater than 0.707 and a significant value smaller than 0.050. As shown in Table 4 below, all of the factor loadings of the items to corresponding constructs are above 0.7 and significant (p-value < 0.05), which is excellent. Hence, the measurement model has indicator reliability.

**Table 4:** The Model with Outer Loadings

| | MT | PM | SM | TE | TM |
|---|---|---|---|---|---|
| MT1 | 0.892 | | | | |
| MT2 | 0.881 | | | | |
| MT3 | 0.881 | | | | |
| MT4 | 0.880 | | | | |
| PM1 | | 0.874 | | | |
| PM2 | | 0.870 | | | |
| PM3 | | 0.872 | | | |
| PM4 | | 0.871 | | | |
| SM1 | | | 0.869 | | |
| SM2 | | | 0.871 | | |
| SM3 | | | 0.861 | | |
| SM4 | | | 0.861 | | |
| SM5 | | | 0.881 | | |
| TE1 | | | | 0.876 | |
| TE2 | | | | 0.889 | |
| TE3 | | | | 0.885 | |
| TE4 | | | | 0.890 | |
| TM1 | | | | | 0.881 |
| TM2 | | | | | 0.872 |

| | |
|---|---|
| TM3 | 0.885 |
| TM4 | 0.882 |

## INTERNAL CONSISTENCY RELIABILITY AND CONVERGENT VALIDITY ANALYSIS

Besides, construct internal consistency reliability indicates how well and to what extent the indicators of one construct measure that construct (Herzog & Tonchia, 2014). In other words, constructing internal consistency shows that the items measure the same thing. Cronbach's alpha assesses scales or test items' internal consistency or reliability (calculated in Smart-PLS version 3 in this study). In other words, the reliability of any given measurement refers to the extent to which it is a consistent measure of a concept. Cronbach's alpha is one way of measuring the strength of that consistency (Urbach & Ahlemann, 2010). The higher amount of α indicates the items have more shared covariance and probably measure the same underlying concept. According to Gefen et al. (2011), to check internal consistency, the value of Cronbach's α statistics for exploratory research should be more than 0.6, and for confirmatory research (i.e., CFA) should be more than 0.7. In addition, in CFA and SEM, internal consistency can be checked by composite reliability (CR) and should be more than 0.7 (Urbach & Ahlemann, 2010). The values of Cronbach's α and CRs are shown in Table 5. As shown in Table 5, all values of Cronbach's α and CRs are greater than 0.7, so the measurement model has internal consistency reliability.

**Table 5:** The Results of Internal Consistency Reliability and Convergent Validity Analysis

| | Cronbach's Alpha | Composite Reliability (Rho_A) | Composite Reliability (Rho_C) | Average Variance Extracted (AVE) |
|---|---|---|---|---|
| MT | 0.906 | 0.906 | 0.934 | 0.780 |
| PM | 0.895 | 0.895 | 0.927 | 0.760 |
| SM | 0.919 | 0.919 | 0.939 | 0.754 |
| TE | 0.908 | 0.908 | 0.935 | 0.783 |
| TM | 0.903 | 0.903 | 0.932 | 0.774 |

The results of both Models with Outer Loadings and Related P- Values and the results of Internal Consistency Reliability and Convergent Validity Analysis have confirmed that the instrument developed in this study is of no question. Therefore, the measurement model is standard, and this instrument can be used to assess the structural model.

## ASSESSMENT OF STRUCTURAL MODEL

Table 6 below shows the Assessment of the Structural Model of this study. Table 6 below shows the path coefficients between all constructs are significant (p-value < 0.01). The results show that all the independent variables significantly and positively affect the dependent variable.

**Table 6:** Assessment of Structural Model: Path coefficients between all construct

| | Path Coefficients | P Values | Explained Variance (R2) |
|---|---|---|---|
| MT -> TE | 0.190 | 0.000 | |
| PM -> TE | 0.307 | 0.000 | |
| SM -> TE | 0.261 | 0.000 | |
| TM -> TE | 0.212 | 0.000 | |

## GRAPHIC REPRESENTATION OF THE MODEL

Besides, as shown in Figure 2 below and Table 6 above, the explained variance of all the constructs (r square is equal to 0.882, which means 88.2% of the variance in the dependent variable construct can be explained by its predictors, which shows all the independent variables are having a substantial effect on the dependent variable in this study, namely SPE.

