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Learning Achievement according to the Qualifications Framework for Higher Education Using Teaching Techniques Integrated Knowledge with Academic Service and Research, Maha Sarakham Rajabhat University

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Abstract:- *The purpose of this study is (1) to study academic achievement following the Higher Education Qualifications Framework. (2)To study the level of knowledge and understanding of accounting students. A sample of 29 people in the second semester of the 2016 academic year, which was obtained by selecting Purposive Sampling. The research tools used were the achievement test, and the cognitive test. The statistics used in the analysis were frequency, percentage, mean, standard deviation. The results showed that: Opinions about learning achievement according to the Higher Education Qualifications Framework by using teaching techniques integrated knowledge into academic service and research overall were at high level, When considering each aspect, it was found that the knowledge and understanding of the subjects of the 2nd year accounting students had the highest level of knowledge and understanding at the highest level (A), with 58 students representing 29.90%, followed by a good level of cognition (B), of which 23 people accounted for 11.86 percent, And 22 people had a very good level of cognition (D) representing 11.36%. It showed that the level of knowledge and understanding of the course from the process of teaching and learning that integrated knowledge with academic service and research resulted in most of the students having the best grades.*

Keywords: Academic Achievement, Higher Education Qualifications Framework, Cognitive

Introduction

Teaching and learning in the 21st century, learning support factors, teaching and learning processes to develop students' learning achievements in the 21st century are the processes for referring graduates to have desirable characteristics. Educational management (St. George's College. 2016). Therefore, it is an important mechanism by which higher education institutions are the agencies responsible for producing graduates must develop graduate quality according to the needs of graduate users, develop knowledge and competence according to the framework of 5 qualifications standards to meet the quality standards, by learning outcomes that Learners should have at least 5 areas to be able to develop graduates with desirable characteristics (Office of the Higher Education Commission . 2015) ซึ่งประกอบด้วย Ethics and Moral, Knowledge, Cognitive Skills, Interpersonal Skills and Responsibility, Numerical Analysis, Communication and Information Technology Skills. This is to support the current era with the development of changes in information technology communication.

Therefore, the key supporting factors for 21st-century learning are curriculum evaluation, teaching, career development, and environment, learning must be consistent with the production support system that produces 21st-century outcomes. For today's learners, by focusing on 21st-century skills to provide learners with content knowledge and expertise, including building cross-core understanding, emphasizing deep understanding, engaging students with information, and being able to transfer knowledge gained to other people. The teaching and learning process by using different techniques of the instructors is very important and necessary for the learning outcomes in the course content to encourage students to achieve learning outcomes following the qualification's standard framework. tertiary level, and to enable the process of teaching and learning for learners to gain knowledge and understanding of the course content according to the course description and course objectives set in the

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curriculum. Therefore, the process of teaching and learning integrates knowledge with academic services and research to enable learners to develop skills in all 5 areas according to the qualification's standard framework. By transferring knowledge from teaching and learning management to entrepreneurs in academic services, can encourage learners to gain knowledge and understanding of the research process by asking preliminary inquiries and production cost information, and can also be used The knowledge gained from learning leads to knowledge transfer and integration of knowledge to the community regarding accounting knowledge in organizational management and to develop knowledge to lead to the transfer of skills development. themselves to be born to drive the community to create knowledge by learning together as a team (Team Learn). Teaching that emphasizes various methods, self-learning, collaborative learning, learning from nature, teaching according to real conditions, and linking content with a student-centered focus (Thirathanachaikul, K.2014:134), To provide knowledge and understanding in the research preparation process, research principles and methods, conduct research in various forms, and communicates knowledge about research, study and review literature related to accounting, leading to integration. knowledge gained from the lesson.

