



Analysis of Training Needs for Developing Teaching Modules Based on Didactical Situation Analysis

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Abstract: Pedagogic competence is one of the most important competencies that teachers must have because it is directly related to the ability to manage learning effectively. In Indonesia, this competency still needs to be improved, especially in terms of teacher motivation to develop themselves through training in order to create quality education that is oriented towards the future of students. This study aims to identify the gap between actual performance and desired performance of teachers in developing pedagogical competence, especially in the preparation of teaching modules based on didactical situation analysis. The approach used was a mixed-methods study with an unbalanced convergent model. Data were collected through interviews, document analysis, and questionnaires, then analyzed separately and compared. The results show that teachers still tend to fulfill administrative aspects in preparing teaching modules without considering the characteristics of students and the complexity of the material. Therefore, special training is needed so that teachers are able to optimally improve pedagogical competence through didactical situation analysis.

Keywords: didactical situation analysis, teaching modules, pedagogic competence

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Introduction

Pedagogical competence must be improved, especially in designing and implementing learning (Arifin et al., 2023). Teachers' low pedagogical competence can be caused by low motivation related to self-development and a lack of enthusiasm in implementing quality education oriented towards the future of students (Rusilowati & Wahyudi, 2020). Teacher pedagogical competence is one of the dimensions that has the lowest score when compared to professional competence, because it is related to learning management, it will have a major impact on students (Dias-Trindade & Moreira, 2020; Septiana, 2018).

The learning environment survey conducted in Sukabumi District in 2023 revealed that teachers' pedagogical competence in terms of quality of learning in the Merdeka Curriculum has a score of 62.83% with a moderate category in elementary schools. This achievement increased by 3.97% compared to the previous year. The quality of learning in three out of 13 public Elementary Schools in Sukalarang Sub-district shows varied results as presented in the following table.

Table 1. Learning Quality at Sukalarang Sub-district

Elementary School	Learning Quality (%)	Class Management (%)	Psychological Support (%)	Learning Method (%)
A	75.95	75.32	80.07	72.47
B	67.95	68.22	72.35	63.29
C	56.36	56.3	59.01	53.77

Based on Table 1, the quality of learning scores from the three schools has not yet reached the “Very Good” category. Schools A and B are in the “Good” category, while School C is in the “Fair” category. This is an open access article under the [CC-BY-SA](https://creativecommons.org/licenses/by-sa/4.0/) license.



“Sufficient” category. The quality of learning is based on the average score of classroom management, psychological support, and learning methods in the learning environment survey. The data indicate that the quality of learning in the Sukalarang sub-district still requires improvement. Continuous development of teacher pedagogical competence through training is necessary to address teacher problems (Tamsah et al., 2021). Increasing teacher participation in training requires the role of the Sukalarang District Teacher's Work Group (FKKG in the Indonesian context).

FKKG in Sukalarang Sub-district provided teacher training related to the implementation of the Merdeka curriculum; another teacher training was conducted independently (Sukalarang Sub-district FKKG Team, 2024). In improving teacher competence related to lesson planning and management, it can be achieved through the use of a didactic situation analysis approach. Training conducted on didactical situation analysis in Indonesia so far has primarily focused on math subjects and concept recognition (Anggara et al., 2023; Ruli et al., 2022). Most publications focus on analyzing learning barriers, preparing learning materials, and conducting retrospective analyses of learning trajectories (Dasari et al., 2024). There has been limited training in creating teaching modules that utilize the concept of didactic situation analysis and three basic dimensional models to enhance the quality of learning. Because this training is needed to develop teacher competence, which will have a good impact on the learning process and student learning outcomes, if the resulting lesson plans are in line with their needs and characteristics (Darmayanti & Wibowo, 2014; Handika & Wangid, 2013; Supriyadi et al., 2023)

The FKKG team needs to provide pedagogical competency development training for teachers in the Sukalarang sub-district. This training focuses on enhancing teacher preparation by developing modules and implementing learning strategies, introducing didactical situation analysis to improve student learning outcomes. Based on the analysis of training conducted by FKKG Sukalarang Sub-district, the analysis approach is not available.

