International Journal of Sociologies and Anthropologies Science Reviews (IJSASR), 3 (6), November-December 2023, pages 201-210. Old ISSN 2774-0366: New ISSN 2985-2730
Website: https://so07.tci-thaijo.org/index.php/IJSASR/index
DOI: https://doi.org/10.60027/ijsasr.2023.3465

Effect of Learning Management Using Problem-based Learning on Fine Arts Basic Ability of Freshmen in Suzhou Arts and Design Institute, The People's Republic of China

Zeng Fanxuan[1] Thapana Choicharoch[2] and Nitikorn Onyon[3]
[1] Master student, Curriculum and Instruction Program, Valaya Alongkron Rajabhat University under the Royal Patronage Pathum Thani Province, Thailand
[2,3] Lecturer, Curriculum and Instruction Program, Valaya Alongkron Rajabhat University under the Royal Patronage Pathum Thani Province, Thailand
E-mail: zeng.fanxuan@vru.ac.th, ORCID ID: https://orcid.org/0009-0008-4521-3057
E-mail: thapana@vru.ac.th, ORCID ID: https://orcid.org/0009-0001-7504-138X
E-mail: nitikorn@vru.ac.th, ORCID ID: https://orcid.org/0009-0005-5171-3953

Received 29/08/2023 Revised 02/09/2023 Accepted 15/09/2023

Abstract

Background and Aim: Learning Management Using Problem-Based Learning students can have better development of creativity, the ability to apply in real-world situations, aesthetic appreciation of Arts, activeness, and initiative which can help them to make progress in Fine Arts basic ability. Thus, the purposes of this research were to: 1) To compare the students' Fine Arts basic ability before and after learning through Learning Management Using Problem Based Learning. 2) To compare the Fine Arts basic ability after learning through Learning Management Using problem-based learning with the determined criterion set at 70%. 3) To assess the significance level of students' satisfaction after learning through Learning Management Using Problem-Based Learning.

Materials and Methods: The sample of this study was 30 Freshmen (1 class) in Suzhou Institute of Fine Arts and Design in the academic year of 2023, which was derived from the cluster random sampling method. The research instruments were as follows: 1) There are five teaching plans for the Fine arts's basic ability course of fine arts. The five teaching plans adopt the Learning Management Using Problem-Based Learning teaching method. The themes are research instruments were as follows: There are 5 lesson plans for teaching Fine Arts basic Objects from concrete to abstract - The skill of composition and the skill of light and shadow sensitivity, The meaning of color - The skill of color sensitivity Abstract lines - The skill of lines, Stereo model first session - The skills of typological criterion, lines, and composition. 2) An achievement test was used with a reliability of 0.73. 3) The reliability of student satisfaction is 0.80.

Results: The results of the study were as follows: (1) Students who received Learning Management Using Problem-Based Learning have higher scores than before learning through Learning Management Using Problem-Based Learning than before at a statistically significant level of 0.05. (2) Students who received the Learning Management Using Problem-Based Learning have higher scores than the determined criterion of 70%. And (3) The students' satisfaction with Learning Management Using Problem-Based learning is at a high level.

Conclusion: Learning management using problem-based learning significantly improves students' Fine arts basic ability. learning management using problem-based learning problem-based learning environment encourages students to actively think and participate in problem-solving. And the learning management using problem-based learning in the learning process, teachers still need to maintain supervision and guidance and increase time for repeated training to ensure that students are aligned with the learning objectives of Fine arts basic ability.

Keywords: Problem-Based Learning; Fine Arts Basic Ability; Student Satisfaction

Introduction

Since the 1980s, China has undergone tremendous changes in the field of Fine Arts. Various foreign art patterns or styles were introduced into China and integrated with Chinese local Fine Arts, consequently, the Chinese Fine Arts has some new development accordingly. To adapt to this new change in the field of Fine Arts, the Fine Arts basic ability was placed in an important position. (Lu, 2019). The Fine Arts basic ability is mainly based on the training in three-dimensional modeling, focusing on the cultivation of students' perception and expressiveness of materials and three-dimensional forms, and exploring the artistic expression of materials, craftsmanship, and spatial visual modeling. It emphasizes understanding the nature of the form from the angel of the art science theory

Citation
Zeng, F., Choicharoch, T., & Onyon, N. (2023). Effect of Learning Management Using Problem-based Learning on Fine Arts Basic Ability of Freshmen in Suzhou Arts and Design Institute, The People's Republic of China. International Journal of Sociologies and Anthropologies Science Reviews, 3 (6), 201-210; DOI: https://doi.org/10.60027/ijsasr.2023.3465

International Journal of Sociologies and Anthropologies Science Reviews (IJSASR), 3 (6), November-December 2023, pages 201-210. Old ISSN 2774-0366: New ISSN 2985-2730
Website: https://so07.tci-thaijo.org/index.php/IJSASR/index
DOI: https://doi.org/10.60027/ijsasr.2023.3465

and provides a transition from foundation to design creation. The Fine Arts basic ability is a kind of design mindset that is the foundation of future professional learning. Therefore, there should be more emphasis put on the Fine Arts ability.

