An Evaluation of Learning Management Competency in Early Childhood Education Students

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This study aimed to evaluate the learning management competency of students majoring in early childhood education. The six criteria in measuring learning management competence were: 1) the ability to design an effective learning program; 2) the ability to design an age appropriate learning program to suit the learning style of the students; 3) the ability to select, design and develop the learning materials to support the learners; 4) the ability to design the learning activities to challenge the learners; 5) the ability to understand and implement authentic measurement and assessment; and, 6) the ability to do research. The samples are: 1) students majoring in Early Childhood Education, 2) their friends, and 3) the supervisory teachers in the Early Childhood Education department. Research tools were the competency evaluation forms. The statistics used for data analytics were frequency, percentage, means and standard deviations. The results found that the overall learning performance are in the good / high level (= 3.19). Details are as follows: 1) the competency in practical skilled ability to arrange the learning plan of the early childhood education students are in good / high level (= 3.13). 2) The ability to design the learning styles suite to the age of learners are in good / high level (X = 3.29). 3) the ability to select, design and develop the learning materials to support the learners are in good / high level (X = 3.24). 4) the ability to arrange the learning activities to promote the learners are in the good / high level (X = 3.21). 5) the ability for authentic measurement and assessment are in the good / high level (X = 3.10), and 6) the ability to do research are in the good / high level (X = 3.21).

Keywords: Competency, Learning Management, The Early Childhood Education.
Introduction

Background to the Study and the Research Problem

Higher Education Institutions have played a key role in the production and development of teachers for more than 50 years. The Faculty of Education responded to an increasing need in the Early Childhood sector with a five-year long course for pre-service teachers through the Early Childhood Education program. The program aimed to promote the characteristics and knowledge required by pre-service teachers which are: love, care and understanding of the psychological development of children. The program further aimed to conduct research and apply education innovation to develop these staff qualities in the early childhood sector. The National Development Plan 9\textsuperscript{th} phase (2002-2011) had a strategy to produce new teachers, therefore, teachers need to develop and advance their professional quality.

The new curriculum focuses on a holistic curriculum, in-depth interdisciplinary intensity and practicality. The undergraduate program in early childhood education is covered in various fields, therefore it’s important to operate efficiently, especially teachers’ experience in teaching and child rearing.

The training and development of teachers in early childhood education programs requires concentrated strategic development to enhance and improve the quality and standards in order to produce the competencies needed. According to the strategy to enhance the competency of pre-service teacher in early childhood program with various knowledge in science, psychological, innovation, creative skills and research entitle. In order to know the quality of graduates produced, this study focused on learning management competency evaluation across six criteria: 1) the ability to design an effective learning program; 2) the ability to design an age appropriate learning program to suit the learning style of the students; 3) the ability to select, design and develop the learning materials to support the learners; 4) the ability to design the learning activities to challenge the learners; 5) the ability to understand and implement authentic measurement and assessment; and, 6) the ability to do research. The outcomes of this study will be integrated into further development to improve the efficiency graduator with a strong and acceptable quality.

The Purpose of the Research

This study aimed to evaluate the competency of students majoring in Early Childhood Education. The six criteria of the learning management were:
1) the ability to design an effective learning program;
2) the ability to design an age appropriate learning program to suit the learning style of the students;
3) the ability to select, design and develop the learning materials to support the learners;
4) the ability to design the learning activities to challenge the learners;
5) the ability to understand and implement authentic measurement and assessment; and,
6) the ability to do research.

Overall, this study aimed to evaluate the competency of Early Childhood Education pre-service teachers (university students) in learning management through the six criteria above with a focus on learning and instructional design, assessment and research as proposed by the National Development Plan #9 (2002 – 2011).

**Research Methodologies**

The researcher carried out a sequence of steps, as follows:

1) The populations are:
   1.1) 105 4th year students in Early Childhood Education Program in 2nd Semester of the 2019 academic year,
   1.2) 105 students’ friends and
   1.3) 6 supervisory teachers in the Early Childhood Education Department.

2) The research tools were the competency evaluation forms.

**Data Collection**

The data collection was held during the second semester of the 2019 academic year. The researcher sent out and returned 216 competency evaluation forms.

**Data Analysis**

The researcher checked the integrity of each competency evaluation form, then analysed: 1) the frequency to find out the percentage, mean and standard deviation; and 2) the open ended questions by clustering answers and descriptive explanations.

