Instructional Leadership, Differentiated Instruction, Community of Practice, and Student Wellbeing: Based on the Perspective of the Principal Strengthening Training Policy

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Annotation. This study aimed to examine the relationship between the principal’s instructional leadership, differentiated instruction, community of practice, and student wellbeing. This study uses multiple regression analysis with the consistent PLS. The results showed that instructional leadership has a positive relationship with differentiated instruction and a community of practice. Differentiated instruction and community of practice have a positive relationship with student wellbeing.

Keywords: instructional leadership, differentiated instruction, community of practice, student wellbeing, policy, principal strengthening training.

Introduction

For policymakers, the primary function of education relates to measuring the impact of quality management in the public sector. Education is an intriguing sub-sector in this context because quality improvement must be considered and prioritized. The difficult
part of evaluating the effectiveness of school management is determining how the principal affects academic achievement (Agasisti et al., 2020).

The school principal has an indirect or direct impact on student learning. The principal’s leadership has an indirect impact on the capacity of the school, the redesign of sociocultural and structural processes, the promotion of professional learning communities, and the enhancement of learning quality (Gu & Johansson, 2013; Sun & Leithwood, 2017; Leithwood et al., 2017; Purnomo et al., 2021; Dami et al., 2022), teacher and student characteristics (Moolenaar et al., 2010), teacher commitment (Koh et al., 1995), school climate (Price, 2012), and improving teacher innovation (Buske, 2018; Dami, 2021). At the same time, the direct influence is connected to administrative strategies such as enhancing the effectiveness of school organization, emphasizing learning assessment, and quality assurance (Agasisti et al., 2020). Students learning outcomes and wellbeing are influenced both directly and indirectly. The research literature has consistently revealed that principals significantly impact student learning achievement in schools during the last 40 years (Sammons et al., 2011; Day et al., 2016; Ni et al., 2018).

The principal had a direct hand in raising teacher professionalism, and testing was done about an indirect effect on instructional leadership (Yeni et al., 2020). Instructional leadership styles may be used to define school missions, manage instructional programs, provide a supportive learning environment for students, and have a beneficial impact on teacher efficacy (Sumiati & Niemted, 2020; Ma’mun & Suryana, 2019; Ma & Marion, 2019), improving the quality of education (Nurdianti & Nurdin, 2019), impacting on the culture or practice of teaching and learning (Abonyi & Sofo, 2019), contributed to the effectiveness of the school (Hung & Ponnusamy, 2010), and promoted the learning environment – the domain of effectiveness and attitude toward change (Abdullah & Kassim, 2011).

In seven Asian nations, including Vietnam, Mainland China, Malaysia, Hong Kong, Taiwan, Malaysia, and Thailand, instructional leadership research has been implemented (Hallinger & Bryant, 2013). Moreover, in contrast, other research focuses on the preparation and growth of leadership in Asian nations, including Malaysia, Singapore, Hong Kong, and Indonesia (Harris & Jones, 2015). Empirical data on the definition and use of instructional leadership in various Asian nations still varies greatly according to cultural factors (Hallinger & Bryant, 2013; Hallinger & Chen, 2015). It will be interesting to follow up on this in the upcoming research in the Indonesian context because the findings indicate that some principals believe instructional leadership cannot be implemented in the hierarchical or bureaucratic Indonesian educational system, where the principal is still reliant on government directives, and teachers are still subject to principal instructions. The pupil still relies on the teacher’s guidance (Sofo et al., 2012). The study findings demonstrate that the instructional leadership style has performed differently than intended (Yunita, 2015). There are pros and cons to implementing instructional leadership in the Indonesian education system. Most principals consider that instructional leadership can be applied because it improves student achievement outcomes (Yunita, 2015).
In contrast to Malaysia, the current study reveals that Indonesian principals’ leadership roles have not prioritized overseeing the teaching and learning process (Rizkita & Supriyanto, 2020). According to previous research findings, Indonesian principals primarily use the third dimension for their instructional leadership techniques, which include maintaining high visibility compared to the other two dimensions, establishing the vision and purpose, and overseeing teaching initiatives (Dania & Andriani, 2020). In line with that, recent research conducted in Portuguese relates to instructional leadership – participants report that most principal leadership practices focus not only on student learning but also school administration and management. Many participants felt those leadership roles were not instructional. Participants also believed that the principal’s instructional leadership style had a minimal impact on students’ progress (Rodriguesa & de Lima, 2021).

Research conducted in 35 OECD Countries with 248,620 respondents showed that the influence of schools on student wellbeing is low and has the same impact across countries (Govorova et al., 2020a). In line with that, the study results, based on the Programme for International Student Assessment (PISA) 2018 international assessment in 37 OECD countries, show that the influence of school factors on student wellbeing is generally low (Govorova et al., 2020b). A recent study in Singapore shows that student wellbeing is not presented in policy discourse (Ng., 2020). Singapore aims to pursue a holistic education paradigm, making education fun, exciting, meaningful, and value-based. In contrast, improving student wellbeing is a key educational goal (British Columbia Ministry of Education, 2015; OECD, 2015; Gregory, 2020). The increase in student wellbeing in Indonesia is a major concern; Gultom (2020) asserts that the problem is that out of 44.6 million Indonesian students today, only 25 per cent can study well, or only a quarter of students have wellbeing.

