Turnitin_Self-Confidence

by enditiyaspratiwi.endit@gmail.com 1

Submission date: 19-Sep-2021 04:19AM (UTC-0400)
Submission ID: 1648129529
File name: Turnitin-Manuscript_Pratiwi_et_al.,.pdf (295.26K)
Word count: 5260
Character count: 30091

Jurnal Elemen
Vol. 6 No. 1, Januari 2020, hal. 1 - 4
DOI: 10.29408/jel.v6i1.XXXX
http://e-journal.hamzanwadi.ac.id/index.php/jel

Novice Primary Teachers Reflection on Teaching Mathematics: Self-Confidence Attitude

Enditiyas Pratiwi[1 *], A.Wilda Indra Nanna[2], Dedi Kusnadi[2], Irianto Aras[2], Dian Kurniati[3], Percy Sepeng[4]
[1,2]Program Studi Pendidikan Guru Sekolah Dasar, Universitas Borneo Tarakan
[3]Program Studi Pendidikan Matematika, Universitas Jember
[4]Program Studi Pendidikan Matematika, Central University of Technology
*enditiyasp@borneo.ac.id

Abstrak

Penelitian tentang gambaran sikap guru yaitu pada item kepercayaan diri guru dalam mengajar matematika khususnya bagi guru sekolah dasar pemula masih minim. Oleh karena itu, tujuan penelitian ini adalah mendeskripsikan refleksi sikap kepercayaan diri guru pemula sekolah dasar dalam pengajaran matematika. Kuesioner berdasarkan pengalaman mengajar guru sekolah dasar pemula diberikan kepada total 28 guru sekolah dasar pemula yang dipilih untuk berpartisipasi dalam penelitian yang dilaporkan dalam artikel ini. Wawancara semi-terstruktur digunakan untuk mengeksplorasi refleksi guru sekolah dasar pemula pada item skala kuesioner yang diberikan. Data kualitatif yang diperoleh dari wawancara semi-terstruktur menginformasikan informasi kuantitatif yang diambil dari kuesioner. Hasil penelitian menunjukkan bahwa refleksi sikap kepercayaan diri guru sekolah dasar pemula pada skala *confidence in teaching mathematics* memunculkan 3 temuan, yaitu (1) *ability on content knowledge*; (2) *ability to explain*; dan (3) *ability in classroom-management*. Refleksi yang dihasilkan pada skala *attitude toward success in teaching mathematics* yaitu, *the appraisal of others*, dan pada skala *usefulness of Mathematics teaching* yaitu *ability to understand the usefulness of Mathematics*.
Kata kunci: guru pemula, kepercayaan diri, refleksi, sikap

Abstract

Research on the description of teacher attitudes, namely on the item of teacher confidence in teaching mathematics, especially for novice primary school teachers, is minimal. Therefore, the purpose of this study sought to describe a reflection of the self-confidence attitude of novice primary teachers in teaching mathematics. A questionnaire based on novice primary teachers' teaching experience was administered to a total of 28 novice primary teachers conveniently selected to participate in the study reported in this article. The semi-structured interviews data were used to explore novice primary teachers' reflections on items on the given questionnaire scale. The qualitative data obtained from semi-structured interviews informed the quantitative information extracted from the questionnaires. The results showed that the reflection of the self-confidence attitude of novice primary teachers on the scale of confidence in teaching mathematics raises three essential findings, specifically (1) ability on content knowledge, (2) ability to explain, and (3) ability in classroom management. The resulting reflection on the scale was an attitude toward success in teaching mathematics, namely, the appraisal of others, and on the scale, the usefulness of mathematics teaching, namely the ability to understand the usefulness of mathematics.
Keywords: attitude; self-confidence; reflection; novice teacher

Received: August 17, 2019 / Accepted: November 21, 2019 / Published Online: January 31, 2020

Introduction

Mathematics plays an important role in influencing how students deal with private, social, and public life (Anthony & Walshaw, 2009). This justifies the need for primary and secondary education students in most countries (Mensah et al., 2013), and in line with mathematics, which is viewed by many as the main subject at the education level in Indonesia.

