



**Analysis of achievements for improvement in pedagogical competence of  
madrasah ibtidaiyah teachers**

Ofi Rafiatul Jannah<sup>1</sup>, Mohamad Ali<sup>2</sup>

<sup>1,2</sup> Universitas Pendidikan Indonesia, Bandung, Indonesia

[rofiatulj09@upi.edu](mailto:rofiatulj09@upi.edu)<sup>1</sup>, [emaa.laith@upi.edu](mailto:emaa.laith@upi.edu)<sup>2</sup>

**ABSTRACT**

This study aims to assess the educational and training needs to enhance the pedagogical competence of Madrasah Ibtidaiyah (MI) teachers in Bandung Regency. Recognizing the pivotal role of teachers in achieving educational objectives, this research focuses on the competencies related to curriculum development and instructional implementation. A quantitative descriptive method was employed, using surveys distributed via Google Forms to gather data from 340 teachers across 31 districts. The findings reveal that the overall pedagogical competence in curriculum development indicates a well-distributed mastery among the teachers. However, specific indicators such as understanding curriculum principles and organizing sequential learning materials scored lower, highlighting areas for improvement. Additionally, the competency in utilizing ICT in teaching was identified as a critical gap. This underscores the need for targeted training programs that emphasize modern educational technologies. The results suggest that continuous professional development and tailored training sessions are essential for enhancing the pedagogical skills of MI teachers, ensuring effective teaching and learning processes.

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**ABSTRAK**

Penelitian ini bertujuan untuk menilai kebutuhan pendidikan dan pelatihan guna meningkatkan kompetensi pedagogik guru Madrasah Ibtidaiyah (MI) di Kabupaten Bandung. Menyadari peran penting guru dalam mencapai tujuan pendidikan, penelitian ini fokus pada kompetensi terkait pengembangan kurikulum dan pelaksanaan pembelajaran. Metode deskriptif kuantitatif digunakan, dengan survei yang disebarluaskan melalui Google Form untuk mengumpulkan data dari 340 guru di 31 kecamatan. Temuan menunjukkan bahwa kompetensi pedagogik secara keseluruhan dalam pengembangan kurikulum mengindikasikan penguasaan yang cukup merata di antara para guru. Namun, indikator spesifik seperti pemahaman prinsip kurikulum dan pengorganisasian materi pembelajaran secara runtut memiliki skor lebih rendah, menyiratkan area yang perlu ditingkatkan. Selain itu, kompetensi dalam memanfaatkan TIK dalam pembelajaran diidentifikasi sebagai kesenjangan kritis. Hal ini menekankan perlunya program pelatihan yang menargetkan teknologi pendidikan modern. Hasil penelitian menunjukkan bahwa pengembangan profesional berkelanjutan dan sesi pelatihan yang disesuaikan sangat penting untuk meningkatkan keterampilan pedagogik guru MI, memastikan proses belajar mengajar yang efektif.

**Kata Kunci:** kompetensi guru; kompetensi pedagogik; pelatihan; pembelajaran; pengembangan kurikulum

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## INTRODUCTION

Teachers play a major and essential role in organizing and ensuring education and learning. The existence and quality of teachers determine the success of students, especially in the learning process, and affect the results of education (Khodijah, 2013). This is because teachers are expected to have the ability to bring learners to understand knowledge, master hard and soft skills, even self and emotional mastery to achieve a happy life through the learning process (Zebua & Primanda, 2020). For this reason, teachers must have competence and continue to improve their competency performance to align with the needs, conditions, situations, and developments of life and society.

Quality learning certainly requires the participation and active role of teachers. In particular, how teachers design, organize, and evaluate learning is influenced by the characteristics of the abilities and needs of students, situations, and the contextual availability of learning resources around them. Teacher involvement in learning demands a significant role for teachers who function not only as teachers but as facilitators, mentors, and innovators (Rosyada *et al.*, 2021). The teacher provides students encouragement, supervision, and guidance (Juhji, 2016). For this reason, competencies are needed to support the realization of this role and encourage active participation in the classroom, including in the teaching and learning process.