In organizing training, a needs analysis is necessary before formulating training documents to suit the target participants (Pradhan, 2022). The needs analysis of the training document for developing teachers' pedagogic competencies in creating teaching modules using didactical situation analysis aimed to identify participants' needs, including: (1) interest in both face-to-face and digital training formats; (2) ease of understanding the materials delivered through face-to-face and digital training; (3) teachers' habits and challenges in developing teaching modules; (4) strategies used by teachers to improve the quality of learning; and (5) teachers' knowledge of the concept of didactical situation analysis. Training to improve teacher competence is considered effective when carried out face-to-face. Because if the training is carried out digitally, several factors must be considered, including the quality of the content, the suitability of the method, and institutional support (Tamsah et al., 2021).

Suryadi (2023) explains that to improve teacher preparation in the learning process, it is important to examine various alternatives in line with students' previous learning experiences and their capacities and potential through didactical situation analysis. This didactical situation analysis is effective in equipping teachers in developing basic competencies to support the learning process (González-García et al., 2019; Mohedo & Bújez, 2014; Perez-Rivero et al., 2019; Puspito, 2021; Shafarwati et al., 2022; Verawati et al., 2020).

Good quality learning can be achieved through the implementation of the following practices: (1) classroom management, where effective class management allows teachers to create a conducive environment that helps students focus on the learning process; (2) affective support from teachers, which involves fulfilling students' basic psychological needs, enabling them to feel empowered and self-determined as learners; and (3) cognitive activation, commonly understood as the use of various learning methods by teachers to engage students intellectually (Aditomo et al., 2019; Hartanda et al., 2024).

To improve the quality of learning, it is also necessary to integrate technology into the learning process, enabling teachers to stimulate students' cognitive activation (Dias-Trindade & Moreira, 2020; Marfuah et al., 2022; Pratama & Lestari, 2020; Tesalonika et al., 2022). One of the difficulties faced by teachers today is related to adjusting to the transition era; there are some teachers who are still not qualified in digital competence, so training is also needed in introducing and integrating technology into learning. The integration of this technology will likely adapt to the characteristics of students, making the learning process more engaging (Habiby & Wangid, 2013).

Didactics is defined as the art of teaching, where teachers need to understand students' characteristics and their gaps in understanding the material through didactical situation analysis and learning. At least, didactics have to consider three categories, namely ontogenic nature (the gap between

the level of difficulty of the material and the student's condition), didactic nature (the gap between the flow of material presentation and the needs of the students' continuity of thinking), and epistemological nature (the gap between the context of learning experiences that have been passed through with the demands of linking learning outcomes with various contexts outside those that have been experienced (Suryadi, 2023a). This understanding will facilitate the direct relationship between attitudes and learning approaches, enabling the improvement of teaching strategies (González-García et al., 2019).

Inspired by the educational practices of Socrates, didactics refers to an effort to make students independent in producing new knowledge (Suryadi, 2023). A teacher's actions in the learning process create a starting point for the learning process (Brousseau, 1997). The inability of students to explain the relationship between objects related to the problem faced requires teachers to immediately provide treatment (intervention) by applying scaffolding techniques (didactical actions) and encouraging interaction between students (pedagogical actions) (Suryadi, 2023).

Kansanen (2003) argued that in a didactic triangle, which describes the didactic relationship (HD) between students and materials, and the pedagogical relationship (HP) between teachers and students. Kansanen (2003) did not include the relationship between teachers and materials in the context of learning. Thus, Suryadi (2023) developed the didactic triangle by adding the relationship between teachers and materials as a pedagogical didactic anticipation (ADP).