Although the significance of the Fine Arts basic ability is always emphasized, there are still some problems existing in the process of cultivating of Fine Arts basic ability. First is the lack of sufficient cultivating of the creativeness. Influenced by traditional conventional thinking, there is a stereotype that Artistic creation is a fine art with theme or topicality. The lack of cultivation of students' creativity leads to the students having weaknesses in establishing themes, selecting materials, and conceiving ideas by themselves. (Wang & Zhang, 2010). Secondly is the insufficient development of the aesthetic appreciation of Arts. (Wang, 1996). In the traditional teaching process, teachers only pay attention to whether the students' technical skills meet the requirements and often ignore the cultivation of students' aesthetic appreciation of the Arts. Lastly, the drawbacks and disadvantages exist in the traditional classroom. The traditional classroom puts more emphasis on lecturing the basic knowledge of the Fine Arts basic ability rather than providing opportunities for students to practice and improve their Fine Arts basic ability.

Furthermore, the evaluation criteria of the Fine Arts basic ability mainly concentrate on several aspects: 1) The cultivation of the students' sentiment and aesthetic appreciation; 2) The development of students' abilities of perception and image-thinking; 3) To foster the abilities of activeness and creativeness. (Zhang, 2012) However, to improve the Fine Arts ability of students in China, the traditional classroom is always focusing on the theoretical knowledge of Fine Arts basic ability rather than practical use. The way of improving the Fine Arts basic ability is always simply through the lecture of basic knowledge of Fine Arts.

In terms of all these problems existing in the process of cultivating Fine Arts basic ability, Learning Management Using Problem-Based Learning should be introduced as a solution. First of all, the most significant and fundamental feature of Problem-based learning is its creativity (Tian, 2021) which can help students develop their creativity in the field of Fine Arts basic ability. Second, the educational goal of constructing Problem-based learning contexts is to enable the students to engage with the context and explore questions that they may face in the real world, which may stimulate the students to integrate the knowledge for future applications. (Dombrowski, 2002) . Consequently, the real context and situation can help with improving the aesthetic appreciation of the Arts. Finally, the Learning Management Using Problem-based learning is the focus of the learning process (Pemberton, 1996) in which the students are the center and the instructors are the facilitator. In this situation, students can learn actively and initiatively.

Through Learning Management Using Problem-Based Learning students can have better development of creativity, ability to apply in the real world or situation, aesthetic appreciation of Arts, activeness, and initiative which can help them to make progress in Fine Arts basic ability. Specifically speaking, the skill of lines, typological criterion, color sensitivity, light and shadow sensitivity, and composition of students can be more creative and novelty. For further substance, A reference can be given to the teaching model for Fine Art's basic ability in Learning Management Using Problem-Based Learning, and Learning Management Using Problem-Based Learning can provide help for improving students' creativity and aesthetic appreciation of Fine Arts.

To summarize, by using Learning Management Using Problem-based learning, the Fine Arts basic ability of students can be better cultivated. To be more specific: By using Learning Management Using Problem based learning, the teacher firstly designs the problem settings related to the teaching content of the Comprehensive Basis Fine Arts course like the 1) skill of lines, 2) typological, 3) color sensitivity, 4) light and shadow sensitivity, 5) composition and leads the students to the problem; secondly, the teacher facilitates the students in organizing the tasks related to the problem of Comprehensive Basis of Fine Arts course content; thirdly, the students solves the problem related to the Comprehensive Basis of Fine Arts course in groups and individually under the facilitation of the teacher, during which the progress are controlled by the teacher. Fourthly, the students conclude, present, and share the product or result of solving the problem related to the content of the Comprehensive Basis of Fine Arts course with other students, during which the teacher's facilitation may be needed; Fifthly, The students analyze, evaluates, reflects, and summarizes themselves and other people's process of solving the problem related to the content of Comprehensive Basis of Fine Arts course, during which the teacher's facilitation on the reflecting stage may be required.

In conclusion, the research of this thesis was intended to find a solution to the disadvantage existing in the traditional method of cultivating the Fine Arts basic ability of students and provide a reference of the teaching model for the Fine Arts basic ability in Learning Management Using Problem-Based

Citation
Zeng, F., Choicharoch, T., & Onyon, N. (2023). Effect of Learning Management Using Problem-based Learning on Fine Arts Basic Ability of Freshmen in Suzhou Arts and Design Institute, The People's Republic of China. International Journal of Sociologies and Anthropologies Science Reviews, 3 (6), 201-210; DOI: https://doi.org/10.60027/ijsasr.2023.3465

International Journal of Sociologies and Anthropologies Science Reviews (IJSASR), 3 (6), November-December 2023, pages 201-210. Old ISSN 2774-0366: New ISSN 2985-2730
Website: https://so07.tci-thaijo.org/index.php/IJSASR/index
DOI: https://doi.org/10.60027/ijsasr.2023.3465

Learning. Therefore, the researcher of this thesis was interested in the variables: Fine Arts basic ability and Learning Management Using Problem Based Learning and intended to study the relation or effect of Learning Management Using Problem Based Learning on Fine Arts basic ability.

Research Objectives

1. To compare the students' Fine Arts basic ability before and after learning through Learning Management Using Problem Based Learning.
2. To compare the Fine Arts basic ability after learning through Learning Management Using problem-based learning with the determined criterion set at 70%.
3. To assess the significance level of students' satisfaction after learning through Learning Management Using Problem-Based Learning.

