

Chapter 10

Teaching Quality in Indonesia: What Needs to Be Improved?



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Abstract Based on international testing results (e.g., PISA, 2015; TIMSS, 2015), the performance of Indonesian students remains poor. The low quality of education in Indonesia is determined by many factors, including the teacher's quality. Teachers have a very strategic role in the learning process. Effective teaching behavior is used as an indicator of teaching quality and is the main target of this study, which is needed to improve the teaching quality of teachers in Indonesia. Research on effective, evidence-based, teaching behavior has identified six domains of effective teaching behavior, which are relevant to the Indonesian context. In this chapter, we will describe Indonesian secondary school teachers' teaching behavior based on trained observers' and students' reports. The ICALT and My Teacher Questionnaire were used to gather data across 13 provinces in Indonesia, covering about 375 teachers and 6410 students. The quality level of effective teaching behavior was examined, and similarities and differences between observers and student reports were discussed. This study result shows the profile of teacher teaching quality in Indonesia that can be used as a basis for policy making related to improving teaching and professional development of teachers in Indonesia.

Keywords Teaching quality · Indonesia · Teacher · Observer · Student perception · Differentiated instruction

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1 Introduction

Two large-scale comparative assessments organized by the Organization for Economic Cooperation and Development (OECD) and the International Association for the Evaluation of Educational Achievement (IEA) have provided useful insights into trends in educational performance around the world (Martin et al., 2016; Mullis et al., 2016; OECD, 2015). Trends in education outcomes show that Indonesia consistently ranks among the lowest performers. One of the many factors that play an important role in the low quality of education in Indonesia is the quality of teachers. Teacher quality is influenced by qualifications such as teacher education level, teaching experience, participation in professional development activities, and self-efficacy (Goe, 2007). Teacher quality has been shown to be critical to student achievement (Baumert et al., 2010; Blömeke & Delaney, 2014) and is strongly linked to teaching quality. All these variables are the most important factors for student learning at the classroom level (Kyriakides et al., 2009).

Teacher quality is a construct, which reflects the characteristics of teacher teaching practices that are positively related to student learning outcomes, both cognitive and affective (Maulana & Helms-Lorenz, 2016). The quality of effective teaching is reflected in the teaching behaviour of teachers in the classroom.

In the 1980s, due largely to changes in economic, social, and educational developments around the world, teachers began to be expected to learn during their careers (Beijaard et al., 2007) and teachers were expected to become “adaptive experts” in the learning process (Vermunt & Verloop, 1999; Wei et al., 2009). Teacher learning throughout the career is related to improving teaching practices. In response to these insights, improvement in teaching quality via teaching practices has been included on the professional development agenda for teachers in many countries.

In Indonesia, teacher professional development programme has been carried out since 2005 through/being the PPG (Teacher Professional Education) program, PLPG (Teacher Professional Education and Training) and UKG (Teacher Competency Test) (Kemendikbud, 2016). Nevertheless, Indonesia is remains lowest in the ranking of Asia as well as Europe. The recent research about effective teaching behaviour across six countries (Netherlands, Spain, Turkey, South Africa, South Korea, and Indonesia) based on student perception’s shows that perceived teaching behaviour was the highest in South Korea and the lowest in Indonesia (André et al., 2020). Another recent research, related to teaching behaviour across various national contexts based on the observer’s perception in each country, including the Netherlands, South Korea, South Africa, Indonesia, Hong Kong-China, and Pakistan, indicates South Korea always the highest quality of teaching behaviour, while Indonesia ranked the lowest (Maulana et al., 2020). Hence, differences in the quality of teaching practices may partly explain differences in countries’ average educational outcomes. Other issues, including teacher motivation, teacher selection, and initial teacher training programs have been put forward contributing factors to the low quality of education in Indonesia (De Ree, 2016; Fasih et al., 2018).

Based on Law no. 14 of 2005 the basic competencies that must be possessed by a teacher in Indonesia are pedagogic, personality, professional, and social competencies. Pedagogic competence includes the ability to plan, implement, manage, and evaluate the learning process, as well as being able to understand and actualize students with various potentials. These basic competencies are not only a requirement to become a teacher but must be implemented in learning activities in the classroom. Effective teaching behaviour as an indicator of teaching quality is the main target of this research. Research on evidence-based effective teaching behaviour has identified six domains of effective teaching behaviour (Van de Grift, 2007) relevant to the Indonesian context. This research conducted is relevant to the needs of the Indonesian government to measure teaching effectiveness in Indonesia. In this study, six domains of teaching quality will be observed, both based on the perception of trained observers using the ICALT observation instrument (van de Grift et al., 2014) and the perception of Indonesian students using the My Teacher Questionnaire (Maulana & Helms-Lorenz, 2016).