To address issues with establishing instructional leadership and promoting student wellness, researchers previously suggested that the principal complete a training program in several of the principal's duties (Hao, 2013). The lessons from Tehran show a direct link between principal empowerment and in-service training (Chenari et al., 2016). Moreover, experiential lessons can remedy the absence of formal training for the principal’s job (Thody et al., 2007). In this study, the response was to increase the principal’s instructional leadership strengthening training. This is one of the top priorities for the Ministry of Education and Culture’s Directorate General of Teachers and Education Personnel in 2019, which aims to enhance the principal’s capacity for leadership and management of the school through differentiated instruction and communities of practice to enhance student wellbeing (Directorate of Professional Education and Teacher Development and Education Personnel, Ministry of Education, 2020; Regulation of the Director General of Teachers and Education, Kemdikbud, 2020). Previous research revealed a positive relationship between principal self-efficacy for instructional leadership, and work engagement, and job satisfaction. Principal self-efficacy for instructional leadership and
motivation to quit had no real association. Work engagement and job satisfaction are positively connected with motivation to leave. This study showed that Indonesian government policies on principal training and strengthening increase principal self-efficacy for instructional leadership (Dami et al., 2022).

This study is important because no research has examined the relationship between the instructional leadership of the principal, differentiated instruction, community of practice, and student wellbeing based on the perspective of the principal’s strengthening training policy. As a result of the principal’s strengthening training, this research contributed to the link between the principal’s instructional leadership and teacher performance and student wellbeing. This study aimed to test the relationship between the principal’s instructional leadership, differentiated instruction, community of practice, and student wellbeing.

Conceptual Background, Theoretical Framework, and Hypothesis

Principal Strengthening Training Policy in Indonesia

Based on the results of the Principal Competency Test (UKKS), which was carried out in 2015, the following results were obtained of: a) the highest average value is 55.90, and b) the lowest average value is 45.92. The average value of each dimension (UKKS) is as follows: a) learning leadership: 43.96; entrepreneurship: 48.52; managerial: 48.87; supervision: 36.45; and school development efforts: 47.67. For tier: a) the principal of The Upper Mengah School = 51.75; b) the principal of Vocational High School = 50.67; c) the principal of Junior High School = 50.26 and the principal of Primary School = 44.43. Meanwhile, based on educational qualifications include: a) principals of S3 qualifications: 54.85; b) principals of S2 qualifications: 51.60; c) principals of qualifications S1: 45.85 and d) principals of qualifications under S1 or D4: 37.67. This indicates that ongoing efforts are still required to increase the principal competencies that require improvement so that all principals have a high level of competency (Divisi Diklat Universitas Negeri Malang, 2015).

Regulation of the Minister of National Education number 13 of 2007 concerning School Principal Standards/Madrasah mandates that the principal, as the highest leader in schools must have five dimensions of competence, namely the dimensions of personality, managerial, entrepreneurial, supervision, and social competencies. Therefore, gradually and continuously, the competence of the principal must be improved through training to strengthen the principal.
The principal strengthening training (PST) was developed with reference to Government Regulation (PP) No. 19 of 2017 concerning Amendments to PP No. 74 of 2008 concerning Teachers and Regulation of the Minister of Education and Culture (Permendikbud) No. 15 of 2018 concerning Workload of Teachers, Principals, and School Supervisors. The principal competency improvement program is a planned and sustainable policy of the Minister of Education and Culture. Regulation of the Minister of Education and Culture of the Republic of Indonesia (Permendikbud RI) Number 6 of 2018 concerning the assignment of teachers as principals in article 21 states that principals who are in office and do not yet have a Certificate of Completion of Education and Training (STTPP) for prospective principals as referred to in Article 8 paragraph (7) are required to follow and pass education and training for strengthening principals.

The general purpose of technical guidance for teachers of training for strengthening principals in offline mode is to strengthen competence and build common perceptions of teachers regarding principal strengthening training. The specific objectives of technical guidance for teachers of training for strengthening principals in offline mode are: 1) providing knowledge and understanding to teachers about principal strengthening training; 2) improving the skills of teachers to facilitate the learning of principal strengthening training (Direktorat Pendidikan Profesi dan Pembinaan Guru dan Tenaga Kependidikan, Kemendikbud, 2020b).

The principal strengthening training material was developed by integrating the principle of freedom of learning with three pillars of student wellbeing embodiment, namely: 1) Instructional leadership focuses on or emphasizes learning that includes components of the curriculum, learning process, assessment of learning outcomes, assessment and development of teachers, excellent services in learning, and the development of learning communities both inside and outside the school; 2) Differentiated instruction is the teacher’s ability when teaching materials to all students using various strategies and adjusting to the needs and characteristics of the student; and 3) A community of practice is an organized community whose members have different abilities and come from different backgrounds. Each teacher community member collaborates to share their knowledge and learn from each other to achieve the same goals. Teacher participation is voluntary, does not have to come from the same organizational structure, and has a management reporting line (Direktorat Pendidikan Profesi dan Pembinaan Guru dan Tenaga Kependidikan, Kemendikbud [Directorate of Professional Education and Development of Teachers and Education Personnel, Ministry of Education and Culture], 2020a).

**Instructional Leadership**

To enhance the standard of teaching and learning, collaborative, collegial activities are a hallmark of instructional leadership, which includes procedures linked to planning, assessing, and coordinating instruction (OECD, 2016). Principals can also affect student success through three processes, according to Southworth (2009): modeling, monitoring,
and discussion. According to Day et al. (2016), the essential elements of instructional leadership are developing clear educational objectives, developing a curriculum, and assessing instructors’ performance.

