

## Pioneer Teachers' Professional Identity Construction: Self-Efficacy and The Praxis Shock of Teachers' Experiences

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**Abstract:** This study examines the formation of professional identity among teachers who participated in the Pioneer Teacher Program (PT Program) through the lens of self-efficacy and their responses to changes in their environment and mindset. This research used a mixed-methods approach, combining quantitative and qualitative data to provide a comprehensive understanding of their experiences. A total of 89 participants from various regencies were involved, representing a diverse range of backgrounds and teaching contexts. Quantitative data were analyzed using ANOVA to measure the self-efficacy of teachers across the group of pioneer teachers, candidates of pioneer teachers, and instructors of pioneer teachers. The qualitative and other supporting data from interviews, open-ended responses, and the researchers' notes were analyzed thematically using MAXQDA to gain deeper insights into the teachers' construction of professional identity. The ANOVA analysis indicates no statistically significant differences across the measured competencies among the groups. The results were informed by evidence that all participants have equally strong backgrounds prior to joining the training program. While pioneer teachers demonstrate moderate to high levels of self-efficacy and digital skills, the formation of their professional identity is shaped more profoundly by mentorship experiences and community engagement. The way teachers changed their mindset in the classroom practice after joining the program, and they started to decompartmentalize their teaching. They transitioned from traditional, content-focused teaching to lead a more student-centered classroom and to adopt approaches that strengthen students' character. Despite differences in regional contexts, a common theme emerged: participants began to see themselves not just as educators, but as change agents and instructional leaders. The study highlights the importance of systemic support and ongoing professional development in fostering sustainable identity transformation among teacher leaders.

**Keywords:** pioneer teachers, pioneer teachers' program, professional identity, self-efficacy.

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### ■ INTRODUCTION

Teacher training and education significantly shape teachers' professional identity. They are an integral part of teachers' professional development and a contributing factor in shaping teachers nowadays. Training enhances teachers' competence, skills, and overall capabilities in

teaching, classroom management, and self-awareness. The timing of teacher training varies depending on the stage of their careers. Pre-service teachers receive their training during university years; early-career teachers sometimes join training at the start of their careers; and in-service teachers receive periodic training. All

stages of training are important for the development of teachers' professionalism,

In the past, education focused on teachers, placing them as the primary source of learning and the sole source of knowledge. The shift in culture, social environment, and workplace has significantly influenced teachers' perceptions of identity and professional development (Makovec, 2018). Teacher professional identity in Indonesian contexts has been acknowledged in the literature, albeit in small studies focusing on vocational education (Nurtanto et al., 2022), novice teachers (Faridah<sup>1</sup> et al., 2023), accounting (Syah et al., 2022), or medical fields (Wahid et al., 2021). However, in international contexts, teacher professional identity is paramount for the success of education. Previous studies focused on how teachers move around their fields of expertise to develop their professional identities and their critical role in education (Eales & Bradley, 2018), because teachers who have a strong sense of professional identity display stronger motivation and resilience (Ma, 2022) to create new ideas and innovation to make their teaching more interesting. They are flexible and adaptable in responding to changes to meet the demands of regulations, policies, or classroom activities (Jia & Derakhshan, 2023; Toshmatov & Toshmatov, 2025). Teachers with a strong sense of professional identity are creative and resourceful in designing fun-filled classroom activities, thus building reciprocal relationships with students that foster independence, promote active learning, and strengthen motivation (Lavanga et al., 2024).

One of the prominent programs to develop teachers' careers and professional identities is the *Program Guru Penggerak* (Pioneer Teacher Program). This government-sponsored training program equips teachers to become pioneers in education and leaders of change. The implementation of the PT Program aims to reform teacher education. It is expected that after

completing this type of training, teachers will be able to change their perceptions of education and classroom practices. The focus of learning in the past has been on teachers, with lesson delivery through lectures and teacher-centered instruction. Barnes et al. (2018) showed that it is possible to shift the focus of the learning process from teachers to students by allowing students to work independently or in groups.

Student-centered learning has shown that students can lead their peers when given autonomy. In Vietnam, Nguyen et al. (2022) studied a group of teachers who emphasize the importance of education for sustainable development (ESD) and focused on how teachers integrate ESD by using learning content that students can learn with peers. It also guarantees that outcomes fall within expected ranges, thereby maintaining quality. In China, teachers are the pillars of education; thus, being a teacher entails the expectation that they possess leadership skills to plan, implement, and evaluate their teaching practices, all for the sake of improvement. Shifting the focus from teachers to students has been implemented in Taiwan and Japan (Huang & Oga-Baldwin, 2015), where the main focus of education is on developing a sustainable curriculum that responds to ongoing changes in the education landscape. This kind of curriculum change focuses on student interaction and teaches students that they have school-related responsibilities and should strive to do better.

Teachers construct their professional identities in numerous ways, such as by consciously participating in training to advance their careers, during which they experience changes throughout the journey. In such training, the teachers' environment will also change to suit the nature of the training. The role of training supports teachers' ongoing professional development, thereby changing their professional identities.

One of the influential elements of identity construction is self-efficacy. In professional contexts for teachers, self-efficacy is defined as a person's belief in their ability to perform a task, such as teaching (Wang & Zhang, 2026). It is something that connects teachers' professional identity and training, as it helps teacher transform their identity (Cai et al., 2022). When teachers are aware of their professional skills, they become more confident and have a stronger sense of identity because their psychological pathways help them develop a sense of purpose. Self-efficacy positively influences identity construction, as Zubeidat et al. (2025) assert in the case of newly hired teachers, who were found to be a strong determinant of identity construction during the training they participated in. Similarly, teachers in early childhood education demonstrated how they measured self-efficacy and reported greater motivation to learn and engagement, ultimately leading to a stronger sense of identity. Among the factors that influence the strength of efficacy are community, engagement, and collaboration, which foster strong involvement, teamwork, and cooperation, prompting individuals to exert their best effort to ensure their optimal performance and empowerment (Luo et al., 2024; Popa et al., 2026).