Moreover, attitude towards mathematics play a significant role towards the teaching and learning processes in mathematics classrooms. The teachers' attitude towards teaching mathematics plays an influential role in ensuring the success of applying the mathematics curriculum. Besides, teachers' attitudes towards beliefs and practices, including teacher confidence in teaching mathematics (Stipek et al., 2001) and willingness to take greater risks (Trigwell, 2012) are considered as key factors that influence quality of teaching mathematics (Stipek et al., 2001). This is because teachers' attitudes towards teaching mathematics are seen as an important factor in shaping students' attitudes towards mathematics (Mensah et al., 2013).

To understand the attitudes of an individual, both student and teacher, attitudes must be firstly identified. One of the effective ways to identify this is to use an attitude measurement instrument. An individual's attitude may not be observed directly, but the nature of attitude may be known through the individual's response. The most common measure to obtain information about an individual's attitudes is through a questionnaire. Fennema & Sherman (1976) proposed nine scales to measure students' mathematics attitudes in learning, specifically (1) confidence in learning mathematics; (2) mathematics anxiety; (3) attitude toward success in mathematics; (4) mathematics as a male domain; (5) effectance motivation in mathematics; (6) usefulness of mathematics; (7) perception of mother's attitude toward one as a learner of mathematics; (8) perception of father's attitude toward one as a learner of mathematics; (9) perception of teacher's attitude toward one as a learner of mathematics. Furthermore, Nisbet (1991) developed the Fennema & Sherman (1976) instrument to measure pre-service teachers' attitudes in teaching mathematics. The attitudes referred to in this study are those that are influenced by experiences and achievements in school mathematics; teachers; parents; employers; and peers.

Several educational researchers attempted to reveal students' attitudes in mathematics using existing instruments (Demirel et al., 2015; Larkin & Jorgensen, 2016; Mazana, 2019). Students' negative attitudes can change quickly to become positive attitudes towards mathematics (Hannula, 2002). Besides, Mensah et al. (2013) showed that teachers' attitudes

influence students' attitudes towards mathematics in teaching mathematics. Apart from looking at student attitudes, some researchers revealed a significant positive correlation between student attitudes towards learning and academic achievement (Bakar et al., 2010; Mata et al., 2012; Yaratan & Kasapoglu, 2012). Some researchers also reveal the relationship between student attitudes and achievement, seen from gender, and the results of their research show that there is no relationship between student gender and attitudes and achievement (Hemmings et al., 2011; Khun-inkeeree & Omar-fauzee, 2016; Mahanta & Islam, 2012). Then, Anyagh et al. (2018) investigated students' perceptions of their teachers' attitudes in mathematics learning. The results of his research show that students are strongly influenced by the actions and inaction of the teacher; thus, the wrong tendency to develop mathematics subjects can be developed.

In addition to students' attitudes towards mathematics and teachers, several researchers also revealed the attitudes of pre-service teachers in teaching mathematics (Hourigan et al., 2016; Jacobs & Durant, 2017; Tabuk, 2018) which shows that pre-service teachers have a positive attitude towards teaching mathematics. Several researchers also discussed the teacher's attitude toward learning. Thiel (2010) revealed that the majority of kindergarten teachers are open to mathematics. They emphasize the benefits of mathematics for everyday life. However, numerous kindergarten teachers perceive mathematics assignments as merely the use of numbers and shapes. Furthermore, it was revealed that the positive attitude of primary teachers towards classroom teaching could encourage students to develop positive attitudes towards learning (Festus et al., 2013; Korur et al., 2016). Therefore, this study will follow up by analysing and describing the attitudes of primary teachers, especially novice teachers, in teaching mathematics in schools. The follow-up is carried out because the actions and inaction of the teachers in the learning process can negatively impact students. Besides, novice primary teachers were chosen because they had never participated in a professional program to provide a complete picture of the novice primary teachers' attitude in teaching mathematics.

The teacher's attitude towards teaching in the classroom is also inseparable from the teacher's desire to facilitate the delivery of lesson content and involve students in mathematics thinking and discussion. However, to focus on facilitating a delivery of the lesson content, conditions are required to reflect on themselves; in this case, teachers can reflect on their teaching (Russo, 2019). Reflection is as important as action because when it can reflect on the actions taken, it is self-control; therefore, it can be responsible for one's behaviour (Abramovich et al., 2019). Reflection can be used as the primary measure by which teachers understand, develop, and refine practices in teaching mathematics (Keazer, 2014). Reflection is a process, both individual and collaborative, which involves experience and uncertainty (Jay & Johnson,

2002). This is in line with the opinion that reflection is a process (Russo, 2019). Hence, it becomes interesting when you can find out the results of teacher reflection on their confidence in teaching mathematics because, according to Ramos-rodríguez et al. (2017), reflection is a process that can improve a teacher's teaching practice.