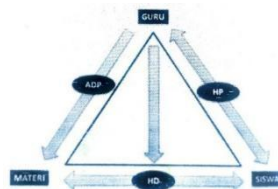


Figure 1. SEQ Figure Modified Didactic Triangle

Brousseau (1997) explained that creating appropriate didactical and pedagogical situations needs a teaching module that views the learning situation as a whole as an object. From the various possible responses of students that require didactic or pedagogical actions, it is necessary to anticipate in such a way that the dynamics of changes in didactic and pedagogical situations align with students' capacities, needs, and the acceleration of the learning process.

Suryadi (2023) argues that the abilities to be possessed are hereinafter referred to as metapedadidactics which are interpreted as the teacher's ability to: (1) view the modified didactic triangle components, namely ADP, HD, and HP as a whole unit; (2) develop actions so that didactical and pedagogical situations are created in line with the student's needs; (3) identify appropriate didactical and pedagogical situations resulting from didactical and pedagogical actions done; and (4) carry out further didactical and pedagogical actions based on the results of the analysis of student responses towards achieving learning targets.

The essential stages in the development of teaching modules using didactical situation analysis include: (1) pre-learning analysis (hypothetical didactic design), in which a didactical situation analysis is conducted by identifying learning obstacles that may arise during instruction. Teachers are expected to anticipate potential difficulties, predict student responses throughout the learning process, and prepare appropriate pedagogical responses (Heriyana et al., 2025; Jamilah et al., 2024; Lestari, 2024; Lestari & Umbara, 2022; Nisa et al., 2023; Supriadi, 2019; Warli et al., 2025); and (2) metapedadidactic analysis, where teachers develop teaching modules based on the Hypothetical Learning Trajectory (HLT), which includes the flow and objectives of learning, the stages of learning activities, hypotheses about the learning process and predicted student responses, as well as didactical and pedagogical anticipations (Maharani et al., 2022; Nisa et al., 2023; Putri et al., 2020). Meanwhile, according to the Regulation of the Minister of Education, Culture, Research, and Technology Number 12 of 2024 regarding the curriculum for early childhood, basic, and secondary education levels, the preparation of teaching modules should minimally include learning objectives, the flow of learning objectives, and assessment components.

In other words, this study focuses on analyzing the need to design training to introduce didactical situations by providing new knowledge for teachers in developing teaching modules. The training emphasizes providing meaningful knowledge of the material to be taught to students to reduce learning

barriers based on students' characteristics and gaps with the material through didactical situation analysis.

Methods

This research used a mixed-method approach involving more than one phase of data collection and analysis. Specifically, the researcher employed an unbalanced convergent mixed design, which combined both quantitative and qualitative data to provide a comprehensive understanding of the research problem. The assumption of this approach was that qualitative and quantitative data provided different but complementary insights. This allowed the researcher to gain more extensive and in-depth information related to the topic of study.

The instruments were designed to collect both qualitative and quantitative data. Qualitative data were gathered through interviews with a teacher and analysis of documentation, focusing on the expected pedagogic performance in preparing teaching modules (lesson plans) using didactical situation analysis, which considers the characteristics of students and the complexity of the learning material. The qualitative data were analyzed using three steps: data collection, data reduction, and data presentation. Quantitative data were collected through a questionnaire distributed to 33 teachers, exploring their pedagogical competence, learning quality, and practices in developing teaching modules. The data were analyzed using descriptive statistics and categorized into five levels—very high, high, moderate, low, and very low—based on Azwar's (2018) reference limits.

The study was conducted in Sukalarang Sub-district, Sukabumi District, West Java Province. The researcher conducted a needs analysis using documentation studies, interviews, and questionnaires. The documentation included relevant laws and regulations, books, and national and international journal articles. The interview was conducted with the head of the Forum Kelompok Kerja Guru (FKKG). The questionnaire was distributed to 33 elementary school teachers who actively participated in FKKG training programs. The comparison of qualitative and quantitative findings helped identify the gap between the desired and actual performance of teachers in developing effective, student-centered teaching modules.