2 Theoretical Framework

2.1 Teaching Quality

Teachers play a very strategic role in increasing students' situational interest in active learning classroom (Rotgans & Schmidt, 2011), as well as participating in the curriculum planning process (Ben-Peretz, 1980). Therefore, the quality of education is highly dependent on the quality of the teacher, where the teacher is seen as a central figure in improving student academic performance to the highest level. Improving the quality of teachers is a work plan from the Indonesian Ministry of Education and Culture (2005–2025). Findings from the research indicated that teacher quality is associated with students' performance. Good teachers do not only display their competence in the subject area but also support their students in terms of displaying friendliness, optimism and creating a conducive learning environment (Hamid et al., 2012). Good quality teachers demonstrate effectiveness in teaching and have an impact on student achievement (Rice, 2003).

Evaluation of teacher quality can be analyzed using three approaches: input, process, and output. Inputs are what a teacher brings to his or her position, such as measured as teacher background, beliefs, expectations, experience, pedagogical and content knowledge, certification and licensure, and educational attainment. In the literature known as “teacher quality”. Processes refer to the interaction that occurs in a classroom between teachers and students. Outputs represent the results of the activity process in the classroom, such as the impact on student achievement, graduation rates, student behavior, engagement, attitudes, and social-emotional well-being. Goe et al. (2008) showed that outputs can be referred to as “teacher effectiveness,” as used in the research literature is often limited to the meaningful

impact on student achievement specifically. The five points of the effective teacher are defined as follows: (1) effective teachers have high expectations for all students and help students learn, (2) effective teachers contribute to positive academic, attitudinal, and social outcomes for students, (3) effective teachers use diverse resources to plan and structure engaging learning opportunities; monitor student progress using formative assessment, adapting instruction as needed; and evaluate learning using multiple sources of evidence, (4) effective teachers contribute to the development of classrooms and schools, (5) effective teachers collaborate with other teachers, administrators, parents, and education professionals to ensure student success.

Goldhaber (2015) stated that empirical research has shown that teacher quality is the largest in-schools factor that contributes to student achievement but the visible characteristics such as education level and certification status did not include. Variations in effective teaching behavior are usually categorized into and/or summarized by five to seven factors or broader domains (Muijs et al., 2014). The teaching behaviors used in this research are grouped into six domains, namely: safe and stimulating learning climate, efficient classroom management, clear and structured instructions, Intensive and activating teaching, teaching-learning strategies, and adaptation of teaching/differentiation (Van de Grift, 2007).

Examples of safe and stimulating learning climate practices are emphasizing on things such as creating a safe and relaxed and conducive learning atmosphere, stimulating students' self-confidence, stimulating motivation in learning, appreciating student work, always fostering solidarity among students, encouraging students to work in groups, creating a safe learning atmosphere, respecting students, and teachers. These aspects are also incorporated in the ICALT observation instrument and applicable to the learning climate of Indonesian schools (Maulana et al., 2015a).

Efficient classroom management is an important factor in supporting the creation of a safe and stimulating learning. It is an indispensable aspect of teaching quality (Harrell et al., 2004). Efficient in managing classrooms so as not to waste time studying. For this example of teaching practice, the teacher must begin and end the lesson on time, pay attention to the time transition, minimize wasting time during learning, such as not discussing things outside the context of the lesson, using time as efficiently as possible. This needs to be considered because lesson time is not always supported for learning activities but is often used for non-curricular activities, organizational matters or dealing with disciplinary problems (Kunter et al., 2007). Classroom organization and learning plans to use effective time are especially important where students are exposed to maximum learning opportunities (Wang et al., 1993).

Clear and structured instructions emphasize the concept of learning structure is clear and effective. Students are expected to be able to process information and to perform adequately (Gagne & Briggs, 1974). Learning instructions use clear and structured sentences, the subject matter is abstract, and complex should be made real and simplified. At the beginning of a lesson, the teacher must ensure that all students know what is expected of them at the end of the lesson by clearly stating

the lesson outcomes (Todd & Mason, 2005). Therefore, the subject matter should be clear and understandable; students should receive regular feedback to establish their progress; all students should be actively engaged in the lesson; the teacher must allow students to think, the teacher should explain in a well-structured manner and use didactic while explaining new concepts (Maulana et al., 2015b). Clear instruction can also be supported by how the teachers implement the curriculum, apply content to students' everyday life situations, and use language that is understandable to them (Vandeyar & Killen, 2007).