Based on the above information, the researcher studied academic achievement according to the tertiary qualifications standard framework by using teaching techniques that integrate knowledge with academic service and academic research, cost accounting 2 for degree students. Bachelor's degree in Accounting, 2nd year, Faculty of Management Science, Maha Sarakham Rajabhat University. The results obtained from the research will result in research results that come from the integration of knowledge, guidelines for teaching and learning that promote the characteristics of learners according to the framework of qualifications standards. And used as information for the development of teaching and learning management to develop desirable graduate characteristics to meet human resource needs in the Thailand 4.0 era.

Objectives

1. To study the academic achievement according to the framework of qualifications in higher education of students in the field of accounting.
2. To study the level of knowledge and understanding of accounting students.

Literature Review

1. Integrated learning management

Integrated learning management refers to the process of organizing learning experiences based on interests and abilities by linking the subject matter of various disciplines to each other, enabling learners to change behaviors, apply knowledge, skills, and Attitude to create tasks, solve problems and use them in daily life on their own. In this regard, the integrated teaching and learning management process by learning methods, interests, and abilities of learners use a variety of formats and methods, emphasizing teaching according to actual conditions, real practice, learning from nature, and linking course content and blended courses to enable learners to develop integrated learning skills, and to be able to use them in daily life as shown in the picture (Kongmunklanf, W.2017). It can be summarized as shown in the picture, which the main characteristics of integrated teaching include (Chaiyakit, M.2014).

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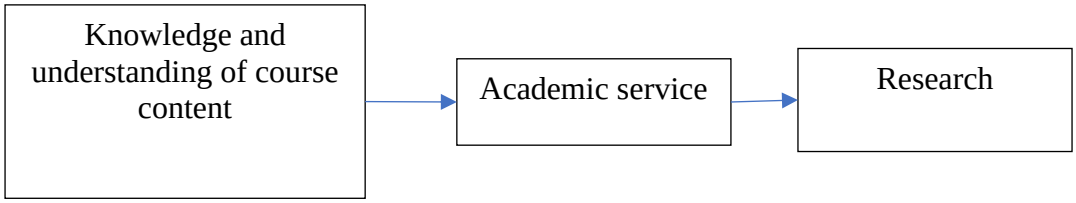

Figure 1: Integrated learning management

Therefore, the researcher has established a teaching guideline by applying the teaching and learning model in the course of Cost Accounting 2, by using a variety of formats and methods, emphasizing teaching based on real conditions, practicality, learning from nature, and linking course content and blending courses to enable learners to develop integrated learning skills, To enable learners to learn from practical methods to learn how to solve problems leading to the ability to analyze, seek information and solutions to learn problems, work together, exchange information with each other, and support each other in learning and enable learners to learn according to the framework of qualifications standards for higher education in all 5 areas. Integrated teaching and learning management are beneficial to learners in the following areas (Chaiyakit, M.2014).

1. It is the introduction of various subjects or sciences linked under the same topic.
2. Help students to learn deeply and similar to real life.
3. Help learners gain knowledge and understanding in a holistic manner
4. Help learners to seek knowledge and understanding from things that are around them.
5. It is a way that allows teachers to work together or coordinate together happily.
6. Encourage teachers to come up with new methods or techniques.

2. The concept of the qualification standard framework.

According to the Higher Education Qualifications Standards Framework, it is a practice guideline to create a consistent knowledge and understanding of the National Higher Education Qualification Standards Framework as a tool for formulating policies for improving the quality of education and educational standards set by the National Education Act. 1999 to be concrete, by leading to the development of curriculum management to be of standardized quality. Because in today's era there has been a change in both communication and information technology. Therefore, some people are interested in developing both pieces of knowledge and work potential in the teaching and learning process, it is necessary to develop to accommodate the changes of globalization, There must be a learning process and learning outcome standards according to the Higher Education Qualifications Framework of Thailand, to change the behaviors that students develop on their own from the experiences they have received during their studies. Learning outcomes that learners should have at least 5 aspects to be able to develop graduates with desirable characteristics (Office of the Higher Education Commission.2015) are as follows:

1. Ethics and Moral Refers to conduct with integrity, ethics, and personal and collective responsibility, the ability to adjust the way of life in conflicts with values, habit development, and moral conduct in both personal and social matters, as detailed below

1.1 Realize the values and virtues, ethics, sacrifice, and honesty.

1.2 Discipline, punctuality, and responsibility to self and society.

1.3 Respect the rights and listen to the opinions of others and respect the values and dignity of human beings.

1.4 Respect the rules and regulations of the organization and society.

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1.5 Have academic and professional ethics.