Based on the explanation of the existing literature discussed above, none has extensively described the teacher's attitude in teaching mathematics, particularly those linked to self-confidence. The teacher's attitude regarding self-confidence is an important component because self-confidence as a mathematics teacher is significantly associated with student confidence as mathematics learners (Stipek et al., 2001; Tuimavana & Datt, 2017). To find out the teacher's attitude, the researcher adopted three scales developed by Nisbet (1991), which are related to self-confidence, specifically (1) confidence in teaching mathematics; (2) attitude toward success in teaching mathematics; (3) usefulness of mathematics teaching. In addition to self-confidence being an important component in teaching mathematics, the determination of teachers to reflect on themselves in teaching mathematics (Russo, 2019) and the teacher's views themselves are also very necessary to build or measure the effectiveness of teaching in the classroom (Tuimavana & Datt, 2017). Besides, repeated reflections on teacher knowledge are strongly influenced by experiences in teaching (Mcalpine et al., 2004; Mcalpine & Weston, 2002).

Based on the explanation of the research above, there has not been any research that extensively describes the attitude of teachers in reflecting on mathematics teaching, especially the attitude of novice primary teachers regarding self-confidence. The teacher's attitude regarding self-confidence is an important component because self-confidence as a mathematics teacher is significantly associated with student confidence as mathematics learners (Stipek et al., 2001; Tuimavana & Datt, 2017). Furthermore, Orgovanyi-Gajdos (2015) states that teachers with less teaching experience or novice teachers need support to handle classroom teaching problems while expert teachers do not, so it is necessary to explore the self-confidence attitude of novice teachers in teaching mathematics. The novice teachers are teachers with a maximum of 1 year of teaching experience (Fantilli & McDougall, 2009). Therefore, this study aims to describe the reflection of novice primary teachers' self-confidence in teaching mathematics.

Method

The study reported in this article followed a descriptive quantitative study to describe novice primary teachers' attitudes in teaching mathematics. The research participants were

novice primary teachers who are alumni of PGSD University in Tarakan and are selected based on their teaching experience, specifically having a maximum of one-year teaching experience in primary schools. Participants were determined using the incidental sampling technique. Participants were selected; incidentally, that is, anyone who accidentally or incidentally met the researcher and could be used as a sample. If the person whom the researcher met was considered suitable and eligible to serve as the source of data, then he/she could be included. The rationale behind using the incidental sample technique was that the researchers were not aware of the population data that met the requirements in the study, and not all population distribution was in a condition that could be accessed through the internet. Twenty-eight participants met the criteria in the study, namely that they had been teaching for a maximum of 1 year.

The instruments used in this study was a questionnaire to determine the participants' attitudes, especially regarding self-confidence in teaching mathematics in primary schools and interview guidelines. Data collection was carried out through a questionnaire in the form of a google form sent to participants through the chat messenger application *WhatsApp*. This condition was done because the research was carried out during the Covid 19 pandemic, so it was impossible to give questionnaires directly to participants.

The questionnaire used was a scale developed by Nisbet (1991). In this study, the questionnaire scale used only focused on self-confidence; hence three scales were selected related to self-confidence, specifically, **confidence in teaching mathematics** (ten items), **attitude toward success in teaching mathematics** (six items), and **usefulness of mathematics teaching** (eight items). The questionnaires were given 24 closed items and equipped with demographic data, namely teaching timespan. Besides, the 24 items given contained two factors, namely 12 positive items and 12 negative items. Then the participant items were assessed on a 5-point Likert scale, namely (1) strongly agree; (2) agree; (3) hesitated; (4) disagree; (5) strongly disagree. Before using the questionnaire, researchers conducted trials on 24 primary school teachers in Tarakan City to see their validity and reliability. Based on the item validity test using Pearson correlation, it was found that 24 items were declared valid. Meanwhile, the results of the reliability test using Cronbach's Alpha obtained a value of .841. The value shows that the questionnaire has high reliability.