The need to perform at their best can arise from environmental pressure, as teachers undergo a transition when they join training to improve their professionalism and skills. This kind of transition often leads to discomfort, confusion, and calls for adaptation. This situation is called praxis shock, in which applying the theoretical concepts acquired during training can be challenging due to unexpected difficulties. Teachers who undergo extensive training can experience burnout and exhaustion, as well as discrepancies between their ideal teaching practices and expectations and the real-world limitations they face (Ballantyne & Retell, 2020; Clarke, 2025; Peter et al., 2004).

This study contributes to the literature on Indonesian educational contexts in which teachers experience changes in their perceptions of professional identity after joining the PT Program. The changes include how they assess their teaching practices, how they respond to technological challenges, and how teachers are becoming more trusting of their students by giving them more autonomy. While previous studies have explored the general impact of professional development programs on teachers, only a small number have examined how the PT Program influences teachers' professional identities and career trajectories. The purpose of this study is to fill the gaps in research by investigating how teachers develop their professional identities throughout the PT Program and beyond their career trajectories.

This study considers participants' experiences as paramount and how their perceptions of professional identities and experiences change throughout the journey. This way, the nuances of professional transformation could be acknowledged, recorded, and systematically studied from both professional and personal perspectives, including perceptions of education in general and interactions with students, peers, regulations, and school administrators. This study is expected to contribute to the literature on how teachers understand changes in their perceptions of professional identity, teaching skills, and responsibilities in Indonesian contexts. This study is uncovering a shift in focus in education, where teachers are becoming facilitators of learning rather than the main focus. By shifting the paradigm, it is hoped that Indonesian students will have greater control over their learning and greater autonomy in their academic decision-making. To ascertain the purpose, two research questions are proposed to investigate: 1) how teachers perceive their self-efficacy as professional teachers, and 2) what kind of impact

the pioneer teachers' program has on teachers' professional identity constructions. The findings of this study are expected to contribute to the global literature on Indonesian teachers' professional identity, as it is one of the most critical elements of education. The following parts are presented to address the questions.

### **Pioneer Teachers Program**

In 2020, the Indonesian government launched a training program for teachers called *Program Guru Penggerak (PGP)*, or the Pioneer Teacher (PT) Program. The PT Program trains teachers to become educational leaders or teacher practitioners by allowing their students to become more active in their learning endeavors (Hidayati, 2023; Sijabat et al., 2022). The strongest background for the emergence of this program was the urgent need to accommodate teachers' demands for adaptability arising from COVID-19 and its aftermath, which changed many aspects of life. Changes in teaching contexts and modes, the increased use of technology and devices, and the demands for adaptability and proficiency in their use have compelled teachers to be better, more flexible, and more agile in their academic endeavors. To meet the demands, teachers were challenged and encouraged to participate in a government-initiated training program (Kusumah & Alawiyah, 2021; Wijaya et al., 2020) to develop teachers' competence.

The implementation of this program has yielded educational outcomes, including teachers' shifts in perspectives on who should control the education ecosystem. Allowing students greater autonomy in learning could help them achieve the government-set educational goals. Teachers trained to use advanced educational technology enabled students to control their learning and technology use, thereby improving educational quality. These teachers were trained to use digital tools and implemented them in their schools.

One of the main components of the PT Program is leadership training, which develops teachers to become effective leaders in teaching and learning through workshops, publications, and community engagement. Through the training, teachers undergo shifts in their perceptions of education and of themselves as teachers and professionals. This program requires teachers to be motivated to participate and willing to be guided and trained throughout the six-month duration to become competent teachers (Kementerian Pendidikan, Kebudayaan, Riset, dan Teknologi, 2022; Rahayu et al., 2022).

Commonly, the PT Program was implemented in *Sekolah Penggerak (Pioneer Schools)* (Desianti & Rahayuningsih, 2022; Vebrianto et al., 2024), where teachers could apply the training outcomes to demonstrate their innovative mindsets while collaborating with peers. This type of school serves as a center for teachers to exercise their creativity, develop new teaching materials, identify unique features of learning activities, and implement them with their students (Vebrianto et al., 2024). The outcome of this PT Program can be seen from the success stories across Indonesian regions, such as improving the quality of education through school digitalization (Yulianaji, 2023), an increased number of research studies conducted in school contexts (Umboh et al., 2023), and improved teacher performance through coaching and counseling (Hidayati, 2023).

### **Self-efficacy and teacher identity formation**

Professional identity refers to how teachers perceive themselves professionally and define themselves within their profession (Werbińska & Ekiert, 2018; Zubeidat et al., 2025). The dimensions of identity stretched from personal to professional. For teachers, their identity does not stop developing after they are hired by a school. Their daily classroom practices, interactions with

peers, training, and workshops also shape their identity. Teachers will inevitably undergo a shift in how they perceive their identity, whether influenced by their education, cultural background, or racial features.

Teacher self-efficacy is a self-efficacy skill related to teachers' beliefs in their ability to deliver lessons, ensure that classes run smoothly, and bring out the best in their students. It is one paramount element in shaping teachers' professional identity. A teacher has to be confident in their teaching strategies, classroom management, and ability to keep students engaged during lessons (Alijanian, 2012). To improve these skills, teachers participate in training that helps them experience shifts in their sense of confidence and self-awareness about their knowledge, and in how to consciously change their perception after the training, because their environment has changed, too. Teachers who are aware of their responsibilities and how they connect with their peers and students tend to have a stronger sense of professional identity (Dallashah et al., 2024). Teachers can strengthen their self-efficacy and professionalism through leadership and collaboration with peers, exchanging ideas about teaching, strategies, and tools. Maintaining good relationships with principals also indicates teachers' ability to engage with regional and school policies, where negotiation typically occurs (Sun et al., 2025). Furthermore, teachers who show higher self-efficacy are more likely to engage in professional development activities. They will be encouraged to pursue additional training to improve their skills, teach others, and advance their professionalism (Pi et al., 2024). Their awareness of their skills encourages them to achieve more, better, and higher.

As a teacher, a person's career is already established, and their career trajectory has taken a more defined shape compared to before they secured their job. However, a teacher's identity formation does not end when they secure their

job; it continues to develop as they perform their job and interact with their environment. Numerous factors continually shape a teacher's identity and self-perception, which is why discussing professional identity is important.