Results and Discussion

Results

Documentation analysis was conducted to determine the desired performance needs for developing teachers' pedagogical competencies in creating teaching modules through didactical situation analysis during training. This document analysis was conducted on laws and regulations, learning quality guidelines, books and scientific journals. These documents are specifically related to pedagogical competencies that teachers must possess, the concept of learning practices to improve the quality of learning, creating teaching modules within the independent curriculum, learning strategies, the concept of didactic situation analysis, and how to develop teaching modules (Table 2).

Table 2. Analysis of Desired Performance Appears in Teachers Based on Documentation Study

Type of document	Description
Government Regulation No. 74 of 2008 concerning Teacher	Teachers need to possess four competencies.
Ministry of Education and Culture Regulation No. 16 of 2007 concerning Academic Qualification and Teacher Competency Standards	Every teacher is required to meet the nationally applicable academic qualification and teacher competency standards. The document explains the core competencies of teachers in pedagogical competencies in detail.
Learning Environment Survey Framework (Aditomo et al., 2019)	The learning environment survey describes the conceptual model and its development related to the quality of learning. Good learning quality can be achieved from (1) Good classroom management practices, (2) Affective support, and (3) Cognitive activation.
Analysis Books and journals related to the concept of didactical situation analysis	<ol style="list-style-type: none"> 1. Concept of didactical situation analysis 2. Developing teaching modules using didactical situation analysis

In completing the gap analysis, in addition to document analysis, data collection was also conducted through questionnaires and interviews to determine the actual performance. The needs analysis in this study focused on conventional training and digital training organized by FKKG, teaching modules, learning quality, and didactical situation analysis. First, conventional training is related to ease of understanding the material and motivation in following the training. Based on the result of the questionnaire related to conventional training, 58.5% of teachers have high motivation, and find it easier to understand the material when following conventional training (face-to-face). This figure is followed by a low category (42.4%), a sufficient/moderate category (6.1%), and a very low category (3%) (Figure 2).

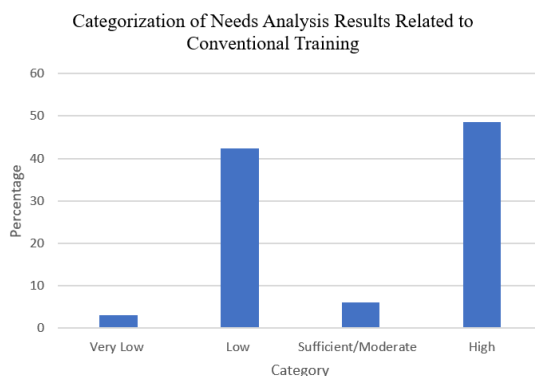


Figure 2. Categorization of Needs Analysis Results Related to Conventional Training

The interview with the head of Sukalarang Sub-district FKKG is in line with the results of the needs analysis for teachers. Participants consider conventional training easier to understand the material and this conventional method encourages higher participant motivation to join in the training. This is because training participants can practice and ask directly if they do not understand the material conveyed.

The digital training discusses the ease of understanding the material via the Internet, YouTube, and PMM. Participants also have a quite high motivation to take part in digital training. The results obtained a mean value of 8.5 and a standard deviation of 2.6 with the following categorization.

According to Figure 2, the results of the needs analysis related to conventional training are categorized based on the ease of understanding the material. Most teachers (51.5%) rated it as moderate, followed by high (18.2%), low (15.2%), very low (9.1%), and very high (6.1%).