**Results**

The overall learning performance are in the good / high level (\( \bar{X} = 3.19 \)). Details are as follows:

1) The competency in practical skilled ability to arrange the learning plan of the early childhood education students are in good / high level (\( \bar{X} = 3.13 \)). Details are as follows:
   - Activities in the lesson plan is to bring the full summary (\( \bar{X} = 3.33 \)) with the ability to plan instruction. Preparation for teaching. Accordance with curriculum (3.20) were sequenced to determine the complete and accurate. Consistent with learning. Appropriate to the age of the students (\( \bar{X} = 3.18 \)). Clearly defined objectives. Comprehensive and consistent with the unit (\( \bar{X} = 3.17 \)) determined learning. Significant experience. Learning activities. Media measurement and evaluation in accordance with the purpose (\( \bar{X} = 3.12 \)) define learning. Significant experience to media and measurement and evaluation in accordance with the age and individual differences of the students (\( \bar{X} = 3.11 \)). Activities in the plan include integrating
various material (math / science. Or Nature Study / Education / English Thailand / social / ethical) to practicality ($\bar{X} = 3.08$) to write the plan. To stimulate thought basic level. (Note / ask leading / review of memory / meaning / SIGNS / inspire) ($\bar{X} = 3.08$). Activities in the plan are practicing thinking skills. And the knowledge of what they have learned on their own ($\bar{X} = 3.06$) to write the question in the mind map motivation high. (To explain / compare / examples / classification / analysis / synthesis / evaluation) ($\bar{X} = 2.97$).

For this competency, the ability to design activities in lesson plan is the highest. Considering the activities in lesson plan as a whole were completely related: the introduction, the leaning activities and conclusion. This reflected the well-prepared lesson plan: the sequence, the completeness and the accuracy of activities; besides, the lesson plan was related to curriculum and appropriate to the students. However, the ability to create the questions to activate the higher order thinking skill for the students in the lesson plan needed to improve.

2) The ability to design the learning styles suite to the age of learners are at a good / high level ($\bar{X} = 3.29$) as follows:

Activities designed to promote child development and 4 in the (physical, emotional - psychological, social, intellectual) ($\bar{X} = 3.64$) and in accordance with the age and development of children ($\bar{X} = 3.55$).

In the better / higher of the following sort, activities are designed using the principles of learning through play and having fun together with learning ($\bar{X} = 3.30$), which is consistent with the interests, skills, knowledge and development of the students ($\bar{X} = 3.27$). Activities are designed to create an atmosphere of learning to relax with enthusiasm and interest ($\bar{X} = 3.26$). Activities are designed to encourage children to interact with others, including materials, equipment and other items ($\bar{X} = 3.26$). Activities are also designed to focus on the students so that the children can take action and find answers on their own. Submitted together ($\bar{X} = 3.22$) activities are designed to promote talent. Interests and ages of the students ($\bar{X} = 3.21$). They are also designed to comply with the local culture and environment conducive to its use in everyday life ($\bar{X} = 3.16$), to be learned from understanding, not memorization. But the children must remember to link knowledge and understanding of the process through various activities ($\bar{X} = 3.11$)

The best ability in this competency is activities designed to promote children’s physical, emotional - psychological, social and intellectual development in accordance with the age and the development of children. Since the designed based on the principles of learning management through playing with fun, the designed is consistent with the students’ interests, skills, basic knowledge, and development. In addition, learning with understanding and remembering by connecting knowledge through the process of doing various activities is encouraged.
3) The ability to select, design and develop the learning materials to support the learners are at a good / high level (\( \bar{x} = 3.24 \)) as follows:

The ability to choose. Developing and building materials that promote the learning of the students. Found to be at a good / high level; all sorted as follows. Select learning materials that meet the learning activity (\( \bar{x} = 3.37 \)); students have the opportunity to practice or participate through learning (\( \bar{x} = 3.31 \)), attention and assisting the students to use media and learning (\( \bar{x} = 3.31 \)), with the proper use of materials, equipment and learning resources. Based on the type of media (\( \bar{x} = 3.30 \)), select learning materials that comply with Learning Objectives (\( \bar{x} = 3.28 \)) are versatile enough for children (\( \bar{x} = 3.28 \)); select learning materials that comply with abilities and interests of the students (\( \bar{x} = 3.23 \)); to understand / explain the use and maintenance of media for students to learn to use it (\( \bar{x} = 3.21 \)); by the use of local media and media technology and innovation as a learning medium (\( \bar{x} = 3.07 \)), students participate in the preparation of media. Equipment used in learning (\( \bar{x} = 3.05 \))

To select learning materials that meet the learning activity is the highest ability in this competency. To pay attention and help the students to use the proper media, materials, equipment and learning resources is also high ability. Moreover, giving a chance for children to practice or participate in learning with material is important as well.