The data analysis in this study used descriptive statistics through the following stages: 1) identification of the novice teachers' responses to the completed questionnaires; 2) calculate the average for each aspect of self-confidences; 3) categorize self-confidence, namely, low, medium and high based on the average result and standard deviation by taking into account the score interval in Table 1; 4) choose three novice teachers (PL, PM, and PH), who represent each

category to be followed up through interviews; 5) analysing the results of the interview; 6) concluding.

Table 1. Category and score interval

No	Category	Score Interval
1	Low	$x <$ M-1SD
2	Moderate	M-1SD $\leq x <$ M+1SD
3	High	$x \geq$ M+1SD

Metode penelitian harus dijelaskan secara jelas. Pada bagian ini paling tidak menjelaskan desain penelitian yang digunakan, alasannya menggunakan desain itu, prosedur penelitia yang dilakukan, populasi dan sampel penelitian atau partisipan penelitian, instrumen penelitian, teknik pengumpulan data, dan teknik analisis data. Beberapa hal tersebut ditulis secara deskriptif dan menjadi satu-kesatuan yang utuh, tidak perlu dibuatkan subjudul.

Result

Table 2 shows the reflection analysis of 28 novice primary teachers' self-confidence attitudes, accompanied through further analysis to show the scores into each self-confidence attitude scale based on the predetermined indicators. The frequency and percentage of the self-confidence attitude scale are then calculated, as shown in Table 3. As shown in Table 3, the self-confidence on confidence in teaching mathematics scale is seen to be the highest (85.71%) in the moderate category. On the attitude toward success in teaching mathematics scale, the highest level of self-confidence is also in the moderate category (42.86%). However, in the usefulness of mathematics teaching scale, self-confidence in the moderate and high categories has the same value (50%).

Table 2. Descriptive statitics of the self-confidences

No	Self-Confidences	*N*	Mean	Standard Deviation
1	Confidence in teaching mathematics scale	28	3.086	.127
2	Attitude toward succes in teaching mathematics scale	28	3.036	.532
3	Usefulness of mathematics teaching scale	28	3.451	.244
	Mean	**28**	**3.191**	**.301**

Table 3. Descriptive statitics of the self-confidences

No	Self-Confidences	*N*	Mean	Standard Deviation
1	Confidence in teaching mathematics scale	28	3.086	.127
2	Attitude toward succes in teaching mathematics scale	28	3.036	.532
3	Usefulness of mathematics teaching scale	28	3.451	.244
	Mean	**28**	**3.191**	**.301**

Note:

a: Confidence in Teaching Mathematics Scale

b: Attitude Toward Success in Teaching Mathematics Scale

c: Usefulness of Mathematics Teaching Scale

Confidence in teaching mathematics

Do novice primary teachers have confidence in teaching mathematics? This question is presented and discussed further. Based on the data in Table 2, the participants' responses show the highest percentage in the moderate category (85.71%). Then, based on the collected data, three participants representing each category were followed up through interviews. The results of the interview showed that the findings on participant's reflection on the confidence in mathematics teaching scale showed three findings, namely (1) ability on content knowledge, (2) ability to explain, and (3) ability in classroom management.

Following are the results of the interview on the item "I believe I can teach mathematics in the upper and lower classes," which shows support for the emergence of the **ability on content knowledge**.

> "Agree, **but it depends on the lesson content**. If I master the lesson content, then I will feel confident in teaching. However, if I have not mastered the lesson content, then I am not sure to teach my student". (PL)
>
> "Agree. I am **still learning to become a teacher who can teach Mathematics well** to high and low grade students". (PM)
>
> "Agree. Because in my opinion, as an primary school teacher or class teacher, you must be able to teach mathematics well in the lower and upper classes. I think **the mathematics lesson in primary schools is still very simple**". (PH)

The following is the result of the interview on the item "I am confident about the method of teaching mathematics," which shows support for the **ability to explain**.

> "Agree. I always have concerns when delivering lesson content, **whether my method is proper or not, that my students will understand**. But I know that I have tried to use the appropriate teaching method". (PL)
>
> "Agree. As a low-grade teacher, I teach numbers and their operations using objects that are easy for students to find in their daily lives. **It is easy and fun for students**". (PM)

> "Agree. **I am confident in the mathematics teaching method that is being carried out** because so far, I have used a method that is adapted to the content to be presented". (PH)

The following are the interview results on the item "I am not the type of person who can teach mathematics well," which shows support for the emergence of **abilities in classroom management**.