The instructional leadership theory used in this study is based on the theory by Hallinger and Murphy (1985). According to this theory, three (3) dimensions within the framework of instructional leadership include the mission of the school, managing the curriculum and instruction, and promoting the school’s learning climate. Each dimension has specific functions and tasks that involve a diversity of practices and behaviors of the principal. Leaders develop school objectives with employees and parents to identify areas for improvement and set targets for each area to clarify the school mission. Leaders may convey the significance of school goals to employees, parents, and students by disseminating the school aims. Both formal and informal communication can be used to accomplish this. Working with teachers to develop curricula and deliver teaching is a component of managing instructional programs. Supervising class instruction through unscheduled visits to the classroom, reviewing class instruction using supported learning resources, and arranging class activities in line with the first dimension’s school objectives are a few of the duties. The task of coordinating the curriculum refers to activities that allow staff to cooperate and formalize established teaching standards and already prepared achievement tests. Using post-mortem data from student assessments to create suitable goals, assess the efficacy of in-class education, and determine the amount of advancement to meet the specified targets is referred to as providing incentives for learning. Moving on to the next aspect of creating a pleasant school climate, school administrators subtly promote the best possible learning environment. Hallinger and Murphy (1985) assert that by establishing a system of rewards that would highlight their accomplishments and beneficial efforts, leaders may impact the behaviour of instructors and pupils. This can be accomplished by outlining the importance of student wellbeing, the school expectations of them, the proper use of school time, and for teachers, by choosing and putting into practice professional development programs for teachers that focus on differentiated instruction and communities of practice.

**Differentiated Instruction**

Differentiated instruction is a teaching philosophy that, according to Tomlinson (2005), is founded on the idea that children learn extremely effectively when teachers consider the variations in their readiness levels, interests, and learning profiles. By taking a broader perspective, Bosker (2005) defined differentiation as tailoring “aspects” of education (such as student groupings, learning objectives, teaching time, or instructional strategies) to “differences” between students (particularly regarding performance and readiness, but also, for example, regarding intelligence, personality, or motivation). According to Roy et al. (2013), different teaching methods use structured procedures to track students’ academic progress and make data-driven decisions. These methods vary
and are suited to each student’s ability. Each of these criteria focuses on tailoring training to the individual needs of pupils (Geel et al., 2018).

According to Tomlinson’s (1999) idea of differentiated instruction, teachers must consciously alter the learning environment, method, or result in response to each student’s preparedness, interests, and learning profiles. The theory of differentiated instruction (Tomlinson, 1999) comes from the general educational philosophy that all students have strengths and weaknesses in learning that must be uniquely met for students to have meaningful learning experiences (Loeser, 2008). Teachers must be aware of students’ diverse backgrounds, readiness levels, languages, interests, and learning profiles to differentiate their instruction (Hall, 2002). By customizing the educational experience to each student’s specific level, differentiated teaching helps the learning process and maximizes each student’s progress and achievement (Hall, 2009). By differentiating educational experiences, students can demonstrate skills through various assessment techniques while having personal strengths and uniqueness valued in the learning process (Mulroy & Eddinger, 2003; Tomlinson, 2001).

**Community of Practice**

A community of practice (CoPs) is a group of people who share a concern, set of issues, or passions about a topic and deepen their knowledge and expertise in a particular area by interacting on an ongoing basis (Wenger et al., 2002). Li et al. (2009) lists the following as significant traits of the majority of CoPs: 1) The social interaction of members with one another through formal, informal, or technological arrangements; 2) The sharing of pertinent knowledge between each member; 3) The collaboration between members to solve problems or create new knowledge; and 4) The encouragement of the development of a shared identity among its members.

In this study, the practice community is based on sociocultural learning theory. The work of the Russian psychologist Lev Vygotsky provided the basis for applying the theory of sociocultural learning. This important theory in the community of practice underlines the dynamic interdependence between social and individual processes in learning (John-Steiner & Mahn, 1996; Vygotsky, 1978). In the community of practice, Walqui (2006) highlights one of the fundamental ideas behind this theory: social contact serves as the foundation for learning and growth. Learning is an apprenticeship and internalization process that transfers information and abilities from the social to the cognitive realm.

Previous studies of practice communities were designed to document formal professional development initiatives that harness the learning potential of participation and interaction. According to Borges et al. (2017), the practice community can mobilize students and enrich the actions and experiences of its members. Terry et al. (2019) state that a well-functioning practice community will create an environment that prioritizes the broader group. In doing so, students feel supported, welcomed, empowered, and able
to transition from inexperienced to more experienced. This allows students to experiment with new ways to fulfil their roles.

**Student Wellbeing**

Engels et al. (2004) described student wellbeing in schools as the manifestation of a life of happy feelings that come from the balance of a variety of environmental influences on the one hand and the expectations of each student on the other. Hofman et al. (1999) point out that students’ attitudes toward school can be divided into four aspects, including general attitudes relating to school life, teachers, peers, and school and building organizations. Samdal et al. (1999) add this aspect of student attitudes to the extent to which students feel safe and comfortable at school (meaning they do not feel lonely and bullied) and the extent to which students feel safe at school as an indicator of school well-being. In summary, student’s wellbeing is influenced by their ability to carry out their responsibilities as students at school, the predominance of positive emotions in the classroom, and the absence of negative emotions.

