



Developing on Academic Achievement in Chinese Modern History Course Using Integrated Learning Activities for First-Year College Students

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Abstract

Background and Aims: The purposes of this study were 1) To develop integrated learning activities in a modern Chinese history course with an efficiency the 75/75 and 2) To compare learning achievement in a modern Chinese history course with pre-test and post-test scores of students who learned using the integrated learning activities of students and 3) To study the students' satisfaction toward the integrated learning activities in a modern Chinese history course.

Materials and Methods: The sample group is 40 students in the first semester of 2023. Research tools are used in lesson plans, learning achievement tests, and satisfaction questionnaires. In data analysis including percentages, means, standard deviations, and paired t-tests

Results: The results of the research found that: The Results of this study shows differences in the development of academic achievement. After using integrated learning activities in the modern Chinese history curriculum in studying modern Chinese history courses which the researcher discussed the results of data analysis in the research are as follows: 1) The Integrated learning activities have an efficiency value of 78.80/76.20, which is as specified by the researcher (2) The Integrated Learning activities that was a significantly higher learning achievement after studying than before studying at the .05 level. And (3) Students who studied using Integrated learning activities overall satisfaction was at a high level.

Conclusion: The epidemic of opium has brought grave disasters to the Chinese nation. At the end of 1838, Emperor Daoguang sent Lin Zexu, who was a strong advocate of smoking prohibition, as imperial minister and lived in Guangdong to suppress opium.

Keywords: Integrated Learning; Participation; Learning Achievements

Introduction

In recent years, with the rapid development of digitalization and college students' preference for multiple learning styles, integrated learning activities can be used to develop the grades of the first-year modern Chinese history course. The emergence of online and offline teaching applications as well as digital learning and hands-on learning offer new possibilities for modern Chinese history courses. Through the application of some comprehensive learning activities, such as online discussion platforms, cloud classroom sharing platforms, virtual AR (virtual reality technology), practical learning (field visits), etc., online and offline combined lectures and forms. Students can participate more actively in class discussions, interactive learning, and knowledge sharing. These comprehensive learning activities have the characteristics of convenient communication, diverse forms, and strong practicality, which can promote interactive exchanges and knowledge co-construction among students.

As a new group of college students, freshman students are in the initial stage of learning in terms of learning methods and educational resources. At the same time, how to effectively integrate comprehensive learning activities into the modern Chinese history curriculum and improve students' academic performance and satisfaction is the focus of current research. With the advancement of China's "Education Informatization 2.0 Action Plan" and "Ministry of Education's 2022 Work Points", the use of comprehensive learning activities to develop modern Chinese history courses is in line with the current concept of innovative curriculum in China's education construction; comprehensive learning activities are online and the teaching method of digital learning and practical learning is combined offline. Learners learn by doing and are inspired by digital learning. Learners gain through practice and inspiration, and there will be content that motivates learners to learn. The soul of China's education reform—criticism and innovation—is also the purpose of comprehensive learning activities. Diverse teaching methods are an inevitable part of today's educational development. Integrated learning activities promote learning in practical contexts. The concept of contemporary Chinese education has







promoted the reform of the teaching of modern Chinese history and also promoted the diversification of students' learning methods.

Therefore, nowadays teachers need interesting, innovative teaching styles. There are many different teaching methods. Use teaching media that are interesting, modern, and consistent with students' interests. Find teaching methods that allow students to truly participate in learning independently, helping students create durable knowledge. Meaningful learning takes place. Teachers should organize both group and individual learning activities to promote collaborative learning, perfectly suited to the characteristics and nature of the educational model of modern Chinese history. combined with the actual situation and characteristics of students in each locality to make teaching strategies and learning resources more effective. This is in line with the idea of Khaemmanee (2011) stated that Teaching students to think Able to create knowledge by themselves Be alert to learning at all times and be able to connect the learning methods in the subject matter with the real life that arises in the students. Learners gain knowledge and a True understanding of the subject studied by giving their knowledge on their own through cooperation from the group. It also helps develop skills in various processes such as thinking processes and group processes. Social interaction process and knowledge acquisition process by using a learning model based on the concept of constructivist learning management (Constructivist).