> "Unsure. Because I have concerns about my attitude, particularly when I **face students who find it difficult to understand the material, I convey whether I can handle these students in class learning**". (PL)
>
> "Disagree. **I am a friendly math teacher and present the material attractively in the classroom so that students always pay attention to every explanation I give**". (PM)
>
> "Strongly disagree. I can teach mathematics well; so far, **my students always relied on me as a source of information in classroom learning**". (PH)

Attitude toward success in teaching mathematics

Do novice primary teachers have a willingness to achieve success in mathematics teaching? Based on the data in Table 2, the participants' responses show the highest percentage in the moderate category (42.86%). Then, three participants representing each category were followed up through interviews. The results of the interview showed that the findings on participant's reflection on the attitude toward success in teaching mathematics scale is **others' appraise**. Table 4 is the result of the interview on several items showing the support of the appraisal of others' findings.

Table 4. The interview results that unveil the appraisal of others

Items	Participant	Interview Results
I am glad to be acknowledged by other teachers as an excellent Mathematics teacher.	PL	Disagree. **I don't want to get a bigger responsibility once I got the acknowledgment,** such as helping students for the Olympiad preparation. I feel more comfortable when I work with colleagues because they are more capable than me.
	PM	Agree. **I like to share and learn together with older teachers, including mathematics**.
	PH	Agree. I am glad, **and I hope the acknowledgment can influence students' perspectives**, such as believing me in delivering the material.
I will be glad to be an excellent Mathematics teacher among my colleagues.	PL	Disagree. **I do not want others to rely on me because it burdens me**.
	PM	Unsure. **I have a lot to learn more because I am still a new teacher, and many are more experienced**.
	PH	Agree. **I believe students will be more motivated to learn when I perform as an excellent teacher.**
Being an excellent Mathematics teacher makes me feel to get the spotlight.	PL	Unsure**. I don't know how others think about me since I feel I am just an ordinary teacher**.
	PM	Unsure. I am not sure with the word "spotlight." I don't want students to think that I am good at Mathematics only. **I want to be acknowledged as an excellent teacher for all subjects as a homeroom.**
	PH	Strongly agree. Yes, **being an excellent teacher makes me stand out among the other teachers**.
I do not want to tell my colleagues that I am great at teaching Mathematics.	PL	Agree. **I do not want to get the burden to be relied on when my colleagues know that I am excellent in teaching Mathematics**.
	PM	Agree. Because **I enjoy studying with the older teachers, so they know that I am an ordinary math teacher**.
	PH	Strongly agree. Because **I do not want to show off my ability, I let others judge my ability from their perspective**.

The usefulness of mathematics teaching

Do novice primary teachers understand the usefulness of mathematics? Based on the data in Table 2, the participants' responses show the same percentage in the moderate and high category (50 %). Then, three participants representing each category were followed up through interviews. The results of the interview showed that the findings on participant's reflection on the usefulness of mathematics teaching scale is **the ability to understand mathematics' usefulness**. Table 5 is the result of the interview on several items that support the ability to understand the usefulness of mathematics.

Table 5. The interview results that show the ability to understand the usefulness of mathematics

Items	Participant	Interview Results
Mathematics is taught at school because of its usefulness.	PL	Agree. **Yes, it is very useful. I focus on emphasizing the multiplication problem** since I think it is quite necessary for students' life.
	PM	Strongly agree. **Mathematics is an important material for students because they will find it in everyday life**, for example numbers and their operations.
	PH	Agree. **Mathematics has a strong correlation with real daily life**.
Mathematics will not be that significant for students' future careers.	PL	Disagree. **Every career requires mathematical knowledge**.
	PM	Strongly disagree. **Mathematics will help someone in every job they are engaged in**.
	PH	Disagree. It is important because **I can be sure that there is at least one of the mathematics material that is needed in their career**.
Mathematics is a useful lesson for students' adult daily life.	PL	Agree. **Surely, the knowledge will be useful**.
	PM	Strongly agree. **We need math in carrying out our daily activities**, for example, comparing the prices of goods.
	PH	Agree. **We cannot deny that mathematics is strongly related to daily life**.