Identity is defined as "a shifting amalgam of personal biography, culture, social influence, and institutional values which may change according to role and circumstance." (Day et al., 2006). Therefore, as properly reiterated by Akkerman and Meijer (2011), identity is flexible and changing; it can be continued, discontinued, and influenced by social contexts. The elements that shape professional identity are the social environment in which they live and practice their teaching, as identity is context-bound, negotiable by perception (Halvorsen, 2021; Im, 2022; Pappa et al., 2017), important figures (Nur'Aini, 2018), and experience and personal values (Muhaji et al., 2023). Even though in-service teachers' careers might have settled, their identities remain dynamic and continually evolving, especially in the development of professional identity. Their competencies and self-perception change with the training they participate in (Y. S. Mahmud, 2021).

Self-reflection and awareness among teachers are crucial components of identity formation. The multifaceted layers of identity call for a breakdown of the constructs of professional identity. One of the most significant identity elements is training, which is well known for contributing to identity construction. Another layer comprises prior experiences, institutional responsibilities and roles, and the expansion of skills and expertise through training, which together strengthen identity formation (Chien, 2019). An example of an institutional responsibility related to identity is when a teacher makes pedagogical decisions and classroom practices. Their choices are guided by their students' perspectives and their own perceptions as teachers, which remains a paramount aspect

of teachers' professionalism, as it helps them navigate and integrate

In various contexts, programs have been implemented to enhance teachers' skills, both for preservice and in-service teachers. R. Mahmud (2021) provided an example of a teacher-training program, such as Pendidikan Profesi Guru (Teacher Professional Education, TPE), for teachers in Indonesia. Teachers are recruited to participate in an intensive training program that lasts six months for in-service teachers and one year for pre-service teachers. They are trained to transform their perception of themselves as teachers and to enhance their competencies in leadership, student-centered learning, and classroom management. This program helps teachers become more innovative and student-focused, similar to the PT Program. It also promotes collaborative and reflective practices, which contribute to a more professional and effective teaching identity (Sumarsih et al., 2022; Vebrianto et al., 2024). This specialized training program offers leadership training, classroom management, new teaching and assessment methods, and communication strategies for classroom contexts.

### **Praxis Shock**

In education, teachers will experience changes. The change could be in the environment in which they conduct their teaching practices, or in how they perceive their changing self within that environment. These changes can be described as praxis shock, in which teachers face a dilemma that challenges their existing beliefs and practices (Monfared et al., 2018). This shock can trigger significant transformations in their professional identity; for example, teachers who participated in a training program reported that their perception of education shifted and that self-discovery became influential in their careers and identities (Kiran et al., 2023).

For novice teachers, the praxis they experience comes from changing contexts, from

the university to the professional environment. In contexts that pose challenges, pre-service teachers will need more time to adapt to change. In contrast, in-service teachers have clearer plans and goals to achieve the professional identity they desire. Their identity development is shaped by their conception of what it means to be a teacher, which guides their actions and serves as the goal of their professional identity development (Palmér, 2016). Teachers change how they professional identity as they internalize new responsibilities and acquire skills, thereby defining their place in their profession. The process requires teachers to reflect on and compare their traditional practices before the experience that changes their perception, and to implement the newly acquired skills, which eventually change their self-image and professional identity (Beka & Gjelaj, 2025).

As established earlier, teachers' identities are negotiated through various factors that shape their self-perception. It is therefore important to recognize that no two teachers perceive training in the same way, even when they are doing it together and at the same time. The difference in perception is caused by factors such as educational background, beliefs, social environment, and self-efficacy. Since the launch of the PT Program, hundreds of teachers have participated to advance their careers, develop stronger teaching, school, and classroom management skills, and enhance their technology-related competencies. This training transforms traditional teachers into modern ones who are willing to accept change and feedback from their students and who strive to develop and improve to become better teachers. Integrating local cultural wisdom into leadership practices enhances the effectiveness of training programs (Sugiarti et al., 2024) and increases visibility in professional development, thereby shaping professional identity. With the established background and gaps outlined above, this study aims to answer the two research questions presented in the Introduction.

## ■ METHOD

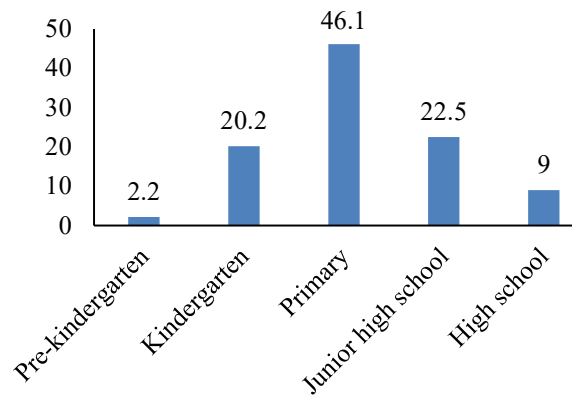
### Participants

There were 89 participants in this study, divided into three categories: pioneer teachers, candidates of pioneer teachers, and instructors of pioneer teachers. Participants were recruited through Convenience Sampling, a non-probabilistic sampling technique that selects participants based on the researcher's ease of access (Wu Suen et al., 2014). This technique was efficient and cost-effective, and its non-probabilistic design ensured that individuals in the target population had an equal chance of selection (Memon et al., 2025). The selection results of this technique allowed the researchers to involve participants from various regions in Central Java province, as listed in Table 1, with Pekalongan regency dominating with 22.5%, followed by Blora (21.3%) and Temanggung (16.9%).

**Table 1.** Origin of participants

| Regencies  | Percentage |
|------------|------------|
| Pekalongan | 22.5       |
| Grobogan   | 9.0        |
| Blora      | 21.3       |
| Batang     | 12.4       |
| Jepara     | 7.9        |
| Kebumen    | 4.5        |
| Temanggung | 16.9       |
| Other      | 5.6        |

Information about the research was shared prior to obtaining participants' consent when they completed the questionnaire. The questionnaire respondents numbered 89, and 6 people took part in the focus group discussion. The names and identities of the participants were given pseudonyms for anonymity and safety. Figure 1 displays the participants' distribution based on the teaching contexts. The majority of participants teach in primary school (46.1%), followed by junior high school (22.5%), kindergarten and pre-kindergarten (20.2%), and, finally, high school (9%).