In national education policy, as a profession, teachers are expected to have four competencies, namely pedagogical, professional, personal, and social competencies. These four competencies are clearly explained in Undang-Undang Nomor 14 Tahun 2005 tentang Guru dan Dosen, which explains that teachers have competencies regarding their professional duties. In this policy, in addition to getting sufficiency, assurance, and freedom in their lives in line with the goals of education, teachers are also entitled to receive training and professional development to support the smooth running of their professionalism. Some of the training and professional development programs include Pendidikan Profesi Guru (PPG) and supporting encyclical programs.

Quoted from the MPR RI portal that teacher competency development must be consistent and prioritized to produce superior generations in the future (accessible through <https://www.mpr.go.id/berita/Konsistensi-Peningkatan-Kompetensi-Guru-Penting-untuk-Wujudkan-Generasi-Unggul-di-masa-Datang>). Based on BPS data in 2022, the number of teachers in Indonesia is around 3.1 million people and it turns out that this figure is still far from the ideal need, which is 4.2 million teachers. Several studies have also reviewed that the conditions for achieving teacher pedagogical competence are still low and not yet qualified to support the success and effectiveness of the learning process (Hoesny & Darmayanti, 2021; Mardhatillah & Surjanti, 2023; Sele & Sila, 2022). As a result, teachers cannot prepare for the learning process and have weak mastery of the classroom and learning components, including making decisions on the curriculum they implement in the classroom.

Pedagogical competence is indeed one of the teacher competencies. This pedagogical competence is interrelated with the other three competencies. Specifically, this competency intersects and shows teachers' performance and ability as a profession concerned with education and learning. Thus, the teacher's weak ability to manage the classroom, organize learning, and develop the curriculum is seen in the mastery of the teacher's pedagogical competence. Teacher pedagogical competence is not limited only to teachers in schools. However, this competency also needs to be mastered by teachers in madrasas, even though the management, rights, and obligations are obtained and accounted for by two different agencies, namely madrasas and the Ministry of Religion.

One common strategy to improve the quality and support teachers' pedagogical competence is education and training (diklat) (Prawira & Nugraha, 2021). This program supports the PPG (Pendidikan Profesi Guru), an advanced teacher professional school. Diklat is also relatively easy to implement because its

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implementation does not take a long time and provides a variety of training topics, according to needs. For this reason, education and training play an important role in improving teacher competence, one of which is pedagogical competence related to teaching, educating, and organizing effective learning in the classroom. Education and teacher training also aim to improve the quality standards of teachers' performance and abilities in achieving educational goals (Prawira & Nugraha, 2021; Rosni, 2021).

Although diktat is a common strategy to improve teachers' pedagogical competence, teachers' active participation in training is still low. In addition, information-sharing strategies undertaken by teachers after the training are still lacking and not widespread (Sennen, 2017). This could be due to the lack of careful planning and teachers' lack of direct involvement in determining the topics and objectives of the training they need (Yahya *et al.*, 2023). Furthermore, Diklat's pengembangan profesi is often not sustainable.

The curriculum development skills include the teacher's ability to analyze, plan, organize, implement, manage, and evaluate the curriculum (Lestari *et al.*, 2023). This curriculum development pedagogical competence is also usually translated into the teacher's ability to compile and design the curriculum into learning as outlined in the RPP (Rencana Pelaksanaan Pembelajaran) and syllabus documents (Rosni, 2021). Specifically, this study aims to describe data on the pedagogical competence of Madrasah Ibtidaiyah (MI) teachers in curriculum development and learning implementation, which will be analyzed into competencies in the diklat design.

It has been mentioned above in the background of the problem that one of the strategies used for continuous professional development for teachers is education and training programs (diklat). Continuous development, such as training, effectively improves teachers' professionalism in madrasahs in educating and teaching. Continuous training effectively improves teachers' pedagogical competence and mastery of pedagogical competence (Utiahman, 2020). Furthermore, online training can be an alternative strategy for implementing continuing professional development for teachers so that training can reach more teachers (Prawira & Nugraha, 2021). In this study, researchers limited the analysis of training needs related to pedagogical competence to subcompetencies related to curriculum development.

