

# The Development of Innovative Learning Management Model for Early Childhood Teachers

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## Abstract

The goal of this study is to use creative learning to establish a learning management model for primary teachers in the Roi Et Province. Early childhood educators and students from Roi Et Province's Department of Early Childhood Education comprise the sample group. This was acquired using a basic random sampling technique (simple random sampling) with 300 participants. The Learning Innovation Development Guide is one of the instruments utilized in the study. The learning management assessments, standard deviations, and averages are among the statistics that were employed in the data analysis. linear structural relationship analysis and the t test. The findings indicated that the evolution of learning innovation (IML) and learning management practices are directly impacted by it. (BeT) It was statistically significant for early childhood educators at the 0.01 level, with an effect value of 1.04. The model's components can account for the variations in the learning innovation development components. It directly affects learning management behavior (IML). (BeT) of early childhood educators, 90.00% of them are able to account for the variation in another latent internal variable, the development of learning innovation (IML). 82.00%

**Keywords:** teacher professional competence, teacher spirit, learning innovation development, learning management behavior

## 1. Introduction

Issues in Education in the Twenty-First Century In order to get pupils ready for 19th-century living, it was a significant component of the 19th-century societal transition. 21 Consequently, in order to provide pupils with the necessary abilities to exist in the world of the nineteenth century, educators need to be vigilant and well-versed in learning management. 21 There have been significant changes over the past century as a result of globalization. To strengthen their position and negotiating power, the international community will foster cooperation at all levels throughout the world. Cultural fusion is the driving force behind all social units (Saavedra & Darleen, 2012; Gut, 2011). Teachers have always been the ones to impart knowledge in the twenty-first century. By letting the student find and produce knowledge on their own, the teacher will no longer act as a director and an assistant (Panich, 2012). The abilities that are required in the twenty-first century have been outlined by Gut (2011), Rotherham and Willingham (2009), Saavedra and Darleen (2012), the North Central Regional Educational Laboratory, and the Metiri Group (2003). 21 That is predicated on the framework and vision. Ways to Learn in the Twenty-First Century is based on the idea that "teachers should concentrate on teaching design rather than instruction itself. "Teach Less, Learn More," "Coach/Coaching," and "Teach Less, Learn More" ar able to enumerate the abilities that everyone must acquire from kindergarten through university and throughout life in order to succeed in the 19th and 21st centuries. 3R" is composed of reading it aloud, writing it down, and calculating as (A) rithmetics are the first three steps and "7C" is made up of 1) the ability to think critically and solve problems (critical thinking and problem solving). 2) Skills related to creativity and innovation (creativity and innovation) 3) Capabilities for understanding different cultures and paradigms (cross-cultural understanding) 4) Capabilities in leadership, teamwork, and collaboration (collaboration, teamwork, and leadership) 5) Media literacy and communication skills (information, media, and communication) 6) Information and communication technology (ICT) literacy and computer skills 7) Career and Learning Skills: Vocational Skills and Skills Acquisition

Due to the demands of the modern industrial world, courses are making an effort to integrate 19th-century

abilities into their curriculum. 21 that is relevant to the field of education, particularly the skills needed in the 21st century, often known as skills for short—learning and innovative skills. 4C (Schulze, Schultze, West, & Krumm, 2017; Mengual-Andrés, Roig-Vila, & Mira, 2016). Among the century's skills are those related to learning and invention. 21 that was classified as a 19th-century skill. 21 entirely and in compliance with the course content. Roblin and Voogt (2012) Digital talents are what the 20th century brought. 21 It is made up of the principal elements. 3. The first component is the ability to learn and be innovative. Some of the components that make up this composition are referred to as 4C elements. Creativity, communication, critical thinking, and teamwork are some of these components. The skills related to information, media, and technology comprise the second component. Ability They also need crucial components or signs. (Ongardwanich, Tuipae, & Kanjanawasee, 2015) Communication skills are the ability to explain something to people in a way that makes sense and can be effectively communicated across a variety of media. Laar, Deursen, Dijk, & Haan, 2020; Mohamad, Osman, Mastura, & Soh, 2011; Benson & Benson, 2014; Claro et al., 2012; Dass, 2014). The four Cs are critical thinking, communication skills, and creativity. It is anticipated that these three factors will interact to enhance educational outcomes through the development of learning skills and creativity. Jooste et al. (2020), however, voice divergent viewpoints. It is evident that the effective educational initiative The material has been brought up to date with the workplace. videos created by researchers as instructional resources. When paired with virtual education, it enhances students' capacity for both learning and creativity. The purpose of this study is to validate its success. Students' abilities are thus not at their best, particularly when it comes to learning and creativity. In the workplace, these abilities include critical thinking, creativity, communication, and teamwork (Laar et al., 2020). Thus, carrying out a thorough analysis of pedagogical innovations could benefit learning approaches as well. It also entails carrying out research in education.