**Figure 1.** Distribution by teaching contexts

The top three groups of these participants have been teachers for 10-15 years (38.2%), 15-20 years (32.6%), and 20-25 years (21.3%), as shown in Table 2.

**Table 2.** Length of work experience

| Work experience (years) | Percentage |
|-------------------------|------------|
| 0-5                     | 1.1        |
| 5-10                    | 5.6        |
| 10-15                   | 38.2       |
| 15-20                   | 32.6       |
| 20-25                   | 21.3       |
| >30                     | 1.1        |

### Research Design and Procedures

This research integrates quantitative and qualitative data to provide a comprehensive understanding of how these teachers perceive their professional identity constructions through their self-efficacy in digital competence, training, and teaching practices. These three elements were essential in shaping their identity in their professional practices (Zhang et al., 2020). To capture the overall elements of professional identity formation, the research steps are depicted in Figure 2 below:

### Research Instruments

Data were gathered through a questionnaire designed in Google Forms. Given the nature of

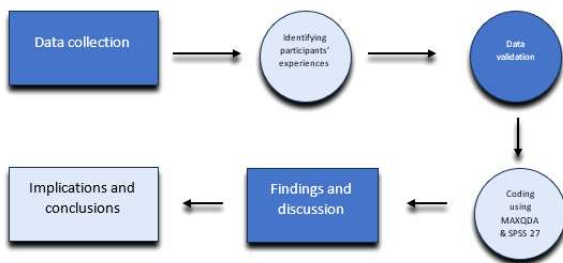


Figure 2. The research process

the participants' recruitment method, which emphasized ease of access for researchers, the questionnaire was distributed via social media channels, such as WhatsApp, and via email (Weir & Jones, 2008). The instrument was adapted from the New General Self-efficacy scale (Farnia et al., 2020) and piloted with 25 participants to assess the questionnaire's validity and reliability.

The General Self-efficacy scale (Farnia et al., 2020) is one of the most widely used research instruments across many research contexts. It is designed to measure a person's confidence in their ability to solve issues in difficult situations. This instrument has been adopted, translated, and modified in multiple countries, establishing its position as one of the most widely used measures. The General Self-Efficacy Scale allows researchers to obtain a general overview of a person's self-efficacy without being limited to a specific context. The original scale was 1-5, then it was modified to 1-10 to allow more options, leading to more precise and nuanced feedback from participants. The adaptation and validation of the General Self-Efficacy Scale for teachers' self-efficacy are shown in Table 3.

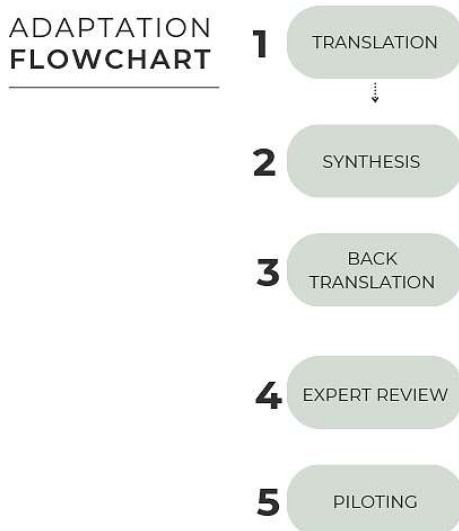
Table 3. Instrument dimensions and indicators (1-10 scale)

| Dimension                            | Indicators  | Items | Question Items  |
|--------------------------------------|---|-------|---|
| Education technology                 | Confident in their capability to use technology for teaching                                      | Q1    | What is your capability in the level of mastery of technology usage (computer, internet, other gadgets) during your participation in PTP? |
| Students' motivation and development | Confident in their capability to motivate and improve students' learning interest and involvement | Q2    | What is your capability to motivate students who have low interest in learning at school?   |
|                                      |   | Q3    | What is your capability to make your students feel confident and have good achievement at school?   |
|                                      |   | Q4    | What is your capability to help your students appreciate the learning activities?   |
| Pedagogical skills                   | Confident in their capability in pedagogical practices  | Q5    | What is your capability to ask good questions to your students?   |
| Classroom management                 | Confident in their capability to manage the classroom   | Q6    | What is your capability to manage your students to follow the classroom regulations?  |
|                                      |   | Q7    | What is your ability to calm students who disturb others?   |
|                                      |   | Q8    | What is your capability to implement the classroom management system with each student group?   |
| Assessment and learning support      | Confident in their capability to assess students  | Q9    | What is your capability to use various assessment strategies?   |

and provide academic support

|  |     |  |
|--|-----|--|
|  | Q10 | What is your capability to provide alternative explanations or examples when your students feel at a loss? |
|  | Q11 | What is your capability to help your student's family support their learning at school?                    |
|  | Q12 | What is your capability to implement an alternative strategy in your classroom?                            |

The adaptation process began with translating the original instrument into Indonesian to make it accessible to all participants. The next step was to synthesize the instrument to align it with the research contexts, then back-translate it into English. An expert review assessed the instrument's validity and reliability so it can be shared with pilot research participants. The adaptation steps are shown in Figure 3.



**Figure 3.** Adaptation flowchart

Once the instrument was established, it was analyzed for reliability. Table 4 presents the reliability analysis, indicating that the instrument achieved a Cronbach alpha of .638, which falls within the moderate range of internal consistency.

**Table 4.** Reliability of the instrument

| Cronbach's Alpha | N of Items |
|------------------|------------|
| .638             | 12         |

This suggests that the instrument is sufficiently reliable for this research; at the same time, it could be refined in finer detail to achieve overall consistency. The use of this instrument, despite its falling within the moderate range of internal consistency, was justified because the Cronbach's alpha thresholds are context-dependent (Aker et al., 2005). The special condition is allowed because the contexts of this study permit moderate values, leaving room for the complex construct under investigation (Kimberlin & Winterstein, 2008). This instrument has been validated in other studies (Bahmani et al., 2025; Ghaleh et al., 2024; Wardani et al., 2025); thus, it is appropriate for the present study, albeit with a moderate internal consistency. Furthermore, it is important to continue using it to provide a balanced perspective for fair comparability, in line with the expectation of contributing to a greater body of knowledge. Table 5 shows the number of individuals who filled out the questionnaire and were grouped by category.