One of the reasons why it is difficult for students to learn today. This is partly due to the complexity of the course content. A lot must be remembered about important points and unclear problems, and students cannot keep up with the teacher's teaching progress. Some teachers still focus on teaching lectures or explaining only textbooks. It makes the atmosphere boring, not fun, and not stimulating interest. Therefore, students are not interested in studying. Don't want to join the activity Because of lack of motivation to pursue learning at the same time, it also results in a decrease in the efficiency and quality of teachers' teaching. Because it will make it impossible to organize teaching activities and teaching tasks effectively. The students were not impressed with the teacher's course and participated in the course passively. A lack of interest in the modern Chinese history curriculum has led to a decline in student achievement.

From the above-mentioned, the researcher has therefore researched to find a curriculum or teaching method that will help promote student learning by focusing on the learner by creating real knowledge and a method that is suitable for the nature of the history subject. One interesting method is to organize integrated learning activities, which Integration is the combination of various learning experiences, and applied in everyday life Looking back at the learning process of students each day, it is about learning many things, many characteristics No learner cannot know one without relating to the other, which learning is often a combination of various knowledge and applied in the daily life of all students The combination of this knowledge is integration. (Beane, 1991). The researcher has applied the concept of organizing integrated teaching activities of Lar Disabal and others (1970) integrated teaching method with 4 steps: 1) the beginning of the learning unit, 2) the experience point, 3) the culminating activity, and 4) the evaluation. The researcher used an integrated teaching method based on the concepts of Lardizabal and others, and the details of each step have been revised to be more consistent with the current educational context. To be used in designing learning activity plans using integrated activities in history. The researcher therefore organized learning activities using integrated learning activities for first-year students at Shandong Jinan College of Engineering and Technology to develop teaching activities for the modern Chinese history curriculum. To raise the academic achievement of students in modern Chinese history. Provide students with a variety of learning methods. Combining knowledge and new methods to create true self-knowledge and to help students become more satisfied and happier in studying history. Including providing opportunities for students to develop feelings of patriotism. Proud and aware of the value of history to future generations.

Research Objectives

1. To develop integrated learning activities in a modern Chinese history course with an efficiency the 75/75.







- 2. To compare learning achievement in a modern Chinese history course with pre-test and post-test scores of students learned using the integrated learning activities of students.
- 3. To study the students' satisfaction with the integrated learning activities in a modern Chinese history course.

Research Hypothesis

Students who learn using integrated learning activities in the modern Chinese history course have higher academic achievement after studying than before.

Scope of Study

- 1. Population and Sample: (1) The population consists of 6 rooms. There are a total of 240 students. There are first-year students of Jinan Engineering Polytechnic. In the second semester of 2023. (2) The sample consists of 40 first-year students of Jinan Engineering Polytechnic. In the second semester of 2023. Obtained by Cluster Random Sampling technique. (Worakam, 2021)
 - 2. The variables studied in the research
 - 1) Independent Variable Using Integrated Learning activities
 - 2) Dependent Variable; (1) Learning activities, and (2) Students' satisfaction

3. Content

The content used to teach students Using Integrated Learning activities has 10 lesson plans. Each plan takes 45 minutes (Excluding pre-test and post-tests)

- 1) Opium war.
- 2) Taiping Heavenly Kingdom.
- 3) Westernization Movement.
- 4) Sino-Japanese Sino-Japanese War.
- 5) Reform Movement of 1898.
- 6) Xinhai Revolution.
- 7) New Culture Movement.
- 8) War of Resistance Against Japan.
- 9) war of liberation.
- 10) The founding of New China.
- **4. Research Period:** In the second semester of 2023, there will be 2 teaching periods of 10 hours per week and 5 weeks of research time.