Student well-being can be influenced by several factors, including teacher-student relations (Aulia, 2018), social support from teachers (Liu et al., 2015), school climate (John-Akinola & Nic-Ghabain, 2014), and school conditions (Konu et al., 2002). These factors are supported by complexity theory because student well-being is a complex phenomenon (González et al., 2007). The complexity of the theory is one of several socio-material learning theories that emphasize the dynamic social character of learning rather than emphasizing the individual in the field of education. Relationships in the social and material sphere influence and help students grow (McMurtry, 2013).

**Hypothesis Development**

**Instructional Leadership, Differentiated Instruction, and Student Wellbeing**

Principal instructional leadership may encourage a favourable climate for teaching and learning by aligning school policies and procedures with the institution goal (Hallinger, 2003). Heck and Hallinger (2014) investigate how the school instructional culture and the principal’s instructional leadership will affect student success. As a leader in teaching, the principal promotes school culture by supporting and working with teachers to foster a supportive learning environment centred on instructional development (Witziers et al., 2003). Tomlinson and Allan (2000) emphasized the need for principal leadership in implementing differentiated teaching, saying that without such leadership, teachers are unlikely to make significant changes and the school environment toward differentiation. According to Hallinger (2005), several studies suggest that principal leadership should
impact classroom learning through school culture and modeling rather than through direct monitoring and teacher assessment.

According to earlier studies, instructional leadership positively and significantly influences teacher perceptions of differentiated instruction and differentiated instruction’s role as a positive and significant predictor of student success and engagement (VanTassel-Baska et al., 2008; Haelermans et al., 2015; Goddard et al., 2015; Goddard et al., 2019). Instructions may be impacted by differentiated instruction by instructors’ decisions about instructional activities, learning objectives, learning material, techniques, media use, assessment, and organizational factors (Suprayogi et al., 2017; Spencer-Waterman, 2014; Watts-Taffe et al., 2012).

Previous research tested student engagement and achievement variables, but current research looks more broadly at student wellbeing variables. In addition, the research when testing the relationship between variables based on the impact of implementing training-strengthening principals in Indonesian culture. Based on these arguments, it is proposed:

**H1:** Instructional leadership has a positive relationship with differentiated instruction.

**H2:** Differentiated instruction has a positive relationship with student wellbeing.

**Instructional Leadership, the Community of Practice, and Student Wellbeing**

A systematic evaluation of 24 studies reveals that most research suggests that the community of practice may influence educators’ practice by utilizing real knowledge, tools, and social connections (Abigail, 2016). The findings demonstrated that the principal had a hand in determining how teachers may learn in the community of practice (Printy, 2008). Communities of practice help assist instructors to see beyond their personal experiences and in creating a sociocultural environment that will improve interactions between teachers and students (Jimenez-Silva & Olson, 2012); facilitate formal and informal learning; promote learning and progress of new competencies among participants; encourage collaboration between organization members, facilitate network development and improve communication leading to learning and innovation (Sanchez-Cardona et al., 2012), and student learning and educational processes (Cox, 2013). In contrast to previous studies, the researchers currently add student wellbeing variables, instructional leadership, and differentiated instruction based on PST. The relationship between the three variables produces hypotheses:

**H3:** Instructional leadership has a positive relationship with the community of practice.

**H4:** Community of practice has a positive relationship with student wellbeing.

The conceptual framework may be created based on hypotheses to emphasize the relationships between the constructs in this study:
Method

A cross-sectional quantitative survey is used in this investigation. The Partial Least Square-Structural Equation Model (PLS-SEM) technique was used in this study to generate latent variable values for predictive purposes to have more accurate relationship predictions in variables (Hair et al., 2016; Dami et al., 2022). The research analysis is based on Structural Equation Modeling (SEM) and research models using Smart PLS 3.3.3 software.

Samples and Procedures

The population of this study is junior high schools in Sikka and Timur Tengah Utara (TTU) Districts, East Nusa Tenggara Province, Indonesia. The selected school is a school where the principal has attended the principal’s training and has a Certificate of Completion of Education and Training (CCET). In Sikka District, 19 principals already have STTPP and Timur Tengah Utara Districts 27. This study used a purposive sampling procedure, and the sample was selected 18 out of 46 public junior high schools with details of 11 schools in Timur Tengah Utara and seven schools in Sikka District, with approximately ±15 teachers. Therefore, if the number of teachers in each school is not more than 30 people, then the sampling technique used is saturated sampling, where all population members are used as samples. Out of 18 schools, questionnaires were distributed to 295 teachers, 274 of whom participated in the study and completed the questionnaire in full, resulting in an effective response rate of 92.88%. A total of
274 responses were received after data collection in one month (April 2021). Of the 295 responses, 21 could not be used because of incomplete or outliers. The data for this study were collected using a questionnaire survey. The online questionnaire (Google form) is distributed via WhatsApp to all principals, and then the principal forwards it to the teachers in their respective schools.

