Full Online Teacher Training Service Scheme on Improving Pedagogical and Professional Competencies

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Abstract
Implementing teacher teaching training services for Islamic Religious Education and Islamic School teachers in the Indonesian Ministry of Religious Affairs ranks in 2021 was carried out with a complete online scheme. Implementing in-service teaching training aims to produce professional educators with academic, professional, personal, and social competencies. The difference in participants' conditions, such as different areas, technology tools mastery, and infrastructure availability, became a challenge for LPTK organizers. The article aims to measure the effectiveness of implementing teacher teaching training services in a whole online scheme at LPTK of the State Islamic University of Bukittinggi in 2023. This evaluation research was conducted in LPTK of the State Islamic University of Bukittinggi in 2023. The sample was selected by purposeful technique with the number of samples 416 teachers, consisting of 266 Islamic Religious Education teachers and 150 Islamic School teachers. The data was collected by distributing questionnaires and analyzed using descriptive statistics. The results showed that the average pedagogic and professional competencies achievement score was 86.90 points, with a high interpretation of achievements. The implementation of teacher teaching training service in an entire online scheme at LPTK of the State Islamic University of Bukittinggi in 2023 has increased effectiveness.

Kata kunci:
Pelatihan Guru, Skema Online, Pedagogis, Kompetensi Profesional.
INTRODUCTION

Education is at the core of human and societal development, and to ensure optimal teaching and learning quality, it is necessary to invest in the development of teachers' pedagogical and professional competencies. In recent years, some studies, such as (Kporyi & Arko, 2021), concluded that teachers' pedagogical competence could help increase deep knowledge, understanding, and expectations among students if teachers' pedagogical competence is effective (Arifin, Sutama, Aryani, Prayitno, & Wastono, 2023; Sabariah, Hakim, Kadori, Zahra, & Muin, 2023). Further research also explains that there is a statistically significant weak positive relationship between teachers' competence in planning and preparation and students' academic achievement (Adriana, Santoso, Adijaya, & Srinio, 2023; Idrus, Mohzana, Jamila, Rahman, & Shobri, 2023; Najmi, Rofiq, & Maarif, 2021). There is also a weak positive relationship between teachers' pedagogical responsibilities and students' academic achievement. Furthermore, male and female teachers showed similar pedagogical practices, and finally, this study proved this significantly (Kporyi, 2020). Furthermore, the results of this study indicate the important role of teachers' pedagogical digital competencies in improving motivation and academic performance in physical education. These findings underscore the need for ongoing professional development for teachers to improve their digital competencies and improve overall teaching quality (Montilla, Rodriguez, Aliazas, & Gimpaya, 2023). Likewise, research by (Mrs & Eo, 2019) found that there is a significant relationship between teacher pedagogical knowledge variables such as teacher knowledge of subject matter, classroom management, and student academic performance (Aprilianto, Sirojuddin, & Afif, 2021; Fauzi & Kartiko, 2023; Pratiwi & Warlizesusi, 2023; Susanti, Zakariyah, Komalasari, & Warlizesusi, 2023). Based on the findings, it is recommended that teachers should strive to update themselves with new skills and knowledge in their diverse subject areas by attending refresher courses and engaging in professional development.

Teacher Certification implementation is an activity done to implement law number 14 of 2005 regarding teachers and lecturers. The practicing of teacher certification through Teacher Professional Training Education has been done since 2007 until 2017 for ten amount of years. And in 2018 was the first year that the practicing of teacher certification was done through Teacher Professional Education. The upgrading of teacher certification practice continued to be carried out from year to year to obtain better results by taking into account geographical and socio-cultural conditions throughout Indonesia (Anderson et al., 2022; Atstsaury, Hadidayanto, & Supian, 2024; Rofiq & Nadliroh, 2021).