Literature Review

Feng & Wang (2018) learning. Integrated Learning Activities is a teaching method in line with the current era that combines digital application and practical learning activities. Many scholars conduct research from the perspective of higher education. For example, Professor Wang Linfa of Zhanjiang Normal University analyzed from the perspective of teachers' practical knowledge, and believed that "practical learning is an activity of educational practice with educational issues as the teaching carrier, emphasizing the unity of knowledge and action., Focus on learning by doing." Ding Ji'an and Wu Jianshe believed that "practical learning has different understandings from different angles, and it is defined from the perspective of higher education curriculum learning models

Li & Zhao. 2004 Foreign scholars Bonk and others define blended teaching as the combination of traditional face-to-face teaching and computer-assisted teaching. Garrison and Vaughan pointed out that blended teaching was developed based on the advantages of face-to-face and distance learning, combining traditional classroom lectures and online learning for the teaching and learning process. (Bonk C J, Graham C R. 2012). The most unique aspect of Integrated Learning activities is that they allow teachers to deliver classroom activities in two different settings: face-to-face and online. Tayebinik and Puteh, more strongly than others, argued that blended instruction can completely replace traditional or online instruction because blended instruction can promote a stronger sense of engagement and community than the other two approaches, that is, blended teaching provides students with more learning opportunities and motivates students to participate in learning inside and outside the classroom. In China, the definition of blended teaching by two experts, He Kekang and Li Jiahou is mainly used as an important reference. Professor, He said that blended teaching should not only play







the leading role of traditional teaching teachers but also fully reflect the subjectivity of e-learning students. Professor Li proposed that mixed teaching is to comprehensively consider, select, and combine various key teaching elements such as teaching media and teaching modes to achieve the expected teaching goals

Yu et al (2005) The United States is the first country to propose the concept of blended teaching. In foreign literature, "Blended Learning" and "Blended Learning" are usually used to represent blended teaching. Since the introduction of this concept in China in 2003, there have been different translations in related research, such as "blended learning" and "blended teaching". Therefore, different scholars hold different views on term translation. Scholars represented by Yu Shengquan and Zhang Qiliang believe that blended learning and blended teaching are similar expressions and can be directly regarded as the same concept; while most other scholars Distinguish the expressive meanings of these two concepts, and think that the subjects they pay attention to are different: blended learning pays more attention to the individual student's subjectivity and spontaneity in learning, while blended teaching pays more attention to the teaching media used by teachers, teaching resources, teaching environment, etc.

Yang (2003) Therefore, it is necessary to clarify the relevant knowledge of Integrated Learning Activities, which is also one of the main purposes of this study. In the first half of the 20th century, with the widespread dissemination of Dewey's pragmatism education, the connection between real life and education was emphasized, and people began to pay attention to the important role of practice in personal growth. (Luo, 2020). However, this period has not yet proposed a clear theoretical system of practical learning. In the 1980s, practical education appeared in people's field of vision as a new research field.

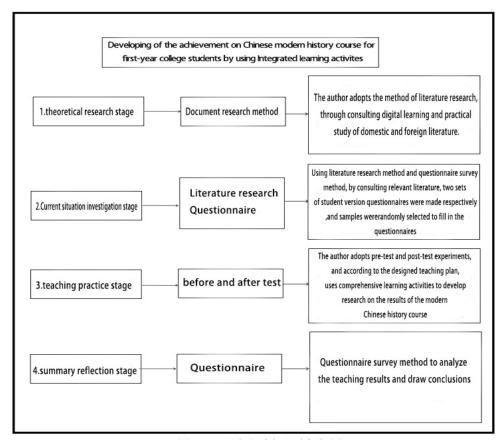


Figure 1 Research Methodology Framework

Methodology

This research method is in the following order.

(1) Theoretical research stage: The author adopts the literature research method, reviews the number of domestic and foreign literature on digital learning and practical learning, sorts out and







summarizes the research status at home and abroad, and lays an important theoretical foundation for the design of teaching practice action research programs in this paper.

- (2) Current situation investigation stage: The author adopts the literature research method and questionnaire survey method, and by consulting relevant literature, makes two sets of questionnaires for students respectively, adopts the method of random sampling to fill in the questionnaires, and investigates and analyzes the learning status of Chinese modern history courses in higher education and students' digital learning and practical learning levels, providing data support for the design of teaching practice action research programs.
- (3) Teaching practice stage: the author adopts pre-test and post-test experiments, and uses Integrated Learning Activities to develop the research results of the modern Chinese history course according to the designed teaching plan;
- (4) Summary and reflection stage: The author uses the questionnaire survey method to analyze whether the students can achieve the results of using Integrated Learning Activities to develop the modern Chinese history course after the teaching practice activities are completely completed. and obtain corresponding results.