Research hypothesis

1. Students who received Learning Management Using Problem-Based Learning have higher scores than before learning through Learning Management Using Problem-Based Learning.
2. Students who received the Learning Management Using Problem-Based Learning have higher scores than the determined criterion.
3. The students' satisfaction with Learning Management Using Problem-Based learning is at a high level.

Literature Review

Problem-based learning

The definition of Learning Management Using Problem-based Learning

As mentioned by Nelson (2007), different types of Problem-based learning share some common features in the instructional activity development and implementation process. Different from this, "A review of the field found that the practice of PBL was described in a variety of ways that could be summarized as a complex mixture of general teaching philosophy, learning objectives and goals, and faculty attitudes and values" (Vernon D.T. & Blake. 1993; Newman, 2003: 10). Two major features of Problem-based learning are summarized as follows.

1) Student-centered

The most crucial concept of Problem-based learning is the focus of the learning process. In traditional teaching, teachers are the dominator who determines the teaching content and the correct answers, which makes the students the passive knowledge receivers who are afraid to raise questions or openly challenge the authority (Pemberton, 1996). The teacher is the one who is actively involved in such a teaching process. However, the success of such teaching mostly relies on the student's memorization of the knowledge taught by the teacher, during which the students' deficiency in memorizing, applying, or integrating knowledge may occur, and cause them reluctant to pursue further learning (Nelson, 2007). Therefore, it is of great necessity to move the focus from teacher to learner, for the learner's concept of knowledge must be constructed by the learner itself under the influence of the learner's own experience (Savery & Duffy, 1996).

Simply put, the teacher's role in the Problem-based learning process is the facilitator who plays a significant role in the successful application of learning activities (Barrows, 1999; Greening, 1998), during which process the teacher should guide the student's discovery, questioning, analysis, evaluation process, and so on (Nelson, 2007). The students are the center of learning and are responsible for their learning.

2) Contextualized problems

As mentioned by Dombrowski (2002, cited in Nelson, 2007), the educational goal of constructing Problem-based learning contexts is to enable the students to engage with the context and explore questions that they may face in the real world, which may stimulate the students to integrate the knowledge for future applications.

Such questions may be equipped with various characteristics. For instance, Greening (1998) noted that the problems in Problem-based learning could be seen with these characteristics:

a. Complexity
b. Open-ended
c.Limited information
d.Could be solved through various ways

Citation
Zeng, F., Choicharoch, T., & Onyon, N. (2023). Effect of Learning Management Using Problem-based Learning on Fine Arts Basic Ability of Freshmen in Suzhou Arts and Design Institute, The People's Republic of China. International Journal of Sociologies and Anthropologies Science Reviews, 3 (6), 201-210; DOI: https://doi.org/10.60027/ijsasr.2023.3465

International Journal of Sociologies and Anthropologies Science Reviews (IJSASR), 3 (6), November-December 2023, pages 201-210. Old ISSN 2774-0366: New ISSN 2985-2730
Website: https://so07.tci-thaijo.org/index.php/IJSASR/index
DOI: https://doi.org/10.60027/ijsasr.2023.3465

Different from these, Savoie and Hughes (1994) concluded there are two major characteristics of problems in Problem-based learning that can better connect students with reality:

a. Contextualized or authentic
b. Based on the subject of the curriculum

To be more specific, Ram (1999) believes that the problems applied in the Problem-based learning process should be constructed under these requirements:

a. Based on real-world situations
b. Could generate hypotheses
c.Could apply problem-solving and creative thinking skills
d.Should require the utilization of knowledge and skills that meet the curriculum objectives
e. Should possess multidisciplinary components

Besides the features of student-centered and contextualized problems, other features should be mentioned incidentally (Nelson, 2007): Multidisciplinary focus, Self-regulation and collaboration, Reflection and evaluation, Closing analysis, Assessment, Pedagogical consideration, The role of complex open-ended problems, and the role of tutor.

There have been many scholars putting forward various definitions of Problem-based learning. For instance, Barrett and Moore (2010) refer to Problem-based learning as a type of innovative instructional methodology that serves to improve the student's learning process. Through continuous engagement, a way of solving real problems would be found as well. Similarly, Marra et al., (2014) have the same belief in the definition of Problem-based learning, which stated that PBL is a type of learning method that can enable the students to acquire knowledge effectively after going through authentic problem-solving. In the same year, Dechakup and Yindeesuk (2014) defined Problem-based learning as a type of setting in teaching that can help students meet their goal of learning through the utilization of problems.

To be more specific, the teacher is responsible for creating a suitable environment for the students to practice their skills of thinking, problem-solving, and analyzing in groups by providing the students with the situation of real-life problems (Chaidam, and Poonputta, 2022) since the goal of PBL is to facilitate the students in their process of cultivating various skills such as creative thinking and problem-solving (Sari et al., 2021; Sihaloho et al., 2017). Therefore, it is indicated that the problem involved in such a process provides a chance for the students to be cultivated as creative and innovative students (Simanjuntak et al., 2021).

