The Implementation Effect of the Social Media Platform in the Art and Design Major of Private Colleges and Universities in Chengdu, China

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Abstract

The objectives of this research were 1) To examine the effectiveness of using the social media platform to enhance art and design major students' design thinking skills; 2) To examine the effectiveness of using the social media platform to enhance art and design major students' course performance. The sample size was a total of 75 second-year students majoring in product design at the Institute of Art and Design in Tianfu College, Southwestern University of Finance and Economics, Chengdu, China. There was a total of 3 classes in the sample, which were divided into 2 groups. Two classes with 46 students were specially divided into experimental groups, and one class with 29 students was the control group. Two groups of students received a 9-week teaching activity. The students in the experimental group were intervened to publish their learning results to the social media platform for homework collection, while the students in the control group used traditional method to submit their homework to the Chaoxing platform. This study adopts a quasi-experimental research design to compare the differences in using social media platform to collect coursework on empathize, define, ideate, prototype, test and total score for art and design students. The skill performance test complies with the syllabus standards and professional talent training plan.

The results showed that the independent sample t test indicated that compared with traditional teaching methods, students who used social media platform to publish and collect student homework had statistically significant improvements in empathize, define, ideate, prototype, test and total scores. In summary, students using the social media platform to publish and submit their coursework results have a positive impact on their design performance. This survey provides empirical insights into the multimedia integration approach in art and design university education.

Keywords: 5-Step Design Thinking; Learning by Teaching Theory; Art and Design Major; Social Media Platform

Introduction

Higher education is recognized as one of the key determinants of achieving development indicators. In recent decades, China has increasingly attached importance to using public policies and higher education to promote national progress. According to UNESCO (2011), higher education must go beyond academics and contribute to the complex professional character of social development. China is currently investing in distance education as a strategy to democratize education nationwide, increase educational opportunities geographically, and encourage the widespread use of information technology in the classroom (De Melo Costa, 2021).

Design students must be able to master and apply design concepts according to social needs, market conditions, aesthetic standards and technical requirements. Students need to adapt to the needs of social, economic, and cultural development and integrate rationality throughout the entire design project (OECD, 2016). Therefore, in addition to being satisfied with the results of competitions held in academic environments, design educators must also consider market testing (Schön & Wiggins, 1992). Implement education that highly integrates art and technology, making use of the Internet and cutting-edge technology resources to fully optimize and giving full play to artistic creativity, improving students' design imagination, design skills and the overall design expression of their works is a new proposition in contemporary society (Jiao, 2015).

The United Nations policy brief in August 2020 stated that Covid-19 has caused the greatest disruption in the history of global education, forcing further disruption and methods of educational environments in schools and classrooms that are dominated by remote learning. During this crisis, governments and partners around the world have strongly supported and called for the continuity of education, including the Global Alliance for Education launched by UNESCO, which has also stimulated innovation in the field of education. Against this background, institutions in various educational fields across the country are actively developing distance learning solutions, requiring lecturers to use communication technology to teach online, distribute video applications, online education community interaction, telephone and other methods to carry out distance education to fulfill their responsibilities (Policy Brief: Education During COVID-19 and Beyond, n.d.).

People are entering the digital new media era, which brings innovation and opportunities to educational technology. In recent years, China's new media technology has been widely used as one of the main driving forces for scientific and technological progress. It has the characteristics of data collection, wide coverage, and fast transmission speed. At the same time, it also has equality, personalization, freedom, and timeliness (Jingyu, 2018). According to Wong et al. (2021), during the Covid-19 pandemic, as educators and students experienced unplanned and unprepared remote learning, there has been a huge shift in teaching thinking, which has promoted teachers' comprehensive capabilities Construction has opened up new horizons for teaching. (Hilligje et al., 2020). Distance education supports the possibility of flexible learning, allowing more people to explore blended learning by following online learning methods. Learning content can be promoted to mass communication through online platforms, with richer, interconnected, and dynamic forms of communication that can quickly change the identities of communicators and receivers (Jingyu, 2018). The widespread use of new media technology and its ability to quickly update information can also help improve the efficiency of teaching resources, encourage the updating of learning resources, and enhance the effectiveness of teaching.