Population and sample: The population consists of 6 rooms. There are a total of 240 students. There are first-year students of Jinan Engineering Polytechnic. In the first semester of 2023. The sample consists of 40 first-year students of Jinan Engineering Polytechnic. In the first semester of 2023. Obtained by Cluster Random Sampling technique. (Worakam, 2021)

Research model: This research used an experimental design in the form of experimental research (Experimental Research) One Group Pretest-Posttest Design and One Group Posttest Only Design (Worakam, 2021)

Table 1 Research plan: One Group Pretest-Posttest Design

random	group	Test first	Experimental thing	Test after
-	Е	0	X	O2

When

E mean Experimental group

O1 means Measuring variables before experimenting

X means Giving an experiment

O₂ means Measuring variables after the experiment

Research tools

1. Lesson plans: Integrated Learning activities plans have 4 steps are following:

- **Step 1: Introduce new content** (5 minutes), The teacher introduces new teaching content asks guides, and organizes students to answer the teacher's questions, and enters into the understanding of the new lesson with the teacher's lecture. Introduce new teaching content, mobilize
- **Step 2: The teacher teaches the new course content** (40 minutes), First, the online sharing platform publishes questions. Then organize students to visit the history museum according to the questions raised by the students. And organize students to participate in virtual AR. After the visit, post your feelings and what you have learned on the online platform. The key content of classroom learning is to pass and participate in the history museum so that students can personally experience the history course, strengthen memory, improve learning interest, and understand historical content.
- **Step 3: Teacher Discussion, Support, and Questions** (10 minutes), Guide students to discuss the set topics through the online platform, and guide students to ask and answer questions. Students reviewed the content of this lecture, discussed with each other on the online platform, and asked questions about doubts. Deepen understanding through mutual learning, and promote mastery of the content by explaining doubts and difficulties.







Step 4: Summarizing and reflecting on learning (5 minutes), Combining the online sharing platform to summarize the content of this course and assign homework content. A comprehensive review to prepare for the next class.

The lesson plans using integrated activities, 10 plans have an appropriate value equal to 4.27. There is a high level of appropriateness in every plan. (Srisa-ad. 2010)

- **2. Achievement test**: An achievement test was created in the form of a multiple choice, 4 choice, 50 questions, 2 points each. The evaluation results of this test have the Index of Item Object Congruence (IOC) ranged from 0.67 to 1.00 (Worakam, 2021)
- **3. Satisfaction questionnaire:** A satisfaction questionnaire with a rating scale (Rating Scale) according to the 5-level Likert method, with scoring criteria and criteria for interpreting satisfaction results as follows (Srisa-ad. 2010). Analyze to find the IC (Index of Item Congruence) value of every question, this questionnaire has an actual value of 1.00 for every question. (Worakam, 2021)

Data collection

- 1. The researcher conducts student orientation and explains the research objectives. Including organizing learning activities using integrated activities in the subject of modern Chinese history.
- 2. Conduct a pre-test test with an achievement test, 50 questions, 100 points, and record the scores for use in data analysis.
- 3. Organize learning activities using integrated activities in the modern Chinese history subject, totaling 10 lesson plans, taking 5 weeks, excluding pre- and post-test time. Then record the score from mini-exercises during class until all teaching plans are complete.
- 4. When all learning activities have been organized in the lesson plan. Take the original achievement test, 50 questions, 100 points, but with alternating answer options in the test. Bring it to the test with students again. To study learning achievement after studying. Then record the scores and keep them for use in data analysis.
- 5. Measure student satisfaction by having students complete a questionnaire on their satisfaction with learning activities using integrated activities, 1 copy, checking the accuracy of the questionnaire. Then record the data and store it for data analysis.
- 6. Take all the data obtained from the experiment with students to perform statistical analysis. To summarize the results of the experiment according to the further research objectives.