Taking all the information into consideration, it can be said that Problem-based learning is a type of instructional methodology that emphasizes the utilization of real-life problems during which the student's critical thinking, problem-solving, creative thinking, and various skills would be utilized.

Problem-based learning refers to an instructional methodology that emphasizes the utilization of real-life problems during which the student's critical thinking, problem-solving, creative thinking, and various skills would be utilized. The teaching process of Problem-based learning in the Comprehensive Basis of Fine Arts course could be divided into five steps as follows:

1) Step 1: The teacher designs the problem settings related to the teaching content of the Comprehensive Basis Fine Arts course and leads the students to the problem.

2) Step 2: The teacher facilitates the students in organizing the tasks related to the problem of Comprehensive Basis of Fine Arts course content.

3) Step 3: The students solve the problem related to the Comprehensive Basis of Fine Arts course in groups and individually under the facilitation of the teacher, during which the progress is controlled by the teacher.

4) Step 4: The students conclude, present, and share the product or result of solving the problem related to the content of the Comprehensive Basis of Fine Arts course with other students, during which the teacher's facilitation may be needed.

5) Step 5: The students analyze, evaluate, reflect, and summarize themselves and other people's process of solving the problem related to the content of the Comprehensive Basis of Fine Arts course, during which the teacher's facilitation on the reflecting stage may be required.

Fine Arts basic ability

According to the study by Chen (2019), Fine Art's basic ability was composed of the skill of lines, the skill of typological criterion, the skill of light and shadow sensitivity, and the skill of composition. The development of computational thinking ability in Fine Arts academies can improve students' comprehensive problem-solving abilities. A fine arts teaching system has been developed to simulate and support fine arts teaching, providing better application value. Arts education has been found to enhance aesthetic sense ability in basic-level pupils, leading to their full development and

Citation
Zeng, F., Choicharoch, T., & Onyon, N. (2023). Effect of Learning Management Using Problem-based Learning on Fine Arts Basic Ability of Freshmen in Suzhou Arts and Design Institute, The People's Republic of China. International Journal of Sociologies and Anthropologies Science Reviews, 3 (6), 201-210; DOI: https://doi.org/10.60027/ijsasr.2023.3465

International Journal of Sociologies and Anthropologies Science Reviews (IJSASR), 3 (6), November-December 2023, pages 201-210. Old ISSN 2774-0366: New ISSN 2985-2730
Website: https://so07.tci-thaijo.org/index.php/IJSASR/index
DOI: https://doi.org/10.60027/ijsasr.2023.3465

participation in social and artistic life. The training of future teachers of fine arts focuses on the formation of professional skills in working in the field of fine, decorative, and applied arts in educational institutions. (Cheng, W., Feng, Z., & Lin, L. 2014; Yassir, M., Mahgoub. 2016).

The Fine Arts basic ability refers to five foundational skills in painting: The skill of lines, the skill of typological criterion, the skill of color sensitivity, the skill of light and shadow sensitivity, and the skill of composition. To be more specific:

1) The skill of lines refers to the most basic part of painting which is a general term for painting including curves, straight lines, thick lines, thin lines, etc. Lines proficiency is the most vivid part of all elements of Fine Arts, and it is an abstract language abstracted from natural reality by painters.

2) The skill of typological criterion refers to the consistency of hands and eyes which means that the observation of eyes should be consistent with the expression of hands.

3) The skill of color sensitivity refers to the ability of human vision to perceive color differences. At the same time, it also refers to the expression and perception of the emotion hidden in the color.

4) The skill of light and shadow sensitivity refers to a direct expression of the understanding of the structure, furthermore, it is a significant cause through which we can create a sense of three-dimensional, space in some specific atmosphere.

5) The skill of composition refers to the proper organization of the images to be displayed to form a harmonious and complete picture according to the requirements of the theme and the thoughts of the subject and it is also an important means for Fine Arts to expression of thoughts and gaining the art appeal, besides it covers several aspects: the determination of the location and size of the artistic image in space, the combination and separation form of artistic image and space, the visual impact and sense of force generated by artistic image, etc..

The Fine Arts basic ability is evaluated by the evaluation form which is a Rubric Score including five levels: Excellent, Medium, Good, Pass, and No Pass.

3. Students' satisfaction with learning management by using problem-based learning.

The students' satisfaction could be regarded as the consistency between the student's expectations and the treatment the institution provided. In this thesis, satisfaction refers to the subjective psychological state of the freshmen at Suzhou Institute of Fine Arts and design in the academic year of 2023 toward Learning Management Using problem-based learning.

Methodology

Sample

The population in this study was 150 Freshmen (5 classes) in Suzhou Institute of Fine Arts and Design in the academic year of 2023. The sample of this study was 30 Freshmen (1 class) in Suzhou Institute of Fine Arts and Design in the academic year of 2023, which was derived from the cluster random sampling method.

Research instruments

Instruments for the experiment: (1) Lesson plan: There are 5 lesson plans for teaching Fine Arts basic ability, allotted with 2 hours per lesson plan, and 10 hours in total. (2) Instruments for collecting data. (3) Fine Arts Basic Ability Evaluation Form (Rubric score). (3) Questionnaire for students' satisfaction with learning management using problem-based learning.