Intensive and activating teaching emphasizes the concept of continuous and interactive learning, using concepts and skills relevant to students' everyday lives (Downer et al., 2007). Teachers must actively ask, analyze and reason; give feedback in a way that stimulates student's efforts to learn. For the domain of intensive and activating teaching to be achieved, teachers must create and develop frameworks that can explore the potential that exists in students and provide motivation to build confidence in weak students, provide interactive instruction where they can collaboratively work with others in finding solutions to problems (Van de Grift, 2007).

Adaptation of teaching (differentiation) is described as learning following how to process between students. Heterogeneity of students must be facilitated during the learning process in classrooms. Therefore, a differentiated instruction framework is needed, such as providing free time to help weak students during learning, assigning different tasks between students, providing diverse activities, maximizing student potential in a variety of ways that are adapted to students. Differentiated instruction requires teachers to be mindful of the diverse characteristics of students in their classrooms. It refers to teaching behaviors including the adjustment of instruction and student processing to individual students according to differences in their learning profiles, learning needs and motivation (Pearson & Fielding, 1991). Differentiation instruction is very flexible, organized, and proactive. It can accommodate a variety of student learning preferences in achieving their full potential (Lawrence-Brown, 2004).

Domain teaching-learning strategy is needed to achieve student academic success. Cognitive and metacognitive strategies have a positive effect on student learning (Montague & Dietz, 2009). Cognitive strategies aim to help students achieve certain goals while metacognitive strategies precede cognitive activities to ensure that goals have been achieved (Roberts & Erdos, 1993). The cognitive approach is very efficient, where students are guided so that they are motivated to carry out activities independently (Pressley et al., 1990). These strategies can help students to connect new concepts with what they already know, besides helping them carry out higher-level procedures. Teachers who provide their students with learning strategies have a significant impact on their learning performance (Houtveen & van de Grift, 2007). Empirical confirmation of these six domains of teaching has been provided by Maulana et al., (2017a) and Irnidayanti and Fadhilah (2018).

2.2 The Profile of the Indonesian Teacher: Context for the Current Study

Recent research also supports that the quality of teacher in Indonesia is still low compared to other countries. Teaching behaviour based on the perception by students in Indonesia lower than the Netherlands, Spain, Turkey, South Africa, and South Korea (André et al., 2020; Maulana et al., 2020). Most of the teachers observed in this study were certified teachers, whose teaching quality was still low. These certified teachers do not apply their skills and competencies in the classroom (De Ree et al., 2018). Based on our research, teaching behavior is correlated with students' academic engagement. Teachers have not been optimal in involving students in the learning process. This can be seen from the results of our study which showed a moderate level of student involvement. Most teachers in Indonesia use a teacher-centered approach in the learning process. In the Asian context, particularly in Indonesia, pervasive cultural values are linked to power distance, which allows growth among people in hierarchies. This situation is reflected in the classroom where the teacher is the center (CIA, 2017).

2.3 Observer Perceptions of Teaching Quality

Teacher quality can be observed in their teaching behavior in the classroom. In general, there are three common tools for measuring teaching behavior: classroom observations, student surveys, and teacher surveys. Class observations can only be conducted by trained observers, where they assess what is happening in the classroom and the assessment is not influenced by students and teachers (Lawrenz et al., 2003). Classroom observations are viewed as the most objective in teaching practice (Worthen et al., 1997) and more often used than student surveys and teacher surveys (Goe et al., 2008).

The weakness of classroom observations is that the presence of an observer can influence teacher behavior in teaching practice (de Jong & Westerhof, 2001), which allows measurement of teaching behavior to be less accurate. In addition, classroom observations are very demanding and time-consuming because observers must be trained intensively and observations are made several times to get an objective and accurate measure of teaching behavior (Hill et al., 2012; van der Lans et al., 2015).

2.4 Student Perceptions of Teaching Quality

Students' perceptions are views or interpretations of students regarding interactions in learning activities in the classroom. Perceptions between students are different on the teaching behavior of teachers in the classroom. Assessment of teacher teaching

behavior based on students' perceptions contributes to the understanding of the quality of teaching in the classroom and is an important part compared to the assessment by outside observers. Student experiences in the classrooms conducted from time to time during learning involve their academic activities (den Brok et al., 2004). The evidence shows that most students' perceptions of teaching behavior are better predictor of learning outcomes compared that of a trained observer (De Jong & Westerhof, 2001; Seidel & Shavelson, 2007). Student and teacher surveys are known to be cost-effective and less demanding, and less time-consuming for measuring teaching behavior (Goe et al., 2008).