Data analysis: The researcher takes the data obtained from collecting all the data to analyze the research data in quantitative and qualitative research according to the research objectives. The details are as follows:

- 1. Analyze the effectiveness of the teaching plan using integrated activities by calculating the ratio between the percentage of the average score during class and the percentage of the average score after class (E_1/E_2) using the Excel program.
- 2. Analyze data and compare student academic achievement. between the average score before and the average score after school Using statistical hypothesis testing, t-test (depending on the sample) using Excel program.
- 3. Analyze data from the satisfaction test. To study the level of student satisfaction with the use of integrated activities. By taking the scores to find the mean, and standard deviation using the Excel program. And interpreting the data according to the following criteria: (Srisa-ad. 2010)

An average of 4.51 - 5.00 means that it is within the most appropriate criteria.

An average of 3.51 - 4.50 means that it is very appropriate.

An average of 2.41 - 3.50 means that the appropriateness is in the middle level.

An average of 1.51 - 2.40 means that the appropriateness is in the low range.

An average of 1.00 - 1.50 means that it is within the lowest criteria.







Results

1. students who continue their studies the Using Integrated Learning Activities method. It has an efficiency value of 78.80/76.20, which is as specified by the researcher, which is 75/75. The results appear in the following table.

Table 2 Student scores, Pre-test scores, Points collected during the study, and post-test scores

	Pre-test	Collect points	Pre-test	
No.	(100 points)	(100 points)	(100 points)	
1	48.00	80.00	79.00	
2	49.00	80.00	79.00	
3	52.00	86.00	85.00	
4	50.00	79.00	76.00	
5	49.00	77.00	75.00	
6	51.00	79.00	78.00	
7	42.00	76.00	75.00	
8	45.00	77.00	76.00	
9	51.00	76.00	72.00	
10	52.00	78.00	75.00	
11	48.00	77.00	74.00	
12	51.00	75.00	73.00	
13	47.00	77.00	75.00	
14	49.00	77.00	72.00	
15	48.00	78.00	73.00	
16	50.00	87.00	85.00	
17	49.00	79.00	76.00	
18	50.00	80.00	77.00	
19	48.00	79.00	78.00	
20	49.00	78.00	75.00	
21	47.00	75.00	71.00	
22	50.00	77.00	76.00	
23	53.00	82.00	81.00	
24	49.00	79.00	75.00	
25	56.00	83.00	82.00	
26	61.00	84.00	85.00	
27	53.00	79.00	76.00	
28	54.00	78.00	77.00	
29	49.00	77.00	75.00	
30	51.00	78.00	74.00	
31	45.00	79.00	71.00	
32	57.00	79.00	75.00	
33	45.00	79.00	76.00	
34	49.00	80.00	78.00	
35	51.00	78.00	74.00	
38	49.00	78.00		
39	47.00	78.00	74.00	
40	51.00			
_	49.80	78.80	76.20	
36 37 38 39	49.00 48.00 49.00 47.00 51.00 1992.00	79.00 75.00 78.00 78.00 80.00 3152.00	75.00 73.00 74.00 74.00 78.00 3048.00	





2. The compare learning achievement in a modern Chinese history course with pre-test and post-test scores of students learned using the integrated learning activities of students
Results of t-test statistics and the statistical significance level of learning achievement scores before and after studying.

Table 3 compares learning achievement in a modern Chinese history course with pre-test and post-test scores

Test	n	Full score	$\bar{\mathbf{x}}$	S.D.	t-test
Pre-test	40	100	49.80	3.35	48.02
Post-test	40	100	76.20	3.45	_

From the table above, it is found that students who study using Integrated Learning Activities Have significantly higher learning achievement after studying than before studying at the .05 level when analyzing the difference in the mean scores for both parts between the pre-test scores and the post-test scores. It shows that the average academic achievement score after studying is higher than before studying.

3. The students who studied using Integrated Learning Activities Overall satisfaction was at a high level. ($\overline{X} = 4.28$, S.D. = 0.57). The results appear in the following table.