2. Knowledge refers to the ability to understand, think and present information, analyze, and classify facts in principles, theories, and processes, and can learn on their own, as detailed below. this

2.1 Knowledge and understanding of important principles and theories in the course content.

2.2 Able to analyze problems, understand and apply knowledge, skills and use appropriate tools and equipment to solve problems.

2.3 Able to analyze and design operations to meet the requirements.

2.4 Able to track progress in environmental science and its application to professional careers.

2.5 Knowing, understanding, and interest in continually developing relevant knowledge and expertise.

3. Cognitive Skills refers to the ability to analyze situations and apply knowledge of concepts, principles, theories, and processes in analytical thinking, and solve problems when faced with new unexpected situations, as the following details

3.1 Think critically and systematically.

3.2 Able to search and interpret books and information for creative problem-solving.

3.3 Able to collect, study, analyze and summarize issues and needs.

3.4 Able to apply knowledge and skills to problem-solving appropriately.

4. Interpersonal Skills and Responsibility Refers to the ability to work in groups, demonstrating leadership, self and social responsibility, the ability to plan and take responsibility for one's learning, as detailed below.

4.1 Able to communicate effectively in both Thai and foreign languages with diverse groups of people.

4.2 Able to assist and facilitate the resolution of situations in either the leadership role or the team member role.

4.3 Able to use knowledge in science to guide society's inappropriate issues.

4.4 Be able to take the initiative to address issues both personally and collectively and to take appropriate standpoints both for one's own and groups.

4.5 Responsible for continuous personal and professional learning development.

5. Numerical Analysis-Communication and Information Technology Skills refers to the ability to perform numerical analysis, the ability to use mathematical and statistical techniques, the ability to communicate in both oral and written communication, and the use of information technology.

5.1 Able to use basic computer programs such as Microsoft office.

5.2 Able to introduce problem-solving issues using mathematical information or statistical applications creatively to related problems.

5.3 Able to communicate effectively both orally and in writing, choosing the appropriate format of presentation media.

5.4 Able to use a computer as a medium for presenting information by using an appropriate program.

3. Cognitive concept

From the course objectives of Cost Accounting 2, the objectives of the course are to study the use of cost accounting information for decision making, cost estimation techniques, product cost calculations, and presentation of financial reports on full cost and variable cost methods, analysis of the relationship between cost, volume, and profit, budgeting for planning and control, pricing of products and services, investment budget decisions, variance analysis for

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performance appraisal, Accounting according to responsibility, and setting the transfer price until knowledge following the qualifications standard framework set by the course. And can apply the knowledge gained from teaching and learning management to convey to the community under the topic of cost management and production processes of community enterprises in Maha Sarakham, Roi Et, Kalasin, and Khon Kaen provinces. By issuing to educate enterprises about cost calculations, accurate cost calculations, enhancing communication skills, presenting information through teaching materials with various devices, practicing intellectual skills in editing. Problems arising in organizing activities. In addition, knowledge of spatial data collection will be developed to analyze the survey of research problems based on real-life operational experience. In addition, it is also a survey of problems and obstacles affecting cost calculation and analysis of costing conditions of operators at present, leading to a survey of the need to provide cost knowledge development training from agencies that relevant

Research conceptual Framework

In the research study, the researcher has set the scope of the study. This can be summarized as a conceptual framework for research as follows:

Independent variable: Teaching techniques that integrate knowledge into teaching and learning management into academic service and research. (Kongmunklang, W. 2017; Jaithieng, S. 2017)

Dependent variable

1. Academic achievement according to the tertiary qualification's standard framework (Office of the Higher Education Commission, 2015)
   - Ethics and Moral
   - Knowledge
   - Cognitive Skills
   - Interpersonal Skills and Responsibility
   - Numerical Analysis-Communication and Information Technology Skills
2. Cognition (Average grade level) (Arsasri, K. 2016)

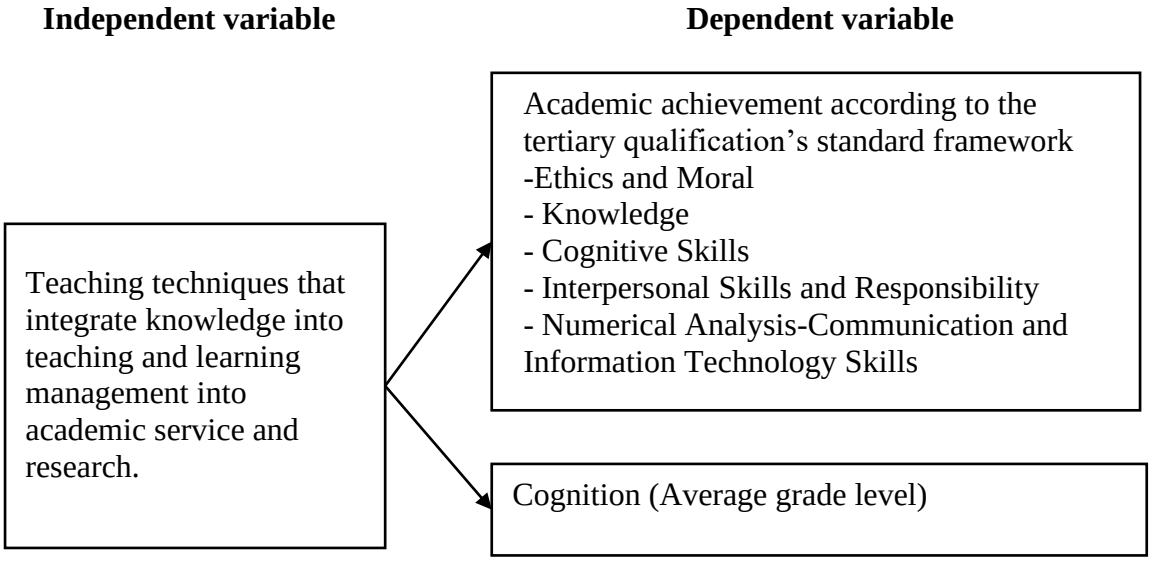

Figure 2: Research conceptual Framework

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Methodology

This research is quantitative, the researcher collected data by using a questionnaire that aims to study academic achievement according to the framework of higher education qualifications using integrated teaching techniques, academic knowledge, cost accounting 2, to increase results. Learning Achievement and Knowledge and Understanding of 2nd Year Students of Faculty of Management Science, Maha Sarakham Rajabhat University. The researcher has determined that the sample population is 192 students studying in Accounting, Year 2, of the total number of 192 people studying in the first semester of the 2017 academic year. Research implementing the tool is a teaching and learning management technique that integrates research with academic administration. A questionnaire for opinions about teaching and learning management. A quiz to collect scores at the end of the semester. Data Analysis with Basic Descriptive Statistics

Results

General information of students studying in the Bachelor of Accounting program and studying Cost Accounting 2 in semester 1/2017 in Year 2 of Mahasarakham Rajabhat University classified by gender and GPA.

1.1 The results of the analysis of data on personal factors of Maha Sarakham Rajabhat University personnel classified by gender are shown in Table 1.