Students' perceptions at the classroom level are more valid and can predict and evaluate teaching behavior than external observers (Kyriakides, 2005; Goe et al., 2008). Student perceptions and teacher perceptions are related to the construct of teaching behavior (Kunter et al., 2008). There are some weaknesses related to student perceptions of teaching practices in the classroom. Students' perception can be influenced by various factors including their interpersonal closeness with their teachers, interest in the subject taught by their teachers, expectations about their grades, and student age (Peterson et al., 2000; Richardson, 2005; Benton & Cashin, 2012). Although students' perceptions have some weaknesses, the student evaluation of teaching has been one of the most widely used indicators of teacher effectiveness and educational quality (Scherer et al., 2016). De Jong and Westerhof (2001) and Seidel and Shavelson (2007) indicate that student perceptions are more predictive of student learning outcomes than external observations and teacher perceptions. Student perceptions should be considered although there are doubts about it regarding the objective assessment (Van de Grift, 2007). Student's perceptions could be useful when the focus of the assessment is the teaching strategies used in the classroom, the content subject, or the effectiveness of their teaching (Martínez-Rizo, 2012).

3 Aims of the Present Study

Research about the importance of teaching quality in developing countries, such as in Indonesia, is still very limited and scarce. Therefore, this research is needed to provide an overview of the quality of teaching and as evidence to find out and measure the quality of education in Indonesia. To guide the study, the following research questions were formulated:

1. How is the general profile of teaching quality of Indonesian perceived by their students and trained observers in terms of effective teaching behavior?
2. Can the general profile of teaching quality in Indonesia contribute to policy recommendations for the Indonesian educational system?
3. What needs to be improved in the teaching quality in Indonesia?

4 Methods

4.1 *Sample and Procedure*

The Indonesian sample used to measure the actual teaching behavior of teachers in the classroom consists of 375 teachers, who teach in 24 secondary schools in 13 provinces. The teacher sample came from varied socioeconomic backgrounds and different cultures. The sample consisted of 89.7% of teachers from public schools and the remaining teachers from vocational schools and private schools. The demographic distribution of the sample is as follows: 27.5% of schools were outside Java, 38.7% were Science related subjects, 41.6% were male teachers, 79.5% were experienced teachers, and 85.6% had large class sizes, 60.1% were female students. All schools are in various provinces: Pidie and Bireun (NAD), Lampung, Makassar (South Sulawesi), Bontang (Borneo), Tangerang (Banten), Bandung, Bekasi, Depok and Bogor (west java), Pekalongan and Wonosobo (central Java), Gresik (east Java), and Jakarta. A total of 6410 students was used to measure pupil's perception of teacher's teaching behavior. The percentage of missing cases is very low (< 0.5%), which indicates a very high response rate.

This study used direct classroom observation methods by trained observers and student surveys to assess teacher teaching behavior in natural environments using a validated instrument of ICALT observation and My Teacher's questionnaire (Maulana & Helms-Lorenz, 2016). Typical lessons from teachers are visited and observed by trained observers after an agreement is reached between researchers, schools, and teachers. The teachers and schools participated in this research voluntarily.

Schools were recruited to participate in the survey voluntarily. An agreement between the researcher-the school was made before conducting a survey in these schools. Letters were sent to the principals of the schools to participate in this research. Upon official agreement to participate, observations were conducted based on appointments during the school year. The survey involved 10 trained observers who traveled and observed the school mentioned above. The filling out of the questionnaire was conducted by trained observers to assess the actual learning process in the classroom, while the student survey was conducted after learning was completed to assess the teaching practices of their teachers. The time needed for students to fill out the questionnaire takes about 30 min to complete. After filling out the questionnaire was completed and was collected by the observer.

4.2 *Measuring Teaching Behaviour*

The validated Indonesian version of the International Comparative Analysis of Learning and Teaching (ICALT) observation instrument was used in this research to measure actual teachers' teaching behavior based on the observer (Maulana et al.,

2017b; Van de Grift et al., 2014). The reliability of ICALT observation instrument measured with Cronbach's alpha values ranging from 0.71–0.86, Scale reliability learning climate (0.710), Classroom management (0.77), Clarity of instruction (0.84), activating learning (0.81), adaptive instruction (0.81), teaching-learning strategies (0.86). ICALT observation instrument consists of 32 items, using four ordinal response categories (1 = 'mostly weak' to 4 = 'mostly strong').