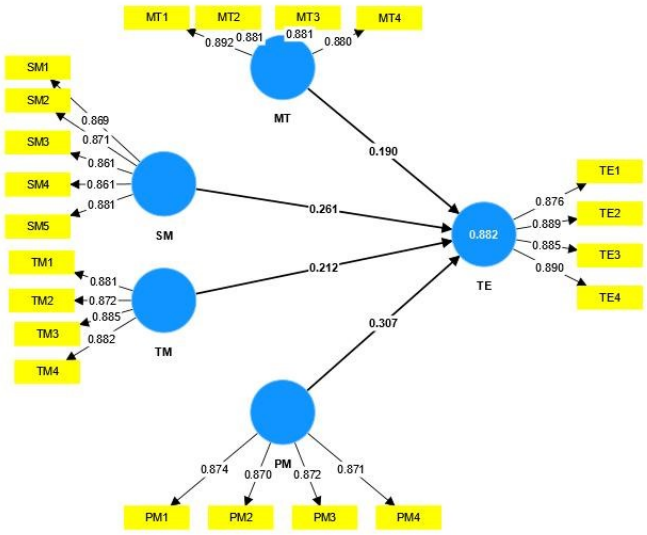


**Figure 2:** The Graphic Representation of the Model with Path Coefficients and Explained Variance

## HYPOTHESES TESTING

With the confirmation of Structural Model assessment results and the high value of r square, as shown in Figure 4 and Table 6 above, this study's hypotheses can be tested. Table 7 below shows the major findings on the hypotheses testing of this study.

**Table 7:** Hypotheses Testing

| Hypothesis | Relationships | T value | Decision | 95% CILL | 95% CIUL |
|---|---|---|---|---|---|
| H1 | MT -> TE | 3.776 | Accepted | 0.091 | 0.287 |
| H2 | PM -> TE | 6.131 | Accepted | 0.211 | 0.403 |
| H3 | SM -> TE | 4.788 | Accepted | 0.156 | 0.369 |
| H4 | TM -> TE | 4.400 | Accepted | 0.118 | 0.306 |

For hypothesis 1, the t value is 3.776. No zero value is between 95% CI LL and 95%CI UL. Hence, hypothesis 1 is accepted. For hypothesis 2, the t-value is 6.131. No zero value is between 95% CI LL and 95%CI UL. Hence, hypothesis 2 is accepted. For hypothesis 3, the t-value is 4.788. No zero value is between 95% CI LL and 95%CI UL. Hence, hypothesis 3 is accepted. For hypothesis 4, the t-value is 4.400. No zero value is between 95% CI LL and 95%CI UL. Hence, hypothesis 4 is accepted. The study's results highlighted the students' positive relationships towards tasks in blended learning courses. As such, the four hypotheses confirmed in this study were:

1: The student's mastery of oil painting techniques significantly positively influences the teaching effect of oil painting.

2: The students' choice of oil painting theme significantly influences oil painting teaching.

3: The teacher's teaching method significantly influences oil painting teaching.

4: The painting material of oil painting has a significant influence on oil painting teaching.

## DISCUSSION AND CONCLUSION

The study has confirmed that Mastery of Techniques (MT), Painting Materials (PM), Choice of Subject Matter (SM) and Teaching Methods (TM) Teaching Effect this study. Therefore efforts have to be made on these four factors to enhance the students' perceived teaching effectiveness.

The current study intensifies as Xie et al. (2018) pointed out that oil painting techniques taught to the students directly affect the perceptions of the effectiveness of the oil painting courses attended. It is essential to determine how students perceived teaching techniques used in the course might affect their perception of the oil painting courses. Thus, instructors must gather various oil painting techniques perceived as fundamental and should be mastered by the students. A checklist for mastery of the vital skills can be prepared. Future studies can be carried out either quantitatively or qualitatively to sort out these fundamental oil painting techniques and skills.

