Applying Gagné's Nine Events to Evaluate Teaching Practices of Pre-Service Elementary Teachers

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Abstract

This study aims to investigate the application of Robert Gagné's instructional theory in the teaching practice of pre-service elementary school teachers. Gagné's nine events of instruction provide a structured framework for planning and implementing effective lessons, yet their actual implementation in classroom practice often varies. Using a qualitative descriptive approach, this research analyzed three video recordings of teaching practice sessions conducted by students of the PPG (Teacher Professional Education) program at Universitas Jambi. Data were collected through video observation and evaluated using an observation sheet aligned with Gagné's instructional model. The results indicate that several instructional events such as gaining attention, presenting content, providing guidance, and giving feedback were implemented effectively, leading to more interactive and engaging learning processes. However, the stages of stimulating recall of prior knowledge and facilitating transfer to real-life contexts were less consistently applied. These gaps suggest that while pre-service teachers are able to structure lessons according to instructional models, further support is needed to strengthen their ability to connect new knowledge with learners' previous experiences and broader applications. The findings contribute to the field of teacher education by highlighting both strengths and weaknesses in applying Gagné's instructional theory. This research emphasizes the importance of systematic instructional design training in teacher preparation programs to enhance pedagogical competence and ensure the delivery of meaningful and outcome-oriented learning experiences.

1. Introduction

Basic education plays a crucial role in shaping students' character, knowledge, and skills from an early age. Teachers, as learning facilitators, are responsible for creating an active, meaningful, and sustainable learning process (Andini et al., 2024; Silitonga, 2025). Therefore, prospective teachers need to be well-prepared to

deliver structured and effective learning. Research on learning strategies for prospective teachers is crucial because it can contribute to improving the quality of basic education. In this context, Robert M. Gagné's instructional learning theory offers a relevant conceptual framework for study.

Robert M. Gagné developed nine learning events that can be used as systematic guidelines in designing learning activities (Al-Haqiqy et al., 2024; Darmayanti et al., 2023). This theory emphasizes that every lesson must begin with attracting attention and then strengthening the transfer of knowledge (Basyir et al., 2022; Budiyanto & Andini, 2025). Thus, the implementation of this theory is not only theoretical but can also be practiced directly in the classroom. However, various studies show that prospective teachers often fail to optimally integrate these nine elements into their teaching practice. This provides an important basis for conducting research examining the application of Gagné's theory in the context of prospective teachers.

The urgency of this research lies in the need to improve the quality of learning undertaken by prospective teachers, particularly PPG students. During the professional preparation stage, they need to master theory-based pedagogical skills to produce effective learning. Without a clear framework, learning tends to be spontaneous and unstructured. Gagné's theory can help provide consistent direction in the planning and implementation of learning (Zulfah & Mukhoiyaroh, 2022). Therefore, an in-depth study of the implementation of this theory in the teaching practice of prospective teachers is crucial.

Previous research has extensively discussed the application of Gagné's theory to the context of school learning. For example, several studies report that nine learning events can significantly increase student engagement and learning outcomes (Istiqomah & Azzahra, 2024; Srimuliyani, 2023). However, research on the application of this theory in teacher education, particularly in the PPG program, is still limited. Yet, prospective teachers are crucial subjects who require a deep understanding of theory-based learning design. This is where the novelty of this research emerges: a focus on analyzing prospective teachers' application of Gagné's theory in real-world practice.

Furthermore, this research seeks to provide a new perspective on how Gagné's theory can be used as an evaluation instrument to assess prospective teachers' pedagogical competence. This novelty is important because most previous research has focused solely on the theory's impact on students, rather than on prospective teachers as practitioners. By examining the application of theory to recorded teaching practices, this study provides more concrete empirical data. Video-based analysis also allows for a more detailed evaluation of the instructional stages implemented. Thus, this research can fill a gap in research that has not been widely explored before. The primary objective of this study is to describe the extent to which prospective teachers are able to implement Gagné's nine learning events in their teaching practice. Through systematic analysis, this study also aims to identify aspects that have been mastered and those that still need improvement. The results are expected to provide input for the PPG program in improving its teaching and training strategies. With these recommendations, prospective teachers are expected to be better prepared to face the challenges of real-life classroom learning. This will also have implications for improving the overall quality of basic education.

This research has practical significance in improving the quality of teacher education, as well as theoretical significance in enriching the literature on the application of instructional theory. By understanding the strengths and weaknesses of Gagné's theory implementation, teacher education programs can design more responsive curricula. Furthermore, the results can serve as a reference for further research focused on developing instructional design. The implications offered are relevant not only for prospective teachers in Indonesia but also for the global educational context. Therefore, this research is strategic in supporting teacher quality improvement in the modern era.