Instrument for measuring Fine art's basic ability

The t-test had a total of 15 items, and the Index of Item Objective Congruence (IOC) of each item in the evaluation form was 0.8 higher than 0.76. The result of analyzing the IOC index showed that all test items were appropriate and could be used in the test difficulty (p) between 0.2-0.8 and discriminability (r) > 0.2 and an achievements test with a reliability of 0.73.

Data collection

The procedures of data collection were as follows**:** (1) The sample was taught by using Learning Management Using Problem-based Learning. (2) Before the instruction, the sample was evaluated by using the Fine Arts basic ability evaluation form (Rubric score). (3) The sample was taught according to the 5 lesson plans (2 hours per lesson plan, and 10 hours in total) of teaching Fine Arts basic ability using Learning Management Using Problem-based Learning. (4) After finishing the instruction, the sample was evaluated by using the same Fine Arts basic ability evaluation form (Rubric score). And (4) The sample was given the students' satisfaction questionnaire.

Data analysis

Citation
Zeng, F., Choicharoch, T., & Onyon, N. (2023). Effect of Learning Management Using Problem-based Learning on Fine Arts Basic Ability of Freshmen in Suzhou Arts and Design Institute, The People's Republic of China. International Journal of Sociologies and Anthropologies Science Reviews, 3 (6), 201-210; DOI: https://doi.org/10.60027/ijsasr.2023.3465

International Journal of Sociologies and Anthropologies Science Reviews (IJSASR), 3 (6), November-December 2023, pages 201-210. Old ISSN 2774-0366: New ISSN 2985-2730
Website: https://so07.tci-thaijo.org/index.php/IJSASR/index
DOI: https://doi.org/10.60027/ijsasr.2023.3465

In this study, data were analyzed by using the statistical program according to the research objectives; (1) Compare the students' Fine Arts basic ability before and after learning through Problem-based learning by using a t-test for the dependent sample. (2) Compare Fine Arts basic ability with the determined criterion set at 70 percent by using a t-test for one sample. (3) Assess the student's satisfaction with Problem-based learning by using arithmetic mean and standard deviation. The data are interpreted by comparison with the following criterion (Phunaploy, S., Chatwattana, P., & Piriyasurawong, P., 2021):

Arithmetic means 4.50 — 5.00 refers to student's satisfaction being at the highest level
Arithmetic means 3.50 – 4.49 refers to student's satisfaction being at the high level
Arithmetic means 2.50 – 3.49 refers to student's satisfaction being at the moderate level
Arithmetic means 1.50 – 2.49 refers to student's satisfaction being at the low level
Arithmetic means 1.00 – 1.49 refers to student's satisfaction being at the lowest level

Results

The findings based on the three objectives were summarized in this paragraph.

The result of comparing Fine Arts Basic Ability before and after learning through Problem-based Learning is shown as follows:

Table 1: The result of comparing the mean score of Fine Arts Basic Ability before and after learning through Problem-based Learning

Group	N	Pretest scores		Posttest scores		t	*p-value*
		M	*SD*	*M*	*SD*		
Experimental group	30	74.50	9.54	84.28	6.13	7.36	.000

**P<0.05*

As presented in Table 1: the mean scores of the pretest of Problem-based Learning were 74.5 (SD =9.5414.), and the mean scores of the posttest of Problem-based Learning were 84.2833 (SD =6.13313).

Moreover, it aimed to examine the mean score of before-and-after through Problem-based Learning to enhance 9.78 The result of this table showed that after learning through Problem-based Learning, posttest scores of Fine Arts Basic Ability were higher than pretest scores at a .05 level of statistical significance (t =7.366, p=0.00). The average scores of Problem-based Learning in this study developed increasingly higher than the pretest.

The result of comparing Problem-based Learning with the determined criterion of 70% is shown as follows:

From this, it can be seen that freshman students' Fine art's basic ability to accept problem-based learning teaching has improved compared to before.

Table 2: The result of comparing the mean score of Problem-based Learning after learning through learning management using Problem-based Learning with the determined criterion of 70 percent by using a t-test for one sample

Group	N	Full score	Criterion score	*M*	*SD*	t	*p-value*
Experimental group	30	100	70	84.28	6.13	12.75	0.000

**P*<0.05

Citation
Zeng, F., Choicharoch, T., & Onyon, N. (2023). Effect of Learning Management Using Problem-based Learning on Fine Arts Basic Ability of Freshmen in Suzhou Arts and Design Institute, The People's Republic of China. International Journal of Sociologies and Anthropologies Science Reviews, 3 (6), 201-210; DOI: https://doi.org/10.60027/ijsasr.2023.3465

International Journal of Sociologies and Anthropologies Science Reviews (IJSASR), 3 (6), November-December 2023, pages 201-210. Old ISSN 2774-0366: New ISSN 2985-2730
Website: https://so07.tci-thaijo.org/index.php/IJSASR/index
DOI: https://doi.org/10.60027/ijsasr.2023.3465

As presented in Table 2: the mean score of Problem-based Learning was 84.2833 and the standard deviation was 6.133 which was statistically higher than the criterion of 70% (Full score is 100, criterion score is 70).

From this, it can be seen that freshman students who engage in problem-based learning teaching have a higher Fine arts basic ability than 70%.