**Instruments**

**Instructional leadership**

Principal Instructional Management Rating Scale (PIMRS) is used to measure instructional leadership (Hallinger & Wang, 2015). PIMRS has 22 items to assess the frequency of instructional leadership behavior performed by principals. This study used a Likert scale ranging from 1 (strongly disagree) to 5 (strongly agreed). PIMRS builds on instructional leadership theory from Hallinger and Murphy (1985) that evaluates instructional leadership on three dimensions: defining school missions, managing instructional programs, and developing a positive school learning climate (Hallinger & Hosseingholizadeh, 2019). This study adopted ten items from three dimensions based on the pretest of three expert judgments and adapted to respondents’ characteristics.

**Differentiated instruction**

Teachers reported differentiated instruction levels used in their schools with six Likert scale-type items that had scores of 1–5 from “strongly disagreed” (1) to “strongly agreed” (5) (Goddard et al., 2015). This scale is based on differentiated instruction theory, which states that for learning to be more successful, teachers must purposefully adjust learning material, method, product, or environment in response to students’ preparedness, interests, and learning profiles (Tomlinson, 1999). Teachers’ answers to these questions are compiled to develop a measure of differentiated instruction implementation in schools. These elements are used to assess practices like assessments, which are frequently used to check student’s progress and provide students with various activities based on their needs, readiness, and interests.

**Community of practice**

The Community of Practice Scale for Schools (CoP-S) is used to assess the community of practice (Gorrell et al., 2013). The CoP-S consists of a twenty-six-item scale designed to assess the strength of the community within a school that is considered to be a community of practice. The idea of learning and sociocultural development, which demonstrates that all human growth depends on social engagement in cultural practice, provides the foundation for the community of practice scale (Cole, 1996). Community, involvement, and cooperation are at the vanguard and core of human cognitive and social growth, according to the notion of sociocultural learning (Rogoff, 2003; Wertsch, 1991). This scale is divided into two sections, including general community perceptions and
personal experiences in the community. Each section has two subscales. The subscales for section 1 are common purposes and goals (11 questions) and leadership (9 questions). The subscales for section 2 are bonding (3 questions) and discourse (3 questions). The current study adopted a subscale of leadership (6 questions) based on pretests from three expert judgments and synchronized with IL. Each statement on this scale is responded to using a Likert scale of 1 (strongly disagree) to 5 (strongly agree).

**Student wellbeing**

Student wellbeing is measured using the student wellbeing model (SWBM), which consists of 35 scale items (7 dimensions) (Souter et al., 2014). SWBM is a practical pedagogical instrument to facilitate reflection, identification, communication, enforcement, and student wellbeing monitoring. This scale is built on complexity theory, in which individuals and contexts interact – known as complex systems with unique characteristics in dynamic exchanges. (McQuillan, 2008; Davis & Sumara, 2006). The details, dimension having (5 items), being (5 items), relating (6 items), feeling (6 items), thinking (5 items), functioning (4 items), and striving (4 items). Responses are given on a 5-point scale from “strongly disagree” (1) to “strongly agree” (5). Based on the pretest of the three expert judges and adapted to the characteristics of respondents, the current study adopted items of every dimension except the feeling and thinking dimensions of each of the two items.

**Data Analysis**

The data were analyzed using PLS path modeling, with the primary consideration of choosing this technique being that SEM is a superior feature of regression in terms of simultaneous estimation of all parameters in the model (Iacobucci et al., 2007). This study uses PLS-SEM to evaluate construct validity, convergent validity, composite reliability, and discriminant validity. The hypothesis was tested using multiple regression analysis with the consistent PLS bootstrapping inside SmartPLS 4.0.9.0.

**Results**

**Respondent Profile**

This study involved 274 teachers who carried out their duties and responsibilities as educators in 18 public junior high schools in Sikka and TTU districts. Respondent profiles include gender, teaching experience, and education. The respondent’s demographic profile is shown in Table 1.
Table 1

Respondent Profile

<table>
<thead>
<tr>
<th>Teachers</th>
<th>N</th>
<th>Min.</th>
<th>Max.</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>274</td>
<td>21</td>
<td>67</td>
<td>40.16</td>
<td>12.972</td>
</tr>
<tr>
<td>Teaching experience</td>
<td>274</td>
<td>1</td>
<td>42</td>
<td>26.19</td>
<td>11.927</td>
</tr>
<tr>
<td>Education</td>
<td>274</td>
<td>1</td>
<td>3</td>
<td>1.14</td>
<td>0.477</td>
</tr>
<tr>
<td>Gender</td>
<td>274</td>
<td>1</td>
<td>2</td>
<td>1.49</td>
<td>0.501</td>
</tr>
<tr>
<td>Employment status</td>
<td>274</td>
<td>1</td>
<td>2</td>
<td>1.11</td>
<td>0.317</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Teachers</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>139</td>
<td>51%</td>
</tr>
<tr>
<td>Female</td>
<td>135</td>
<td>49%</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Master</td>
<td>7</td>
<td>3%</td>
</tr>
<tr>
<td>Bachelor</td>
<td>252</td>
<td>92%</td>
</tr>
<tr>
<td>Senior High School</td>
<td>15</td>
<td>5%</td>
</tr>
<tr>
<td>Employment status</td>
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<tr>
<td>Civil Servants</td>
<td>243</td>
<td>89%</td>
</tr>
<tr>
<td>Honorer</td>
<td>31</td>
<td>11%</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21-33</td>
<td>70</td>
<td>25%</td>
</tr>
<tr>
<td>34-47</td>
<td>103</td>
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</tr>
<tr>
<td>48-59</td>
<td>101</td>
<td>37%</td>
</tr>
<tr>
<td>Total</td>
<td>274</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: Authors’ findings

Descriptive Statistics and Normality Measurements

All question items are encoded with numeric values. Variable distributions are measured using skewness and kurtosis statistics and values smaller than absolute values 2 and 7, respectively, indicating that data is normally distributed (Curran et al., 1996). Table 2 provides descriptive statistics and normality of all constructs at the item level, including average, standard deviation, skewness, and kurtosis.