Based on this description, this research was conducted to address the urgent need for prospective teachers to master effective instructional strategies. The research focused on analyzing the application of Gagné's nine learning events in the teaching practices of elementary school PPG students at the University of Jambi. Using a qualitative descriptive approach, this study provides a concrete picture of the theory's implementation in the

context of teacher education. The novelty, urgency, and objectives of this research are expected to significantly contribute to the development of educational theory and practice. Therefore, the research findings can serve as a basis for continuous improvement in the prospective teacher training system.

2. Research Methods

Research Design

This study used a descriptive qualitative approach because it aimed to describe the phenomenon of the application of Gagné's theory in the teaching practice of prospective teachers in depth. This approach was chosen so that researchers could examine videotaped learning activities without variable manipulation, allowing for contextual interpretation. Qualitative analysis allowed for more detailed information regarding the strengths and weaknesses of the implementation of Gagné's nine learning events (Khairani et al., 2025; Waruwu, 2023). Thus, the research results can provide a concrete picture of the pedagogical competence of prospective teachers.

Research Target/Subjects

The research subjects consisted of three elementary school PPG students at the University of Jambi, who were purposively selected based on certain criteria. These criteria included the completeness of the learning stages in the videos, student engagement in classroom activities, and the variety of learning strategies used. Subject selection was carried out to ensure that the data analyzed was truly relevant to the research objectives (Daruhadi & Sopiati, 2024; Wijaya et al., 2025). Using the purposive sampling technique, researchers were able to obtain in-depth information regarding the quality of the application of Gagné's theory. The subjects of this study were considered representative enough to illustrate the implementation of theory in prospective teachers.

Research Procedure

The research procedure began with selecting video recordings of elementary school PPG prospective teachers' teaching practices. Each video was then transcribed and analyzed by mapping teacher and student activities into Gagné's nine learning events. The analysis was conducted using observation sheets compiled according to Gagné's theoretical indicators. The mapping results were then categorized into good, adequate, and weak aspects. This procedure enabled researchers to systematically and consistently assess the quality of learning.

Data Collection Instruments and Techniques

The main research instrument was an observation sheet based on Gagné's nine steps of learning. This observation sheet included indicators such as how the teacher attracted attention, conveyed objectives, provided guidance, and provided feedback. Data were collected through review of video recordings of teaching practices and the researcher's field notes. Data collection techniques included documentation and indirect observation. This instrument enabled the researcher to measurably evaluate the application of Gagné's theory.

Data Analysis Techniques

Data were analyzed using the Miles and Huberman interactive model, which includes data reduction, data presentation, and drawing conclusions (Annisa & Mailani, 2023; Qomaruddin & Sa'diya, 2024). Data reduction was achieved by selecting activities that align with the indicators of Gagné's theory. Data presentation was done in the form of narrative descriptions that mapped the nine learning events. Furthermore, conclusions were drawn by identifying patterns, strengths, and weaknesses in teaching practices. This analysis aims to provide a comprehensive overview of the implementation of Gagné's theory by prospective teachers.

3. Result and Discussion

The summary results of the application of Gagné's nine learning events by prospective teachers can be seen in table 1.

Table 1. Summary of Gagné's Nine Learning Events Implementation by Prospective Teachers

No.	Gagné Learning Events	Prospective Teacher 1	Prospective Teacher 2	Prospective Teacher 3	General Information

1.	Draw attention	Used icebreakers and lead questions	Using visual media	Presenting a short story	All teachers were quite successful, students were focused from the start
2.	Conveying goals	Objectives were clearly communicated	Briefly stated objectives	Objectives are not explicit	Needs training in formulating instructional objectives
3.	Recalling prior knowledge	Not used	Short questions about previous material	Connecting to everyday experiences	This aspect is the weakest and most inconsistent
4.	Presenting content	PowerPoint and concrete examples	Animated video	Simple demonstrations	All teachers were quite good at presenting material
5.	Providing guidance	Directions during discussions	Structured Q&A	Immediate correction during practice	It was quite good, students received direction
6.	Displaying performance	Group discussions	Presentation of image results	Practice writing summaries	Variety of activities, all involved students
7.	Providing feedback	Corrections and praise	Reflection with students	Immediate feedback after assignments	This aspect was relatively strong across all teachers
8.	Performance assessment	Simple practice questions	Short Q&A	No formal assessment instruments yet	Assessment was still limited and simple
9.	Retention and transfer	Not used	Simple reflective questions	Application questions in new contexts	This aspect was not optimal across all teachers

The research results showed that most prospective teachers were able to effectively implement several aspects of Gagné's nine learning events, particularly in the stages of attracting attention, presenting content, and providing feedback. Ice-breaking strategies, the use of visual media, and contextual storytelling proved effective in maintaining student focus from the outset. This aligns with Gagné's (1988) argument that attention is the primary gateway to the learning process, as without it, new information is difficult to process in short-term memory. This finding is also supported by research by Filgona et al. (2020), which states that varying opening strategies can increase student learning motivation.