Children's learning growth and promotion are greatly aided by early childhood educators. To prepare students for entry into basic education, teachers must possess the skills and knowledge necessary to support and nurture the development of young children. to increased levels of scholastic success and intellectual growth. Murray & Kidd, 2020) There is a way to perform experiments during practical training, a new kind of training for preschool teachers. in particular, to gain fresh insights and experiences. They do not, however, have a direct connection with kids in the setting of that school. The trainer will experience anxiety and a decrease in motivation as a result of this training. (Kalam and Munna, 2021) has investigated putting several guidelines into practice. The educational environment and the administration of teaching and learning are positively impacted by teacher professional development. Learning management systems or learning experiences are provided to early childhood pupils. Teachers, in particular, who have undergone training or initial instruction, play a significant role in learning management, which impacts the caliber of learners. (Sepulveda-Escobar and Morrison, 2020; Kidd & Murray, 2020) Due to the lack of processes in their practical training, prekindergarten teachers now have a greater need for teacher education and professional development. Murray & Kidd, 2020) similar to any other student in higher education. Students studying early childhood education also encounter this conundrum at the very times when they most need to practice (Alan, 2021; Carrillo & Flores, 2020; Murphy, 2020).

Another approach to creating learning management innovations that are intriguing for learning management is to use the learning management model for early childhood instructors. Additionally, there is a lot of evidence to support the idea that teacher empowerment and professional development can be achieved by adopting model development paths (teacher professional development and teacher professional development pathways, for example). Achunda (2021); García-Rico, Martínez-Muñoz, Santos-Pastor, & Chiva-Bartoll (2021); Ravhuhali, Mashau, Kutame, & Mutshaeni (2015); çetin & Bayrakc (2017); Chimplee, Jiraro, & Lila (2017) The teaching approach, which is focused on learning, service-divide and manage, and design learning management specifically for teachers' education, was examined in a recent study by García-Rico et al. (2021). The aim of this research is to determine the efficacy of a novel teaching approach that complies with the demands of contemporary education. Consequently, the research team is keen to investigate and create a learning management model specifically tailored for early childhood educators. One source of inspiration for developing a public spirit that leads to learning management behavior is the Spirit of Teachers. The research findings will be condensed into recommendations for early childhood educators in the province of Roi Et that will help them foster and enhance learning management abilities in order to increase their effectiveness. to establish a process of learning in order to improve and elevate the worth of nearby resources. Moreover, indicators must be created in order to represent the outcomes of sustainable development on a local and national scale.

### *1.1 Objectives of the Research*

To use breakthroughs in learning management to create a learning management model. For early childhood educators in the Province of Roi Et.

## 2. Method

This research is research and development (Research and Development) consists of:

### *2.1 Step 1: An Analysis of Learning Management and Recommendations for Creating Innovative Learning Materials for Early Childhood Educators the Subsequent Actions are Executed*

To establish the conceptual framework for researching learning management and the creation of learning innovations by early childhood teachers, a study on the learning management of early childhood teachers was conducted, along with a review of relevant documents. The primary teacher opinion questionnaire and expert-led structured interviews are two of the methods utilized to get the data. 5 After verifying the content's veracity, they spoke with early childhood educators who served as excellent role models. sum of 300 people by picking particular individuals with expertise and experience in planning educational programs for young children. They use fundamental statistics like average and standard deviation values to examine data on the performance development needs of early childhood teachers. and use content analysis to examine the information gleaned from the interview.