4) The ability to arrange the learning activities to promote the learners are at a good / high level (\( \bar{x} = 3.21 \)). Considering limitations. The ability to organise activities to promote the learning of the students. Found to be at a good / high level as follows:

Physical development activities appropriate to their age (\( \bar{x} = 3.35 \)); activities promote creative thinking. Trained to imagine (\( \bar{x} = 3.33 \)) activities help to develop the personality. Emotional expression is stable and not aggressive (\( \bar{x} = 3.26 \)); activities to promote the development of social interaction with each other. How to learn together (\( \bar{x} = 3.25 \)). Activities are intended to build. Concentrate but not stressful and enjoyment in the activity (\( \bar{x} = 3.23 \)); activities to promote awareness of the environment around the object. People and places (\( \bar{x} = 3.22 \)); activities that promote language development. The ability to use language to communicate between each other (\( \bar{x} = 3.21 \)); activities to promote learning to solve problems rationally (\( \bar{x} = 3.11 \)); enrichment activities and character recognition. Sentimental value of things around them (\( \bar{x} = 3.11 \)); activities to promote thinking and memory. The basic skills of critical thinking and a logical link. (The emphasis on experience, observation, classification, links and photos, to summarise) (\( \bar{x} = 3.09 \))

In this competency, to arrange the physical development activities which are appropriate to the children’s age is the best ability. Not only the activities that promote creative thinking enhance the children learning but also the imagination training activities. The activities that
promote thinking, memory, the basic skills of critical thinking and logical thinking are needed.

5) The ability for authentic measurement and assessment are at a good / high level ($\bar{x} = 3.10$), as follows:

Tools used to measure and assess progress in line with the learning activity ($\bar{x} = 3.20$) for portfolio performance evaluation study ($\bar{x} = 3.20$); A tool used to measure and evaluate the relevant learning ($\bar{x} = 3.16$); The defined evaluation criteria are clear and consistent with the purpose of learning ($\bar{x} = 3.13$); The continuous assessment and evaluation of learning outcomes and development ($\bar{x} = 3.11$); Assessment developed as part of a continuous experience ($\bar{x} = 3.10$); Students participate in the assessment of learning in self-assessment and the performance of self and others ($\bar{x} = 3.09$). Development and assessment of learning to assessment for learning ($\bar{x} = 3.08$); The data obtained from the assessment attributed the experience to meet the development of learners and potential learners according to their individual differences ($\bar{x} = 3.03$); Opportunities for parent and community involvement in the assessment of the students ($\bar{x} = 2.93$).

The ability of using tools to measure and assess progress in line with the learning activities and using portfolios to evaluate the learning performance are the highest in this competency. While the ability in applying the data obtained from the assessment to attribute the learning experience to meet the development of learners and potential learners according to their individual differences is rather low including the ability in giving an opportunity for parents and community to participate in the assessment.

6) The ability to do the research are in the good / high level ($\bar{x} = 3.21$) as follows:

Research ethics ($\bar{x} = 3.44$) was determined to be consistent with the research subject ($\bar{x} = 3.36$) to use the computer to conduct research ($\bar{x} = 3.29$) and a selective analysis. Consulting the documentation that will be used in the research was the study ($\bar{x} = 3.22$) method. Methodology is consistent with the research design and is defined ($\bar{x} = 3.19$), leading to the application of research results to the benefit of teaching ($\bar{x} = 3.18$). Selection of data analysis with statistical accuracy on the data collected ($\bar{x} = 3.15$) to plan and carry out research that is consistent and complete in all the steps ($\bar{x} = 3.14$); a development tool used in the research were to ($\bar{x} = 3.13$) have the ability to report. The results were completely accurate ($\bar{x} = 3.09$).