The second instrument for this study is the interview conducted through Focus Group Discussions (FGDs). To gain a more comprehensive understanding of the participants' perception, the FDG sessions were conducted

**Table 5.** Distribution of participants between groups

| Group                           | Frequency | Valid Percent |
|---------------------------------|-----------|---------------|
| Pioneer teacher                 | 75        | 68.70         |
| Candidate of pioneer teacher    | 9         | 18.50         |
| Instructor of a pioneer teacher | 5         | 12.80         |
| Total                           | 89        | 100.00        |

via the Zoom app. When completing the self-efficacy questionnaire, all participants were invited to participate in the FGD and could opt out. Of 89 questionnaire respondents, 6 agreed to take part in the FGD. No particular requirements to take part in the FGD. The questions in the FGD were similar to those on the questionnaire, though more elaborate and given greater emphasis in participants' narratives. The sessions were recorded, transcribed, and stored in the cloud storage accessible only to the researchers. Table 6 shows the FGD participants.

**Table 6.** Focus group discussion participants

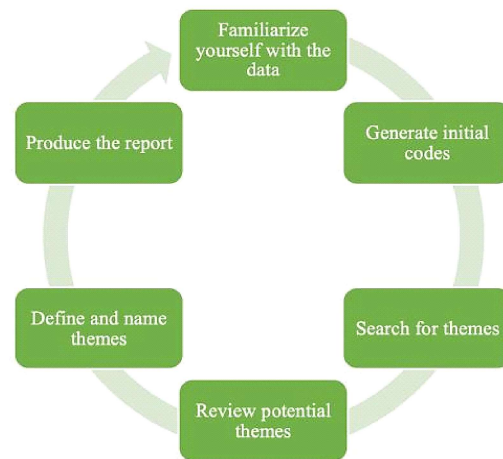
| No | Pseudonym | Gender | Age |
|----|-----------|--------|-----|
| 1  | Titik     | F      | 42  |
| 2  | Rudi      | M      | 36  |
| 3  | Abdul     | M      | 45  |
| 4  | Budiono   | M      | 43  |
| 5  | Selvi     | F      | 51  |
| 6  | Danang    | M      | 45  |

One limitation of the methodology in the present study was the use of convenience sampling to recruit participants. This kind of recruitment can cause sampling bias, where participants recruited may not be representative of the overall population. Furthermore, the bias can also lead to limited generalisability, as a certain group may be overrepresented and the others underrepresented (Wu Suen et al., 2014). Despite its limitations, convenience sampling remains the most practical approach, especially when data collection occurs on online platforms (Aker et

al., 2005; Bahmani et al., 2025; Ghaleh et al., 2024; Kimberlin & Winterstein, 2008; Wardani et al., 2025).

**Data Analysis**

There were two steps to conduct data analysis in this study. Quantitative data on self-efficacy were collected using the New General Self-efficacy scale from Farnia et al. (2020) and analyzed using ANOVA to determine differences in self-efficacy among participant groups. The qualitative data were analyzed using MAXQDA to gain a deeper understanding through thematic analysis of narrative responses from participant interviews and an open-ended questionnaire, as depicted in Figure 4.



**Figure 4.** The steps to conduct thematic analysis

The first step in analyzing the data is to become familiar with it, as this will make it easier to generate initial codes in MAXQDA. Themes that emerged from the participants' narratives were reviewed to determine their names. After all these steps were completed, the findings and discussion of the data are presented below.

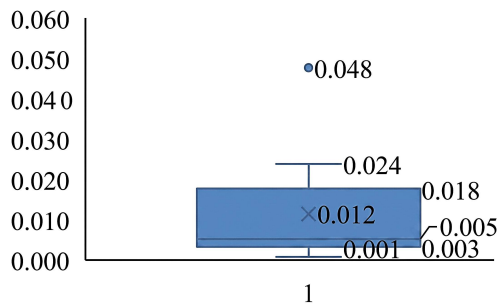
**RESULT AND DISCUSSION**

**How teachers perceive their self-efficacy as a professional teacher**

As the country continues to implement educational reforms focused on teacher empowerment and innovation, the pioneer

*teachers'* program has emerged as a strategic initiative to foster transformative leadership among educators. One important skill for teachers in the digital age is digital competence, as strong mastery of technology is believed to enhance the quality of teaching and learning. It makes teaching more engaging and interesting for students, and teachers can be more creative in developing pedagogical innovations.

A one-way analysis of variance (ANOVA) was conducted to determine significant differences among groups in teachers' competencies and experiences among PT Program participants.



**Figure 5.** Distribution of eta squared ( $\eta^2$ ) values

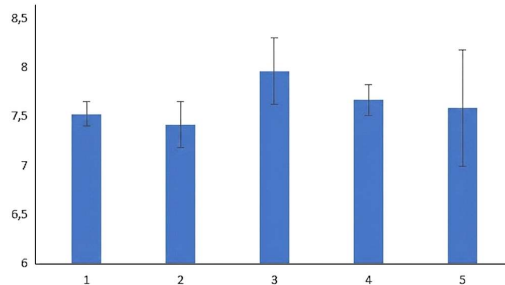
Figure 5 displays the ANOVA results that illustrate the distribution of eta squared ( $\eta^2$ ) values, where the values are grouped near the bottom of the scale. The findings indicate a median of 0.005, indicating a moderately low effect. The interquartile range of 0.003 to 0.018 indicates that most of the observed effects belong to the small-effect category. Only one higher value was found at 0.048, which can be identified as an outlier. However, even with its presence, it does not alter the overall pattern of the results. These findings suggest that the training's effect is modest and that its practical significance is limited across all 12 variables.