### *2.2 Step 2: Using Learning Management Innovations to Create and Track Learning Management Models*

The utilizing learning management technologies to draft a learning management model under the researcher's direction Data at this stage from the study 1. Using learning management innovations, let's create a learning management model that includes the following: 1) Early Childhood Teachers' Learning Management 2) How to Create Creative Education 3) The Process of Learning, Innovation, and Development Using learning management innovations, the learning management model draft was examined. The draft learning management model using learning management innovation and the draft learning management model using learning management innovation's appropriateness check form were the instruments utilized to gather data. It appears to be an open form with additional comments and a checklist (check list). After that, bring it to an interview with a suitable candidate. quantity five by picking particular individuals with expertise in and connections to early childhood education. Administration of Schools Examine the information gleaned from the interview by conducting a content analysis.

### *2.3 Step 3: Using Learning Management Innovations to Evaluate Learning Management Models*

Questionnaires and the usefulness and practicability of learning management models are among the instruments used to gather data. Innovation in learning management by early childhood educators and school officials. 100 individuals in Roi Et Province, at random An estimating scale is what distinguishes it. Level 5: Assessments, data analysis, and data analysis are the instruments used in data collection. Determine the standard deviation and mean. The standard deviation (S.D.) and mean were used to analyze the data. Standards for evaluating the practicality and utility of a practice  $S.D. \leq 1.00$ ,  $X \geq 3.50$

## 3. Results

### *3.1 Roi Et Province Primary Teachers' Use of Learning Innovation in the Learning Management Model*

Roi Et Province Primary Teachers' Use of Learning Innovation in the Learning Management Model. The total number of steps required to produce improvements in learning management that are derived from synthesis Six On the other hand, the framework for this study was established using the criteria to identify the high-frequency elements. This study's concepts have been assigned numbers. Six The actions are as follows: 1. Acquiring knowledge of problem analysis 2. Characterizing Innovation in Problem-Solving 3. Fostering Innovation in Education Administration 4. Keeping an eye on the advancements in learning management systems. 5. Testing innovative learning management and 6. Assessment of the application of learning management technologies and the manner in which they are used to arrange educational activities. It is composed of four stages of theories, concepts, and principles of a model that emphasizes participation in teaching and learning activities and real-world action. Step 2: activating the cognitive process; Level 1: creating awareness. Step 4: Implementation and evaluation, and Step 3: Establishing a participatory approach.

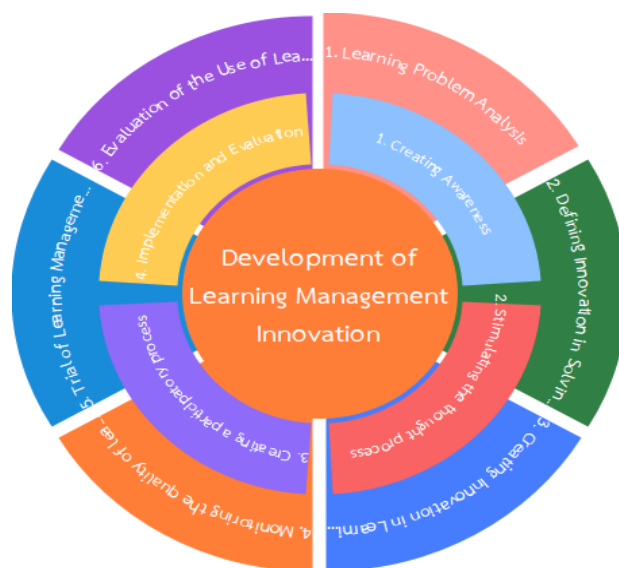


Figure 1. Learning management model using learning innovations for early childhood teachers

Table 1. Comparison of Skills in Organizing Learning Activities Using Learning Innovations for Early Childhood Teachers

Events	N	$\bar{X}$	S.D	t	Sig.
Before the event	300	18.47	0.70	62.426	0.00*
After the event	300	26.76	1.06		

\* Statistically significant at the level of 0.05

Table 1: The comparison of teachers' abilities to plan lessons utilizing innovative teaching methods is shown in Childhood. There was a statistically significant difference at level 0.05 in Roi Et Province following the organization of learning activities about developing learning activity management skills using innovative learning by primary teachers in Roi Et Province. Following the learning exercise, the average score increased compared to the pre-activity.