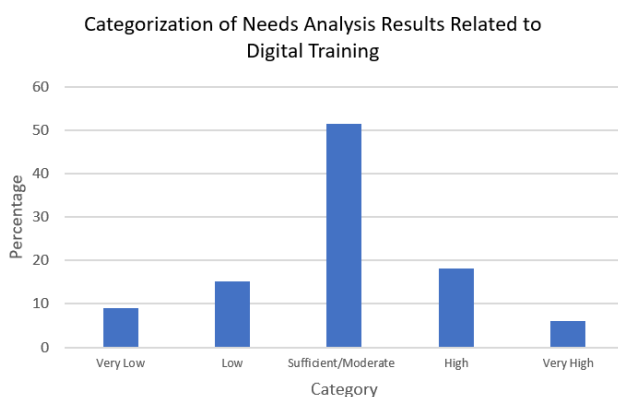


Figure 3. Categorization of Needs Analysis Results Related to Digital Training

According to Figure 3, The ease of understanding the material with digital training via YouTube, the internet, or PMM is indeed considered quite easy. However, based on the results of the interview with the head of the FKKG, understanding the material through digital training is also quite easy; however, the participants have a lower motivation level because it feels like a demand, rather than a self-awareness.

Then, for conventional training organized by the FKKG, the results of the interview with the head of the FKKG showed that the training was tailored to the needs of the participants and was made possible by the implementation of the Merdeka Curriculum. The latest training carried out was related to the preparation of CP, ATP, and the assessment of the Merdeka curriculum, KKTP, FTBI, and other relevant topics.

Based on the results of interviews, the training planning process organized by the FKKG is derived from the FKKG work program and has been redeveloped to meet the needs of this sub-district. The difficulty in the planning process is related to determining the resource persons, as they have to adjust to the available budget. The components in the training plan cover objectives, targets, locations, funding allocations, methods, activity details, and evaluations. The strategy commonly used by FKKG is direct practice, which can increase motivation and understanding of training participants. However, if the training is face-to-face, the difficulties arise from adjusting the planned time allocation to its implementation, which sometimes changes, and then maintaining the participants' mood during the training by implementing various icebreakers. The implementation of the training by FKKG is considered effective because it often invites speakers from outside the sub-district, and the material has been adjusted to the needs of the participants.

The module discusses the use of teaching modules, the learning strategies employed by teachers, the application of technology in the learning process, the components of teaching modules, and the challenges in developing them. The categorization of the results from the needs analysis related to teaching modules revealed a low category (42.4%), a sufficient/moderate category (30.3%), a high category (21.2%), and a very high category (6.1%).

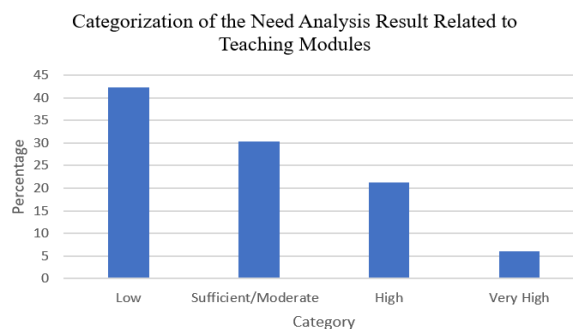


Figure 4. Categorization of Needs Analysis Results Related to Teaching Modules

Based on Figure 4, approximately 48.5% of teachers continue to use the teaching modules provided by the Ministry of Education and Culture. Approximately 42.4% of teachers fail to develop modules according to the characteristics of their students. Regarding the learning strategies, the components in the teaching modules are also based on those provided by the Ministry of Education and Culture. In terms of learning strategy, a total of 48.5% of teachers use problem-solving through discussion and question and answer as well as utilizing technology in their learning process. In developing the module, all teachers include components of general identification, learning activities, and assessments. A total of 54.5% of teachers felt that they had no difficulty in developing this Merdeka Curriculum teaching module as most of them use the teaching modules provided by the Ministry of Education and Culture.

The quality of learning focuses on the value of the quality of learning and how to improve it. The results of the needs analysis related to the quality of learning showed that most responses fell into the sufficient/moderate category (36.4%), the low category (33.3%), the high category (24.2%), and the very high category (6.1%).