To obtain teacher certification, especially for in-service teachers, it has been regulated in Government Regulation Number 74 of 2008 (Diknas, 2019), concerning Teachers, which in Article 12 paragraph (1) states that: "Teachers in Position who already have Qualifications S-1 or D-IV academics can immediately take the competency test to obtain an Educator Certificate.” However, this rule has been removed through Government Regulation Number 19 of 2017 Article 66 paragraph (1) which states that: "In-service Teachers who were appointed until the end of 2015 and already have the academic qualifications of S-1/D-IV but have not yet obtained an Educator Certificate can obtain an Educator Certificate through Teacher Professional Education”. The purpose of implementing Teacher Professional Education is to create professional educators who have good competence in terms of academic, professional, personal, and social (Submission of Technical Guidelines for PPG 2021, n.d.). As a result of it, they can carry out their duties and functions as educators, directors, mentors, trainers, and evaluators.
Developing teachers as professional educators who fear God Almighty and have noble character, are knowledgeable, adaptive, creative, innovative, and competitive with the main task of educating, teaching, guiding, directing, training, assessing, and evaluating students (Adwiah, Tantia, & Rantikasari, 2023; Aqodiah, Hasanah, & Humaira, 2023; Hasanah, Gustini, & Rohaniawati, 2016).

Teacher certification is expected to have an impact on the increase of learning quality and education quality sustainably. Implementation of teacher certification began in 2007 after the issuance of Minister of National Education Regulation No. 18 of 2007 concerning Certification for In-service Teachers. The implementation of teacher certification has undergone various forms of change, starting from portfolio assessment, PLPG, and PPG (Munawir, Aisyah, & Rofi’ah, 2022; no, 2016). And the implementation of teacher certification under the PPG pattern or teacher professional education marks as the fourteenth year in 2021. Referring to the results of the teacher certification implementation review and supported by several studies on the previous teacher certification implementation, there some fundamental changes in the implementation of teacher certification in 2021 especially in the number of credits and the implementation mechanism which is carried out in full online as the emerge of covid-19 outbreak.

The PPG implementation scheme during the Covid-19 pandemic in 2021 was carried out with the concept of distance learning with full online meeting using a number of learning flat forms, such as Zoom Learning Management System (LMS), Google Meet, WhatsApp, and other features (Coman, Țiru, Meseșan-Schmitz, Stanciu, & Bularca, 2020; M. F. A. Habibi & Astuti, 2021). Through online learning, it is possible to accommodate time and distance limitations as well as implementing social distancing policy to break the chain of transmission of the Covid-19 outbreak. This online learning implementation could reach massive audience and broader target groups where could be held anywhere and be followed for free or paid (Bilfaqih, 2015).

**RESEARCH METHOD**

This research is classified as evaluation research with the aim of evaluating the effectiveness of implementing Online Teacher Professional Education in Developing Pedagogic and Professional Competence at LPTK IAIN Bukittinggi in 2021. Research data was collected through questionnaires, interviews and documentation. The population of the study was all PPG Daljab participants in 2021 at LPTK IAIN Bukittinggi with 425 people. The sample in this study was determined by Incidental technique (Reliance Available Sampling) using the slovin formula with a total of 138 people. Quantitative data are processed using simple statistics by calculating the average value, standard deviation, and variance. Meanwhile, the interview data were obtained qualitatively based on the opinion of Milles and Huberman with the steps of data reduction, data display, and data verification (Miles, Huberman, & Saldana, 2018).

**RESULT AND DISCUSSION**

**RESULT**

Based on the documentation findings about the level of mastery of the pedagogic and professional competencies of teachers who were participating in PPG at LPTK IAIN Bukittinggi in 2021 with the total of 150 madrasah teachers and 266 PAI teachers, the data is presented as below:
Material Immersion in The Paedagogic Field of Madrasah Teacher

There are four modules in intensifying pedagogic material. Those modules are student development, teacher professional development, learning and learning theory, and learning evaluation. The achievement of the material immersion scores of 150 Daljab PPG participants for Madrasah teachers in the pedagogic module can be presented in the following graph.