The result of assessing the students' satisfaction with Problem-based Learning is as follows:

Table 3: The result of assessing the mean score of 4.18 using Problem-based Learning

No.	Item/question	M	*SD*	Level of appropriateness
1	Clarity of learning objectives	3.77	0.94	High level
2	Relevance and practicality of the learning content	4.33	0.76	High level
3	Attractiveness and effectiveness of teaching methods and strategies	4.17	0.79	High level
4	Adequacy and quality of learning resources and materials	4.13	0.82	High level
5	Reasonableness of course organization and scheduling	4.20	0.76	High level
6	Teaching competence and professionalism of the instructor	4.23	0.86	High level
7	Comfort and adaptability of the learning environment	4.13	0.82	High level
8	Degree of classroom interaction and participation	4.47	0.57	High level
9	Opportunities for cooperation and teamwork with peers	4.03	0.81	High level
10	Transparency and timeliness of feedback and assessment methods	4.30	0.79	High level
11	Practical application and value of learning outcomes	4.10	0.80	High level
12	Achievement of learning objectives	4.20	0.89	High level
13	Positivity and motivation in the learning process	4.20	0.76	High level
14	Impact of the learning experience on personal growth and development	4.27	0.74	High level
15	Teacher's attentiveness and supportiveness towards students	4.23	0.86	High level
Total Mean/SD		4.18	0.80	High level

As presented in Table 5, it was revealed that the score of the student's satisfaction on the learning management using problem-based learning was 3.77-4.47 and SD was .72-.89, the total Mean score was 4.18, and the total SD was .80 which was statistically significant, Therefore, students' satisfaction on the Learning Management Using Problem-Based Learning was good the results are as follows:

1) Students' satisfaction with learning objectives is high: clear learning objectives (Mean=4.2 s.d.=0.89, the realization of learning objectives (Mean =4.20 s.d.=0.89), the impact of learning experience on personal growth and development (Mean =4.27 s.d.=0.74) the practical application and value of learning outcomes (Mean =4.10 s.d.=0.80)

2) Students' satisfaction with learning content is high: relevance and practicability of learning content (Mean =4.33 s.d.=0.76), rationality of curriculum organization (Mean =4.20 s.d.=0.76), enthusiasm and motivation in the learning process (Mean =4.20 s.d.=0.76), adequacy and quality of learning resources and materials (Mean =4.13 s.d.=0.82)

Citation
Zeng, F., Choicharoch, T., & Onyon, N. (2023). Effect of Learning Management Using Problem-based Learning on Fine Arts Basic Ability of Freshmen in Suzhou Arts and Design Institute, The People's Republic of China. International Journal of Sociologies and Anthropologies Science Reviews, 3 (6), 201-210; DOI: https://doi.org/10.60027/ijsasr.2023.3465

International Journal of Sociologies and Anthropologies Science Reviews (IJSASR), 3 (6), November-December 2023, pages 201-210. Old ISSN 2774-0366: New ISSN 2985-2730
Website: https://so07.tci-thaijo.org/index.php/IJSASR/index
DOI: https://doi.org/10.60027/ijsasr.2023.3465

3) Students' satisfaction with learning methods is high: the attraction and effectiveness of teaching methods and strategies (Mean =4.17 s.d.=0.19), the degree of classroom interaction and participation (Mean =4.47 s.d.=0.57), the opportunity to cooperate with peers and teams (Mean =4.03 s.d.=0.81), the transparency and timeliness of feedback and evaluation methods (Mean =4.30 s.d.=0.79)

4) Students' satisfaction with the learning environment is high: the comfort and adaptability of the learning environment (Mean =4.13 s.d.=0.82), teachers' teaching ability and professional quality (Mean =4.23 s.d.=0.82), teachers' concern and support for students (Mean =4.23 s.d.=0.86)

The satisfaction of students after learning is significantly higher through problem-based learning management.

Discussion

1. In this study, the average score of learning management using problem-based learning is increasing. Significantly higher than previous scores. the results of this study are consistent with the relevant literature. Problem-based learning management can stimulate students' interest in learning and encourage them to understand further and master Fine art's basic abilities. By facing practical problems, students need to comprehensively use various skills and knowledge to solve them, to cultivate their comprehensive ability. Problem-based learning management creates a positive learning environment and encourages students to actively explore and learn (Wang & Zhang, 2010)

2. From this, it can be seen that freshman students who engage in earning management using problem-based learning teaching have a higher Fine arts basic ability than 70%. From it, it can be seen that the basic art ability of new students in earning management using problem-based learning teaching is higher than 70%. earning management using Problem-based learning management emphasizes students' active participation and cooperation, which stimulates their enthusiasm for learning. In the process of problem-solving, students are not only the acquirers of knowledge but also the creators and sharers of knowledge. This active participation helps to enhance students' confidence and cultivate their teamwork and communication skills. (Wang & Zhang, 2010)

3. Students have high satisfaction with earning management using problem-based learning methods (=4.18 S.D.=0.80) the application of learning management using problem-based learning in learning management reveals that students show high satisfaction with this teaching method, with an average score of 4.18 (Full Score=5.00, standard deviation=0.69). This significant satisfaction may be derived from the rich learning steps contained in learning management using problem-based learning. Under the guidance of problem-based learning teaching, students have experienced a series of beneficial learning stages, thus comprehensively improving their Fine arts basic ability.