## LITERATURE REVIEW

Teachers are one of the professions and play a role in the development and civilization of life. Hamalik in the book "*Pendidikan Guru Berdasarkan Pendekatan Kompetensi*" mentions several views of teachers as a profession, namely 1) teachers play a role in shaping humans by the ideals of the nation; 2) teachers are experts in managing educational systems in each generation; 3) teachers work and carry out their professional duties in professional institutions, such as schools; 4) according to the criteria and nature of the profession, someone can do the job of teaching and educating is a teacher; and 5) as a logical consequence as a profession, teachers have four competencies, namely personality, social, professional and pedagogical competencies.

There are various concepts and roles of teachers as professionals (Beijaard *et al.*, 2004). Teachers are seen as individuals and experts who work to make an impact and meaning influenced by factors and conditions inside and outside the classroom and school. This perspective suggests that the teacher's work environment influences the effectiveness of their duties and functions. Achieving effective learning and developing new and innovative pedagogical approaches requires teachers to transform their classrooms (Keiler, 2018).

One of the formal educational institutions where teachers carry out their professional roles and functions, a madrasah, also requires teacher dedication and seriousness in organizing learning and the educational process. Teacher professionalism in madrasah is reflected in several aspects, including commitment,

ability, and application of the best strategies in Islamic learning (Sumarni, 2017). In particular, the assessment of madrasah teachers' competencies refers to the Regulation of the Minister of Religious Affairs of the Republic of Indonesia Number 16 of 2010, Article 16. It is measured through the Madrasah Teacher Professionalism Test by considering certain domains, namely pedagogical competence, personality competence, social competence, professional competence, and leadership competence. These five competencies must also be balanced and developed within madrasah teachers (Tambak & Sukenti, 2020).

In this study, researchers focused on analyzing the need for education and training in improving teachers' pedagogical competence on an ongoing basis, particularly in curriculum development and learning. The ability of madrasah teachers in pedagogical competence covers various important aspects that affect the effectiveness of teaching and learning in madrasah. Referring to PP RI Nomor 19 Tahun 2005 on Education Standards, it is defined that pedagogical competence is the ability to manage students' learning, which includes understanding students, designing and implementing learning, evaluating learning outcomes, and developing students to actualize their potential. The ten teacher pedagogical competencies include (Habibullah, 2012):

- a. Mastering the characteristics of students, from the physical, moral, spiritual, social, cultural, emotional, and intellectual aspects;
- b. Mastering learning theories and principles of educational learning;
- c. Developing curriculum related to the subjects taught;
- d. Organizing educational learning;
- e. Utilizing information and communication technology for the benefit of learning;
- f. Facilitate the development of students' potential to actualize their various potentials;
- g. Communicating effectively, empathetically, and politely with learners;
- h. Organizing assessment and evaluation of the process and results of learning;
- i. Utilizing assessment and evaluation results for learning purposes; and
- j. Taking reflective action to improve the quality of learning.

## METHODS

In this study, researchers used descriptive quantitative research methods with survey data collection techniques through questionnaires developed by researchers and tested for validity and reliability. Descriptive quantitative research methods map or describe a situation objectively using numbers or numerical data, then analyze it using numerical or statistical analysis methods. There are 6 (six) question items arranged in the form of a four-point Likert scale, which are mapped in **Table 1** below.

**Table 1.** Likert Scale

| No | Scale | Description |
|----|-------|-------------|
| 1  | 1     | Disagree    |
| 2  | 2     | Less Agree  |
| 3  | 3     | Agree       |
| 4  | 4     | Very Agree  |

Source: Research 2024

The aspects that are the focus of this research are two aspects, namely, aspects of curriculum development and aspects of organizing learning. From these two aspects, researchers developed

statements which were then analyzed for validity, reliability, and readability tests. Furthermore, 12 statement items were obtained in the questionnaire to be distributed to the research sample, as seen in **Table 2**. About the research procedure, after the researcher developed the instrument and tested the validity and reliability of the questionnaire, the researcher continued by distributing questionnaires to the research sample that the sampling technique had determined.