**Tabel 1. Descriptive Score Achievements of Madrasah Teacher in Pedagogic Field**

```
<table>
<thead>
<tr>
<th>Module</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peningkatan Profesi Guru</td>
<td>150</td>
<td>70.00</td>
<td>99.00</td>
<td>86.8667</td>
<td>9.45897</td>
</tr>
<tr>
<td>Teori Belajar dan Pembelajaran</td>
<td>150</td>
<td>70.00</td>
<td>97.00</td>
<td>89.6267</td>
<td>6.47820</td>
</tr>
<tr>
<td>Perkembangan Peserta Didik</td>
<td>150</td>
<td>70.00</td>
<td>99.00</td>
<td>85.8400</td>
<td>7.77716</td>
</tr>
<tr>
<td>Evaluasi Pembelajaran</td>
<td>150</td>
<td>70.00</td>
<td>98.00</td>
<td>86.3000</td>
<td>7.66660</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>150</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
```

Based on the average score of each module, the average achievement score for the pedagogic field is 86 with the range of 81-100 with a very high interpretation. From the four modules, the highest score was in the Learning and Learning Theory module, while the lowest score was in the learning evaluation module, an overall comparison can be made in the following graph.

**Graph 1. Intensifying Score of Madrasah Teacher Pedagogic Material Achievement**

Based on the graph above, it could be concluded that the highest achievement was in the learning and learning theory module, then followed by the teacher professional development module and the student development module and learning evaluation.

Materials Immersion in Pedagogic Field of PAI Teachers

The pedagogic subject module also consists of 4 modules, namely student development modules, teacher professional development, learning and learning theory, and learning evaluation. The achievement of the material immersion scores of 266 PPG Daljab PAI teachers in 2021 can be presented in the following descriptive table.

Source: Ministry of Religion Space Application Documentation for 2021
Tabel 2. Descriptive Score Achievements of Madrasah Teacher in Pedagogic Field

<table>
<thead>
<tr>
<th>Module of Pedagogic</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Penguatan Profesi Guru</td>
<td>266</td>
<td>70.00</td>
<td>98.00</td>
<td>87.244</td>
<td>6.79029</td>
</tr>
<tr>
<td>Teori, Belajar dan Pendidikan</td>
<td>266</td>
<td>70.00</td>
<td>98.00</td>
<td>89.692</td>
<td>6.3108</td>
</tr>
<tr>
<td>Penguatan Praktek Diklat</td>
<td>266</td>
<td>70.00</td>
<td>97.00</td>
<td>90.146</td>
<td>5.79632</td>
</tr>
<tr>
<td>Evaluasi Pendidikan</td>
<td>266</td>
<td>70.00</td>
<td>98.00</td>
<td>86.891</td>
<td>7.66982</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>266</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Based on the average score of each model, it can be inferred that the average achievement score for the pedagogic field was 88.45 with the range from 81-100 with a very high interpretation. From the four modules, the highest score was Learning and Learning Theory module, while the lowest score was learning evaluation module. An overall comparison can be made in the following graph.

Graph 2. Descriptive Score of Pedagogic Achievement of PAI teachers

Source: Ministry of Religion Space Application Documentation for 2021

Based on the bar graph above, the highest achievement score was two mastery modules, namely learning and learning theory and student development. It was then followed by the teacher professional development and learning evaluation module.

Material Immersion in Professional Field of Madrasah Teachers

Material immersion in professional field consists of 6 modules in each subject. Those are 6 modules in the fiqh subject, 6 modules in the Al-Quran Hadith subject, and 6 modules in the aqidah ahlak subject. The achievement score this professional field was presented in the following descriptive table.

Table 3. Descriptive Score in Professional Field Achievement of Madrasah Teacher

<table>
<thead>
<tr>
<th>Descriptive Statistics</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modul Profesional Madrasah</td>
<td>151</td>
<td>32.00</td>
<td>96.00</td>
<td>85.2252</td>
<td>6.58197</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>151</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Based on the statistical description table above, the average achievement score in the madrasa teacher professional module was 85.23 in the range from 81-100 which can be interpreted as very high.