Discussion

In the first questionnaire scale of confidence in teaching mathematics, there were three findings; (1) ability on content knowledge; (2) ability to explain; dan (3) ability in classroom management. The emergence of ability on content knowledge shows that participants are only comfortable with the material being mastered. If they have not mastered the material, they have a tendency not to be a good teacher. The reason arises because the participants only master the material being taught. In contrast, for other materials, they still have to learn and need a long time to master the material. The conditions experienced by participants are in line with Bates et al. (2013), who said that teachers still have fear in their math content. It was further explained that teachers have various kinds of fear of mathematics, including a lack of self-confidence. It dramatically affects the fear of content knowledge they have for teaching mathematics. In addition, other participants experienced a tendency to be confident in their mastery of the material. So there is no doubt when you have to change materials or teach at low or high classes. In line with the opinion of Strauss & Ziv (2012), which states that teaching is a natural cognitive ability so that one can master the material before teaching in class. Furthermore, Chapman

(2015) said that teachers' knowledge of subject matter must be broader than the general abilities known to students.

With regards to confidence in teaching mathematics scale, it demonstrated that participants can do a self-reflection toward their teaching (Russo, 2019). The raising reflection when the participants can respond to the uncertainty process experience exactly what they feel so far (Jay & Johnson, 2002). Besides, participants had known and understood the next steps they need to do after noticing imperfect than experiences. For instance, when they did not understand the material, they needed to prepare themselves with the materials even though it needed a long time. This condition showed that participants were reflecting on their teaching experiences. Reflection is a mechanism to improve the teaching quality and translate the experiences into teaching knowledge (Mcalpine et al., 2004). It is in line with Gelfuso & Dennis (2014) believe about the importance of considering teachers' knowledge to facilitate skillful teaching practices.

The second finding in confidence in teaching mathematics scale showed that in raising the ability to explain; that is, the participants have concerns about how students receive the material that has been delivered. There was a solicitude when students failed to understand the materials or the ineffective method used. However, Boyd et al. (2014) say that these solicitudes are important in shaping teachers' skillful and competent. Afterward, another perspective from Gelfuso & Dennis (2014) states that knowing the materials do not necessarily translate to having decent pedagogical content knowledge for the teaching practice in facilitating the reflection (the process of implementing the 'guaranteed statement' about learning and teaching). Besides, other participants already establish that the teaching methods are suitable and appropriate for the materials. It shows that the participants had already considered students' needs to decide the teaching methods to deliver the materials. It is in line with Schukajlow et al. (2012) statement that student-centred learning has a substantial effect on students' attitudes and beliefs. Thus, the result of participants' reflection, including the ability to ~~determine effective~~ teaching ensure ~~or strategies, results~~ from their adaptability to several challenges they have been through in the class (Digregorio et al., 2020). It is in line with Lee's (2005) statement that teachers who succeed in reflecting their teaching ability to think logically about the reasons to use certain teaching strategies and improve their teaching practices. It can be concluded that through a reflection, the participants could produce certain teaching practices such as planning the lesson, practicing the plans, and doing assessments (Kalantari & Kolahi, 2017).

The third finding in confidence in teaching mathematics scale showed that the rise of classroom management ability, in which participants have concerns about themselves when

facing students who cannot understand the material presented. This condition is by the fact that the participants still have little experience in teaching mathematics. Besides, this condition in line with Cavanagh & Mcmaster's (2015) opinion that reflection is only focused on teachers' classroom management. Others believe that teachers with a lack of sufficient classroom management training will continuously get various challenges in their teaching careers (Simonsen et al., 2014). Hence, teacher training for classroom management that is continuously supervised is quite important to adjust the existed supports. It is aligned with Ramos-rodríguez et al. (2017) opinion saying that teacher training can reflect the challenging teaching processes.

Meanwhile, other participants have shown that they can teach mathematics well. Reasons given related to this item are when students pay full attention and rely on participants' role as the main source of information. The condition where the participants had a great preparation is in line with Ingersoll et al. (2012) state that teachers' preparation has a significant role in improving their teaching.

Discussing the second scale, attitude toward success in teaching mathematics, it can be seen that participants responded based on their experience of uncertainty that they had felt like a reflection. Participants bring up the appraisal, which shows the importance of others' judgments as a teacher given by other teachers or students. The assessment reflected by participants have pessimistic tendencies, such as they did not want to be relied on and felt it a burden. It shows that participants were so careful with their belief or knowledge based on their actions (Conway, 2001).