**Table 2.** Questionnaire Statement

| No | Aspect                 | Questions   |
|----|------------------------|---|
| 1  | Curriculum Development | 1. I apply the foundations and principles of curriculum development.<br>2. I develop a learning syllabus according to the curriculum.<br>3. I formulate clear learning objectives.<br>4. I design learning plans according to the syllabus.<br>5. I select subject matter appropriate to the objectives, learners' characteristics, and daily context.      |
| 2  | Organizing Learning    | 6. I apply various learning theories and principles.<br>7. I carry out learning as designed.<br>8. I implement learning with various techniques and methods.<br>9. I implement learning with various techniques and methods.<br>10. I conduct learning in a conducive classroom.<br>11. I deliver systematic learning.<br>12. I utilize ICT in my learning. |

Source: Research 2024

This study's population was all Madrasah Ibtidaiyah (MI) teachers in Bandung Regency. The researcher then used a purposive sampling technique to determine the distribution of samples across 31 sub-districts in Bandung Regency. The total sample size was 340 people, which is described in Table 3. Researchers also analyzed the data collected using a descriptive statistical approach.

**Table 3.** Research Sample

| District    | Sample |
|-------------|--------|
| Arjasari    | 10     |
| Baleendah   | 14     |
| Banjaran    | 11     |
| Bojongsoang | 14     |
| Cangkuang   | 11     |
| Cicalengka  | 6      |
| Cikancung   | 7      |
| Cilengkrang | 4      |
| Cileunyi    | 16     |
| Cimaung     | 9      |
| Cimenyar    | 2      |

| District            | Sample     |
|---------------------|------------|
| Ciparay             | 28         |
| Ciwidey             | 8          |
| Dayeuhkolot         | 5          |
| Ibun                | 7          |
| Katapang            | 10         |
| Kertasari           | 8          |
| Kutawaringin        | 9          |
| Majalaya            | 14         |
| Margaasih           | 18         |
| Margahayu           | 14         |
| Nagrek              | 8          |
| Pacet               | 32         |
| Pameungpeuk         | 11         |
| Pangalengan         | 6          |
| Paseh               | 14         |
| Pasirjambu          | 5          |
| Rancabali           | 3          |
| Rancaekek           | 20         |
| Solokanjeruk        | 3          |
| Soreang             | 14         |
| <b>Total Sample</b> | <b>340</b> |

Source: Research 2024

## RESULTS AND DISCUSSION

This study analyzes the pedagogical competence of Madrasah Ibtidaiyah (MI) teachers in Bandung Regency on aspects of curriculum development, learning implementation, learning assessment, and self-reflection. Data were collected through a questionnaire filled out independently by respondents using Google Forms, with an assessment using a 4-point scale. Respondents were said to master the competencies well if they had an average score of  $\geq 25$  on a scale of 4. Data analysis shows the cumulative achievement percentage of each indicator, which can be seen in Table 4 below.

**Table 4.** The Mastery Level of Pedagogical Competence of MI Teachers in Bandung Regency

| No | Aspect                 | scale 4 | Percentage |
|----|------------------------|---------|------------|
| 1  | Curriculum Development | 333     | 83%        |
| 2  | Organizing Learning    | 325     | 81%        |

Source: Research 2024

Based on data from 340 samples involved in the study, **Table 4** shows that the curriculum development aspect has the highest percentage of achievement (83%), with 333 samples choosing scale 4 for all indicators in the curriculum development aspect. This is followed by implementing learning (81%), or as many as 325 samples chose scale 4 for all indicators.

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## Mapping Pedagogical Competencies in Curriculum Development

### 1. Analysis of Pedagogical Competence Outcomes in Curriculum Development

Pedagogical competence in curriculum development includes an educator's ability to design, implement, evaluate, and revise a relevant and practical curriculum. This competency is essential to ensure that the learning process runs well and meets the educational objectives that have been set. Some important aspects of pedagogical competence related to curriculum development include:

- Educators must understand and internalize the educational foundations and principles underlying the curriculum, including the long-term and short-term goals of the educator.
- Educators should be able to design the curriculum in curriculum documents, such as lesson plans and comprehensive syllabi, including setting learning objectives, compiling teaching materials, choosing learning methods, and determining appropriate evaluation.
- Educators can select and develop teaching materials that suit learners' needs and curriculum objectives, including technology and learning media.