The descriptive statistical analysis results found the lowest mean and standard deviation of IL 3.518±1.091 (IL2) and the highest 4.179±0.740 (IL7). The principal has implemented instructional leadership due to the principal’s strengthening training both in the aspects of defining the school mission, managing instructional programs,
and developing a positive school learning climate. Concerning DI, the lowest mean and standard deviation was 3.679±0.992 (DI2) and a high of 3.953±0.816 (DI5). These results show that teachers have implemented differentiated instruction. In the dimensions of CoP, the lowest mean and standard deviation is 3.142±1.056 (CoP2), and the highest is 3.971±0.900 (CoP6). Teachers state that the principal cares, acts, fairly, and supports teachers in their daily work. Lastly, the dimensions of SW, mean, and standard deviation are the lowest at 3.011±1.058 (SW2) and the highest at 3.865±0.892 (SW5). These results show that students have good wellbeing related to having, being, relating, feeling, thinking, functioning, and striving.

Table 2

Descriptive Statistic and Normality Assessment

<table>
<thead>
<tr>
<th>Construct</th>
<th>Item</th>
<th>Statistic Descriptive</th>
<th>Normality Indicators</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Mean</td>
<td>Min</td>
</tr>
<tr>
<td>IL</td>
<td>IL1</td>
<td>3.628</td>
<td>1.00</td>
</tr>
<tr>
<td></td>
<td>IL2</td>
<td>3.518</td>
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<tr>
<td></td>
<td>DI4</td>
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<td>DI6</td>
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<tr>
<td>CoP</td>
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<td></td>
<td>CoP6</td>
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</table>
### Measurement Model (Outer Model): Validity and Reliability

Two forms of validity are evaluated in the measurement model: convergent and discriminant validity. There are three convergent validity indicators, including outer loadings, average variance extracted (AVE), and composite reliability (CR). Table 3 and Figure 2 provide reliable measurement results, showing that outer loadings range from 0.505 to 0.897, and a total of 23 items indicate a sufficient level of reliability (outer loadings greater than 0.50 and significant at 0.05). There are three items removed because outer loadings smaller than 0.50, including CoP4, CoP5, and CoP6. In addition, the results showed that AVE values ranged between 0.564 and 0.801, which is above the threshold of 0.50 (Adeleke et al., 2018). Cronbach’s alpha and composite reliability (CR) measurements should be higher than 0.70 (Henseler et al., 2016). Results show that Cronbach’s alpha and CR values for all constructs exceed the benchmark value of 0.70, as shown in Table 3.

#### Table 3
Convergent Validity

<table>
<thead>
<tr>
<th>Construct</th>
<th>Item Code</th>
<th>Outer Loading</th>
<th>Cronbach’s Alpha</th>
<th>CR</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>CoP</td>
<td>CoP1</td>
<td>0.892</td>
<td>0.876</td>
<td>0.924</td>
<td>0.801</td>
</tr>
<tr>
<td></td>
<td>CoP2</td>
<td>0.896</td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CoP3</td>
<td>0.897</td>
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<tr>
<td>DI</td>
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<td>0.901</td>
<td>0.927</td>
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<tr>
<td></td>
<td>DI3</td>
<td>0.887</td>
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</tr>
</tbody>
</table>

Source: Authors’ own findings

Note: IL: instructional leadership; DI: differentiated instruction; CoP: communities of practice; SW: student wellbeing.
<table>
<thead>
<tr>
<th>Construct</th>
<th>Item Code</th>
<th>Outer Loading</th>
<th>Cronbach’s Alpha</th>
<th>CR</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>DI4</td>
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<td></td>
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<td>DI6</td>
<td>0.794</td>
<td></td>
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<td>0.869</td>
<td>0.900</td>
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<td>IL5</td>
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<tr>
<td></td>
<td>IL6</td>
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</tr>
<tr>
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<td>IL7</td>
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<tr>
<td></td>
<td>IL8</td>
<td>0.809</td>
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<td></td>
<td>IL9</td>
<td>0.783</td>
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<tr>
<td>SW</td>
<td>SW1</td>
<td>0.564</td>
<td>0.893</td>
<td>0.917</td>
<td>0.589</td>
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<td>SW5</td>
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</tr>
<tr>
<td></td>
<td>SW9</td>
<td>0.839</td>
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<td></td>
</tr>
</tbody>
</table>

Source: Authors’ own findings

Note: N = 274. CR: composite reliability; AVE: average variance extracted; IL: instructional leadership; DI: differentiated instruction; CoP: communities of practice; SW: student wellbeing.