The Chinese idiom of teaching and learning originated in the Western Han Dynasty (BaiduBaike, n.d.). It is an active teaching method that is conveyed to other scholars through teaching preparation materials, prompting educators to actively participate in teamwork, hosting, and presentations, thereby becoming more Reflect, clarify teaching topics and improve learning efficiency (Grzega & Klüsener, 2017).

Research Objectives

The research objectives have been formulated as follow:

1) To examine the effectiveness of using the social media platform to enhance art and design major students' design thinking skills.

2) To determine the effectiveness of using the social media platform to enhance art and design major students' course performance.

Literature Review

Kolb's Learning Styles and Experiential Learning Model

The experiential learning model was proposed by Kolb in 1984, who regarded learning as a process of transforming knowledge creation through examination (Kolb, n.d.). Citing the work of Dewey (1934), Kolb emphasized that profound experiences must interrupt daily flow to stimulate contemplation and learning. This model enhances learning motivation and better retains knowledge by supporting learners to actively participate in the learning process (Egbert & Mertins, 2010; Austin & Rust, 2015). It is an interdisciplinary approach based on management, education, and psychology that involves an experience-based, abstract, holistic process of action and reflection (A. Y. Kolb & Kolb, 2009).

As shown in Figure 1, according to the theory, experiential learning involves four main stages, that is, learning requires participants to discover, describe or master knowledge, and then go through the construction stage to complete the learning process (Abdulwahed & Nagy, 2009). The first stage, called embodied experience, is the learner's initial learning response, which involves an initial evaluation of the event and comparison with preexisting abstract concepts. The second stage is called reflective observation, in which the learner must consciously reflect from multiple perspectives. The learner then moves into the stage of abstract concepts and develops a comprehensive understanding of what is happening. The last stage is active experimental testing. Learners enter active experiments to evaluate their applicability by using the generated abstract knowledge. If this experiment produces another unexpected event, a new learning stage begins (Lattacher & Wdowiak, 2020).
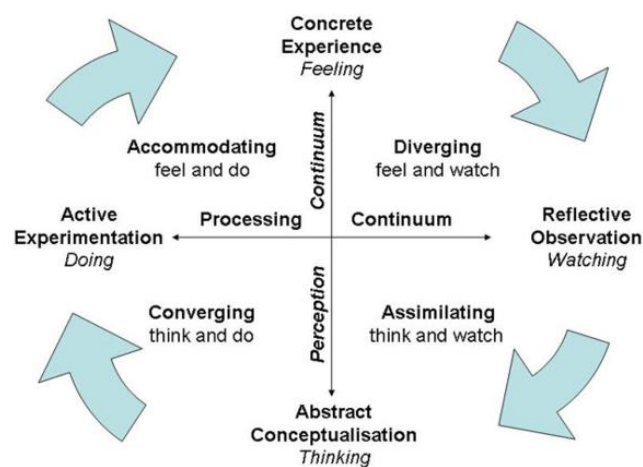

Figure 1: Kolb's Learning Cycle

In the design psychology course involved in this study, students need to explore through the perception and thinking of the content of different design psychology knowledge points, summarize theoretical knowledge from abstract conceptualization, and analyze and think combined with design cases. Finally, the understanding is gradually applied to product design practice.

In short, experiential learning stimulates reflective thinking by requiring learners to actively participate in the learning process, enabling students to master the entire process and discover its meaning during the learning process (Alkan, 2016; A. Y. Kolb & Kolb, 2005).

LdL (German Lernen durch Lehren—Learning by Teaching)

In Western countries, the LdL teaching concept was originally invented by Jean-Pol Martin in the early 1980s. The specific content refers to a learner or a learning group focusing on a topic and interacting with other members of the group in an interactive and logical manner. In this process, participants need a high degree of participation and communication. In this concept, the aim is to provide students with the necessary communication and other skills to manage knowledge while exercising empathy among participants. (Grzega & Klüsener, 2017). In the classroom activities of this study, students conducted investigations, reflections, and definitions of knowledge content through groups, and then used empathetic expressions to present their knowledge to classmates for discussion and improvement.