By category, the results show no statistically significant differences among pioneer teachers, candidates for pioneer teachers, and instructors of pioneer teachers across all measured variables ( $p > 0.05$ ). Regarding technology use, there were

no statistically significant differences between groups ( $p = .529$ ). Other competencies (Q3) showed non-significant results, including the teacher's ability to improve students' self-confidence ( $F(2, 86) = 0.129, p = .879$ ). All the other competencies showed similar incidents of non-significant results. These findings suggest that although the participants were grouped differently, they did not differ significantly in the measured units. They all had a similar skill set of teaching competence and perceived skills. These kinds of results most likely occur because individuals who took the test differed even within the same group and did not differ much between groups. This finding indicated that participants in the PT Program had developed comparable competencies across groups. The absence of significant differences in the ANOVA results is due to the variability in training effectiveness. Addressing these limitations provides more room for improvement in future studies and ensures that teacher development can be more effective. This situation was affected by participants' education levels, how long they had been teaching, and the training they received throughout their careers. Participants had experienced different types of training during their careers, leading some to have stronger efficacy than others in specific dimensions, such as classroom management, which is consistent with the study by Hartz et al. (2025). However, it is important to note that sometimes a training program did not lead to a significant change in teachers' efficacy. This case occurred because the training they received was not specifically designed to develop skills for facing professional challenges. This finding aligns with the work of García and Navarro-Ibáñez (2025).

From a methodological perspective, the relatively moderate differences in the ANOVA results were attributable to the high within-group variability. The variability encompasses areas such as teachers' backgrounds and experiences and a

wide range of teaching contexts, which can overshadow differences in variability between groups, as also found in Gao (2019).



1 Primary school 2. Junior high school 3. High school 4. Kindergarten 5. Pre-kindergarten

**Figure 6.** Mean scores of teachers' self-efficacy across five groups with error bars for standard deviation

Figure 6 shows the mean self-efficacy of teachers across different teaching contexts. Teachers at the high school level (SMA/SMK/MA) have the highest mean scores on almost all items, ranging from 7.25 to 7.7. The highest scores were recorded in Q2, Q6, Q8, Q10, and Q12. It could be interpreted that teachers at this level have a stronger ability to motivate students with low motivation to study. Other results show that these teachers have greater confidence in enforcing classroom rules. Teachers show greater efficacy in other areas, such as classroom management, and teach with greater clarity and purpose, helping students understand more effectively. High school teachers are also innovative in how they vary teaching strategies to make classes more interesting. The largest group of participants was the primary school teachers (SD/MI) group ( $N = 41$ ), with mean scores of 7.32 and 7.76, indicating stability and consistency, and relatively low standard deviations. This shows that teachers are not uniform in their perceptions of their competencies because they teach in different contexts. Low standard deviation scores indicate that this group has greater consistency and a more uniform view across all questionnaire

items, which can be interpreted as indicating high agreement with the instrument. Teachers in secondary schools (SMP/MTS), the second-largest group, had mean scores slightly lower than those of the primary and high school groups. They were in the range of 6.95 to 7.70. The lowest mean in this group was observed for Q11 ( $M = 6.95$ ). The teachers at this level lacked the confidence to offer alternative explanations when students were confused. Teachers in pre-kindergarten have the largest standard deviation of all groups. Thus, it can be asserted that teachers with high self-efficacy have a strong sense of identity. This stems from the fact that they could assess their own skills, indicating they were aware of their identity as professional teachers. In order to master the skills of self-assessment, teachers also have to be adept at acknowledging their experiences and communication skills in delivering the experiences, and their experiences were similar to those of the participants in the study by Narayanan et al. (2023). The strong sense of self-efficacy that the teachers demonstrated was what they had developed during the PT Program. It correlated with their perception of professional identity as teachers and how they addressed challenges in the classroom. By applying their acquired skills and knowledge, they became more confident in their classroom practices, such as addressing issues that undermine student confidence, integrating technology into their teaching, promoting student-centered learning, and encouraging students to appreciate the learning process.

### **The impact the pioneer teachers' program has on teachers' professional identity constructions**

#### ***Identity formation through career trajectories***

One of the key themes that emerged from the qualitative phase of this study was the significant shift in how pioneer teacher participants

perceived their identities. In society, people experience events that change how they perceive themselves, driven by shifts in society, education, and social engagement. Professional identity can shift due to factors such as the political situation (Subašić et al., 2008), natural disasters (Arteaga & Ugarte, 2015), or extreme changes, such as the transition of teaching contexts due to COVID (El-Soussi, 2022, 2025; Erdem Coğun & Sava, 2023). Generally, identity is perceived as fluid and dynamic; it changes as a person grows within the environment in which they reside. So, the social environment is a major influence on the cause of identity changes (Dryaeva & Kanaev, 2020). The transformation of identity in a professional context occurs gradually, often over years from the beginning of a teacher's career to the present, and continues to evolve through mutual engagement and collaborative learning (Kwan & Lopez-Real, 2010).

In the educational context, digital presence is no longer a foreign concept, as teachers must embrace hyper-visualization by integrating real and virtual identities when they join digital society to collect teaching materials and learning resources (Graf et al., 2023). Among the participants in the present study, many focused their sense of identity on what they do every day, how they interact with their colleagues and students, and their administrator before joining the program. In terms of teaching, they structured their lessons according to the school's syllabus and the government's curriculum. Then, they taught the students using the pre-designed lesson plans without making necessary changes. As teachers, they performed their duties on the assumption that it was their obligation, focusing on what was visible on the surface, such as classroom activities, learning materials, and teaching strategies, as Kolomitro et al. (2020) suggest. However, in reality, before joining the PT Program, Indonesian teachers did not consider the invisible processes, such as students' thinking, emotions, motivation, or the strategies

they chose to better understand the lesson. They described themselves as too focused on how students responded to their teaching, but rarely delved deeper into the unseen progress and the thinking processes behind students' activities. The teachers did not exercise their agency and autonomy to determine what was best for their students; instead, they completed the daily task as a chore, following long-established practices and maintaining the status quo. This finding contrasts with a study by Payler (2008), which encouraged teachers to take an active role in observing visible learning outcomes and to do more of these activities.