Discriminant validity was tested using the Heterotrait-Monotrait Ratio of Correlation (HTMT). Because it is regarded as the most conservative criterion, so HTMT 0.85 is used as a benchmark for evaluating discriminant validity (Henseler et al., 2015). The HTMT value is more than 0.85 for five components, IL2, IL3, IL4, DI1, and SW3, and as shown in Table 4, the HTMT statistics are lower than the benchmark value of 0.850 (Henseler et al., 2015). Thus, the construct is empirically different, which indicates sufficient discriminant validity. In conclusion, based on the results of convergent and discriminant validity assessments, the research model shows that the validity and reliability of the construct are adequate.
Table 4

Discriminant Validity: Heterotrait-Monotrait Ratio (HTMT)

<table>
<thead>
<tr>
<th></th>
<th>COP</th>
<th>DI</th>
<th>IL</th>
</tr>
</thead>
<tbody>
<tr>
<td>DI</td>
<td>0.585</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IL</td>
<td>0.547</td>
<td>0.838</td>
<td></td>
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<tr>
<td>SW</td>
<td>0.626</td>
<td>0.746</td>
<td>0.849</td>
</tr>
</tbody>
</table>

**Structural Model (Inner Model): Analysis of the Influence of Interaction**

The assessment of structural models aims to test research hypotheses involving coefficient path evaluation (beta), appropriate significance (t-values), confidence intervals, and the contribution of exogenous variables to endogenous variables ($R^2$). To validate statistical validity, the bootstrapped procedure of 5000 resamples to generate t-values and standard errors.

**Figure 2**

*PLS-Path Initial Model, Modified Model and Structural Model*
As shown in Figure 2 and Table 5, the relationship between IL and DI is significant ($\beta = 0.741$ and $t = 18.694$) with confidence intervals ranging from 0.667 to 0.798. This result indicates that if IL increases with one standard deviation, then DI will increase by 0.741. Thus, $H_1$ is accepted.

### Table 5
Summary of Hypotheses Testing

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Path</th>
<th>Std. Beta</th>
<th>Std. Error</th>
<th>t-value</th>
<th>Bias</th>
<th>Confidence Interval</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>$H_1$</td>
<td>IL -&gt; DI</td>
<td>0.741</td>
<td>0.040</td>
<td>18.694</td>
<td>0.001</td>
<td>0.667 0.798</td>
<td>Accepted</td>
</tr>
<tr>
<td>$H_2$</td>
<td>DI -&gt; SW</td>
<td>0.522</td>
<td>0.062</td>
<td>8.375</td>
<td>0.004</td>
<td>0.409 0.616</td>
<td>Accepted</td>
</tr>
<tr>
<td>$H_3$</td>
<td>IL -&gt; CoP</td>
<td>0.493</td>
<td>0.048</td>
<td>10.346</td>
<td>0.002</td>
<td>0.408 0.566</td>
<td>Accepted</td>
</tr>
<tr>
<td>$H_4$</td>
<td>COP -&gt; SW</td>
<td>0.296</td>
<td>0.070</td>
<td>4.243</td>
<td>-0.002</td>
<td>0.177 0.407</td>
<td>Accepted</td>
</tr>
</tbody>
</table>

Note: $p < 0.05$ (one-tailed test)

Figure 2 and Table 5 show that the relationship between DI and SW is also significant ($\beta = 0.522$, $t = 8.375$), with confidence intervals of 0.409 to 0.616. Thus, the hypothesis suggests that the $\beta$-value equal to zero should be rejected. These results state that DI has a positive relationship with SW; if the implementation rate of DI increases with one standard deviation, then SW will increase to 0.522. Thus, $H_2$ is accepted. Furthermore, there is a positive relationship between IL and CoP with standardized $\beta$ equal to 0.493 and a significant t-value (10.346). Figure 2 and Table 4 show that the relationship has a confidence interval between 0.408 and 0.566. This indicates that when the IL level rises with one standard deviation, the CoP increases to 0.493. Therefore, $H_3$ is received statistically, the higher the IL, the higher the communities of practice. Lastly, $H_4$ is statistically accepted because there is a positive relationship between CoP and SW ($\beta = 0.296$, $t = 4.243$), with confidence intervals of 0.177 to 0.407. This result indicates that when the CoP level rises with one standard deviation, the SW increases to 0.296.

The contribution of exogenous variables to endogenous variables is indicated by the value $R^2$ (PLS-path modified model). Standardized estimates of structural models illustrate that about 54.9% of the DI variants are described by IL (moderate). Likewise, about 24.3% of CoP variants are described by IL (weak). Furthermore, both DI and CoP account for 52.4% of SW (moderate) variants. Additionally, predictive relevance ($Q^2$) resulting from blindfolding procedures suggests that models have sufficient capabilities to predict endogenous variables. $Q^2$ values for DI (0.389), CoP (0.187), and SW (0.278). According to Hair et al. (2017), this model has good predictive relevance because the $Q^2$ value is greater than 0.
Discussion

The current study focuses on the effect of the principal’s strengthening training policy on principal instructional leadership, differentiated teaching, the community of practice, and student wellbeing from the perspective of the principal strengthening training policy. The statistical analysis of structural models shows that instructional leadership is positively associated with differentiated instruction and communities of practice. Likewise, differentiated instruction and practice communities positively relate to student wellbeing. The findings of this research also demonstrated that principal strengthening training substantially influences the principal’s instructional leadership to enhance differentiated instruction and communities of practice, ultimately improving student wellbeing.