The essence of teaching and learning is social, and this teaching method enables symmetry in the relationship between teachers and students. In this relationship, all participants contribute to the common goal of empathically feeling, understanding, abstracting, and expressing learning content for all students. At the same time, in this process, participants can recognize their own ignorance and thus open themselves to the possibility of learning (Cortese, 2005). Students publish the results of group learning through the social media platform, stimulating the depth of student learning and exposing them to the online environment makes students more cautious and cautious in testing their own learning results.

5-Steps Design Thinking Model

Johnson-Skoldbo and others proposed the concept of design thinking (DT) in the 1960s, Smith and Greenberger (1974) regarded designer thinking as an important process in the creation of artifacts. Checkoway and Schön (1985) viewed DT as a reflective practice, while Buchanan (1992) viewed DT as a means of solving difficult problems. It is not difficult to see that scholars define DT as a way of understanding things or a way of creating meaning and place more emphasis on the value creation of DT (Jöhnk et al., 2022). Brown (2010), CEO of IDEO, a global design and innovation company, proposed that designers should be human centered to solve needs or improve situations, observe and experience user behavior, understand user needs, and design products that meet people's needs. As shown in Figure 2, Stanford University's Hasso Plattner School of Design (hereinafter referred to as "d.school") developed the famous five-step design thinking, namely empathize, define, ideate, prototype and test (Tham & Thominet, 2022).

In the five-step design thinking model, design thinkers can observe users with empathy to discover their deep and important needs, gain insights into user needs, think and understand them, and then make judgments about user needs and produce a wide range of designs. Conception. In the prototype stage, designers quickly express their concepts through models, drawings or cardboard boxes, and finally retain effective designs and improve invalid ideas through testing, and optimize design ideas through iteration (Mononen, 2017).

This study uses a five-step design thinking model. Participants can gain insight, feelings, empathy and determine user needs through research on the design background, so that the classroom results meet the design requirements.
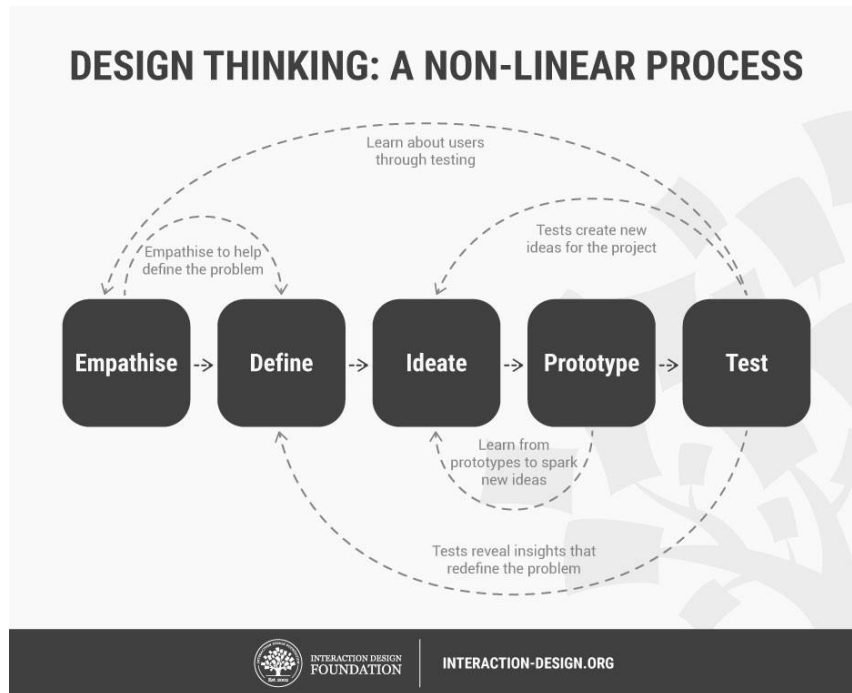

Figure 2: 5-Steps Design Thinking Process

Research Methodology

Research design

This study adopted quantitative research methods and divided students into an experimental group and a control group. Both received a 9-week design psychology course. The experimental group used the social media platform to accept the course results, and the control group used the traditional Chaoxing platform to conduct the coursework.

