



Leadership of Elementary School Teachers Alumni of the Pioneer Teacher Program in Yogyakarta City

Ares Brilatin*, Setiawan Edi Wibowo

Department of Educational Management, Universitas Negeri Yogyakarta
Colombo Street No. 1, Karangmalang, Yogyakarta 55281, Indonesia

*Corresponding Author. E-mail: aresbrilatin@gmail.com

Received: 14 December 2023; Revised: 18 December 2023; Accepted: 28 January 2024

Abstract: This research examines the leadership of Pioneer Teacher Program (*Guru Penggerak* or GP) graduates at the primary school level in Yogyakarta City. It was a descriptive qualitative research. This research applied the educational sociology approach, particularly the role of teachers. Data was collected from interviews and literature reviews. The data analysis is based on the theory of teachers as leaders by Frank Crowther (1997). The results of this research: first, GP graduates of the Pioneer Teacher Program have successfully improved their quality and professionalism in leadership. This improvement is manifested in proactive involvement in various leadership activities. Second, the Self-Efficacy of Pioneer Teachers is not prevalent. Some GP members face personal and casuistic issues, where their lack of confidence emerges when faced with strategic leadership positions, such as being a school principal. The research findings contradict the common narrative that the Pioneer Teacher Program produces successful teachers without obstacles. These findings serve as a recommendation for the future Pioneer Teacher Program to emphasize and pay more attention to the self-confidence of its graduates in strategic leadership positions within their respective institutions.

Keywords: pioneer teacher, leadership, community, achievement

How to Cite: Brilatin, A., & Wibowo, S. E. (2024). Leadership of elementary school teachers alumni of the pioneer teacher program in Yogyakarta city. *Jurnal Prima Edukasia*, 12(1), 129-139. doi: <http://dx.doi.org/10.21831/jpe.v12i1.69044>



Introduction

The discourse surrounding educators or teachers continues to evolve, particularly concerning policies related to education designed for educators. There are numerous educational programs for educators, such as the "Pioneer Teacher" program. In developed countries, teachers have been trained through specific programs with certain admission and graduation standards. This is because, in reality, there are still many teachers who are low in quality and adhere to outdated educational visions. For example, in the United States, the government and accreditation institutions have failed to ensure teachers are prepared to teach in more modern classroom environments. Findings from their national surveys reveal that the views of school leaders and teachers regarding the quality of education provided by schools, as well as the relationship between student achievement and teacher preparation, are far from being modern (Levine, 2006).

Many practical and idealistic ideas are emerging to enhance the quality of educational practices. Broadly speaking, there are two paradigmatic streams: first, those who see efforts to improve academic quality from the student's perspective. Second, those who see improvement efforts starting from the educator's perspective. The first group emphasizes the role of learners. Educational institutions are about how to encourage students to connect relationships between different disciplines and engage in critical thinking (Barisonzi, J. & Thorn, 2003).

On the contrary, education experts hold a different belief that schools play a significant role in the development of students' education, and the role of teachers is a key factor in the success of any

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educational practice anywhere (Csikszentmihalyi, 1986). Therefore, improving teacher professionalism is crucial, especially in the face of the changing times when individuals must come to terms with the reality of massive and revolutionary technological advancements.

Teachers must maintain their professionalism in a rapidly evolving world due to the developments brought about by the Information Technology revolution associated with the industrial world, giving rise to what is known as the fourth industrial revolution (IR 4.0). Some characteristics of the IR 4.0 era include digitization, the Internet of Things, the Internet of People, big data, iCloud data, and Artificial Intelligence (AI). All these new developments have brought about changes in various life sectors, including education. IR 4.0 can have negative impacts as it may threaten the existence of schools and teachers. However, IR 4.0 can also provide positive opportunities by bringing many opportunities for innovative research and classroom practices to accelerate and optimize teacher productivity and student learning outcomes (Afrianto, 2018).