In contrast to the reflections that occur in other participants, they tend to think that take colleagues and students' judgments as an appreciation for their effort and everything they have done in mathematics teaching. However, participants did not want to be spotlighted and disclose to other teachers that they were excellent mathematics teachers. Their eagerness is encouraged to be acknowledged based on their work or contribution seen by other teachers or students. The continuous reflection done by participants allows them to access prior knowledge and build new knowledge from their experience (Mcalpine & Weston, 2002). So, participants can focus on widening their knowledge through reflections by improving their skills to effectively use reflection and develop themselves to be a capable teacher. Additionally, the results of participants' reflections show the existence of moral and ethical criteria and measure whether those professional activities do not take sides, fair, and respectful (Kalantari & Kolahi, 2017).

On the third scale, the usefulness of mathematics teaching reveals that in raising the ability to understand the usefulness of mathematics, participants think that mathematics is an

important and useful subject for students. Nevertheless, those participants believe that only certain mathematics materials that are useful for students' daily life. Conclusion this condition shows that every event has ideas, beliefs, and knowledge related to real-life problems that teachers bring in the teaching (Romano, 2006). That opinion comes from their understanding of the situation that finally encourages them to reveal their belief and assumption based on their teaching (Mcgarr & Mccormack, 2015).

Conclusions

The reflection of novice primary teachers' confidence in teaching mathematics resulted in several findings. On the scale of confidence in mathematics teaching, there are three results of reflection, namely (1) ability on the material, (2) ability to explain, and (3) ability in classroom management. On this scale, novice primary teachers only master certain materials (not all mathematics material in primary schools). It dramatically affects the ability to use methods and class mastery when given teaching assignments in class or material that is not mastered. Furthermore, the reflection on the attitude toward success in teaching mathematics scale found one finding, namely the appraisal of others. On this scale, novice primary teachers assess other teachers and students negatively, namely as an additional burden on themselves. Then the resulting reflection is on the usefulness of mathematics teaching scale, namely, the ability to understand the usefulness of mathematics. On this scale, novice primary teachers think that mathematics is essential to be taught in primary schools, but that will be used in everyday life only on specific materials (not all material in mathematics).

This study only focused on novice primary teachers. It seems clear that novice primary teachers need a long time to shift their thinking from focusing on themselves to considering how their actions can affect student learning outcomes. Then, this study also only looked at how the reflection of the self-confidence attitude of novice primary teachers in teaching mathematics and had not seen whether the reflection made on this self-confidence could affect the attitude of self-confidence and student learning outcomes? This condition provides an opportunity for further studies to be carried out on how the reflection of self-confidence by novice primary teachers can affect the attitude of self-confidence and student learning outcomes.

Turnitin_Self-Confidence

ORIGINALITY REPORT

9%	2%	4%	5%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	Steven Nisbet. "A new instrument to measure pre-service primary teachers' attitudes to teaching mathematics", Mathematics Education Research Journal, 1991 Publication	3%
2	Submitted to University of Muhammadiyah Malang Student Paper	3%
3	inomatika.stkipmbb.ac.id Internet Source	<1%
4	science.e-journal.my.id Internet Source	<1%
5	apsce.net Internet Source	<1%
6	ppjp.ulm.ac.id Internet Source	<1%
7	James Russo, Janette Bobis, Peter Sullivan, Ann Downton, Sharyn Livy, Melody McCormick, Sally Hughes. "Exploring the relationship between teacher enjoyment of	<1%

mathematics, their attitudes towards student struggle and instructional time amongst early years primary teachers", Teaching and Teacher Education, 2020
Publication

8	Submitted to University of New England Student Paper	<1%
9	Fiola Indah Putri Pratama, Agus Kristiyanto, Herry Widyastono. "Analysis of Self-Confident Character on Slow Learner Students in Learning at The Inclusive Elementary School in Surakarta", Proceedings of the 4th International Conference on Learning Innovation and Quality Education, 2020 Publication	<1%
10	ejournal.unira.ac.id Internet Source	<1%
11	thelifeofbeas.blogspot.com Internet Source	<1%
12	doaj.org Internet Source	<1%
13	www.kidshelpphone.ca Internet Source	<1%

Exclude quotes	Off	Exclude matches	Off

Exclude bibliography Off

Turnitin_Self-Confidence

PAGE 1

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Wrong Article You may have used the wrong article or pronoun. Proofread the sentence to make sure that the article or pronoun agrees with the word it describes.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Article Error You may need to use an article before this word.