Learning management using problem-based learning has a unique value in cultivating Fine art's basic ability. Through learning management using problem-driven learning, students directly participate in the actual situation to stimulate strong interest and motivation. Combine personal thinking with group discussion to deepen the understanding of art knowledge. This kind of active participation has cultivated aesthetic vision, creative thinking, and artistic expression ability. Different from traditional teaching, learning management using problem-based learning cultivates students' ability for autonomous learning and problem-solving, making them more independent and creative. Through practical operation, students not only master skills but also cultivate critical thinking and cooperation ability. In a word, learning management using problem-based learning provides a new way for the cultivation of Fine art's basic ability, integrates art education with practical problems, and cultivates comprehensively developed art talents.

This view is consistent with previous studies. As a learning mode, learning management using problem-based learning can cultivate students' cognitive ability, multiple potentials, learning attitude, scientific thinking, and comprehensive ability. At the same time, the research also emphasizes that the moderate implementation of problem-based learning can stimulate students' interest in learning and promote them to create rich artistic works. By putting students at the core of learning, their interests, thinking abilities, and creativity are cultivated, making learning more substantial and meaningful. (Dombrowski, 2002)

Citation
Zeng, F., Choicharoch, T., & Onyon, N. (2023). Effect of Learning Management Using Problem-based Learning on Fine Arts Basic Ability of Freshmen in Suzhou Arts and Design Institute, The People's Republic of China. International Journal of Sociologies and Anthropologies Science Reviews, 3 (6), 201-210; DOI: https://doi.org/10.60027/ijsasr.2023.3465

International Journal of Sociologies and Anthropologies Science Reviews (IJSASR), 3 (6), November-December 2023, pages 201-210. Old ISSN 2774-0366: New ISSN 2985-2730
Website: https://so07.tci-thaijo.org/index.php/IJSASR/index
DOI: https://doi.org/10.60027/ijsasr.2023.3465

Conclusion

1. The learning management using problem-based learning significantly improves students' Fine arts basic ability. Compared to previous test results, students who received problem-based learning showed significantly higher scores in Fine arts basic ability, reaching a statistically significant level. In this study,

2. Learning management using learning problem-based learning environment encourages students to actively think and participate in problem-solving, thereby cultivating creative thinking and autonomous learning skills. Implementing learning management using problem-based learning requires teachers to possess higher levels of knowledge and abilities. Therefore, it is advisable to strengthen teacher training in learning management using problem-based learning methods. From this, it can be seen that freshman students who engage in learning management using problem-based learning teaching have a higher Fine arts basic ability than 70%.

3. In learning management using problem-based learning in the learning process, teachers still need to maintain supervision and guidance and increase time for repeated training to ensure that students are aligned with the learning objectives of Fine arts basic ability. learning management using Problem-based learning has shown positive short-term effects because the implementation time is relatively short. This brief time may limit its long-term impact on students and the presentation of results. Students have high satisfaction with learning management using problem-based learning methods (Mean =4.18 S.D.=0.80)

Recommendations

1. Considering that learning management using problem-based learning involves interdisciplinary cooperation and thinking, we can try to cooperate with researchers in other fields to explore the application and influence of learning management using problem-based learning in interdisciplinary education.

2. Learning management using problem-based learning has a positive impact on Fine arts basic ability, it is recommended that future research choose a longer research cycle to comprehensively evaluate the continuous impact of management learning using problem-based learning on the cultivation of Fine arts basic ability.

Reference

Barrett, T., & Moore, S. (2010). *New Approaches to Problem-Based Learning.* Routledge: London, UK.

Barrows, H. (1999). *Problem-based learning*. Retrieved from: https://www.pbli.org/pbl/pbl.htm

Chaidam, O., & Poonputta, A. (2022). Learning Achievement Improvement of 1st Grade Students by Using Problem-Based Learning (PBL) on TPACK MODEL. *Journal of Education and Learning*, 11(2), 43-48. https://doi.org/10.5539/jel.v11n2p43

Chen, L. (2019). Use “Ask” to lead thinking and highlight student-oriented - application of problem-based methods in primary school art class. *Primary school composition counseling (win-win reading and writing)*, 9, 72. http://203.81.18.55/kchttps://api.caoguoyun.com/transform?FileName=XZFD201909076&DbName=CJFN2019

Cheng, W., Feng, Z., & Lin, L. (2014). *Analysis of the Reform of Computer Teaching for Computational Thinking Ability in Fine Arts Academies. In Applied Mechanics and Materials (Vols. 519–520, pp. 1617–1621).* Trans Tech Publications, Ltd. https://doi.org/10.4028/www.scientific.net/amm.519-520.1617

Dechakup, P., & Yindeesuk: (2014). *Learning Management in the 21st Century* (2nd ed.). Bangkok: Printing house of Chulalongkorn University

Dombrowski, L. (2002). *Students generating web pages: Implementation of problem-based learning in the classroom*. Retrieved from: https://www.techlearning.com/db_area/archives/WCE/archives/dombrow.htm

Greening, T. (1998). Scaffolding for success in problem-based learning. *Medical Education Online*, 3(4), Article 00012. http://www.med-ed-online.org/f0000012.htm