The discourse continues to evolve. Teacher leadership is seen as a solution to address issues of low-quality education, adherence to traditional values, and a lack of contextual relevance to modernity. The potential of teacher leadership can be explored to the fullest extent possible, and obstacles and opportunities that may arise in implementing teacher leadership in practice can be better addressed. Teacher leadership is believed to positively impact many aspects, particularly in improving school quality, school and teacher effectiveness, and teacher motivation and retention. However, specific conditional requirements must be met for the teacher's leadership to develop to its optimal point. This is practiced in the United Kingdom, where teacher leadership is increasingly recognized as a solution (Muijs & Harris, 2003). This research is significant because it aligns with the government's implementation of the Pioneer Teacher Program through the Ministry of Education and Culture, aimed at enhancing the quality and professionalism of educators. Previous studies have predominantly focused on Pioneer Teachers as a source of student learning inspiration (Faiz & Faridah., 2022).

Pioneer Teacher Program aims to increase students' motivation and is also considered capable of enhancing teacher competence. The program seeks to spark teachers' interest in participating in the Pioneer Teacher Program. In the era of Industry 4.0, demands on teachers have increased as they must continually develop educational skills, provide more effective learning, and assist students in optimizing their thinking abilities. The Pioneer Teacher Program establishes four competency standards: pedagogical competence, personality competence, professional competence, and social competence (Retnaningsih, 2019).

Pioneer Teachers play a role as learning leaders who can implement the principle of independence in the learning process and actively contribute to advancing the world of education to achieve student-focused education. The Pioneer Teacher Program provides teachers with various training and workshops to improve the quality of education in Indonesia. With these four competencies, teachers must apply the "freedom to learn" approach, emphasizing individualized, needs-oriented student learning. This is expected to result in academically successful students and those who possess character in line with the values of Pancasila (Sijabat et al., 2022). However, previous research has not extensively focused on the leadership of graduates from the Pioneer Teacher Program (PGP) within the circle of teachers' education personnel and even the impact of PGP on teacher leadership within the structural environment of educational institutions. Therefore, it is important to examine the role and contribution of PGP. In this research, the spheres of teacher action (Spheres of Teacher Leadership Action for Learning) are the main issues that need to be explored so that teachers can play a maximum role and collaborate with their colleagues in improving the quality of learning and teaching. These spheres of action also explain how teachers understand their roles as leaders in the school environment (Fairman & Mackenzie, 2016).

The concept of teacher action spheres explains various strategies teachers use to influence their colleagues, both directly and indirectly, through formal and informal leadership. In addition, informal relationships or collaborations, trust, and cooperation are crucial in supporting the development of teacher's leadership and school improvement (Fairman & Mackenzie, 2015). Some teachers have successfully practiced ideal leadership to create supportive conditions, especially in schools lacking such conditions. Teachers leading school improvement efforts generally hesitate to identify themselves as leaders and rarely use the term "leader" for themselves or their colleagues (Lovett, 2018). Conversely, teachers will also emphasize the importance of their collaborative and informal work in improving school quality. Nevertheless, teachers acknowledge the individual contributions and strengths brought by their colleagues into collective efforts. In the effort to enhance the focus on school improvement and

shared responsibility in the learning of all students, the use of the term "teacher leader" is often sensitive (Adam, 2018).

The concept of teacher leadership is followed by success after success, particularly in improving the quality of education, schools, and learning. Teacher leaders, both in university lecture halls and school classrooms, and their behaviors as leaders have successfully influenced various student learning outcomes. Specifically, the leadership of these teachers can be described as transformational, as it has proven to be a crucial predictor of student learning (Fitriani, 2016). A specific component of transformational leadership is communication – how teacher leaders communicate to provide intellectual stimulation and change the nature of the classroom. Communication becomes key to success in encouraging and motivating students. When teacher leaders influence and motivate students' intrinsic aspects through intellectually stimulating behavior, students approach learning deeply and strategically. Students no longer adopt a surface-level, shallow approach to their studies (Bolkan et al., 2011).