Table 1 Number and percentage of respondents classified by gender

Gender	Frequency	Percentage
Male	10	6.25
Female	184	94.85
Total	194	100.00

From Table 1, it was found that the majority of students studying in the Bachelor of Accounting program and studying Cost Accounting Records Course 2 in the first semester of the 2017 academic year at the first-year level were 184 female students (93.75 percent).

An analysis of opinion data on academic achievement according to the Higher Education Qualifications Framework using Descriptive Statistics, Mean and Standard Deviation, was presented in tabular form along with a lecture and summary of research results, The scores for the answers to the questionnaire were as follows (Srisa-ard, B. 2013:99-100)

Highest level of opinion, assigned 5 points.
High opinion level, assigned 4 points.
Medium rating, assigned 3 points.
Low opinion level, assigned 2 points.
Lowest level of opinion, assigned 1 point.

Then bring the score obtained to find the mean by using the criteria to interpret the mean as follows (Srisa-ard, B. 2013:103) as follows:

Mean 4.51–5.00 represents the highest level.
Mean 3.51–4.50 means high level.
Mean 2.51–3.50 was moderate.
Mean 1.51–2.50 means low level.
Mean 1.00–1.50 means it is at the lowest level.

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Table 2 Opinions about academic achievement according to the framework of tertiary qualifications of accounting students studying accounting research methodology

Variable	$\overline{X}$	S.D.	Level
Academic achievement according to the tertiary qualification's standard framework			
1. Ethics and Moral	4.40	0.46	High
2. 2. Knowledge	4.45	0.47	High
3. 3. Cognitive Skills	4.30	0.45	High
4. 4. Interpersonal Skills and Responsibility	4.56	0.46	Highest
5 . Numerical Analysis-Communication and Information Technology Skills	4.60	0.48	Highest
โดยรวม	4.43	0.44	High

From Table 2, it was found that the overall opinions about the academic achievement according to the tertiary qualifications standard framework of accounting students studying cost accounting 2 was at a high level ($\overline{X}$ = 4.43),(S.D.= 0.44). When considering each aspect, it was found that there were two of the highest levels, namely: Numerical Analysis-Communication and Information Technology Skills ($\overline{X}$ = 4.60), (S.D.= 0.48), Interpersonal Skills and Responsibility ($\overline{X}$ = 4.56), (S.D.= 0.46), and are at a high level in the amount of 3 aspects, arranged in descending order as follows: Knowledge ($\overline{X}$ = 4.45), (S.D.= 0.47), Ethics and Moral ($\overline{X}$ = 4.40),(S.D.= 0.46), and Cognitive Skills ($\overline{X}$ = 4.30), (S.D.= 0.45).

Table 3 presents the scores for measuring the level of comprehension in the course of Cost Accounting 2 of the 2nd year accounting students of 5 groups, the number of students who remained at the end of the semester, 192 people, the number of students who withdrew (W) 2 people.

Score level	Frequency	Percentage
A	58	29.90
B^+	19	9.79
B	23	11.86
C^+	16	8.25
C	16	8.25
D^+	13	6.70
D	22	11.34
F	2	1.03
W	2	1.03
I	6	3.92

From Table 3, the results of the analysis of the level of knowledge and understanding in the course of the second-year students in the accounting field using the teaching and learning process in the integrated teaching and learning process with academic service and research, it was found that Knowledge of access is at the highest level (A), the highest, 58 people representing 29.90%, followed by a good level of cognition (B), of which 23 people accounted for 11.86 percent, And 22 people had a very good level of cognition (D) representing 11.36%.

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It showed that the level of knowledge and understanding of the course from the process of teaching and learning that integrated knowledge with academic service and research resulted in most of the students having the best grades.

An analysis of cognitive opinions about the course content through descriptive statistics, Mean and Standard Deviation, The data was presented in tabular form along with a description and a summary of the research results. The questionnaire responses were scored as follows (Srisa-ard, B.2013:99-100).