The results of this study are consistent with findings from Goddard et al. (2019), Suprayogi et al. (2017), Spencer-Waterman (2014), and Watts-Taffe et al. (2012), which stated that the principal’s instructional leadership had a relationship with differentiated instruction and student progress. As a result, this study adds to the current research by emphasizing that principals can positively impact teaching practices, beliefs, and student learning (Dumay et al., 2013). Furthermore, the findings of this study are consistent with those of Printy (2008), Jimenez-Silva, and Olson (2012), Sanchez-Cardona et al. (2012), and Cox (2013), where instructional leadership has relationships with the community of practice and academic students. The study was also supported by research from Chenari et al. (2016) and Hao (2013), which confirmed that the principal training program impacted the principal’s instructional leadership, differentiated instruction, community practice, and student wellbeing.

Effective teacher practice can be improved by instructional leadership (Goddard et al., 2019). According to Grissom et al. (2013), the way and quality in which the principal uses their time affect teaching and learning in classrooms, particularly the better use of differentiated instruction. Tomlinson and Allan (2000) stressed the significance of school leadership to differentiated instruction practices by claiming that teachers are unlikely to take significant steps toward widespread differentiation without an accompanying change in the school climate that instructional leaders instigate.

Prior studies’ findings, which found a connection between differentiated instruction and students’ success, participation, and wellbeing, are consistent with the results of this research (VanTassel-Baska et al., 2008; Haelermans et al., 2015; Goddard et al., 2015; Goddard et al., 2019). Results from earlier research have demonstrated that many studies on differentiated instruction in secondary education explore how it may raise student success and wellbeing (Smale-Jacobse et al., 2019). In addition, students’ learning needs can be accommodated through differentiated instruction (Mastropieri et al., 2006). Dixon et al. (2014) found that teachers with professional development in differentiation felt more effective in differentiated instruction in their classrooms. Tomlinson et al. (2008) and Tomlinson et al. (2003) claim that differentiated teaching is most successful
when teachers pre-assess students on impending defence subjects, arrange instruction based on assessment results and provide students flexibility in the learning process. Haelermans et al. (2015) claim that this practice fosters student well-being, routinely evaluates students’ progress toward instructional goals and modifies classroom learning in response to students’ needs and interests so that they feel good and are inspired to take responsibility for their ideas and actions.

The findings suggest that the principal’s instructional leadership contributes to teachers’ learning ability in the practice community. According to Printy (2008), the principal’s instructional leadership is the most important component in determining the quality of teacher engagement in the practice community. Principal’s instructional leadership is crucial to teacher social interactions and learning because it establishes a school vision that can guide teachers, increases support for teacher efforts, and shields teachers from outside distractions. Two benefits of CoP were identified by Sanchez-Cardona et al. (2012): 1) The CoP can enhance both explicit and implicit knowledge exchange among instructors and support formal and informal classroom learning; 2) CoP promotes collaboration among educators, supports network growth, enhances communication, and modifies social and technological structures. According to Kapucu (2012), CoP significantly impacted students’ outcomes (wellbeing) based on these two benefits.

**Conclusion**

The research aimed to test the relationship between the principal’s instructional leadership, differentiated instruction, a community of practice, and student wellbeing from the principal’s strengthening the training policy perspective. The results of studies have shown that: 1) There is a positional relationship between instructional leadership and differentiated instruction and community of practice. 2) There is a positive relationship between differentiated instruction and community of practice with wellbeing. This study indicates that the intervention of the principal strengthening training has a significant impact on improving instructional leadership, differentiated instruction, community of practice, and student wellbeing.

**References**


Mokymo lyderystė, diferencijuotas mokymas, praktikos bendruomenė ir mokinių gerovė: mokymo politikos stiprinimas iš mokyklos vadovo perspektyvos

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Santrauka

Tyrimu siekta ištirti mokymo lyderystės, diferencijuoto mokymo, praktikos bendruomenės ir mokinių gerovės ryšį, remiantis mokymo politikos stiprinimu iš mokyklos vadovo perspektyvos. Tyrimo iškeltos keturios hipotezės: 1) mokymo lyderystė turi teigiamą ryšį su diferencijuoto mokymu; 2) diferencijuotas mokymas turi teigiamą ryšį su mokinių gerove; 3) mokymo lyderystė turi teigiamą ryšį su praktikos bendruomene; 4) praktikos bendruomenė turi teigiamą ryšį su mokinių gerove. Šiame tyrimo naudojama daugialypė regresinė analizė taikant dalinių mažiausijų kvadratų metodą. Klausimynai buvo išdalyti 295 mokytujams, iš kurių 274 dalyvavo tyrime ir užpildė klausimyną, todėl efektyvus atsako rodiklis buvo 92,88 proc. Iš 295 respondentų 21 klausimyno duomenys negalėjo būti panaudoti dėl ne iki galo užpildytų ankstų arba dėl nukrypimų nuo normos. Tyrimo rezultatai rodo, kad: 1) egzistuoja teigiamas ryšys tarp mokymo lyderystės ir diferencijuoto mokymo bei praktikos bendruomenės; 2) egzistuoja teigiamas diferencijuoto mokymo ir praktikos bendruomenės ryšys su mokinių gerove. Šis tyrimas rodo, kad mokyklos vadovų mokymų stiprinimo intervencija turi reikšmingą poveikį mokymo lyderystės, diferencijuoto mokymo, praktikos bendruomenės ir mokinių gerovės gerinimui.

Esminiai žodžiai: mokymo lyderystė, diferencijuotas mokymas, praktikos bendruomenė, mokinių gerovė, politika, mokyklos vadovų mokymų stiprinimas.