Pedalaman Material Immersion in Profesional Field of PAI Teachers

Immersing professional field material for PPG participants for PAI subject teachers consists of 6 modules. Those are Aqidah Ahlak module, Quran hadith, Fiqh, History of Islam, contemporary of Islamic Religious Education, and Islamic Religious Education scientific structure. Based on the measurement results on the mastery of the 6 professional modules, the average value for each module is described with the following table.

<table>
<thead>
<tr>
<th>Table 4. The Score of Professional of PAI Teacher</th>
</tr>
</thead>
<tbody>
<tr>
<td>Descriptive Statistics</td>
</tr>
<tr>
<td>N</td>
</tr>
<tr>
<td>Aqidah_Aahlak</td>
</tr>
<tr>
<td>Quran_Hadits</td>
</tr>
<tr>
<td>Fiqh</td>
</tr>
<tr>
<td>SKI</td>
</tr>
<tr>
<td>PAI_Kontemporer</td>
</tr>
<tr>
<td>Sstruktur_Keilmuan_PA</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
</tr>
</tbody>
</table>

Based on the data description above, the highest average score in the mastery of the professional module was the History of Islam (SKI) module with average score of 88.86, followed by the Scientific Structure module of PAI with an average score of 87.75, fiqh module with an average 86.81, the contemporary PAI module with an average of 86.17 and the lowest achievement is the aqidah ahlak module with a score of 80.36.

Graph 3. Descriptive Score of Profesional Field Achievement of PAI Teacher

Based on the graph above, it can be inferred that the highest achievement in mastering the professional module the SKI module, followed by the Islamic Islamic Studies and Contemporary Religious Education modules. While the lowest mastery was in the modules of aqidah ahlak, the Qur'an hadith and fiqh. The average mastery of the 6 modules is 86.81 with a very high interpretation.
Based on the achievements of the two fields of pedagogy and professionalism, it could be presented with the table below.

**Table 5. Achievements Summary of Pedagogic and Professional Competency**

<table>
<thead>
<tr>
<th>Competence</th>
<th>Specialist Subject</th>
<th>Average</th>
<th>Achievement Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pedagogic</td>
<td>Madrasah</td>
<td>87,25</td>
<td>High</td>
</tr>
<tr>
<td>Pedagogic</td>
<td>PAI</td>
<td>89,75</td>
<td>High</td>
</tr>
<tr>
<td>Professionalism</td>
<td>Madrasah</td>
<td>85,23</td>
<td>High</td>
</tr>
<tr>
<td>Professionalism</td>
<td>PAI</td>
<td>85,38</td>
<td>High</td>
</tr>
<tr>
<td>Final Average</td>
<td></td>
<td>86,90</td>
<td>High</td>
</tr>
</tbody>
</table>

Based on the summary table above, it can be concluded that the average score for the pedagogic and professional competence of PPG teachers in 2021 positions at LPTK IAIN Bukittinggi, the average score for mastery of pedagogic and professional competencies was 86.90 with an interpretation of high achievement. Thus it can be concluded that the effectiveness of implementing PPG in full online at LPTK IAIN Bukittinggi in 2021 had high effectiveness. The high effectiveness of implementing PPG in full online at LPTK in State Islamic Institute of Bukittinggi in 2021 was also supported by a number of conditions such as adequate technological facilities such as: 1) online learning equipment, 2) electric power, 3) internet quota and internet networks with good network quality.

Another factor that supports the effectiveness of implementing online PPG at LPTK State Islamic Institute of Bukittinggi in 2021 was the input factor. PPG participants were ready to use various means of communication and learning such as using the LMS Space application, Zoom, WhatsApps, YouTube, Google Drive, and other online learning features.

The effectiveness of online PPG implementation was also influenced by condition factors. It was known that at the end of 2019 most countries in the world were experiencing the Covid-19 pandemic including Indonesia, this also had an impact on the education sector. Learning process was conducted online which forced every teacher to be able to use various technological devices and online learning platforms. Thus, this conditions made teachers familiar with the use of various forms of technology-based learning devices.