We used the My Teacher Questionnaire (Maulana & Helms-Lorenz, 2016) based on the teaching behavior model of Van de Grift (2007) and Van de Grift et al. (2014). The instrument has proved to accurately measure teachers' teaching behavior based on student perceptions and the validated Indonesia version was used in this research. The total items of instrument MTQ is 41 items and the reliability of the ICALT observation instrument measured with Cronbach's alpha values ranging from 0.70–0.76. The instruments were translated to Indonesia and back translated for use in Indonesia based on the guidelines provided by Hambleton et al. (2004).

4.3 Data Analysis

Preliminary assumption testing was conducted to check for normality, homogeneity of variance, validity, and reliability of the instrument. To answer the first research question, descriptive analyses were calculated to determine the mean scores of teaching behavior, to get the general profile of teaching quality. To answer the second question, we analyzed descriptively the profile of teaching quality in Indonesia and other countries. We suggest on how to improve teaching quality in Indonesia based on related reference.

5 Results

5.1 General Profile of Teachers' Teaching Quality of Indonesian Perceived by Trained Observers and Their Students

Based on the ICALT observation instrument results, the level of effective teaching behavior in Indonesia is moderate/sufficient except for the differentiation instruction domain that is low/insufficient. The mean score of 6 domain teaching behavior based on the ICALT questionnaire are Safe and stimulating learning climate (2.88 ± 0.49), efficient classroom management (2.59 ± 0.65), Clear and structured instructions (2.45 ± 0.69), Intensive and activating teaching (2.31 ± 0.58), differentiated instruction (1.74 ± 0.68) and teaching-learning strategies (2.04 ± 0.62). Meanwhile, based on the student's My Teacher questionnaire, all six domains of the

level of effective teaching behavior in Indonesia is moderate/sufficient with the mean (\bar{x}) score ranging from 2.8 to 3.0.

The profile of teacher behavior in Indonesia based on observer perceptions shows that the adaptation of teaching (differentiation) is insufficient, while the remaining five (Safe and stimulating learning climate, Efficient classroom management, Clear and structured instructions, Intensive and activating teaching, differentiated instruction, Teaching-learning strategies), were rated as sufficient (Fig. 10.1). The quality of teachers plays an important role in determining the educational competitiveness of a country, especially in the era of globalization. Indonesia has recognized the importance of improving the quality of education, especially the quality of teachers.

In the Indonesian context, the lowest score of the six domains of teaching behavior is teaching adaptation (differentiation), with a score of 1.74 out of 4. Teaching and learning strategies are the second-lowest score on the profile of teaching behavior in Indonesia. Teaching and learning strategies are closely related to teaching adaptation (differentiated instruction). Learning in Indonesia is mostly a teacher-centered approach, where teachers usually provide the same teaching for all students. This approach is not suitable in the context of differentiation, which the teacher must be able to adapt to the needs of students in the classroom (World Bank, 2016; Tomlinson, 1999). The teacher makes distinctions in the classroom by