The stage of conveying learning objectives showed variation among prospective teachers, with some explicitly stating the objectives and others simply stating the material. Clearly communicating objectives is crucial for students to understand the learning direction they are aiming for (Alenezi, 2020). Ambiguity of objectives makes it difficult for students to assess their own learning success. Therefore, PPG programs need to emphasize the ability to formulate SMART (Specific, Measurable, Achievable, Relevant, and Time-bound) instructional objectives.

In the initial knowledge recall stage, weaknesses were evident, as two out of three prospective teachers failed to engage students in recalling previously learned material. However, according to Gagné's theory, recall is a crucial stage that helps activate prior knowledge schemas, making it easier for students to grasp new concepts (Sari & Anam, 2022). The absence of recall can reduce the connection between concepts and lead to fragmented learning. Therefore, prospective teachers need to be trained to use simple trigger questions or short activities to activate students' prior knowledge.

The content presentation and guidance were considered good, with the use of PowerPoint presentations, animated videos, and relevant real-life examples. This demonstrates that prospective teachers understand the importance of a variety of media in enhancing conceptual understanding. Appropriate multimedia can facilitate multiple information processing, making learning more meaningful. The guidance provided also helped students clarify any difficulties that arose during the learning process.

The performance presentation and feedback stages showed positive results. Students were given opportunities to discuss, draw, or summarize, and the teacher responded to student work with corrections and appreciation. Gagné emphasized that performance and feedback are crucial stages for strengthening understanding and providing positive reinforcement (Gagné, 1988). Success at this stage aligns with findings (Chen & Johannesmeyer, 2021) that clear feedback increases student active participation and motivation.

In the performance assessment stage, prospective teachers tended to use simple methods such as practice questions and questions and answers. This demonstrates the limitations of developing a comprehensive evaluation instrument. Authentic assessment should measure not only declarative knowledge but also students' application skills in real-life contexts. Therefore, strengthening performance-based assessment training in the PPG program is necessary.

The final stage, retention and transfer, is still rarely implemented by prospective teachers. Yet, transfer is crucial for students to apply concepts in new situations or everyday life. Only one prospective teacher attempted to ask reflective questions related to natural phenomena to encourage knowledge transfer. Weaknesses at this stage indicate that prospective teachers still need guidance in developing closing activities that challenge students to think critically and apply them.
Overall, this discussion indicates that prospective teachers' strengths lie in motivation, presentation, and feedback, while their weaknesses lie in recall and transfer. The novelty of this study is the use of video analysis to evaluate the implementation of Gagné's theory in the context of teacher education. These findings provide practical implications: PPG programs need to strengthen instructional design training so that prospective teachers not only understand the theory conceptually but also apply it consistently in real-life practice.

In addition to the main findings, this study also provides insight into the positive impact of implementing Gagné's theory on prospective teachers. Video analysis allows them to reflect more objectively on their teaching practices, thereby enhancing pedagogical awareness. Another impact is the availability of empirical data for the PPG program to evaluate the extent to which instructional theory is actually implemented in the classroom. This strengthens the argument that Gagné's theory is not only beneficial for students but also an important instrument in teacher training. Thus, this research makes a practical contribution to the development of teacher education curricula in Indonesia.

However, this study has several limitations that should be noted. First, the sample size was limited to only three prospective teachers, so the results cannot be broadly generalized. Second, the data used were video recordings, so the analysis focused more on verbal and visual aspects, while non-verbal factors such as teachers' internal motivation or students' emotional responses were not fully captured. Third, this study was descriptive in nature, so it did not assess the direct impact of Gagné's theory implementation on student learning outcomes. Therefore, further research is recommended to involve more participants and use a mixed-

approach to more comprehensively explore the relationship between theory implementation and student academic achievement.

4. Conclusions

This study shows that the application of Gagné's learning theory in the teaching practice of prospective PPG elementary school teachers at the University of Jambi has been quite successful in terms of attracting attention, presenting material, providing guidance, and providing feedback. However, the initial knowledge recall stage, as well as knowledge retention and transfer, are still not optimal, so they need to be strengthened in training. The PPG program needs to strengthen recall and transfer strategies so that prospective teachers are able to design more applicable learning activities. Further research is recommended to involve more participants and measure the impact of the application of Gagné's theory on student learning outcomes.

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