As a result, the relationship between teacher leaders, student motivation, and learning achievement is a key aspect of education. Teacher leaders are individuals who not only act as instructors but also as agents of change in the education process. They can deeply influence and motivate their students. The results are highly significant when a teacher practices transformational leadership, encouraging students with intellectual stimulation and inspiration. These teachers can stimulate intrinsic motivation in students, which is an internal drive to learn and grow. When students feel inspired and motivated by their teachers, they tend to take a deeper approach to learning, focusing on profound understanding and better learning strategies.

The teacher's ability to stimulate student motivation positively impacts learning achievement. Intrinsically motivated students face learning challenges with enthusiasm and determination to succeed. They are more likely to actively participate in learning, ask questions, seek deeper understanding, and achieve better results in exams and assignments. Thus, the relationship between teacher leaders, student motivation, and learning achievement is a mutually reinforcing cycle. Transformational leadership teachers encourage their students to achieve higher performance through intrinsic motivation. Well-motivated students tend to attain better learning outcomes, which, in turn, strengthens the teacher's position as an effective leader in enhancing their students' achievements.

Methods

This research was descriptive qualitative research. It is a research method that utilizes qualitative data and explains it descriptively. Descriptive qualitative research was often used to analyze social occurrences, phenomena, or conditions (Strauss, 1987). This research used a sociological approach to education, which was conducted within the field of sociology, focusing on social, cultural, and interactional aspects in the educational context. This sociology research aimed to understand how social factors influenced the education system, the learning process, and academic outcomes. Educational sociology research encompassed various topics, such as educational inequality, socialization in schools, classroom dynamics, the role of teachers, dynamics of student groups, the impact of educational policies, and the relationship between social backgrounds and academic achievement, as well as cultural issues within the educational context (Lundgren, 2013).

The primary objective of educational sociology research was to uncover social patterns, dynamics, and challenges within the education system and provide insights that could be used to improve the educational system and achieve more equality and equity in education. This research could also offer perspectives on how social factors influence learning and student achievement. In uncovering social patterns within the education system, the researcher employed the theory of teachers as leaders (Lieberman & Miller, 2005). According to Frank Crowther, based on studies of the leadership approaches applied by successful teachers and professionals working in school communities within economically disadvantaged socio-economic environments, the initial framework of teacher leadership in all aspects indicated a transformational and educational approach to leadership. Meanwhile, a strategic approach was less evident. The work of successful teachers was not adequately acknowledged in the development of most educational leadership theories. This might particularly apply to theories originating from corporate and managerial systems, casting serious doubt on the potential of many existing theories to meet the needs of the education profession in the context of evolving education (Crowther, 1997).

Educational sociology research often involves data collection through surveys, interviews, observations, document analysis, and statistical analysis to gain an in-depth understanding of social phenomena within the educational context. However, this research opted for interviews and document analysis. The findings of this study could be used as recommendations and a foundation for decision-making in educational policy and improvement within the education system.

Results and Discussion

Results

The Concept of Pioneer Teacher

In carrying out their duties, teachers must meet several criteria of professionalism, as formulated in Government Regulation Number 19 of 2005 concerning National Education Standards, namely: 1) teachers must have academic qualifications and competencies as learning agents; physically and mentally healthy; and capable of realizing national educational goals; 2) academic qualifications of teachers become the benchmark for the minimum level of education with a diploma or other relevant certificates according to the law; 3) to become a learning agent in primary and secondary education as well as early childhood, teachers must fulfill specific competencies, including; (a) pedagogical, (b) personality, (c) social, and (d) professional; 4) individuals without a diploma or expertise certificate, but have necessary specialized skills, can be appointed as educators through eligibility and equivalency tests.