By comparing the differences in empathize, define, ideate, prototype, test and total scores in design practice content between the experimental group and the control group, the applicability of the social media platform in undergraduate art and design majors was determined.

Population and Sample

The research population of this study was college students majoring in art and design in Chengdu, China. They are the Z generation people born after 2000. They have been inseparable from mobile phones and the Internet since they were young. They spend a lot of time on the Internet in their lives. The time spent on programs is much longer than the time spent on books, which is also one of the important channels for them to obtain information. They are highly adaptable to electronic devices and network technology, which also has a profound impact on their subject education and economic views (UNSDG | Policy Brief: Education during COVID-19 and Beyond, n.d.).

The focus of this study's evaluation was to compare the social media platform to examine whether there was any difference between students' design psychology coursework results and design students' empathize, define, ideate, prototype, test and total scores. Therefore, all second-year students majoring in product design at the Institute of Art and Design, Tianfu College, Southwestern University of Finance and Economics were selected as the sample for this study. There was a total of 3 classes in this grade, including 29 students in Class 1, 23 students in Class 2, and 23 students in Class 3. Therefore, the study was divided into 2 groups. A total of 46 students in Class 2 and Class 3 served as the experimental group, and Class 1 of 29 students in the class served as the control group to conduct a design psychology teaching experiment.

Research Treatment

This study adopted a quasi-experimental research design, dividing students into experimental groups and control groups. The experimental group used the social media platform to accept coursework, while the control group used traditional methods to accept coursework. In order to ensure comparability between the two groups, the course lasted 9 weeks and was divided into 3 stages. The first stage was 4 weeks, and the content was theoretical learning, the second stage was 4 weeks, and the content was design practice, and the third stage was 1 week. The content was a design plan report. The teacher recorded the performance of the two groups of students throughout the process, and finally evaluated the students' design plans to compare the impact of the social media platform participation in the course on students' learning outcomes in the design psychology course.

Experimental group procedures

Students in both the experimental group and the control group adopted a blended learning method, which included the following steps:

(1) Theoretical knowledge learning of design psychology courses: The course content consists of 5 chapters. Students form groups of 3-4 to understand, discuss, study and summarize the knowledge points in each chapter, and then share them with other group members. Thereby consolidating and deepening knowledge content. During the exploration process, teachers do not actively participate in students' learning. When students encounter problems, they need to actively seek help from the teacher, and the teacher then provides corresponding guidance based on the students' problems.

(2) Design practice: After students' study design psychology, they apply the content to design practice. During this process, students need to investigate the design content, locate design problems and solutions, and design and visualize them, including design, drawings, 3D models and scene renderings.

(3) Design content display: Students need to display their design practice part in the form of a report. The teacher evaluates the performance of empathize, define, ideate, prototype and test of the project based on the student's content, and combines the above five items. The sum of the results serves as the final score for this course.

Research Instrument

Performance Tests

In the study, the experimental group and the control group used different platforms to submit the results of the design psychology course assignments. The experimental group submitted the modified and improved assignment results to the group account of the social media platform. The teacher checked and evaluated them through the social media platform. The control group submitted the coursework to the Chaoxing platform and teachers review it

on the Chaoxing platform. Throughout the teaching process, the teaching content and learning methods of the two groups of students were the same. After the experiment, compare the empathize, define, ideate, prototype, test and total scores of the two groups of students to see if there were any differences in the score performance of the two groups of students.

There are 6 variables in the scoring criteria tested in this study, namely empathize, define, ideate, prototype, test and total score. They are all performance evaluation methods for the design psychology course of the product design major of the Institute of Art and Design, Tianfu College, Southwestern University of Finance and Economics. The score range of each variable is 0-20, where 18 and above=Excellent; 16-17=Good; 14-15=Average; 12-13= Normal; and below 12=Fail. Then, the total scores are the combination of all variables with the full scores of 100 points. The scoring criteria is specified as 90 and above = Excellent; 80-89=Good; 70-79=Average; 60-69=Normal; below 60=Fail.