In addition to the three main aspects above, pedagogical competencies related to curriculum development include competencies in curriculum implementation, evaluation, revision and collaboration with stakeholders in implementing the curriculum. In this study, researchers developed five curriculum development questions, mapped in Table 2 in the curriculum development column. Based on the data collection and analysis results from 341 samples, the data description in **Table 5** is obtained.

**Table 5.** Results of Data Analysis of Curriculum Development Aspects

| Code | Indicators of Curriculum Development Aspects            | Average | Standard Deviation |
|------|---|---------|--------------------|
| PK-1 | Apply the foundation of curriculum development          | 3.27    | 0.57               |
| PK-2 | Develop a learning syllabus according to the curriculum | 3.31    | 0.63               |
| PK-3 | Formulate learning objectives                           | 3.34    | 0.55               |
| PK-4 | Designing lesson plans according to the syllabus        | 3.38    | 0.56               |
| PK-5 | Selecting subject matter                                | 3.35    | 0.55               |
| PK-6 | Arranging the sequence of learning materials            | 3.29    | 0.58               |

Source: Research 2024

The highest average achievement is in indicator PK-4 (3.38), which shows the teacher's ability to design lesson plans according to the syllabus. The standard deviation value shows a fairly even distribution across all respondents. The indicator with the lowest achievement score was PK-1 (3.27), indicating that teachers' understanding of curriculum development theories and principles still needs improvement.

### 2. Pedagogical Competency Gaps in Curriculum Development

Furthermore, the data from the questionnaire will be analyzed based on the gap value between each indicator's ideal score and the achievement score that the respondents filled in in **Table 6**.

**Table 6.** Ideal Score Gap and Actual Achievement Score of Pedagogical Competence in Curriculum Development

| No | Code | Indicators of Curriculum Development Aspects   | NA   | NI | NK   |
|----|------|--|------|----|------|
| 1  | PK-1 | Apply the foundation of curriculum development | 3.27 | 4  | 0.73 |

| No | Code | Indicators of Curriculum Development Aspects            | NA          | NI       | NK          |
|----|------|---|-------------|----------|-------------|
| 2  | PK-2 | Develop a learning syllabus according to the curriculum | 3.31        | 4        | 0.69        |
| 3  | PK-3 | Formulate learning objectives                           | 3.34        | 4        | 0.66        |
| 4  | PK-4 | Designing lesson plans according to the syllabus        | 3.38        | 4        | 0.62        |
| 5  | PK-5 | Selecting subject matter                                | 3.35        | 4        | 0.65        |
| 6  | PK-6 | Arranging the sequence of learning materials            | <b>3.29</b> | <b>4</b> | <b>0.71</b> |

Source: Research 2024

Based on the data in Table 5 above, the highest gap is found in the first indicator measuring mastery of theories and principles of curriculum development, with a gap value of 0.73. Indicator PK-6 has the second-highest gap value with 0.71. The other four indicators show relatively similar gap values, ranging from 0.62 to 0.69. From this information, it can be concluded that these two indicators require strengthening and special attention in developing training materials to improve teachers' pedagogical competence.

## Mapping Pedagogical Competence in Learning Implementation

### 1. Analysis of Pedagogical Competence Outcomes in Learning Implementation

The next aspect analyzed was teachers' pedagogical competence related to learning implementation. Pedagogic competence is closely related to education delivery because it includes teachers' abilities and skills in designing, implementing, and evaluating the learning process effectively. Here are some ways in which pedagogical competence relates to education delivery:

- a. Educators must be able to develop learning plans by the curriculum, including setting learning objectives, selecting relevant materials, and determining effective learning methods and strategies.
- b. Educators must be able to involve or encourage learners' active participation so that the implementation of learning plans runs smoothly and effectively, create a conducive classroom environment, and use various approaches, models, and learning techniques that can accommodate learners' various learning styles.
- c. Educators can utilize information and communication technology (ICT) to improve learning effectiveness, support interactive learning, and provide wide access to learning resources.
- d. Educators can design and apply various measurement tools to accurately measure learners' learning achievements, provide constructive feedback, and use assessment results to improve learning.
- e. Educators can reflect on their learning practices and encourage changes in improving the quality of organizing learning, including the continuous improvement of professional competence through training or other development education.
- f. Educators must be able to manage and adapt to changes and dynamic educational needs and develop innovations in improving engagement and learning outcomes, including connecting creatively with peers.