The Pioneer Teacher Program is a national policy designed to conceptually enhance the capacity of teacher resources in Indonesia, enabling them to serve as leaders in learning and drive the holistic development of students. The learning provided by Pioneer Teachers is expected to actively and proactively develop other educators in implementing student-centered learning. In other words, a Pioneer Teacher is expected to serve as an example and a transformative agent in the educational ecosystem to produce students with Pancasila values.

The role of the Pioneer Teacher, on the one hand, involves promoting quality student-centered learning and, on the other hand, empowering other teachers to maximize the same learning model. The concept of a Pioneer Teacher has the following roles. Firstly, it served as a figure that mobilized the learning community and fellow teachers in the school and the assigned region. Secondly, the Pioneer Teacher is a practical teaching figure for other teachers, particularly concerning learning development. Thus, the Pioneer Teacher becomes an exemplary role model that other teachers will refer to for technical aspects of learning development in the school.

Thirdly, the Pioneer Teacher plays a role in shaping student leadership. In this context, the teacher has a decisive role, acting as a stimulus for the leadership potential possessed by students. Therefore, the learning conducted by the Pioneer Teacher should democratically provide maximum space for students to develop their leadership potential.

Fourthly, the Pioneer Teacher is positioned as a communicator actively creating a positive space for discussion in advancing learning. This communication is carried out between teachers and stakeholders internally and externally at the school.

Fifthly, the Pioneer Teacher promotes the well-being of the educational ecosystem in the school through leadership in implementing learning. Pioneer Teachers must meet several selection criteria, including 1) implementing student-centered learning; 2) having the ability to focus on goals; 3) having the competence to motivate others and groups; 4) having high resilience; 5) possessing leadership competence and acting independently; 6) having the ability to learn new things, being open to feedback, and continuously improving oneself; 7) having effective communication skills and experience in developing others; and 8) demonstrating emotional maturity and behaving following the code of ethics (Ministry of Education and Culture, 2023).

Pioneer Teacher Curriculum Design

The curriculum designed for Pioneer Teachers is implemented within the main topic, "learning leadership." Such learning is necessary to ensure that teachers differentiate, are community-based in practice, and engage in social and emotional learning. The training model provided to teachers through this program, in the form of online training, workshops, conferences, and mentoring, includes 1) workplace and community practice learning, including feedback from superiors, peers, and students, by

70%; 2) learning from peers and other teachers, by 20%; and 3) participating in various formal training programs to enhance human resources quality, by 10% (Ministry of Education and Culture, 2023). The assessment techniques employed involve assessing the outcomes of tasks and practices performed by training participants. Teachers undergoing training will also be evaluated through peer feedback, facilitator evaluations, and assessments by school principals. Furthermore, assessments related to students are focused on improving the learning outcomes that have been implemented.

Meanwhile, the content aspect of the Pioneer Teacher concept is divided into four learning modules. First, Module 1 on the Paradigm and Vision of the Pioneer Teacher can be outlined as follows. These learning outcomes include 1) a Pioneer Teacher can understand the educational philosophy of Ki Hadjar Dewantara and critically reflect on these values in both local and national contexts; 2) capable of implementing strategies as a learning leader and striving to make the school a center for character and positive culture development; and 3) each prospective Pioneer Teacher can develop and communicate a student-centric school vision to teachers and stakeholders.

Secondly, Module 2 focuses on Student-Centric Learning Practices. The learning outcomes at this stage expect prospective Pioneer Teachers to be able to: 1) implement differentiated learning to accommodate the diverse learning needs of students; 2) manage emotions and develop social skills that support learning; 3) engage in empowering communication as a fundamental coaching skill; and 4) apply coaching practices as learning leaders.

Thirdly, Module 3 focuses on Learning Leadership in School Development. The learning outcomes at this stage expect prospective Pioneer Teachers to be able to: 1) practice decision-making based on learning leadership principles; 2) implement strategies for managing human resources, finances, time, and school facilities to improve the quality of learning that impacts students; 3) plan, organize, and lead school improvement and change programs, monitoring them to ensure they proceed as planned and lead to the intended goals; and 4) develop regular activities that facilitate communication between students, parents, and teachers, providing a role for parents to be involved in the learning process that impacts the improvement of learning quality.