In doing research competency, all of the abilities are in good level. Research ethics was determined to be consistent with the research subject is the best ability and to use the computer to conduct research and a selective analysis is in good level, too. Although the completeness, and the accuracy of the results report is the lowest in this competency, it is in the good level also.
Discussion

As the results of the 6 assessments for learning development have shown, the highest competency performance is the ability to design the learning styles to suite the age of learners as is the ability to select, design and develop the learning materials to support the learners. While the ability for authentic measurement and assessment are in the average minimum. This result is relevant to the opinion of Kullaya Tantipalachewa (2008) who mentioned that the experience of the lesson design for children should concentrate on their needs and nature. They can build their knowledge body, practical skills and development process. Also relevant to the National Education Act, BE. 2542 (1999) is for the need of future teachers to be capable of learning.

The results of the competency in practical skilled ability are to arrange the learning plan of the early childhood education students relevant with Waro Pengsawat (1999), who suggested that teachers need to be well prepared for their various teaching methods. This is also relevant with Yaowapa Techakub (2008), who noted that teachers need to plan the experience and knowledge for effective teaching.

The results of the evaluation which measured the competency and ability of pre-service teachers to design the learning styles suited to the age of learners, found that students do better in activities designed to promote the development of the whole child. This result is supported by Hendrick (1994), Gestwicki (1999) and the Ministry of Education (1997), who concluded that the nature of the activities is to promote all areas of development and is appropriate to the situation. To design effective learning activities, teachers need to know the basic nature of children.

As the results of the competency in the ability to select, design and develop the learning materials to support the learners found, the students performed well in the learning media and were consistent with the learning activities. The results also found that adaptation of the learners participating in the preparation of media was required. This result is also demonstrated by the research of Kullaya Tantipalachewa (2008), Benja Sangmali (1982), Sumana Panit (1988), Orasa Kumaree Pookhut (1981) and Tissana Keammanee & other (1992), who suggested that the media to support children's activities should be well developed. It is also relevant to, who added that the teacher should have the skills to produce, supply and use media in the right way, and at the right age for children to promote better learning.

The evaluation of the ability to arrange the learning activities to promote the learners found that students performed well in the development of age-appropriate activities; they also improved critical thinking skills. According to the suggestions of Yaowapa Techakub (2008), and Phatcharee Polyothin (1989), the proposed activities should suit the environment and contribute to the development of learning. While Kullaya Tantipalachewa (2008)
concluded that teachers must provide learning experiences for children by setting up themselves to build a comprehensive development.

The results of the competency in the ability for authentic measurement and assessment found that students did this in accordance with the instrumentation and evaluation of learning activities. The other suggestion is to rely on students to apply the actual practice in the classroom, so the program must find ways and means to encourage students to do this. Kullaya Tantipalachewa (2008) mentioned that teachers have to plan instruction and assessment practices. Phatcharee Polyothin (1989) states that teachers must have the ability to evaluate the results and feedback to improve teaching, and to measure and assess the progressive tools’ selection. While Songsri Tuntong (2002) found that the evaluation of the actual learning process is to develop and apply appropriately and to check the performance and practice for all knowledge and practice to improve student performance.

The results of the competency to do the research showed that the students practiced compliance issues associated with the research, but with a need to improve the complete reporting. This result was also found by Kullaya Tantipalachewa (2008) and Waro Pengsawat (1999), who suggested that there are several categories of research in the primary level that the teacher can do to develop the children. Jaruwan Silaparat (2005) and Hon Adrian Piccoli MP (2020) found that the potential of the kindergarten teacher to be a researcher through their own perception and empowerment.

Conclusion

The research results found that the overall learning performance of the early childhood education students are in the high level. The performance in the ability to design the learning styles to suite the age of the learners is the highest. The ability to select, design and develop the learning materials to support the learners is higher than the ability to arrange the learning activities to promote the learners and the ability to do research, whereas the lowest ability in the six criteria is the ability for authentic measurement and assessment. This means the early childhood pre-service teachers have to develop this ability more, especially the ability to collaborate with parents and the community in authentic assessment.

Suggestions for future research

1. Institutions of higher education, especially the Faculty of Education, should develop professional standards for others to assess graduation, before the end of the program's performance under the Qualifications Framework of undergraduate courses or Thailand Qualifications Framework for Higher Education (TQF).
2. The undergraduate courses should have the competency assessment, both knowledge and practical skills covering all the content for the students before the end of the course.
3. The other courses may increase the assessment to meet the needs of stakeholders. The highly qualified graduates should improve the curriculum.
References