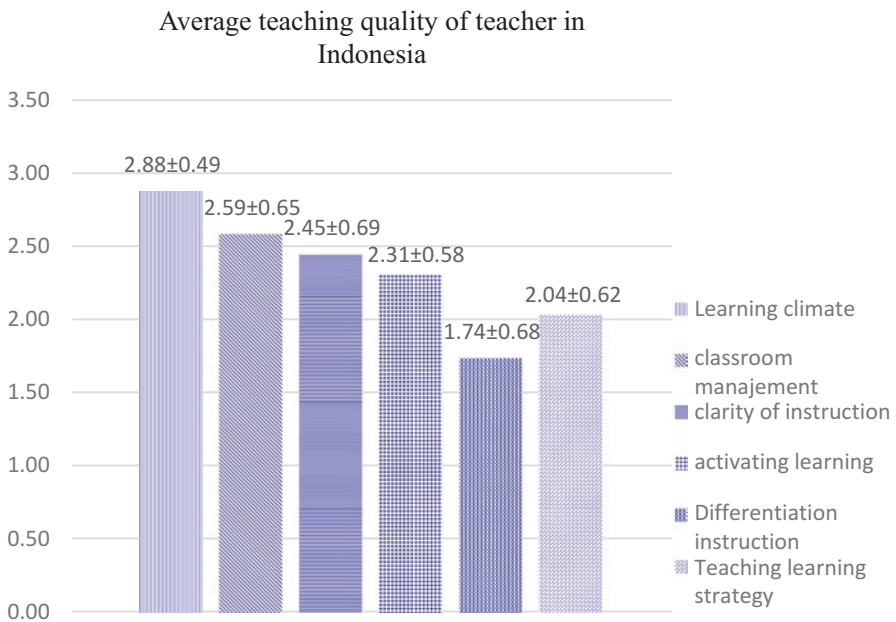


Fig. 10.1 The general profile of teacher’s teaching quality in Indonesia seen by Indonesian observer perception. Learning climate: Sufficient/Moderate, Classroom management: Sufficient/Moderate, Clarity of instruction: Sufficient/Moderate, activating learning: Sufficient/Moderate, differentiated instruction: Insufficient/poor, Teaching learning strategies: Sufficient/Moderate. Metric criteria: 1–1.99 = Insufficient/poor, 2.00–2.99 = Sufficient/moderate, 3.00–4.00 = Good/high

making discriminatory instructions. An example of a complex approach to teaching and learning is differentiated instruction. A model of teaching-learning strategy approach that serves various learning profiles is referred to as differentiation (Tomlinson, 2005; Subban, 2006).

The profile of teacher teaching quality in Indonesia based on student perceptions can be seen in Fig. 10.2. Results of descriptive analyses show that mean scores and the corresponding standard deviations for all domains are Safe and stimulating learning climate ($M = 2.93, SD = 0.45$), Efficient classroom management ($M = 3.05, SD = 0.39$), Clear and structured instructions ($M = 2.97, SD = 0.43$), Intensive and activating teaching ($M = 2.95, SD = 0.41$), differentiated instruction ($M = 2.88, SD = 0.45$), and Teaching learning strategies ($M = 2.83, SD = 0.43$). On average, teachers' classroom management was perceived as good, while the remaining five teaching behavior domains were rated as sufficient.

There are different perceptions regarding the general profile of teacher teaching quality in Indonesia between students and observers. The efficient classroom management is good based on students' perceptions, while the category is sufficient for efficient classroom management based on observer perceptions. Differences about perception also exist in the differentiated instruction. Based on the student's perception that the differentiated instruction is sufficient but based on the perception of the observer shows learning differentiation is insufficient.

Several factors contribute to the differences between observers and student's perception of the teacher's teaching behavior. The central participants in the classroom are the teacher and the student. The teacher arranges and creates the learning situation, which the student must accept. However, the success and effectiveness of the

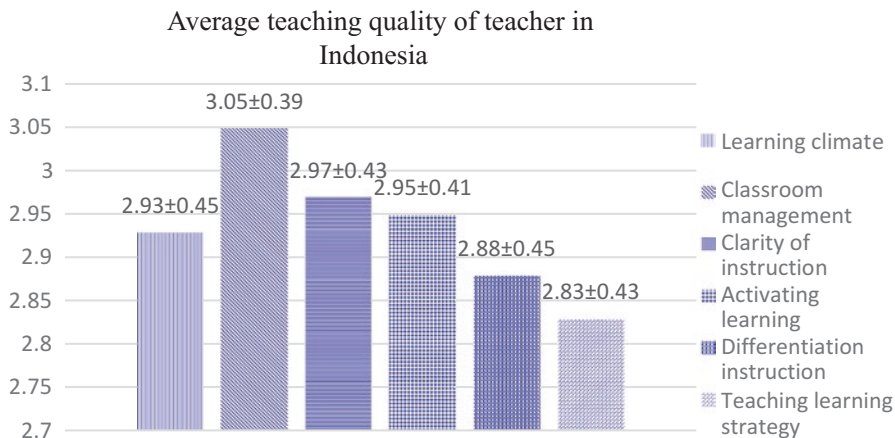


Fig. 10.2 The general profile of teacher's teaching quality in Indonesia seen by Indonesian student perception. Learning climate: sufficient/moderate, classroom management: good/high, clarity of instruction: sufficient/moderate, activating learning: sufficient/moderate, adaptive instruction: sufficient/moderate, teaching learning strategies: sufficient/moderate. Metric criteria: 1–1.99 = Insufficient/poor, 2.00–2.99 = Sufficient/moderate, 3.00–4.00 = Good/high

instruction depend on both parties (Fend, 2002). The student has a different role and has a different perspective with their teacher in the classroom. In this perspective, both teacher and student provide insight into what happens in the classroom (den Brok et al., 2006). The student has more time to observe ongoing classroom processes. Therefore, they have a broad base of experiences over many class hours with a variety of teachers.