Fourthly, Module 4 focuses on Celebration, Reflection, Collaboration, and Action. The learning outcomes at this stage expect Pioneer Teachers to be able to: 1) reflect on their role as a Pioneer Teacher and the strategies implemented as a Pioneer Teacher; 2) share practices with peers; 3) create follow-up plans and collaborate with peers; and 4) create follow-up plans and collaborate with peers (Ministry of Education and Culture, 2023).

The curriculum for Pioneer Teachers fundamentally aims to produce learning leaders based on the educational philosophy of Ki Hadjar Dewantara, reflected in a learning leader. This critical reflection aims to contextualize the philosophical values in both local and national contexts. This concept also provides student-centered learning practices that can shape learning leaders as pioneers in school development who can celebrate, reflect, collaborate, and take action.

Number of Pioneer Teachers in the Special Region of Yogyakarta

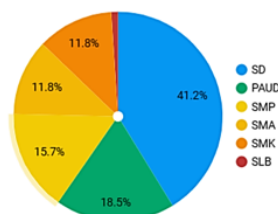


Figure 1. Pioneer Teacher Center of the Special Region of Yogyakarta

Based on Figure 1, the number of Pioneer Teachers (Guru Penggerak) at the elementary school level is the highest (1,968 individuals), followed sequentially by the levels of junior high school (SMP), senior high school (SMA), vocational high school (SMK), early childhood education (PAUD), and special needs education (SLB).

Increase in the Number of Pioneer Teachers per Batch

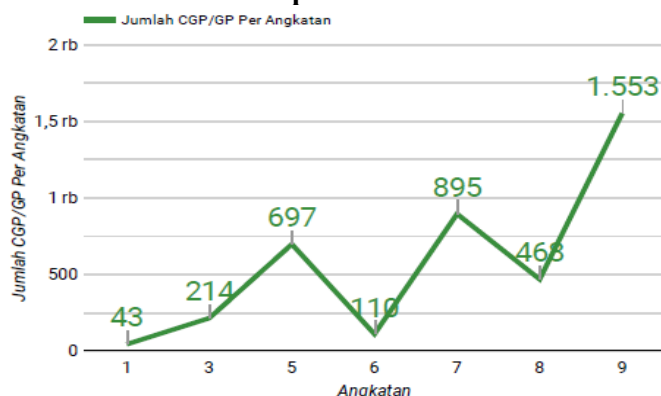


Figure 2. Pioneer Teacher Center of the Special Region of Yogyakarta

Based on Figure 2, as of October 17, 2023, the number of participants in the Pioneer Teacher Program in the Special Region of Yogyakarta has been increasing from one batch to another, reaching its peak in the 9th batch with a total of 1,553 participants. In Yogyakarta, the overall number of Pioneer Teachers is 108, from the preschool level (TK) to the high school level (SMA/SMK).

JUMLAH CGP/GP PER KAB/KOTA PER ANGKATAN									
			Angkatan / Jml CGP-GP						
Provinsi	Kab/Kota	Status Lulus	1	3	5	6	7	8	Total kesel...
DI Yogyakarta	Kab. Bantul	Lulus	-	101	-	-	82	-	183
		Aktif dalam ...	-	-	-	-	-	-	160
	Kab. Gunung Kidul	Aktif dalam ...	-	-	-	-	-	49	147
		Lulus	-	-	-	110	24	-	134
	Kab. Kulon Progo	Lulus	43	-	75	-	23	-	141
		Aktif dalam ...	-	-	-	-	-	23	136
	Kab. Sleman	Aktif dalam ...	-	-	-	-	-	-	200
		Lulus	-	113	-	-	77	-	190
Kota Yogyakarta		Aktif dalam ...	-	-	-	-	-	-	151
		Lulus	-	-	49	-	59	-	108