In this study, researchers developed 6 (six) indicators for organizing learning, as described in Table 2. From the results of data collection and analysis, researchers obtained the following results for achieving indicators for organizing education for pedagogical competence: Table 7 shows the results of the data analysis of the learning organization aspect.

**Table 7.** Results of Data Analysis on Organizing Learning Aspects



| No | Code | Indicators of Curriculum Development Aspects   | Average | Std. Deviation |
|----|------|--|---------|----------------|
| 1  | PP-1 | Implement learning as designed.  | 3,35    | 0,54           |
| 2  | PP-2 | Apply various approaches, strategies, methods, and techniques of learning that educate creatively and variedly | 3,32    | 0,56           |
| 3  | PP-3 | Relate learning content to daily contexts  | 3,43    | 0,57           |
| 4  | PP-4 | Carry out learning in a conducive class  | 3,33    | 0,55           |
| 5  | PP-5 | Organizing the implementation of learning activities systematically  | 3,24    | 0,55           |
| 6  | PP-6 | Utilizing ICT in learning  | 2,82    | 0,72           |

Source: Research (2024)

The indicator with the highest average achievement is PP-3 (3.43), which shows the teacher's ability to relate learning content to the daily context. In contrast, indicator PP-6 (2.82) has the lowest achievement, indicating that the use of ICT in learning still needs to be improved.

## 2. Gaps in Pedagogical Competence in the Education Implementation Aspect

The gap analysis results on the aspects of learning organization can be seen in **Table 8**.

**Table 8.** Ideal Score Gap and Actual Achievement Score of Pedagogical Competence in Education Implementation

| No | Code | Indicators of Curriculum Development Aspects   | NA   | NI | NK   |
|----|------|--|------|----|------|
| 1  | PP-1 | Implement learning as designed.  | 3,35 | 4  | 0,65 |
| 2  | PP-2 | Apply various approaches, strategies, methods, and techniques of learning that educate creatively and variedly | 3,32 | 4  | 0,68 |
| 3  | PP-3 | Relate learning content to daily contexts  | 3,43 | 4  | 0,57 |
| 4  | PP-4 | Carry out learning in a conducive class  | 3,33 | 4  | 0,67 |
| 5  | PP-5 | Organizing the implementation of learning activities systematically  | 3,24 | 4  | 0,76 |
| 6  | PP-6 | Utilizing ICT in learning  | 2,82 | 4  | 1,18 |

Source: Research 2024

Table 8 shows that the highest gap is in the sixth indicator, with a gap value of 1.18, which indicates that the ability of MI teachers in Bandung Regency to use ICT is still very lacking. The development of demands in learning requires teachers to continue to develop. Although the use of ICT has long been an important concept, respondent data shows that the ability to utilize ICT in learning is still uneven at the MI level in Bandung Regency. Therefore, strengthening or recalling the understanding of learning theories and principles is one of the focuses in developing training to improve the pedagogical competence of MI teachers in the Bandung District. In addition to reinforcement, this material can be modified to include updates on the latest learning theories and principles developments.

## Discussion

Curriculum development is an important component in pedagogical practice related to the teacher's ability to develop learning activities with materials that are based on students' characteristics. Teachers have an important role in achieving educational goals, so curriculum development skills must be mastered,

especially in designing learning programs that follow the curriculum (Anggraini *et al.*, 2022; Lestari *et al.*, 2023).

Research on MI teachers in Bandung Regency showed that pedagogical competence in curriculum development reached 83%. Further analysis was conducted on indicators of pedagogical competence in curriculum development, including teachers' knowledge of curriculum development concepts and theories, and their application in the practical curriculum used in learning. Curriculum development by teachers is closely related to the development of references such as syllabi, which contain specific learning objectives and coherent learning materials (Alfath *et al.*, 2022; Tran & O'Connor, 2023). Furthermore, the success of learning as a form of curriculum implementation is determined by teachers who can design learning, determine teaching modules, are sensitive to the placement of technology in learning, and develop learning that can increase innovation and criticality of students (Fatchurrohman & Baxriddinovich, 2024).