Their judgements of their teacher are more consistent than external observers and teachers' judgement (den Brok et al., 2006). Students are an "excellent source" of information about classroom processes (Montuoro & Lewis, 2014). Sometimes, student's perceptions about their teachers reflect their subject knowledge comprehension because perception of student is individual perception and students don't have methodological-didactic knowledge (Wagner et al., 2016). Therefore, judgements on teaching behavior by external observers are better than the student's perception (Scherzinger & Wettstein, 2019). The external observers make comprehensible judgements and guided by rules. Because they are not involved in the interaction in the classroom, so their judgment is more objective (Praetorius et al., 2012).

6 Can the General Profile of Teaching Quality in Indonesia Contribute to Policy Recommendations for the Indonesian Educational System?

The profile of teaching quality in Indonesia is mostly sufficient except in differentiated instruction. However, in general the profile of teaching quality is lower than other country, such as Spain, Turkey, Netherland, South Korea, and South Africa (André et al., 2020), Hongkong -China, Pakistan (Maulana et al., 2020). There are several factors that cause the low teaching quality in Indonesia. Teachers' content knowledge is particularly important in determining student performance, while many teachers in Indonesia have very low content knowledge. Teachers with formal qualifications, such as a bachelor's degree, only have slightly better quality. The result of national civil service teachers' examination also shows the low quality of teacher candidate in Indonesia (World Bank, 2016). About 65% of the total of 2.7 million teachers in Indonesian, do not meet the requirements posed for professional teachers. The weakness of the national teacher training system results in the low quality of teacher candidates. This condition also influences the motivation of the lower ability teachers. They are reluctant to upgrade their skills and qualification (Jalal et al., 2009).

Another reason is the ineffective allocation of the education budget. The allocation of Indonesian education funds is only used for teacher allowances and unfortunately, the large allocation of education funds has no impact on improving the quality of education in Indonesia. Additionally, the budgeted cost for the teacher certification program and school operational assistance absorbs the most the

education funds. A certification that aims to improve the quality of education does not impact teachers' efforts to improve their skills, both in class and on student learning outcomes (Fahmi et al., 2011; Kurniawati et al., 2018; de Ree et al., 2018). The current certification system in Indonesia has no incentive for teachers to improve their performance in the classroom. In fact, the certification allowance provides a financial incentive to earn a bachelor's degree, which is not necessarily proof of being a good teacher (World Bank, 2016).

According to Zulfikar (2010), Indonesian cultural institutions and educational assessment systems play an important role in creating teacher-centered and rote learning in the classroom. Teachers are bound by rules and regulations in a highly centralized top-down instruction system. This makes teachers reluctant to evaluate their instructional pedagogy and tends to teach with a teacher-centered approach. For Indonesian students, teacher support is a strong determinant of their enthusiasm to engage in learning (Maulana et al., 2016). The classroom climate in Indonesia does not show the dialectic characteristic. Classroom climate is only characterized by a teacher-centered approach, where teachers transfer the knowledge to students, and students must memorize and recount during the examinations (Ho et al., 2004). All Initiatives during the learning process in the classroom come from teachers. The ability of students to learn in an autonomous way is not present (Kaluge & Tjahjono, 2004). The contribution of teachers in autonomy support for students was relatively weaker in current Indonesian classroom practice. Therefore, teachers in Indonesia find it difficult to switch to a dialectic approach in the learning climate (Maulana et al., 2016). On the other hand, the relatively low rating of Indonesian teachers on learning climate may also be associated with the still commonly applied student-centered teaching approach (de Ree, 2016; Fasih et al., 2018).

An important aspect is the quality of prospective teachers who will enter and register at public universities to become teachers. In Indonesia, the choice to become a teacher is the second choice and the lowest rated (Suryani et al., 2016). In addition, no special requirements are needed to enroll in a pre-service teacher education program at a public national teacher education institution (Martin, 2019). Perhaps, the reason mentioned above are factors that endorse the low quality of teaching in Indonesia. Teaching is considered a highly skilled career, and with high social status, and is positively correlated with all factors of teacher education (Suryani et al., 2016). Teaching is not just transferring knowledge to students but must have high-level knowledge of skills and have a passion for teaching.

In the Indonesian context, teacher support for student academic engagement is also important. All domains of teaching quality can explain about 45% of the variance in student engagement. Although the level of student engagement was interpreted as moderate, however, it has been proven that student engagement (85%) can be attributed to the class/teacher level (Maulana et al., 2018). It is consistent with past studies originating predominantly western context, in which teacher support for student engagement is important. Teachers in Indonesia have not been fully able to increase student academic engagement. It also contributes to the lower teaching quality in Indonesia.