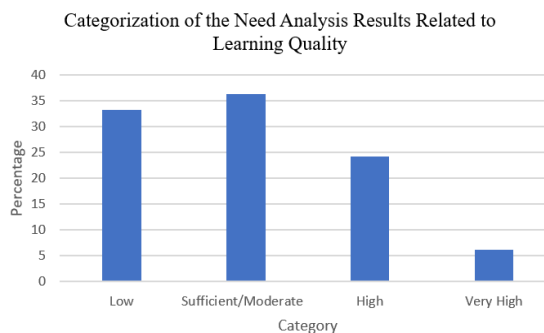


Figure 5. Categorization of Needs Analysis Results Related to Learning Quality

Figure 5 presents the results of the needs analysis related to learning quality, indicating that 36.4% of teachers rated the quality of learning as sufficient or moderate. They facilitate the learning process by creating a conducive classroom atmosphere and employing various learning methods. To enhance the quality of learning, teachers participate in training programs organized by the FKKG, learning communities within education units, and independent training initiatives through platforms such as PMM, YouTube, or the Internet. However, the results of the needs analysis related to the implementation of learning quality improvement through independent training via PMM and the internet/YouTube revealed that teachers felt they were doing it because of external demands.

Didactical situation analysis discusses the concept of didactical situation analysis, teaching modules using didactic situation analysis, and implementation of didactic situation analysis in the classroom. The results of the questionnaire analysis related to didactical situation analysis showed a low category (48.5%), a high category (33.33%), a sufficient/moderate category (9.1%), a very high category (6.1%), and a very low category (3%).

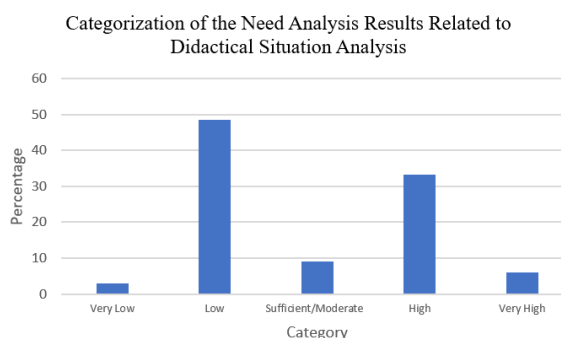


Figure 6. Categorization of Needs Analysis Results Related to Didactical Situation Analysis

Based on Figure 6, the results of the questionnaire regarding the concept of didactical situation analysis show that 45.5% of teachers have never heard of this concept. Similarly, interview results with the head of the FKKG in Sukalarang Sub-district revealed that he was also unfamiliar with it. However, in relation to learning barriers within this concept, 54.5% of teachers reported understanding the connection between textbook-based learning experiences and their application in everyday life. Additionally, 48.5% of teachers indicated that they understand and consider this concept in their teaching practices.

In the aspect of teaching modules, the teaching module already contains predictions of student responses and teacher anticipation. Most teachers (57.6%) agree that the teaching module contains predictions of student responses and teacher anticipation, while the others express that they strongly agree (33.3%), disagree (6.1%), and strongly disagree (3%). Meanwhile, based on the results of an interview with the head of the FKKG in Sukalarang sub-district, the anticipation of teacher responses is a trigger question that only exists in the apperception process. The prediction of student responses is a reflection of the learning process carried out, such as: (1) student difficulties in learning; (2) the pleasure in the learning process perceived by students; and (3) students' understanding of material.

In this context, teacher anticipation and prediction of student responses must be written from the opening, core, and closing activities, focusing on each step of the learning activity. The trigger questions are questions proposed by teachers to guide students in achieving the learning objectives. Meanwhile, predictions of student responses are predictions of answers to each question given to students, whether correct or incorrect. When students provide incorrect answers, the teacher needs to provide a new question as a form of teacher anticipation that directs students to the correct answer.