Figure 3. Pioneer Teacher Center of the Special Region of Yogyakarta

In other words, in Yogyakarta City, the 5th batch of Pioneer Teachers consists of 49 individuals, categorized as follows: 3 teachers in early childhood education (PAUD), 23 teachers in elementary school (SD), 13 teachers in junior high school (SMP), eight teachers in senior high school (SMA), and two teachers in vocational high school (SMK). Subsequently, in the 7th batch, the number of Pioneer Teachers is 59 individuals, distributed as follows: 14 teachers in early childhood education (PAUD), 13 teachers in elementary school (SD), 12 teachers in junior high school (SMP), 12 teachers in senior high school (SMA), seven teachers in vocational high school (SMK), and one teacher in special needs education (SLB).

In October 2023, the Pioneer Teacher Batch 9 training is underway. The number of prospective Pioneer Teachers from Yogyakarta City is 151 individuals, categorized as follows: 29 teachers in early childhood education (PAUD), 82 teachers in elementary school (SD), 81 teachers in junior high school (SMP), 51 teachers in senior high school (SMA), 15 teachers in vocational high school (SMK), and one teacher in special needs education (SLB)

Until now, from Batches 5 and 7, 36 elementary school teachers have been declared successful graduates of the Pioneer Teacher Program. However, none of the graduates at the elementary school level have been appointed as school principals or supervisors in their respective institutions. However, some Pioneer Teacher graduates have received additional responsibilities related to teacher leadership from the school principal in their respective educational units.

By 2023, more teachers will have completed the Pioneer Teacher Program at the elementary school level. However, among the Pioneer Teacher graduates, none have been appointed as school

principals or supervisors at the elementary school level. Nevertheless, some Pioneer Teacher graduates have been given additional tasks related to teacher leadership by the school principal in their respective educational units.

Discussion

Leadership of Pioneer Teacher

Sibagariang et al. (2021) have stated that the role of Pioneer Teachers is closely tied to efforts to promote the concept of "independent learning" as a government education project. The primary focus of Pioneer Teachers is to realize the concept of independent learning at the school level. Pioneer Teachers often manage learning by utilizing existing technology in this functional role. The goal is to motivate students and enhance their academic achievements more efficiently.

Through the "independent learning" approach, students are expected to develop independence following the principles of the Pancasila student profile, such as thinking critically, behaving morally, being creative, collaborating, appreciating global diversity, and possessing analytical skills and sharp thinking to overcome everyday challenges. In the classroom, Pioneer Teachers are a guide, coach, and collaborator with fellow teachers (Nur et al., 2023).

The same view is expressed by Ningrum and Suryani, stating that the Pioneer Teacher's ability to maximize technological development is necessary, which is believed to contribute to the enrichment of facilities and learning variations. Therefore, the "Pioneer Teacher," which emerged simultaneously with the independent learning curriculum, can be distinguished from the "Regular Teacher." Although both Pioneer Teachers and Regular Teachers play a crucial role in creating a supportive learning environment and fostering students' interest and happiness in learning, Pioneer Teachers have additional responsibilities (Ningrum & Suryani, 2022)

Teachers are not only expected to be leaders in the learning process but are also expected to have the ability to master technology in the learning context. They should be proactive in reflecting on and discovering innovative and creative strategies that can enhance the quality of the learning process. The concept of Pioneer Teacher has a positive impact on improving the performance of teachers, ultimately helping to create students with critical and creative thinking skills, making them individuals who are ready to compete in the workforce (Andriansyah et al., 2022)

The concept of the Pioneer Teacher and the certainty of the development of learning technology is becoming more contextual and relevant. Indeed, the digitalism concept applied by Pioneer Teachers intersects with the development of Society 5.0 amid the fourth industrial revolution era. For instance, this is notably marked by the metaverse era. Digitalism is an approach that utilizes technology to act more efficiently and effectively, including in education. Digital technology serves as a platform for communication, innovation, and the development of human creativity (Gusteti et al., 2023).