Validity of Research Instruments

This research experiment used the talent training plan of this major to formulate teaching content and assessment standards. Tianfu College of Southwestern University of Finance and Economics had been updated and reformed every year in accordance with the relevant requirements and regulations of the Sichuan Provincial Department of Education. The updated and reformed content was taken as a reference by all in-service teachers based on the educational experience of the year. After being written by the associate professor, it would be reviewed by the college leaders and the school's R&D department in order to provide the teaching content and teaching methods for the next year. In this study, the students participating in the experiment were divided into experimental groups and control groups. After flipped classroom learning, they used theory to conduct design practice, and finally evaluated the results based on the practical content. The evaluation criteria were based on the professional talent training plan and course syllabus content. Based on the five-step design thinking, the validity of the evaluation content was confirmed.

Data Collection Procedures

Before the experiment started, the researcher had informed all participants of the experimental content, experimental method and experimental purpose, and informed the students that all the data of this experiment would be recorded anonymously in the experimental report. This experiment was conducted without objection to ensure that this study complied with research ethics, ensured the participants' right to know, and respected their privacy.

This experimental period lasted for 9 weeks and was divided into 3 stages. In the first stage, students learned course knowledge in the form of flipped classroom, and researcher recorded students' theoretical report scores. Researcher required students in the experimental group to use the social media platform to publish their learning results and accepted their assignments in this way. Students in the control group use traditional methods to acceptance work. In the second stage, students used classroom knowledge to carry out design practice, and researcher provided guidance one by one. There was no need to record results at this stage. In the third stage, the researcher judged the teaching design results based on the students' design content according to the scoring standards. The evaluation content consists of empathize, define, ideate, prototype, test and total score. At this stage, students in the experimental group were required to upload the design content into the social media platform, students in the control group submitted content using traditional methods. The data of this study used the third phase data to analyze the different performance results of students in the experimental group

and the control group, thereby analyzed the impact of the social media platform on the design skills of design students.

Data Analysis

The data research method of this study is performance testing. The researcher uses descriptive statistics and independent sample t-test to test the effectiveness of using the social media platform in the classroom.

Research Conceptual Framework

Three classes participated in this study, including 2 classes in the experimental group and 1 class in the control group. Taking 46 students in the experimental group and 29 students in the control group as sample, the classroom was compared performance of the participation of the social media platform in the design of psychology courses. The experiment consists of 3 stages and lasting 9 weeks. In the first stage, two groups of students learned and shared the classroom knowledge content; in the second stage, the two groups of students conducted design practice exercises through the course content; in the third stage, students conducted presentations through reports End-of-course assessment. During the entire experiment, students in the experimental group were asked to upload their learning content to the social media platform, while students in the control group were asked to upload their learning content to the Chaoxing platform as traditional methods. Finally, the empathize, define, ideate, prototype, test and total score of the two groups of students were compared. The research framework is shown in Figure 3.
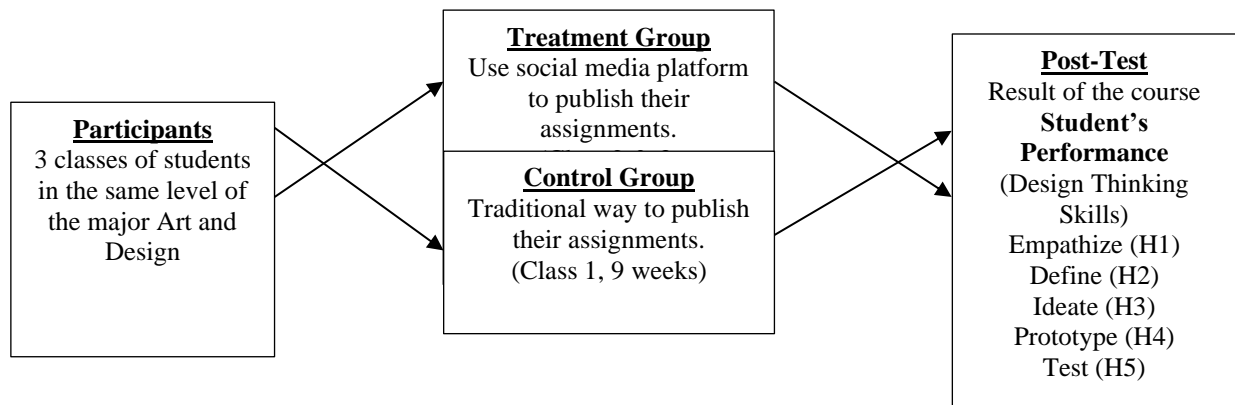
Participants
3 classes of students in the same level of the major Art and Design

Treatment Group
Use social media platform to publish their assignments.