Table 4 Mean standard deviation and student satisfaction research

Lists	\overline{X}	S.D.	Description
1. Do you like the comprehensive learning activities that can	4.10	0.70	High
help improve your study of modern Chinese history?			
2. Do you like the comprehensive learning activities that can	4.37	0.58	High
increase your interest in the modern Chinese history course?	4.00	0.61	TT' 1
3. Do you like integrated learning activities that can improve	4.22	0.61	High
your understanding of modern Chinese history courses? 4. Do you like integrated learning activities that can increase	4.17	0.63	High
teacher-student interaction?	4.17	0.03	High
5. Do you like integrated learning activities that can increase	4.25	0.54	High
your motivation for learning modern Chinese history courses?			8
6. Do you like integrated learning activities that can improve	4.27	0.55	High
your learning efficiency?			
7. Do you like the comprehensive learning activities that can	4.32	0.47	High
improve your understanding of the important and difficult points			
of modern Chinese history?			
8. Do you like integrated learning activities that are appropriate	4.40	0.49	High
for modern Chinese history courses?	4.20	0.64	TT: . 1.
9. Do you like integrated learning activities are more effective	4.30	0.64	High
than traditional didactic learning? 10. Do you like integrated learning activities that could improve	1 15	0.55	Uigh
your grades in Modern Chinese History?	4.45	0.55	High
Total	4.28	0.57	High
1 0 0 0 0		0.07	****

Conclusion

In the research study on the development of academic achievement in the modern Chinese history curriculum. Using integrated learning activities for first-year students to compare the development of academic achievement before and after the experiment. The researcher used the test results of the sample group. 1st year class of Jinan Vocational and Technical Engineering College The number of students was 40 and the student's satisfaction with the use of comprehensive learning activities in the modern Chinese history curriculum was studied







- 1. Integrated Learning Activities method. It has an efficiency value of 78.80/76.20, which is as specified by the researcher, which is 75/75.
- 2. Integrated Learning activities There was a significantly higher learning achievement after studying than before studying at the .05 level
- 3. For Students who studied using Integrated learning activities overall satisfaction was at a high level.

Discussion

1 From the research results, it was found that the integrated learning activity method had an efficiency value of 78.80/76.20, which the researcher stated was 75/75 because the researcher had studied documents and research on the integrated learning activity method. Integration and developed research tools through quality checks by experts in curriculum and teaching. Measurement and evaluation and research Therefore, quality tools can be used appropriately. When used to organize learning activities for students, it helps to increase the academic achievement of students in the subject of Chinese history. Gradually, students pay more attention to education. And when considering each sub-content Subtest scores are found through continuous learning of all content. Students continue to learn in a variety of ways by building their knowledge to encourage and engage students with media content. And it is more convenient to continue learning to find and answer learning questions that explore the era. Currently, learners can listen to various technological media. This is consistent with DeVries & Kohlberg (1990) proposed the constructivist concept that Piaget's idea was to encourage students to engage in a variety of activities. Teachers are the center of friends who give advice. Encourage students to play and experiment using reasoning. Advise students again. And teachers should encourage the majority of students to be able to learn and solve problems peacefully. This is in line with Luo's (2020) idea of the quality of technology brought to teaching. It is a story told in a modern Chinese history course in college, and university professors primarily create knowledge about digital learning. about how students learn independently to create digital learning and continuous innovation that facilitates learning in life, and sustainable development of students to clearly understand and see the need for social development Consistent with the study of Saowmuang. (2015). A study was conducted on the topic of learning styles that affect academic achievement according to the 5 standard criteria of Master of Business Administration students. King Mongkut's Institute of Technology Ladkrabang Chumphon Campus found that the integrated teaching model used, such as the lecture teaching method. How to teach using case examples Using YouTube video media, competitions, and how to use PowerPoint, etc., prepared according to teaching plans (curriculum) and tested for the target group to develop. According to the learning outcome standards in all 5 areas, students have improved their learning after learning positively. In line with the study of Thongprasit (2020), a study was conducted on the topic of a school management model for integrated learning to promote student quality according to the cooperative context of Bang Kaeo Fa Industrial and Community Education College. (Luang Phor Pen Upatham) found that the teaching and learning model for blended learning with work to promote student quality in the cooperative context of the College of Industry and Community is consistent with empirical data ($\chi 2 = 440.955$, df = 400, p = .077, CMIN \ DF = 1.102, GFI = 0.944, RMSEA = 0.014) The important order of the main components is management. Curriculum development the role of the learner the role of teachers/professors and the role of organizing