Currently, technology continues to evolve, and we have entered the metaverse era, which also impacts the field of education. The Merdeka (Independent) Curriculum (Kurikulum Merdeka) is now being implemented, one of its programs being the Pioneer Teacher Program. Like it or not, Pioneer Teachers are agents of change required to enhance their digital literacy, understand technology, and use it in the learning process. In the Independent Curriculum, students' abilities are developed holistically, aiming to achieve the Pancasila Learner Profile and leveraging information and communication technology (Santoso et al., 2023).

The Pioneer Teacher Program does nothing more than encourage teachers to improve themselves, referring to the principles of Pancasila as quality learning companions for students. Teachers are no longer the sole source of information but dialogical companions in exchanging views. This shifts Indonesia's paradigm and learning system to be more relevant in the global education context. In the context of international competition, the Ministry of Education and Culture has initiated the Pioneer Teacher Program to develop pedagogical skills and provide guidance to Pioneer Teachers, enabling them to have the necessary managerial abilities to become leaders, whether as school principals, supervisors, or leaders within the classroom itself (Faiz et al., 2022).

Based on the previous findings, Pioneer Teachers have never been examined in their relationship with leadership within the school institution. However, this research found that the informants, as alumni of the Pioneer Teacher Program, make a significant contribution to leadership within the school institution, not only in the learning process but also concerning other teachers and educational staff. The informant with the initials Mrs. T.M., M.Pd., for example, stated that she was declared graduated from

the Pioneer Teacher Program in December 2022, in the 5th batch. After graduating, T.M. shared that the school principal and colleagues appreciated her. Some leadership activities she has undertaken include being part of the City of Yogyakarta Curriculum Team, a speaker at Sharing Sessions at schools, a Curriculum Coordinator at the school, a Reviewer of the Instrument for Teacher Promotion to Functional Positions, part of the Curriculum Team in Kemantren Kotagede, Chair of School Accreditation, Resource Person for the School Vision Mission at the KKKS level, Team ASPD Question Compiler, ASPD Operator, ANBK Operator, ANBK Proctor, and Coordinator for the National Science Olympiad (TM, 2023).

The informant shares similar success in leadership with the initials Mr. BSN, who is also from the 5th batch of the Pioneer Teacher Program. Like Mrs. T.M., after graduating from PGP, Mr. BSN also received additional responsibilities within his school environment, such as being a mentor for the Peer Learning Community at the school, a facilitator and coordinator in P5, part of the Curriculum Team, the Chief Executive of the *Pesta Siaga* carnival, and the Chairman of the Persami Committee (BSN, 2023).

Pioneer Teacher's Self-Confidence Level

Several previous studies have stated that Pioneer Teachers represent a new formulation of education policy, aiming to produce teachers who become leaders in learning. The characteristics of Pioneer Teachers are designed as educational pioneers who implement learner-centered teaching and empower fellow teachers in their respective areas. In essence, this policy applies a curriculum based on the educational philosophy of Ki Hadjar Dewantara, where educational leaders must be capable of critical reflection to contextualize these philosophical values in local and national contexts (Mansyur, 2022)

Furthermore, the Pioneer Teacher Program implements the concept of independent learning and positions teachers as the primary agents of change in efforts to reform the education system, especially in the smallest educational unit (schools). As educational agents, Pioneer Teachers' presence drives organizational transformation in schools, marked by changes in the school environment. Consequently, teacher-centered learning practices are diminishing. Education is transforming from a centralized to a more decentralized model (Satriawan et al., 2021).

This transformation and decentralization began with the innovations introduced by Pioneer Teachers. Generally, the transformation process is initiated by Pioneer Teachers using an appreciative inquiry approach, revealing the potential and strengths of change within the school through dialogue and reducing resistance that hinders the transformation process. The concept and program of Pioneer Teachers thus focus on making teachers leaders, instructors, and motivators by providing training content in various activities that encourage the formation of a positive atmosphere within the community (Adiansha & Syarifuddin, 2023).