Control Group
Traditional way to publish their assignments.
(Class 1, 9 weeks)

Post-Test
Result of the course
Student's Performance
(Design Thinking Skills)
Empathize (H1)
Define (H2)
Ideate (H3)
Prototype (H4)
Test (H5)

Figure 3: research Conceptual Framework

Based on the conceptual framework, the hypotheses were developed as follows.

Hypotheses Testing

$H_0 1$: There is no difference in student's empathize skills between the design student who have been taught traditionally, and those who have exposed to the social media platform for their learning.

$H_a 1$: There is difference in student's empathize skills between the design student who have been taught traditionally, and those who have exposed to the social media platform for their learning.

$H_0$2: There is no difference in student's define skills between the design student who have been taught traditionally, and those who have exposed to the social media platform for their learning.

H_a2: There is difference in student's define skills between the design student who have been taught traditionally, and those who have exposed to the social media platform for their learning.

$H_0$3: There is no difference in student's ideate skills between the design student who have been taught traditionally, and those who have exposed to the social media platform for their learning.

H_a3: There is difference in student's ideate skills between the design student who have been taught traditionally, and those who have exposed to the social media platform u for their learning.

$H_0$4: There is no difference in student's prototype skills between the design student who have been taught traditionally, and those who have exposed to the social media platform for their learning.

H_a4: There is difference in student's prototype skills between the design student who have been taught traditionally, and those who have exposed to the social media platform for their learning.

$H_0$5: There is no difference in student's test skills between the design student who have been taught traditionally, and those who have exposed to the social media platform for their learning.

H_a5: There is difference in student's test skills between the design student who have been taught traditionally, and those who have exposed to the social media platform for their learning.

Research Results
Demographic Information

The study collected data from 75 students, covering 3 teaching classes, all with 2 years of design learning experience. 46 were in the experimental group, consisting of two teaching classes, and the other 29 were in the control group, consisting of one teaching class. After removed the most extreme outliers from the analysis, 73 cases were used, so the descriptive statistics of demographic information of samples after outliers is as the follow: 46 people in the experimental group, accounting for 63.0% of the total, and 27 people in the control group, accounting for 37.0% of the total number of students, 22 boys, accounting for 30.1% of the total number, and 51 girls, accounting for 69.9% of the total number.

1. Result of Data Analysis for Research Objective 1: *To examine the effectiveness of using the social media platform to enhance art and design major students' design thinking skills.*

The data analysis results for research objective 1 are based on the hypothesis testing results of the independent samples t-test. The study proposed five hypotheses to differentiate the design thinking skills' performance of students in the experimental group and the control group, that is, performance in five dimensions in design practice, and used the social media platform to publish homework results as an intervention. To test these hypotheses, an independent samples t-test was used to compare whether students improved on empathize, define, ideate, prototype, and test. The independent sample t-test results are shown in Table 1.

Table 1: Independent Samples T-Test for students' design thinking skills

		t	df	p	Mean difference	SE difference
Empathize	Student's t	-2.53	71.0	.014	-1.55	0.614
Define	Student's t	-2.06	71.0	.042	-1.10	0.534
Ideate	Student's t	-2.08	71.0	.041	-1.15	0.554
Prototype	Student's t	-2.08	71.0	.041	-1.10	0.526
Test	Student's t	-2.08	71.0	.041	-1.03	0.495

Note. $H_a\ \mu_1 \neq \mu_2$

According to the results in Table 1, there was statistical significance in the empathize score, the define score, the ideate score, the prototype score and the test score of the two groups. Therefore, the null hypothesis was rejected. It can be seen that students in the experimental group had higher improvement scores than the control group on all variables. Furthermore, the largest average difference occurs in empathize, with a difference of 0.014 and statistically significant <0.05.

Further review of the descriptive statistics of the improvement scores for both groups also showed that the experimental group consistently had higher scores than the control group. Details of these scores are shown in Table 2.