Citation
Zeng, F., Choicharoch, T., & Onyon, N. (2023). Effect of Learning Management Using Problem-based Learning on Fine Arts Basic Ability of Freshmen in Suzhou Arts and Design Institute, The People’s Republic of China. International Journal of Sociologies and Anthropologies Science Reviews, 3 (6), 201-210; DOI: https://doi.org/10.60027/ijsasr.2023.3465

International Journal of Sociologies and Anthropologies Science Reviews (IJSASR), 3 (6), November-December 2023, pages 201-210. Old ISSN 2774-0366: New ISSN 2985-2730
Website: https://so07.tci-thaijo.org/index.php/IJSASR/index
DOI: https://doi.org/10.60027/ijsasr.2023.3465

Lu, Y. (2019). Basic education and practice of fine arts in China. *Modernization of China.* 6(74), 272-274. https://doi.org/10.16541/j.cnki.2095-8420.2019.74.114.

Marra, R., Jonassen, D.H., Palmer, B., & Luft, S. (2014). Why problem-based learning works: Theoretical foundations. *Journal on Excellence in College Teaching*, 25(4), 221-238.

Nelson, E.T. (2007). *Effects of Online Problem-Based Learning on Teachers' Technology Perceptions and Planning*. Retrieved from: https://files.eric.ed.gov/fulltext/ED503759.pdf

Newman, M. (2003). *A pilot systematic review and meta-analysis on the effectiveness of problem-based learning*. (Publication No. ED476146). ERIC Digests.

Pemberton, R. (1996). *Taking Control: Autonomy in Language Learning.* Hong Kong: Hong Kong University Press.

Phunaploy, S., Chatwattana, P., & Piriyasurawong, P., (2021). The Problem-Based Learning Process with A Cloud Learning Environment to Enhance Analysis Thinking. *International Journal of Higher Education*. 10 (6), 45-56. DOI: https://doi.org/10.5430/ijhe.v10n6p45

Ram: (1999). Problem-based learning in undergraduate education. *Journal of Chemical Education*, 76(8), 1122-1126.

Sari, Y.I., Sumarmi., Utomo, D.H., & Astina, I.K. (2021). The Effect of Problem-Based Learning on Problem Solving and Scientific Writing Skills. *International Journal of Instruction*, 14(2), 11-26. https://doi.org/10.29333/iji.2021.1422a

Savery, J. R., & Duffy, T. M. (1996). *Problem-based learning: An instructional model and its constructivist framework. In B. G. Wilson (Ed.).* Constructivist learning environments: Case studies in instructional design. Englewood Cliffs, NJ: *Educational Technologies*, 135-148.

Savoie, J.M., & Hughes, A.S. (1994). Problem-based learning as a classroom solution. *Educational Leadership*, 52(3), 54-57.

Sihaloho, R.R., Sahyar & Ginting, E.M. (2017). The effect of problem-based learning (PBL) model on student's creative thinking and problem-solving ability in senior high school. *IOSR Journal of Research & Method in Education (IOSR-JRME)*, 7(4), 11-18.

Simanjuntak, M. P., Hutahaean, J., Marpaung, N., & Ramadhani, D. (2021). Effectiveness of Problem-Based Learning Combined with Computer Simulation on Students' Problem-Solving and Creative Thinking Skills. *International Journal of Instruction*, 14(3), 519-534. https://doi.org/10.29333/iji.2021.14330a

Tian, S.L. (2021). *Research on the Application of the Problem-based Learning Method in the Course of Morality and Rule of Law in Junior Middle School* [Master dissertation, Liaocheng University]. https://doi.org/10.27214/d.cnki.glcsu.2021.000477

Vernon, D. T., & Blake, R. L. (1993). Does problem-based learning work? A meta-analysis of evaluative research. *Academic Medicine, 68*(7), 550–563. https://doi.org/10.1097/00001888-199307000-00015

Wang, G. Y. (1996). The focus of Fine Arts basic ability teaching should be the cultivating of students' aesthetic ability. *Journal of Jilin Normal University*, 96(6).

Wang, Y. B. & Zhang, S. Y. (2010). The cultivation of students' creative ability in the basic teaching of fine arts in colleges and universities. *Journal of Inner Mongolia University of Nationalities*, 16(3), 1108-1149.

Yassir, M, Mahgoub. (2016). The Impact of Arts Education to Enhance of Aesthetic Sense Ability for Basic Level Pupils. *Journal of education and human development*, 5(2), 126-130, doi: 10.15640/JEHD.V5N2A15

Zhang, Y. (2012). On the application of problem-based learning in college classroom teaching. *Journal of Chifeng University (Natural Science Edition)*, 28(15), 215-216. https://doi.org/10.13398/j.cnki.issn1673-260x.2012.15.052

Citation
Zeng, F., Choicharoch, T., & Onyon, N. (2023). Effect of Learning Management Using Problem-based Learning on Fine Arts Basic Ability of Freshmen in Suzhou Arts and Design Institute, The People's Republic of China. International Journal of Sociologies and Anthropologies Science Reviews, 3 (6), 201-210; DOI: https://doi.org/10.60027/ijsasr.2023.3465