This community shares up-to-date information and experiences in solving learning problems naturally, serving as valuable assets for other teachers. The Pioneer Teacher Program serves as a stepping stone to realize continuous professional development because it can be a means to develop both social competence and professionalism among teachers (Safrizal, Nurhafizah, Yulia, 2022).

Pioneer Teachers have transformed into a locus of entities and a social movement, which are actively networked to ensure the equal distribution of teachers' performance quality in online and face-to-face learning. In fulfilling its role as a social function, Pioneer Teachers actively act as social agents and become more proficient with information and communication technology (ICT). This expertise contributes to directing the national education structure and system toward improvement. However, challenges for Pioneer Teachers persist, such as time constraints that limit their role (Lubis et al., 2023).

Indeed, educational issues cannot be separated from the role of teachers as leaders. In independent learning, teachers serve as motivators for their colleagues in the school environment and as catalysts for student motivation. This task is not easy, as the acceleration of individual teachers varies. Overall, the landscape of education is always dynamic and changing. Various components in the world of education interact to achieve quality education (Riowati & Yoenanto, 2022).

Freedom in the learning process essentially aims to give teachers the freedom to be creative and deliver lessons to students. Therefore, the Pioneer Teacher plays a crucial role as a leader in improving the quality of national education in the future, despite the various shortcomings that continue to emerge in a casuistic manner in different places.

One of the shortcomings of the Pioneer Teacher, based on the successful experiences of the informants, is the quality of human resources. Field informants indicate that the government-sponsored Pioneer Teacher Program (PGP), organized by the Ministry of Education and Culture, has successfully improved the quality of teacher human resources, especially in terms of leadership. However, PGP still presents some psychological issues for Pioneer Teachers, particularly concerning PGP graduates' self-efficacy level in competing for leadership positions among peers in the growing environment (Thurlings et al., 2015).

Mrs. T.M., who teaches at Randusari Elementary School in Yogyakarta, states that she is not interested in the position of School Principal. In addition to the relatively small salary associated with the role, the administrative responsibilities of being a school principal are also not in line with her characteristics. She lacks self-confidence, feels uncomfortable with competition, and is not assertive enough in leadership.

In other words, the Pioneer Teacher Program (PGP) should aim to encourage its graduates to have leadership skills and instill a leadership mentality. This is because positions like school principal involve not only administrative matters but also political ones. Therefore, alumni of the Pioneer Teacher Program may encounter challenges with such political positions, as experienced by Mrs. T.M. Issues like these are often attributed to the low self-efficacy of the informants.

The issue of a teacher's self-efficacy arises as a social construct consisting of various interconnected dimensions. Researchers have identified at least six interrelated dimensions that shape a teacher's self-efficacy: instructional efficacy, adaptation of education for individual student needs, motivating students, maintaining discipline, collaborating with colleagues and parents, and facing changes and challenges. Researchers have also found that the self-efficacy of individual teachers can be explained differently from the collective self-efficacy of teachers. Therefore, personal issues should be considered alongside collective issues for teachers (Skaalvik & Skaalvik, 2007).

Conclusion

First, it is possible to construct an instrument that measures belief regarding mathematical assessments using aspects of productive and unproductive beliefs. This instrument consists of eight statement items and has good validation based on confirmatory factor analysis (CFA), Pearson's moment-product correlation, and Cronbach's Alpha. Second, pre-service elementary school mathematics teachers hold mixed beliefs regarding mathematics assessment. This conclusion is reached due to the results of the open-ended question questionnaire and the close-ended question questionnaire showing different belief tendencies. The practical implication of these findings is that there needs to be a conscious effort to change the beliefs of pre-service elementary school mathematics teachers regarding mathematics assessments. This is important because various theories and previous studies have shown that the trajectory of educational practice, in this case, mathematics assessment, is determined by teacher beliefs.

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