Table 2: Group Descriptive for students' design thinking skills

	Group	n	Mean	Median	SD	SE
Empathize	Control	27	14.3	15.0	2.97	0.572
	Treatment	46	15.8	16.0	2.24	0.330
Define	Control	27	14.4	15.0	2.26	0.435
	Treatment	46	15.5	16.0	2.17	0.320
Ideate	Control	27	13.6	14.0	2.59	0.498
	Treatment	46	14.8	14.5	2.09	0.308
Prototype	Control	27	13.9	14.0	2.25	0.433
	Treatment	46	15.0	15.0	2.12	0.313
Test	Control	27	14.6	15.0	2.01	0.386
	Treatment	46	15.6	15.5	2.06	0.304

In summary, all hypothesis tests conducted on students in terms of empathize, define, ideate, prototype and test performance showed that students in the experimental group scored higher after learning in the treatment condition. Therefore, all null hypotheses were rejected. As a result, all scores improved statistically, shown as Table 3.

Table 3: Summary of Hypothesis testing and results

Statements	Result
$H_0 1$: There is difference in student's empathize skills between the design student who have been taught traditionally, and those who have exposed to the social media platform for their learning.	Rejecting the Null Hypothesis
$H_0 2$: There is difference in student's define skills between the design student who have been taught traditionally, and those who have exposed to the social media platform for their learning.	Rejecting the Null Hypothesis
$H_0 3$: There is difference in student's ideate skills between the design student who have been taught traditionally, and those who have exposed to the social media platform for their learning.	Rejecting the Null Hypothesis
$H_0 4$: There is difference in student's prototype skills between the design student who have been taught traditionally, and those who have exposed to the social media platform for their learning.	Rejecting the Null Hypothesis
$H_0 5$: There is difference in student's test skills between the design student who have been taught traditionally, and those who have exposed to the social media platform for their learning.	Rejecting the Null Hypothesis

2. Result of Data Analysis for Research Objective 2: *To examine the effectiveness of using the social media platform to enhance art and design major students' course performance.*

The data analysis results for research objective 2 are based on the results of students' overall performance on using social media platforms for their course practice. Students in the experimental group and the control group used social media platforms as an intervention, and independent sample t-test was used to compare whether their final performance results had improved. The independent sample t-test results are shown in Table 4.

Table 4: Independent Samples T-Test for students' total score

		t	df	p	Mean difference	SE difference
Total score	Student's t	-2.52	71.0	.014	-5.93	2.364

Note. $H_a \ \mu_1 \neq \mu_2$

According to the results in Table 4, the total score comparison between the two groups is statistically significant. It can be seen that the students in the experimental group have higher progress scores on all variables than the control group, with an average difference of 0.014 and statistical significance <0.05.

A further review of the descriptive statistics of the improvement scores of both groups also showed that the experimental group had higher scores than the control group. Details of these scores are shown in Table 5.

Table 5: Group Descriptive for students' total score

	Group	**n**	**Mean**	**Median**	**SD**	**SE**
Total Score	Control	27	70.9	74.0	10.94	2.106
	Treatment	46	76.8	77.0	8.99	1.325

In short, the descriptive statistics and independent sample t-test analysis of students in terms of total score showed that students in the experimental group scored higher after learning under the treatment conditions, and their scores were statistically improved.

Discussion

Research shows that after Covid-19, students have a strong acceptance and adaptability to diversified teaching methods (Hilligje et al., 2020). The use of social media platforms in design psychology courses significantly improves student learning outcomes compared to traditional instruction. This improvement is evident in students' design thinking, namely empathize, define, ideate, prototype, and test, which is consistent with previous research findings (Jingyu, 2018). Participating in social media platforms can allow students to gain more self-directed opportunities and interdisciplinary research content in the traditional closed learning environment where only teachers participate, allowing students to showcase their creative content to a greater extent. As Grzega and Schöner (2008) stated, LdL's teaching method is also very helpful for students to organize and express information and apply it in design. At the same time, it may also cause certain risks, because displaying in an open network environment may expose publishers to unknown comments. There are higher requirements for the accuracy and rigor of content published by students.