Around 48.5% of teachers agree that the teaching module has considered the relationship between the level of student understanding and the level of difficulty of the material. On the other hand, 54.5% of teachers have considered the pedagogical relationship (interaction) between teachers and students in developing learning activities. In the implementation of didactical situation analysis, 63.6% of teachers implement learning activities according to the module, and 66.7% of teachers have implemented class regulations to ensure that students understand their respective responsibilities towards teachers and fellow students.

Discussion

Based on the results of the needs analysis, the desired outcome is to develop teacher pedagogical competence in creating teaching modules using didactic situation analysis. Continuous development through training is needed to develop teacher pedagogical competence. Training is effective for improving teacher pedagogical competence (Arifin et al., 2023; Heni et al., 2023; Komarudin & Aditya, 2023; Lestari et al., 2024; Pratama & Lestari, 2020; Sabariah et al., 2023).

Training is a planned effort to facilitate employees in order to improve competencies relevant to their work (Noe, 2010). Training is a planned and systematic process of modifying behaviour through events, activities, and learning programs designed to enhance participants' knowledge, skills, competencies, and abilities, thereby improving their effectiveness in the workplace (Kuswati, 2020). Face-to-face training is felt to be more effective with a learning process based on experience or direct practice (Nirtha et al., 2021). Apart from direct practice, learning is also facilitated by providing problems, enabling participants to think critically and solve them (Astutik & Roesminingsih, 2021). Training in order to improve teacher competence is considered effective if carried out face-to-face. Because if the training is carried out digitally, several factors must be considered, including the quality of the content, the suitability of the method, and institutional support (Tamsah et al., 2021)

Increasing teacher participation in training requires the role of the FKKG team in the Sukalarang sub-district. FKKG or KKG is a forum to improve teacher careers through training, research, writing scientific papers, and other professional activities. This FKKG plays a role in enhancing teachers' abilities in creating and developing assessment instruments, compiling learning administration, and improving teachers' understanding of utilising technology and communication, among other areas (FKKG Team, 2024).

The existence of the Merdeka Curriculum has encouraged the FKKG team to provide training for teachers. Regarding the implementation of the Merdeka Curriculum, the training includes: (1) training and preparation of formative and summative assessments with a competency approach; (2) compiling learning instruments from CP, TP, and ATP analysis, and compiling teaching modules, project modules, and assessments; (3) creating and developing independent learning through differentiated learning, implementing positive culture and social-emotional learning; (4) developing learning models; (5) creating and developing independent learning assessments; and (6) knowing, creating and developing learning technology to support student-centered learning (FKKG Team, 2024). Besides, there is also independent training for the implementation of the Merdeka Curriculum through the Merdeka Teaching Platform (PMM).

The pedagogical competency development training for elementary school teachers in the Sukalarang Sub-district will be carried out by researchers in collaboration with the FKKG team. This training focuses on enhancing teacher preparation by developing teaching modules and implementing learning through the introduction of didactic situation analysis, aiming to improve learning outcomes. Based on the need analysis, training related to developing teaching modules using a didactical situation analysis approach is not available. The need for training to encourage teachers to not only meet administrative standards but also develop active and contextual learning (Wijaya et al., 2021)

Many teachers are unfamiliar with the concept of didactical situation analysis. Consequently, when creating teaching modules, teachers often focus solely on learning objectives, the flow of learning

objectives, and assessment, without considering the analysis of students' learning barriers. This learning barrier analysis will help identify the mental readiness and prior knowledge of students, appropriate teaching methods and material misconceptions (Dasari et al., 2024; Fauzi & Suryadi, 2020; Prabowo et al., 2022; Prediger et al., 2015; Sunaryo et al., 2023; Wahyuningrum et al., 2020). The analysis of the didactical situation also emphasizes the collaborative learning process and the interaction that occurs between students and students, students and teachers (Hortelano & Prudente, 2024; Jasdilla et al., 2017; Nur, 2017; Setyorini, D., & Izzaty, 2016), so this will optimize the learning process. The learning process also emphasizes a contextual approach that can improve concept understanding (Fajrin et al., 2023; Heriyana et al., 2025; Puspita et al., 2023; Sunaryo et al., 2023; Supriadi, 2022).