A safe and stimulating learning climate, classroom management, and clarity of instruction are the basis of quality teaching. Indonesian teachers are severely lacking in these three areas of teaching quality. In fact, the basic skills of teaching quality are skills that must be mastered by novice teachers. Classroom management is important for Indonesian student engagement, its effect seems to be embedded in other domains such as clarity of instruction and teaching-learning strategy (Maulana et al., 2018). We found that actual teaching behavior in terms of classroom management and clarity of instruction is positively correlated with perceived autonomous motivation. Motivational aspects of teaching in the Indonesian education system are not yet explicitly embedded within the curriculum (Iridayanti et al., 2020). Apparently, perceived autonomous motivation is related to the low quality of teaching in Indonesia. In Western countries, such as the Netherlands, classroom management and clarity of teaching are highly emphasized as the first skills that teachers should develop during teacher education. The implementation of realistic teacher education in Netherlands has prioritized classroom management skills to be mastered by novice teachers (van Tartwijk et al., 2011). The lack of basic skills is also one of the causes of the low quality of teaching in Indonesia.

One of the factors measured in this study is teacher motivation. The interaction of teachers and students can determine the success of the learning process in the classroom. Teachers with good teaching behavior will demonstrate effectiveness in teaching, thus leading to good teaching quality as well. The results show that teachers with good teaching effectiveness can increase students' intrinsic motivation in the classroom (Maulana et al., 2016) so that students are motivated to be actively involved in the learning process (Maulana et al., 2015b). This is also supported by research that has been carried out, where the autonomous motivation of teachers in Indonesia can predict the differences in teaching behavior. Evaluation of teaching behavior can be measured by student's engagement in the classroom. The data shows that in general the student's engagement in the classroom is moderate and 85% of student's engagement is determined by the teaching quality of teachers in the classroom.

This finding is related to the Indonesian education system and can be a priority in improving teaching skills which are the responsibility of the Education Personnel Education Institution. We recommend that improvements in teacher motivation, teaching quality profiles and student engagement can contribute to policy recommendations for the Indonesian education system.

6.1 What Needs to Be Improved in the Teaching Quality in Indonesia?

One of the educational problems in Indonesia that must be addressed is the allocation of the education budget. Previously, Indonesia's budget was mostly used for teacher certification programs, and school operational assistance as well as for

teacher incentives. To support the process of improving the quality of teacher education, an effective education budget allocation must be met. Subsequent allocations should be used appropriately to improve the quality of teacher teaching.

Indonesia's main challenge in education is to improve the quality of teacher education. Teacher education institutions must make fundamental changes to improve the teaching quality of the teacher in Indonesia. To achieve that, the requirements for becoming a teacher should be stringent and the standards should be elevated. The teacher professional development must be improved continuously, and it is recommended that periodic evaluations of teacher knowledge and pedagogy should be implemented. The teacher professional development must be designed to address the effective teaching and learning processes in the classroom based on the six domains of teaching and learning.

Furthermore, it is recommended that the workshop and training provided by the government should meet the specific criteria needed by the teachers and give impact on classroom teaching implementation. Training material should be developed to meet the teacher needs based on the classroom observation. The process should be monitored and evaluated periodically to help teachers improve gradually. The certification program should emphasize more on practice and implementation on knowledge and pedagogy and followed by a continuous supervision. Learning from the past failure on certification, teachers are expected to be able to demonstrate their capabilities in the classroom and improve their teaching behavior, not only for one time certification assessment but for continuous progress in the classroom. The most important thing, all of the improvements in teaching quality should give impact to student learning outcomes.

Based on the factors that contribute to Indonesia low teaching quality, the teacher's lack of content knowledge, we suggest the result of our study give insight on what to do to improve Indonesia teaching quality. Our study focuses on the process in the classroom and the interaction between teacher and students. The six domains of teaching learning behavior can be used as a benchmark for teacher quality improvement in the classroom. By improving the teacher competencies in the six domains of teaching behavior, also give chances to increase student's engagement.

It can be concluded that in general, the profile of teaching quality in Indonesia is still relatively low based on both observer perception and student perception. In all domain's effective teaching behavior is moderate/sufficient, except for the differentiation instruction domain is low/insufficient. Meanwhile, all domains of teaching behavior seen by student perception in Indonesia was categorized as moderate/sufficient. These findings a strong basis for Indonesian teachers to improve their teaching behavior, especially in domain adaptation of teaching/differentiation and maybe also for the other domains.

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