The selection of decent oil painting materials will affect oil painting results and indirectly affect teaching. Instructors must discuss with the students the appropriateness of selecting oil painting materials for their oil painting projects (Liu, 2021). Instructors may produce a reference of suitable oil painting materials for various oil painting effects. In this manner, students can produce more accurate painting projects using the most suitable oil painting materials as directed by experienced oil painting instructors (Liu, 2021).

The selection of oil painting themes is affecting the effectiveness of the courses offered. The suitability of oil painting themes is highly related to the learners' experience, memory and imagination. These oil painting themes also determine the course contents. If the learners are made to draw oil painting themes that are not in the familiar zones of their experience, memory and imagination, the effectiveness of the oil painting courses is affected (Zhang, 2022). With the knowledge of understanding the importance of the Choice of Subject Matter (SM), instructors must develop a comprehensive list and checklist of oil painting themes that must be included in the courses. At the same time, future studies can be carried out either quantitatively or qualitatively to sort out these oil painting themes as guides and references for all oil painting instructors.

Lastly, nowadays, the development of Internet technology has brought society into a new era. Its rapid development is bound to affect the traditional oil painting courses in colleges and universities and bring huge changes to the teaching of oil painting courses (Jong et al., 2020; Tull et al., 2019; Jar et al., 2019). Hence, a deliberate and systematic collection of recommended excellent teaching methods can be prepared as a reference for all oil painting instructors to improve teaching methods. This leads to the need for future studies in both quantitative and qualitative methodologies to validate the teaching methods to be shared with all oil painting instructors.

In sum, table 8 below summarises the efforts and suggestions in upholding the four aspects that will positively affect career adaptability abilities. These efforts should be implemented to ensure that the level of career adaptability abilities is upholstered before the students graduate.

**Table 8:** Efforts and suggestions in upholding the four aspects that will bring positive effects on career adapt abilities.

| Factor | | Efforts and suggestions |
|---|---|---|
| **1** | Mastery of Techniques (MT) | Gather various oil painting techniques that are perceived to be fundamental and should be mastered by the students<br>A checklist in the mastery of the vital skills can be prepared |
| **2** | Painting Materials (PM) | Instructors have to discuss with the students on the appropriateness in the selection of oil painting materials for their oil painting project<br>Instructors may produce a reference of suitable oil painting materials for various oil painting effect |
| **3** | Choice of Subject Matter (SM) | Come out with a comprehensive list and checklist of oil painting themes that must be included in the courses offered. Sort out these oil painting themes as a guide.<br>And references for all oil painting instructors. |
| **4** | Teaching Method (TM) | a deliberate and systematic collection of recommended excellent teaching methods can be prepared as a reference for all oil painting instructors.<br>Future studies in quantitative and qualitative methods in the validation of the teaching methods as to be shared with all oil painting instructors to validate the teaching methods. |

There are some limitations in this study, and some future suggestions are proposed to tackle these limitations. Similar to prior studies, the current research is also prone to some limitations. First, data collected through convenience sampling might restrict the generalizability of results. For future studies, large samples and with stratified sampling method can be employed to increase the generalizability of the findings.

Second, there were only four factors involved only in this study. For future studies, more determinants can be added to produce a more fruitful understanding for developing a more comprehensive model, which includes many factors in enhancing the perceptions of satisfaction in teaching effectiveness among the students.

Third, the current study took only the effects of four selected independent variables on the dependent variable. Moderators and mediators that will affect the relationships studied in this study should be considered for future studies to yield a greater understanding of the effects of these moderators and mediators on the relationships studied.

Fourth, this study employed the basic method of PLS-SEM in the assessment process. Future studies should use other more advanced techniques in PLS-SEM analysis, such as assessing the common method variance (construct level correction), multi-group analysis (MGA) in evaluating the moderating factors affecting the relationships, etc.

In conclusion, this study has verified that Mastery of Techniques (MT), Painting Materials (PM), Choice of Subject Matter (SM) and Teaching Methods (TM) are having significant positive effects on Teaching Effect (TE). Thus, instructors have to ensure that various strategies and suggestions pertaining to the vital four factors examined in this study should be carried out as to assist the students in having better perception on Teaching Effect (TE) of the oil painting courses taken.

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