2. From the research results found that Results of comparing academic achievement in educational research subjects: Overall, the group with blended learning had higher scores than the group with traditional learning. This may be due to blended learning arrangements. The instructor has designed a teaching model that takes into account the nature of the course context that must emphasize student practice to be proficient by combining both learning in a regular classroom. online learning and providing examples of learning resources and self-learning which is a combination of teaching strategies Both face-to-face learning between students and between students and teachers. Make learning effective, that is, stimulate students' interest. Promote confidence in one's skills and abilities and create an environment for learners to communicate with others Instructors can give advice. Advice on how to practice to students can be given only when considering each content. However, if







considering the average score, it was found that students in the blended learning group had higher averages than those in the traditional learning group, corresponds to Gonzalez (2012) Nowadays, the focus is on the student as the main focus. Learners should check out curriculum support for higher-level thinking skills, such as inquiry thinking, problem-solving, and critical thinking. Teachers themselves are therefore of great importance in the investigation control system. Learners give students advanced thinking skills. For this reason, important things to consider are important in various sciences. Including learning inside and outside the classroom, and learning control A variety of formats rather than just one format. Consistent with the study of Asawasowan, et al (2013) An integrated teaching model has been developed by providing experiences according to the concept of construct It was found that analytical thinking scores after studying and learning achievement scores after studying were significantly higher than students before studying. Important at the .01 level. And consistent with the study of Saengkhanong (2021). He studied the topic Development of an integrated teaching model for learning about air conditioning systems. It was found that a teaching model for students with the WiL system has been developed by integrating a teaching model that connects theoretical content with the work that students do, work Test results found that the academic achievement score according to the theory after studying was higher than before at 42.57 (SD equal to 1.96) with statistical significance at the 0.01 level.

3. From the research results found that Students are overall satisfied with the blended learning arrangement at a high level. And when considering each aspect, it was found that satisfaction was at a high level in every aspect. This may be because the blended learning arrangement is contemporary and in line with the lifestyles of today's students, using new technology to apply to teaching and learning. which most students are already familiar with and skilled at students feel like or are satisfied with the blended teaching model that provides teaching activities that make them feel relaxed and not stressed in learning. Moreover, students can review the content of the lesson at any time, corresponds to Rajendran (2008) Integrated teaching and learning in various formats. Encourage students to think, connect, analyze, and distinguish the relationships between each content and develop further advanced thinking skills. Advanced thinking skills are an important component of creative thinking and critical thinking that help develop Learners' ability to analyze information and content available. Leads to innovation and creates new perspectives and imagination. Consistent with the results of the study by Phongsapitch, et al (2010), they studied student satisfaction with integrated learning: a case study of the human relations subject. It was found that students were overall satisfied, towards the blended learning method is at a high level Satisfaction in other areas is also at a high level. Satisfaction with the integrated activity format was at the highest level. Students from various departments Satisfied with the integrated learning method at a statistically significant difference level of .01

Recommendation

1. Teaching and Learning Recommendations

The results of the research found that the results of Theoretical learning and practical skills of Students are better than before studying according to the curriculum criteria. Students have learning behavior characteristics Positive mental attitude and morality of students that are desired It shows that integrated learning activities affect the learning of students in terms of knowledge, memory, and application it creates a new teaching method that makes learning fun and lively. Motivate students to follow the process. Learning as mentioned above can be developed and the learner's interest in the lesson will be increased and developed, resulting in the learner having a better mental attitude and leading to higher academic achievement than before. Therefore, it can be said that integrated learning activities are used as a guideline for developing teaching and learning in other matters. or another subject It will be useful for further study.

2. Further Research Recommendation

- 1) In the next research, results should be compared. Theoretical learning and practical skills of students during teaching to develop academic achievement through integration with other teaching methods
- 2) In the next research, it should be a textbook or a model for developing academic achievement in an integrated manner for all subjects.







3) In the next research, research and learning achievement should be integrated through the internet network.

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