**DISCUSSION**

The implementation of In-Position Professional Development (PPG) in 2021 was carried out in accordance with the mechanisms established by the national committee. Participants in PPG engaged in a series of activities, commencing with the self-reporting process, followed by orientation activities introducing the campus and the Learning Management System (LMS) Space. Additionally, participants were familiarized with various forms of learning and the corresponding learning tasks that had to be completed (Cardy & Leonard, 2014; Kerimbayev, Nurym, Akramova, & Abdykarimova, 2020).

The subsequent sequence involved the in-depth study of the subject matter, consisting of 10 modules—6 professional modules for each subject teacher and 4 pedagogical modules, each accounting for 5 credit hours. This intensive study period spanned 30 days, with each module expected to be completed within 3 days. Each module was guided by a lecturer holding a
minimum rank of lecturer with at least 10 years of teaching experience and expertise in the respective field.

The in-depth study phase involved approximately 40 individuals with the responsibility of guiding 1 to 4 study groups with the same module. The entire PPG process in 2021 was conducted online, utilizing the LMS Space facilitated nationally by the organizing committee. Administrators at both the national and Institute of Teacher Training and Education (LPTK) levels managed the platform, with the primary national committee allocating quotas to each participating LPTK.

The role of the instructor was multifaceted, serving as a mentor, director, and guide in the deepening of the subject matter. The instructor's responsibilities included creating and uploading learning contracts into the LMS Space system, conducting video conferences for mutual understanding, assigning tasks for each learning activity, checking and evaluating resumes, creating teaching materials such as PowerPoint presentations, formative assessments, analyzing material tasks, providing grades, and conducting additional video conferences to reinforce student understanding.

During the in-depth study phase, students engaged in activities such as reading learning contracts, taking pretests for each module, creating concept maps to understand module content, uploading resume results to LMS Space, watching instructional videos, reading journal articles provided by the national committee, understanding PowerPoint presentations from the instructor, participating in discussions as directed by the instructor, taking formative tests for each learning activity, attending scheduled video conferences, and finally, taking end-of-module tests on the third day for each of the 4 learned activities (Asse, Putri, Fatimah, Nursyam, & Faqihuddin, 2024; Sutrisno & Nasucha, 2022).

The subsequent activity involved the development of teaching materials with a weight of 2 credit hours over a 12-day period. This development process, also guided by instructors, focused on producing educational products such as instructional material analysis, teaching materials, lesson plans, worksheets, instructional media, assessment instruments, instructional videos, and practical learning videos.

After the development and review of teaching materials, a comprehensive exam (UKIN) was conducted to measure, assess, and evaluate the students' mastery of the 10 learning modules, including the developed teaching materials. Following successful completion of the comprehensive exam, students proceeded to the Teaching Practice (PPL) phase, implemented in two stages: PPL 1, lasting 12 days in the original school, and PPL 2, lasting 4 days. Each stage included a review process. During PPL, students were tasked with implementing the previously developed teaching materials, recording their teaching sessions, and editing the footage into 30-40 minute videos.

The next series of activities involved the review of PPL implementation, where instructors and mentor teachers provided feedback and corrections on the practical teaching videos created during the PPL phase. This review process spanned 8 days, with 4 days dedicated to PPL 1 and 4 days to PPL 2, encompassing the implementation of 3 complete lesson plans with supplementary learning materials.

The final phase of the PPG process at the Institute of Teacher Training and Education involved the Performance Test (UKIN), assessing lesson plans, practical teaching videos (with a maximum duration of 40 minutes), and portfolio evaluation. The video portion of UKIN was uploaded to YouTube, with the link submitted through the UKMPPG application, while
portfolio documents were uploaded to the application and stored on Google Drive. Students had a limited time to upload the required documents, and evaluations were conducted by instructors and mentor teachers using rubrics and instruments provided by the national committee via the UKMPPPG application.