Academic grades 80-100 points are assigned GPA=A, excellent grades.
Academic grades 75-79 points set GPA=B+, grades are very good.
Academic grades 70-74 points are assigned GPA=B, good grades.
Academic grades 65-69 points GPA=C+, grades are quite good.
Academic grades 60-64 points assigned GPA=C, satisfactory grades.
Academic grades 55-59 points are assigned GPA=D+, grades are fair.
Academic grades 50-54 grade level required GPA=D, minimum passed.
Academic grades below 50 require GPA=F, a grade below the minimum.

Table 4 The results of the assessment of the level of knowledge and understanding in the accounting course 2 of accounting students

Cognitive Level (Academic Results)	Frequency	Percentage
GPA = A	58	29.90
GPA = B+	19	9.79
GPA = B	23	11.86
GPA = C+	16	8.25
GPA = C	16	8.25
GPA = D+	13	6.70
GPA = D	22	11.34
GPA = F	2	1.03
GPA = I	6	3.92
Total	192	100.00

From Table 4, it was found that 58 people had the highest level of knowledge (A), accounting for 29.90%, followed by a good level of cognition (B), of which 23 people accounted for 11.86 percent, And 22 people had a very good level of cognition (D) representing 11.36%. It showed that the level of knowledge and understanding of the course from the process of teaching and learning that integrated knowledge with academic service and research resulted in most of the students having the best grades.

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Discussion

This research report has interesting issues to be discussed as follows:

Overall, the opinion about the academic achievement according to the tertiary qualification's standard framework of the 2 nd year accounting students studying cost accounting 2 was at a high level when considering each aspect. It was found that it was at the highest level2 . Areas include Numerical Analysis-Communication and Information Technology Skills, Interpersonal Skills, and Responsibility. There are three levels in descending order: Knowledge, Ethics and Moral, and Cognitive Skills. Integrated teaching and learning management provide students with a very good level of learning outcomes. The results of the analysis of knowledge and understanding in the course of Cost Accounting 2, as a whole, had the highest level of knowledge of understanding (A), 58 people representing 29.90%, followed by a good level of cognition (B), of which 23 people accounted for 11.86 percent, and had a very good level of cognition (D) of 22 people, representing 11.36%.

This research was a conspiracy to Suwannapha, C. (2015) study of the Integrated Learning Management for Thinking Skill Development in A Social Studies Seminar Course for Social Studies Students at Mahachulalongkornrajavidyalaya University: Phrae Campus. Found that students improve their thinking skills which are communication and questioning in terms of the research question, the reason, and the purpose of the research by discussing and answering the open questions. Moreover, in the processing, students have to solve the problems which is one of the thinking skills, design and create the activity and assess the result of the project which uses the number and management skills. The result of the satisfied survey which in professor, teaching methods, activities, and the assessment showed excellence. At the same results to Chumsukon, M. (2014) found that The findings of the integrated instruction for the Courses in the Social Studies, Undergraduate Level, in enhancing the student-centered instruction found that the students had knowledge and understanding for creating the project in "the High" level. They had process skills overall in the "Highest" level. And they had attitude in overall in the "Highest" level. In addition, Suttayawongthip, P., and Salawongluk, T. (2018) found that the integrated learning pattern of demography subject, which was congruent to the subject standard developed, was comprised of5elements; Stimulus, Presentation, Individual inquiry, Constructivism, and Evaluation. After the experiment, the students had more significantly higher learning assessment scores than before the experiment.

Recommendation

Finding using recommendation: To be able to apply teaching management guidelines using other or new teaching techniques to be in line with the course to enhance all 5 learning skills according to the TQF framework in other courses in the curriculum.

Further research recommendation: Education from all populations studied in the program should be studied so that students receive the same teaching and learning

management. Therefore, there should be integrated teaching and learning management for research and knowledge creation or producing quality teaching and learning materials for use in teaching and learning.

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