In summary, the integration of the social media platform has significantly improved students' performance in design psychology courses, thereby improving students' design abilities.
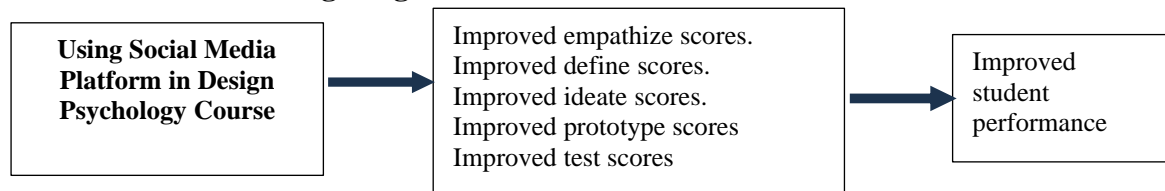
The Overall Finding Diagram

Figure 4: The overall finding

As shown in Figure 4, by analyzing the performance differences in five aspects and the students' total score of the course between the experimental group using the social media platform and the control group using traditional teaching, determined the social media platform in design psychology teaching, which included empathize, define, ideate, prototype, test and total score. The results show that the use of the social media platform significantly improves students' design thinking skills so that enhance their course performance.

Notable Findings

In addition to the research questions in this study, this article contains several other noteworthy findings that may be directly or indirectly related to the research questions listed below.

Improvement of copyright awareness and intellectual property protection awareness: In design majors, students should understand basic copyright licensing issues and how to deal with related issues (Muriel-Torrado & Fernández-Molina, 2015). Through the participation of the social media platform, students can construct more original content, design visual layout and express creative content.

Students do not pay much attention to the presenter: This study found that during the reporting process, many students did not pay enough attention to the content being reported, but focused on the content they were about to report, or some students had already completed the report. The students' attitudes are relaxed, and their attention is no longer focused on classroom activities. This may be related to the form of the activity itself, so the form of classroom teaching activities may also affect students' learning results.

Some students have negative learning attitudes: During this research, it was also found that some students have a very negative attitude towards learning regardless of whether they use the social media platform or not, and this negative attitude will affect their classmates who are closer to them. Therefore, for this type of experimenters, more detailed course content may be needed to improve their attitudes.

Recommendations

This study aims to improve the psychology course content of the design product design major of the Institute of Art and Design, Tianfu College, Southwestern University of Finance and Economics, promote the innovation and reform of the basic education of the multimedia art and design major, and promote the adoption of a blended learning method of multimedia intervention in the education reform of this major.

The researchers concluded that by displaying the learning results in the social media platform, students are forced to conduct more in-depth research and summary of the learning content, thereby improving students' summarizing abilities. At the same time, due to their

positive learning attitude and higher self-requirements, the design background analysis and cases they display are more diverse and broader, and their research capabilities, creativity level, and design expression are richer and more effective. Using the social media platform to participate in teaching can enhance students' interest in design learning. The open network environment is conducive to the breadth of their professional learning and the development of their personal specialties. It also increases students' self-learning ability and helps their critical thinking and design skills enhanced. For educators, allowing students to demonstrate learning effects in an online environment undoubtedly requires teachers to have more comprehensive knowledge accumulation and professional qualities, and to face open professional topics, as well as possible questions and answers from the Internet. At the school level, students using the social media platform to demonstrate learning results is undoubtedly a very authentic and credible way of publicity for the school. It demonstrates the school's teaching level from grassroots education content and allows netizens to understand the school and the major. At the same time, this method also allows the society to supervise the quality and level of teaching in schools.

Recommendations for Future Research

In order to further deepen the understanding of the applicability of the social media platform in teaching design majors, research on this topic can be continued in the future. First of all, future research on the social media platform in different professional fields and course subjects can be expanded. On the basis of the current research, a more comprehensive and in-depth understanding of the social media platform in design majors and non-design professional education can be obtained. application. Secondly, the experimental sample size can be increased in future research to make the data more complete. Finally, it is recommended that in future research, more detailed research and discussion be conducted on the factors that influence the design ability of design students using the social media platform, so as to make a detailed study of the impact of the social media platform on students' design skills and draw conclusions.

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