### 3.2 Linear Structural Relationship Analysis

Analysis of the Influence and Relationships between Linear Structure and Teacher Professional Performance Components The development of learning innovations and the teaching profession's spirit are what led to early childhood educators' adoption of learning management practices. It was discovered that early childhood instructors in Roi Et Province developed learning management behaviors as a result of the learning innovation development elements' linear structural link. Empirical data is in harmony with Roi Et Province. Imagine dividing the chi-square value by the number of degrees of freedom. () is less than or equal to 5 (= 4.1943), indicating that the theoretical model of the research is in harmony with the empirical evidence. The harmony level index is one of the additional statistical measures that show additional support for harmony. The GFI, or Goodness of Fit Index, and the Critical N (CN) value was 271, which is greater than 200. The Adjust Goodness of Fit Index (AGFI) was 0.98 and 0.97, respectively (the GFI > 0.98 and the AGFI > 0.97).

Table 2. Correlation coefficient between factors promoting teacher professional performance The spirit of being a teacher. Development of Learning Innovations that Affect Learning Management Behavior for Early Childhood Teachers

variable	CPT	ST	IML	BeT
CPT	1.00			
ST	0.333**	1.00		
IML	0.262**	0.906**	1.00	
BeT	0.946**	0.382**	0.285**	1.00

\*\* Statistically significant at the level of 0.01

Table 2 presents the correlation coefficient between many aspects that enhance the effectiveness of educators. The essence of an educator. Creation of Educational Innovations that Impact Early Childhood Teachers' Learning Management Practices All four components were shown to have a statistically significant positive connection at the 0.01 level in the province of Roi Et, with a correlation coefficient ranging from 0.262 to 0.946. An effect coefficient diagram can be created by combining the findings of the influence value separation and linear structure relationship analyses. As seen in figure 2,

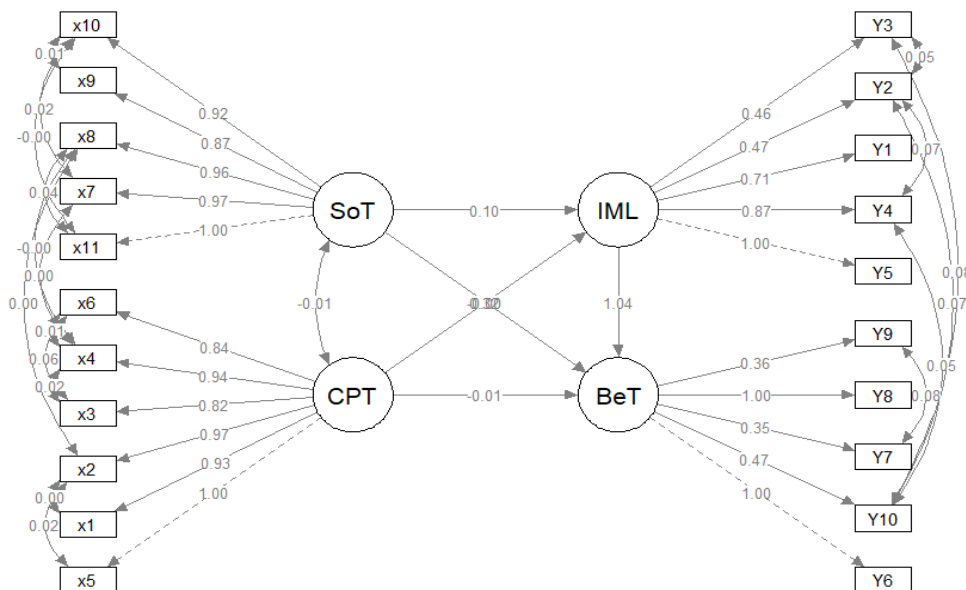


Figure 2. Elements of Teacher Professional Competence the spirit of being a teacher and the development of learning innovations that result in learning management behavior of early childhood teachers

Figure 2 The components of Innovation and Learning Development (IML) are crucial. It directly affects the behavior of learning management. (BeT) with an influence value of 1.04 and statistical significance at the level of 0.01. The model's components are shown to be able to describe the variability of the learning innovation development elements when the structural equation is taken into consideration. It directly affects learning management behavior (IML). (BeT) 90.00% of early childhood educators are able to describe the variation in another internal latent variable, which is the growth of learning innovation. 82.00% of IML writers can compose structural equations. as follows

$$\text{BeT} = 1.04 \cdot \text{IML} - 0.10 \cdot \text{CPT} - 0.30 \cdot \text{SoT} \tag{1}$$

$$R^2 = 0.90$$

Equation 1: Factors affecting the behavior of learning management The most popular among early childhood educators are: Learning Innovation Development (IML) The spirit of teaching and teacher professional competence (CPT) come next. (SoT) The three components can help explain why learning management behavior varies so much. Truth Be told Ninety percent of early childhood instructors.