To enhance teacher preparation in the learning process, it is crucial to explore various alternatives in light of students' prior learning experiences and their capacities and potential through didactical situation analysis (Suryadi, 2023a). This didactical situation analysis is effective in equipping teachers in developing basic competencies to support the learning process (González-García et al., 2019; Mohedo & Bújez, 2014; Perez-Rivero et al., 2019; Shafarwati, D.A., Supriatna, A., & Hendayana, 2022; Verawati et al., 2020). The expected performance is based on the Job Performance Deficiency Analysis which covers four quadrants as proposed by Romiszowski (in Eunike & Erlin, 2022). These quadrants present the analysis of factors causing a decline in employee performance decline and interventions based on the existing problems.

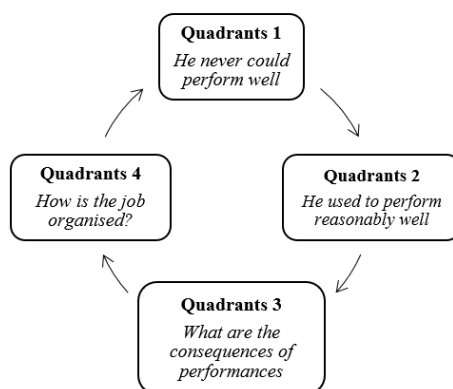


Figure 7. Job Performance Deficiency Analysis Quadrants

Quadrants 1 and 2 discuss the provision of knowledge to employees. Meanwhile, quadrants 3 and 4 are related to the analysis of the work environment. The analysis of expected performance is based on the documentation study, which examines teachers. Comprehensive integration of various educational theories to develop teachers' pedagogical competencies through training based on didactic situation analysis. This study adopts Goldstein and Ford's three-level training needs analysis framework, which encompasses organisational, task, and individual analyses, combined with Brousseau's didactic situation theory. This theory emphasises the importance of creating learning situations that enable students to construct knowledge through interaction with their environment. This theory is reinforced by Suryadi's didactic triangle concept, which includes didactic relations (DR), pedagogical relations (PR), and didactic-pedagogical anticipation (DPA), as well as the metapedagogical concept, which encompasses four teacher competencies in viewing learning components as a whole. The integration of these theories in practice shows that teachers still tend to focus on administrative aspects when designing teaching modules without considering the characteristics of students and the complexity of the material. Therefore, specialized training that combines constructivism theory, Vygotsky's scaffolding, and the mixed methods approach is needed to develop an effective training program to improve the quality of learning in elementary schools.

Conclusion

Based on the results of the needs analysis, there is a difference in teacher pedagogical ability in developing teaching modules between Desired Performance and Actual Performance. In achieving the

desired performance, teachers should be able to fulfil pedagogical competencies related to learning management, particularly in creating teaching modules that consider the characteristics of students and the complexity of the material. Meanwhile, based on the actual performance of primary schools in Sukalarang sub-district, the FKKG has never conducted training on making teaching modules using didactical situation analysis. So to develop teachers' pedagogical competence, training is needed related to developing the quality of learning in making teaching modules with a description of the teacher's abilities that are expected to emerge related to: (1) the four competencies of teachers; (2) the core competencies of teachers in pedagogical competence that teachers must have; (3) good learning quality is portrayed from the model of three basic dimensions, namely classroom management, affective support, and cognitive activation; and (4) the concept of didactic situation analysis and making teaching modules that take into account the characteristics of students and gaps with the material using didactic situation analysis. Therefore, to support the development of teachers' pedagogic competence, training is needed to achieve desired performance.

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