The data shows that the mastery of pedagogical competence in curriculum development of MI teachers in Bandung Regency is relatively evenly distributed, with the achievement of each indicator being above three on a scale of 4. The indicator on the application of the foundation of curriculum development has the lowest mastery value, namely 3.27, followed by the indicator of mastery of compiling learning materials coherently, with a value of 3.29. This shows that understanding curriculum development and the ability to organize material coherently are still uneven among MI teachers in the Bandung District. These two indicators will be considered in determining the weight of training developed to improve pedagogical competence in curriculum development.

The implementation of learning is the core of education, where the success of the goals that have been formulated depends on how the learning process is carried out. Teachers as learning agents are required to carry out the learning process optimally. A good organizational structure is the primary key to successful learning. This includes the preparation of comprehensive lesson plans, the selection of appropriate teaching methods, and the adjustment of teaching materials to the needs and characteristics of students. In addition, innovative educational technology, such as digital learning platforms, can increase learner interaction and participation during the teaching and learning process, optimizing learning outcomes.

The data shows that the pedagogical competence of MI teachers in implementing learning reached a score of 3.23 on a scale of 4. The ability of a teacher to implement learning plays a significant role. This score shows that MI teachers in Bandung Regency have sufficiently understood and mastered how to carry out learning. However, in one of the indicators, namely the use of ICT in learning, the achievement result is only 2.8. The rapid development of technology requires teachers to use ICT in learning (Ekantiningsih & Sukirman, 2023; Rahmadi, 2019; Rizqiyah, 2021). Therefore, this indicator needs special attention and is one of the main themes in the training curriculum that will be recommended.

Improving teachers' competence in developing and implementing the curriculum must be strengthened through training and collaboration between fellow teachers as peer partners, schools, and stakeholders related to teacher professional improvement (trainers, facilitators, supervisors) (Purwati & Sukirman, 2024). This also aligns with cooperation between fellow teachers and other stakeholders, such as joining teacher communities, publishing scientific papers, and internal school groups (Sukirman & Ekantiningsih, 2023). Capacity building of teachers' competencies about the curriculum also involves parents who believe in supporting teachers (Sipayung & Hsu, 2023). Appropriate training for teachers should also target teachers' ownership of learning and the roots of the curriculum, so that policy changes do not overwhelm teachers and make them skeptical of training.

Teachers who receive ongoing training can adapt the curriculum and teaching methods to the latest developments in education (Setiady *et al.*, 2021). The findings of this research indicate that there is a need for training related to curriculum and learning, especially on pedagogical aspects. This improves teacher

competence and ensures that the learning delivered is relevant and practical (Ekantingsih & Sukirman, 2023; Prawira & Nugraha, 2021). This relevant and effective learning supports teachers' performance in realizing their roles as educators, teachers, and facilitators. The development of this competency performance cannot be interrupted, because the learning process in the classroom is also continuous. Therefore, adequate support from educational institutions and government policies is needed to organize quality and sustainable learning (Setiady *et al.*, 2021).

### CONCLUSION

From the results of the above research, it can be concluded that aspects of curriculum development and the learning implementation of MI teachers in Bandung Regency still need improvement, especially in understanding the theories and principles of curriculum development and the use of ICT in learning. Curriculum Development: Teachers need to strengthen their understanding of the theories and principles of curriculum development, as well as their ability to develop syllabi and lesson plans based on the curriculum that has been developed. Training that focuses more on curriculum development will help reduce the gap. Organizing Learning: ICT utilization is one of the main challenges teachers face. More intensive training on using technology in learning is needed to improve teachers' competencies. Overall, the results show that although most aspects of the pedagogical competence of MI teachers in the Bandung district are pretty good, some aspects still require special attention and improvement through appropriate training and development programs.

### AUTHOR'S NOTE

The author declares that there is no conflict of interest related to the publication of this article. The author emphasizes that the data and content of the article are free from plagiarism. The author also expressed his gratitude to the MI teachers in Bandung Regency who were involved in the research for being willing to be part of this research. This research was also stated to follow the research code of ethics and received approval from the research sample to be published.

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