The entire online PPG process presented both challenges and opportunities for teachers. Challenges included issues with technology infrastructure such as device availability, network accessibility, and time constraints. In addition to technological challenges, teachers faced difficulties in operating various technological tools, including LMS applications, computer skills, and proficiency in applications such as YouTube and Google Forms.

The PPG process for Islamic Education (PAI) and Madrasah teachers in 2021 was fully conducted using the LMS Space platform. Participants were required to have IT-based learning tools and skills for operating various features and platforms. Interviews with PPG participants revealed a range of experiences, impressions, complaints, and hopes. Participants expressed various feelings before the activities, with some being happy, others worried, and some even shocked. Generally, students experienced stress during the initial stages of PPG, particularly with the self-reporting process, where both softcopy and hardcopy submissions were required. Technical challenges, such as scanning and uploading documents, contributed to the stress (H. Habibi, Arismunandar, Rahman, & Darmawangsaa, 2022; Mulyasa, 2007).

Participants also faced challenges related to limited IT skills, with difficulties in scanning documents and using applications like Zoom. The age factor, with many participants being above 45, also impacted their readiness for PPG activities. Despite the support from LPTK, students faced challenges due to a lack of understanding of IT.

Concerning internet availability, some participants experienced disruptions, while others had stable access, often relying on personal hotspots, school-provided Wi-Fi, or home Wi-Fi. The adequacy of learning infrastructure varied, with most students possessing suitable devices. The online PPG process significantly influenced teaching methods, with participants gradually adopting new approaches, such as using video presentations and creating engaging content. Some participants even expanded their professional roles by becoming YouTubers, showcasing the impact of PPG on their views and skills in content creation and dissemination.

The utilization of Zoom during PPG activities significantly improved participants’ understanding of the platform and its features. The participants gained practical knowledge in various IT-related tasks, such as opening WhatsApp on a laptop, uploading files to Google Drive, and scanning documents. Despite initial worries, participants ultimately expressed satisfaction with the online format of PPG. The flexibility, lack of travel requirements, and reduced financial burdens were cited as significant advantages. When given the choice between online and face-to-face learning, the majority preferred online learning, acknowledging its advantages and acknowledging the support they received from various stakeholders during the process.

Reflecting on the entire PPG process, participants expressed gratitude for the knowledge gained and the practical application of theoretical concepts during the workshop sessions. Overcoming challenges required considerable effort, supported by peers, instructors, mentor teachers, and PPG organizers. The experience left participants feeling enriched and appreciative of the new skills acquired during the PPG process, emphasizing the transformative impact of the program on their professional development and teaching practices.
CONCLUSION

Based on the research findings and discussions above, the author is able to draw several conclusions. The level of achievement in the in-depth study activities of the PPG PAI and Madrasah materials conducted fully online in the year 2021 at LPTK IAIN Bukittinggi with an average score of 86.90 is interpreted as highly effective. The availability of online learning facilities for participants of PPG PAI and Madrasah at LPTK IAIN Bukittinggi in 2021 is considered adequate, as detailed below: a. The tools used during online learning, such as laptops, smartphones, and internet networks. b. The ownership of the tools used for online learning is generally private. c. The availability of electricity during online learning is highly adequate. d. The availability of data packages during online learning is highly adequate. e. The availability of internet networks during online learning is considered adequate. f. The quality of internet networks during online learning is categorized as good.

The proficiency of participants in PPG PAI and Madrasah in the year 2021 in using communication tools and learning media during online learning at LPTK IAIN Bukittinggi is considered proficient, with details as follows: a. Proficiency in using LMS Space during online learning is considered proficient. b. Proficiency in using Whatsapp during online learning is considered highly proficient. c. Proficiency in using YouTube during online learning is considered sufficiently proficient. d. Proficiency in using Google Drive during online learning is considered proficient. Proficiency in creating PowerPoint presentations during online learning is considered sufficiently proficient.

REFERENCES


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