Another factor that undermines teachers' sensitivity to the need to improve their skills is their tendency to place their subjects on a pedestal. By doing this, teachers considered their subjects more important than the others, thus demanding that students understand them as soon as they were taught, without giving students ample time to process them. Therefore, when students failed to do so, they became upset. The PT Program taught the teachers that the thinking process was as important as the lesson and should be given at the appropriate time. This finding is in line with the work of Kneen et al. (2023), who also assert the importance of allowing time for students to think independently. Nevertheless, students needed time to process and comprehend the lesson. Teachers who were successful in the training gained knowledge that their lack of empathy for their students' learning process stemmed from their not being aware of the importance of the process to their students. They just wanted to see the results of learning, without considering the messiness of the learning process or the struggles students endured. These teachers expected rapid mastery from their students, overlooking the fact that such behavior did not contribute to students' learning.

Many described a transformation from being subject-focused instructors to becoming more holistic, student-centered mentors. This

change reflects the core principles of the pioneer teachers' program, which emphasizes character education, emotional intelligence, and instructional leadership in teachers. One participant shared a candid reflection on their mindset before joining the program:

*Saya dulu guru yang lebih fokus dalam menyampaikan materi, tidak begitu fokus dalam pembentukan karakter murid. Saya anggap itu tugas guru BK. Mudah marah dan menuntut murid saya untuk bisa menguasai mata pelajaran saya. (Abdul, m/45).*

[I was a teacher who focused on delivering the lesson materials and was not really into shaping my students' characters. I believed it was the School Counselor's duty. I was quick-tempered and always demanded that my students know everything about my subject].

The PT Program seeks to reframe the common perception among teachers who compartmentalize learning materials and students' character development. This compartmentalization phenomenon is common in Indonesia because it is difficult to integrate teaching materials and character development due to the absence of clear agreements and regulations on the matter, and because teachers are not trained to do so (Arifin, 2017). Another challenge in separating the two entities was that reliable and valid measures were rarely available in Indonesian contexts, making it difficult to assess the character aspect of learning (Rahmah et al., 2024). Thus, the incident where participants were unaware that they should combine both aspects can be seen in narratives like Abdul's.

At the beginning of the training, evidence suggests that Abdul did not consider students' character development as a part of their education. On the contrary, it was perceived as a separate entity, with responsibility falling to a different entity within the school. His professional identity at the time he made the statement has not

properly transformed. He still perceived that his roles and responsibilities were limited to those assigned to him. Abdul's awareness of his professional identity emerged when he realized that it was also his job to prioritize the delivery of subject knowledge and broader educational goals, including character development. During the training, participants received instructions on how to reflect on their practices and broaden their worldview, which led them to develop a deeper understanding of their responsibility for nurturing students' cognitive and affective growth. The participant's follow-up reflection highlights a profound shift in their professional identity following participation in the Pioneer Teachers' Program. Abdul's transformation aligns with the work of Barba-Reynoso (2025) and Meijer et al. (2014), who describe a transition from a content-oriented teacher to a more holistic educator who intentionally cultivates students' character.

*Saya sekarang tidak hanya menyampaikan materi tapi juga fokus dalam membentuk karakter murid, menerapkan ilmu yang saya dapat, membiasakan budaya positif dan memiliki percaya diri untuk merencanakan dan melaksanakan program-program sekolah yang berpihak pada murid. (Rudi, m/36)*

[Nowadays, I not only deliver the lesson but also educate students to build their characters, implementing the knowledge I got from the training, establishing a culture of positivity at school, and I feel more confident to plan and implement the school programs that are suitable for the students].

An expanding worldview requires practices and an understanding of the overall issues at hand. In the case of these teachers, professional growth stemmed from their understanding that students were not a single entity in need of growth; teachers also needed to broaden their

perceptions. By embracing the awareness that teachers' responsibility was not only to teach but also to ensure that students' character development was integral to their role. It was not an exclusive responsibility of the school counselors. This finding is in line with the work of Maria Zulfiati et al. (2019), who integrate learning materials that support cooperation and the use of advanced technology, and with Yanti et al. (2025), which leads to character growth.

The PT Program emphasized the importance of applying the knowledge gained, indicating a shift from passive to active learning and from learning to practice-based implementation, with students playing greater roles in their learning. Lastly, the implementation of a culture of positivity indicated that school leaders have established a way of thinking in which school climate and values are essential to ensuring the success of learning. Teachers who were able to implement the training into their daily teaching practices displayed a growing self-confidence in designing and leading student-centered initiatives. This action reflected that teachers have greater agency to design the best learning strategies, with students more involved, allowing greater autonomy in learning, as indicated in the work of Vellanki et al. (2024).

Teachers become more aware that being a leader in education does not necessarily mean always being in control of everything, but rather that letting go of control to allow their students' growth is the true leadership the program expects. Altogether, this transformation underscores the PT Program's impact on redefining what it means to be a teacher, moving beyond classroom instructions toward advocacy and becoming a better advocate for their students; leadership where teachers have more ability to delegate and enable students to grow and be more independent, so that they can have a stronger sense of learning and independence.

### *Teachers as advocates*

Teachers as advocates means they are active in promoting and supporting students' interests and rights, both inside and outside the classroom. The PT Program seeks to train teachers to be advocates for their students by ensuring that students' interests, talents, and individual traits are not diminished in the school. As an example of how important it was to be an advocate, a teacher shared his journey before and after joining the PT Program. They acknowledged, within the limited capacity, Ki Hajar Dewantara's educational philosophy (Supriadi et al., 2025), which particularly emphasized honoring students' individuality, interests, and talents.

*Sebelum mengikuti PGP saya seorang guru yang belum mengetahui akan pentingnya prinsip pendidikan menurut Ki Hajar Dewantara, saya sering memaksakan anak untuk semua bisa tidak berdasarkan minat dan bakat mereka." (Titik, 42/f).*

[Before taking part in the Pioneer Teachers' Program, I was a teacher who did not understand the importance of the education principle. According to Ki Hajar Dewantara, I often forced my students to master all subjects rather than focus on their interests and talents.