$$\text{IML} = 0.10 \cdot \text{CPT} - 0.30 \cdot \text{SoT} \tag{2}$$

$$R^2 = 0.82$$

Equation 2: Factors affecting the growth of innovative learning (IML) The primary factor is teachers' professional competency. (CPT) and the essence of teaching. (SoT) The two components can account for innovation and development learning's (IML) variability. 82.00%

#### 4. Discussion

Developing learning management innovations in six stages is the learning management model that Roi Et Province's early childhood teachers use. 1) examining learning challenges; 2) identifying innovative ways to address issues. Learning management innovations can be created in three different ways: 3) by creating them; 4) by keeping an eye on their quality; 5) by testing them; and 6) by assessing how well they are being used and how learning activities are being organized with them. Step 4: Implementation and evaluation, and Step 3:

Establishing a participatory approach. Early childhood educators may exhibit the following four steps in their learning management behavior as a result of their professional competence development: First grade; Step 2: Getting the mind going Developing a participatory method is step three; putting it into practice and assessing the outcomes is step four. Before entering the field of modern education, workshop training is thought to be a crucial component in helping teachers develop their digital learning management competencies (Romero-Tena et al., 2020-21). Meanwhile, curriculum, curriculum, and education make up the four sectors of the 21st century's growth of learning management skills. Measurement and assessment, learning experience management, media use, and innovation and technology in learning management. As a result, the advancement of early childhood competencies throughout the 21st century and to encourage modernization and stay abreast of technological advancements, all of which are thought to be crucial for fostering the creation of efficient learning management strategies and aiding in the production of trained youngsters for the twenty-first century (Saksri et al., 2023).

It is evident from the examination of the influence values and linear structural links of the elements of teacher professional competency. The development of learning innovations and the teaching profession's spirit are what led to early childhood educators' adoption of learning management practices in the Province of Roi Et. It was discovered that early childhood instructors' learning management behavior was produced by the learning innovation development elements' linear structural link. Empirical data is in harmony with Roi Et Province. Imagine dividing the chi-square value by the number of degrees of freedom. ( $\chi^2/df$ ) is less than or equal to 5 ( $= 4.1943$ ), indicating that the theoretical model of the research is in harmony with the empirical evidence. The harmony level index is one of the additional statistical measures that show additional support for harmony. The Adjust Goodness of Fit Index (AGFI) was 0.97 and the Goodness of Fit Index (GFI) was 0.98, respectively (the GFI of  $> 0.98$  and the AGFI of  $> 0.97$  were employed in this study), and the Critical N (CN) value was 271, which is greater than 200. Inputs, processes, and outputs are the three key stages of the integrated education model, which has been developed throughout the school, according to research on the creation of a management model of integrated education: Practices for learning in integrated schools. Additionally, schools were involved in the experiments. The experiment's findings demonstrate how important teamwork is. to guarantee improved outcomes from the integrated study's execution. Anchunda (2021) acknowledges that one method utilized in the teaching and learning management of specific skills is the employment of models as an important goal. The development of a properly created model is highly promising. Research and development (R&D) concepts are used in the creation of such a model. R&D is a comprehensive process that includes analysis and subsequent modeling. A review of teaching styles based on learning, services, and especially teacher education has led to teacher success in learning management as well as efficiency and effectiveness in learning management, according to a recent study by García-Rico et al. (2021).

## 5. Conclusions

Using Learning Innovation in the Learning Management Model for Early Childhood Teachers The linear structural association between learning innovation development aspects and learning management behavior for early childhood instructors was discovered in the Roi Et Province. At a level of 0.01 with an influence value of 1.04, the Learning Innovation Development (IML) component in Roi Et Province has a statistically significant direct impact on learning management behavior (BeT). The development of learning innovation (IML) (82.00%) is one internal latent variable that can be used to explain the variability of learning (IML), which has a direct 90.00% impact on learning management behavior (TBT) for early childhood instructors.

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## Authors contributions

Saksri Sibsingh was responsible for the research, design, data collection, drafting and editing. Supimol Bunphok, drafting and editing. Nithinat Udomsan provided advice on research methodology, drafting and editing, all of which improved and supported this research equally.

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Obtained.

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The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

#### **Data sharing statement**

No additional data are available.

#### **Open access**

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