Wrong Article You may have used the wrong article or pronoun. Proofread the sentence to make sure that the article or pronoun agrees with the word it describes.

Possessive You may need to use an apostrophe to show possession.

Frag. This sentence may be a fragment or may have incorrect punctuation. Proofread the sentence to be sure that it has correct punctuation and that it has an independent clause with a complete subject and predicate.

P/V You have used the passive voice in this sentence. Depending upon what you wish to emphasize in the sentence, you may want to revise it using the active voice.

Prep. You may be using the wrong preposition.

Article Error You may need to remove this article.

Possessive You may need to use an apostrophe to show possession.

Article Error You may need to use an article before this word. Consider using the article **the**.

Missing "," You may need to place a comma after this word.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Article Error You may need to use an article before this word.

Article Error You may need to remove this article.

Article Error You may need to remove this article.

P/V You have used the passive voice in this sentence. Depending upon what you wish to emphasize in the sentence, you may want to revise it using the active voice.

PAGE 3

P/V You have used the passive voice in this sentence. Depending upon what you wish to emphasize in the sentence, you may want to revise it using the active voice.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Missing "," You may need to place a comma after this word.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

PAGE 4

Possessive You may need to use an apostrophe to show possession.

P/V You have used the passive voice in this sentence. Depending upon what you wish to emphasize in the sentence, you may want to revise it using the active voice.

Possessive You may need to use an apostrophe to show possession.

Article Error You may need to remove this article.

PAGE 5

Article Error You may need to use an article before this word. Consider using the article **the**.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Wrong Form You may have used the wrong form of this word.

PAGE 6

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Article Error You may need to remove this article.

Article Error You may need to remove this article.

Article Error You may need to remove this article.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Wrong Form You may have used the wrong form of this word.

Wrong Form You may have used the wrong form of this word.

PAGE 7

Article Error You may need to remove this article.

Article Error You may need to use an article before this word.

Article Error You may need to use an article before this word.

Missing "," You may need to place a comma after this word.

Prep. You may be using the wrong preposition.

PAGE 8

Article Error You may need to use an article before this word.

Article Error You may need to use an article before this word.

Possessive This word may be a plural noun and may not need an apostrophe.

Prep. You may be using the wrong preposition.

PAGE 9

Proofread This part of the sentence contains a grammatical error or misspelled word that makes your meaning unclear.

S/V This subject and verb may not agree. Proofread the sentence to make sure the subject agrees with the verb.

Article Error You may need to use an article before this word.

S/V This subject and verb may not agree. Proofread the sentence to make sure the subject agrees with the verb.

Proofread This part of the sentence contains a grammatical error or misspelled word that makes your meaning unclear.

S/V This subject and verb may not agree. Proofread the sentence to make sure the subject agrees with the verb.

Article Error You may need to remove this article.

Article Error You may need to remove this article.

Article Error You may need to use an article before this word.

Article Error You may need to use an article before this word.

Prep. You may be using the wrong preposition.

Missing "," You may need to place a comma after this word.

Sentence Cap. Remember to capitalize the first word of each sentence.

S/V This subject and verb may not agree. Proofread the sentence to make sure the subject agrees with the verb.

Proofread This part of the sentence contains a grammatical error or misspelled word that makes your meaning unclear.

S/V This subject and verb may not agree. Proofread the sentence to make sure the subject agrees with the verb.

Possessive You may need to use an apostrophe to show possession.

Sentence Cap. Remember to capitalize the first word of each sentence.

S/V This subject and verb may not agree. Proofread the sentence to make sure the subject agrees with the verb.

Proper Noun If this word is a proper noun, you need to capitalize it.

 **Article Error** You may need to use an article before this word.

 **Wrong Form** You may have used the wrong form of this word.

 **Possessive** This word may be a plural noun and may not need an apostrophe.

 **Prep.** You may be using the wrong preposition.

 **S/V** This subject and verb may not agree. Proofread the sentence to make sure the subject agrees with the verb.

 **Possessive** This word may be a plural noun and may not need an apostrophe.

 **Article Error** You may need to use an article before this word.

 **Article Error** You may need to remove this article.

 **Possessive** This word may be a plural noun and may not need an apostrophe.

 **P/V** You have used the passive voice in this sentence. Depending upon what you wish to emphasize in the sentence, you may want to revise it using the active voice.