The situation above stemmed from teachers' prior knowledge, which emphasized an instructional approach that expected all students to achieve the same outcome at the end of a learning period. The learning curve occurred after participation in the PT Program, when teachers became aware that students had the right to grow and learn in fields that matched their talents and interests, and within the teaching framework of that period. Teachers being advocates means that they position themselves not merely as transmitters of knowledge but as supporters and champions who ensure that students' well-being,

autonomy, and holistic development are cared for and fully realized. This kind of advocacy entails understanding students' learning needs and interests, applying humanistic principles, listening to students' voices, designing responsive learning experiences, and empowering students to be the best versions of themselves. This kind of shift enhances a teacher's professional identity by transforming the teacher from an authority figure into a reflective leader and change agent in the classroom. The reason being an advocate for students is important is that advocacy builds empathy among teachers and strengthens relationships with students. Furthermore, advocacy fosters a deeper sense of moral responsibility, giving teachers a stronger sense of accountability for their students' success. For many pioneer teachers, this identity evolution is both personally fulfilling and professionally empowering, aligning them more closely with the broader goals of transformative education in Indonesia.

### **The Praxis shock**

One of the most influential changes in teachers' professional development was driven by the praxis shock. In the training, the teachers experienced changes in their perception of their professional practices. Issues such as time management, mindset shifts, and how to implement the training's theoretical aspects are emerging from participants' narratives.

*"Awalnya sedih karena merasa tidak sanggup menjalani. Tapi setelah berjalan yang saya rasakan senang mendapat ilmu yang luar biasa, bisa merubah mindset dan melakukan aksi nyata." (Danang, m/45),*

[I was discouraged at the start because I thought I would not be able to go through with it. However, after some time, I felt happy because I gained new knowledge that helped me change my mindset and conduct the real-world actions].

The gap between their perception and reality aligns with Clarke (2025), who found that harsh feelings of unpreparedness triggered the shock. They felt unprepared to handle the practical demands of the classroom. However, this was not the teacher's permanent state. After some adjustment, they could feel at ease in the classroom and implement real-world actions.

They had to change how they perceived their duties as teachers and deal with the abundance of knowledge they had received during the training. The environment in which they conducted the teaching might be the same before and after the training; however, the changes they experienced were more profound, as they helped them change their teaching practices even though these changes can increase workload, induce stress, and contribute to professional burnout (Nkomo et al., 2025). The manifestation of shock in this case may be linked to feeling overwhelmed at the start of the program. Danang found it difficult to align his evolving professional identity with the practical realities of conducting teaching practices during the training. This finding is consistent with the work of Ballantyne and Retell (2020), as he also felt the stress and worried that he was not good enough to be a participant in the training. The cognitive dissonance from lack of preparedness and increased demand and workload made Danang unable to process the changes immediately. He needed some time to feel that he had a grip on the realities of training and to feel happy again. To overcome his stress, Danang reflected on his experiences and held on to the new experiences and the fact that he learned new things. Through collaborative work with his peers and mentors, Danang took control of the changes and held the reins, which helped him improve his classroom practices.

### ***Impact of the Pioneer Teachers Program on Teachers' Professional Identity***

One of the most critical changes that resulted from the pioneer teachers' program was

how teachers perceived professionalism, which was directly linked to their professional identity. Teachers involved in the PT Program report a shift toward more innovative and student-focused learning approaches. It is important to change teachers' mindsets so that they can see themselves differently in relation to their professional identity, which is now aligned with modern educational practices (Vebrianto et al., 2024). One remarkable change is the increased awareness of the importance of peer collaboration, as it provides additional lenses for reflecting on their practices. They could discuss with their peers on how they conduct their practices and get feedback from them, as well as the improved professionalism because they have someone else's point of view to see themselves better (Vebrianto et al., 2024), whether within schools or when they meet with fellow teachers in an organizational context.

These teachers in the Pioneer teachers program became more aware that their roles as teachers, advocates, and classroom managers were essential to their growth. In the process of achieving awareness, they often experience stress, shock, and additional workloads (Buchanan, 2015). One of the stresses that the teachers were experiencing came from the unrealistic expectation from their leaders. They were required to meet heavy workloads while maintaining the quality of their teaching outcomes and classroom management. Participating in training can only do so much to improve teachers' skills. The most critical element often overlooked is time. Teachers need time to adapt to the changes and to the praxis shock after the training, due to shifting contexts and mindsets, and to accept that their identity has been transformed by the training. However, time is an affordance; not all teachers have the privilege of taking time, as their jobs require them to implement their training immediately afterward. This sudden change is the most probable cause of stress and

disorientation (Buchanan, 2015), as well as unwelcome emotions due to what is termed "reality shock" (Rif'iyati et al., 2024; Schwarzer, 1992).

There are ways to mitigate praxis shock, and educational institutions play a significant role in this context. The university or school should provide a space where teachers can collaborate, share the workload, and engage in open discussion (Meijer et al., 2011). This would allow teachers to engage in more meaningful discussions to improve teaching quality, implement new teaching technologies, and, for pioneering teachers, generate new ideas that earn them the title of Pioneer Teachers. When teachers reflect on their training experiences, they can select appropriate teaching methods to implement in their schools or use newly developed teaching tools that emerged from their ideas during training, this making them engage more actively in the way they reflect on their practices and take action to help them adapt to and embrace their new identity as pioneer teachers and develop stronger sense of identity as professional teachers (Dixon et al., 2023).

## ■ CONCLUSION

This study examined the relationship between teachers' professional identity formation and self-efficacy among participants in Indonesia's Pioneer Teacher Program. The quantitative results indicated no statistically significant differences in self-efficacy scores among teachers across teaching contexts, suggesting that the environment played a significant role in how teachers perceived their competence. On the contrary, the qualitative findings provided rich, transformative insights from teachers across different teaching contexts. Participants reported a significant shift in mindset and practice following participation in the PT Program. They transitioned from traditional, content-focused teaching to more student-centered, reflective, and character-driven

approaches. Due to these changes, teachers began to embrace their roles as advocates for students to reach their full potential while ensuring that students' well-being, interests, and talents are nurtured. It highlights the significance of experiential learning, reflective practice, and value-based leadership in enabling teachers to become more skilled educators. The school provided the facilities to support teachers in mitigating challenges and fostering more positive transitions toward becoming better teachers.

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