



MANAGEMENT ANALYSIS OF TEACHER COMPETENCY ENHANCEMENT THROUGH THE TIRTA COACHING MODEL AT SMPN 46 BATAM

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ABSTRACT

A teacher is a professional educator whose main duties are to educate, teach, guide, direct, train, assess, and evaluate students. Therefore, the role of a teacher is no longer limited to delivering lesson material, but also extends to being a facilitator, mentor, and motivator for students. One approach that is increasingly relevant and needed today is coaching. The TIRTA Model (Ask, Identify, Plan, Follow-up, and Affirm) is a coaching approach developed to support teachers in reflecting on and improving their teaching practices. The activities included training, mentoring, and direct peer coaching practice among teachers. The purpose of this study is to improve teacher competency through the practice of the TIRTA coaching model at SMP Negeri 46 Batam. This study was conducted from September to October 2025 and involved 12 teachers from elementary and junior high schools on Bulang Kebam Island, Batam City, Riau Islands. The partner involved in this study was the Batam City Education Office. The results showed an improvement in teachers' abilities to reflect on learning, engage in empathetic communication, and develop lesson improvement plans based on coaching outcomes. This activity is expected to be the first step in building a coaching culture in schools, thereby creating a collaborative and sustainable learning ecosystem.

Keywords: teacher, competency, coaching, TIRTA

INTRODUCTION

Riau Islands Province is one of the provinces in Indonesia that shares a direct border with neighboring countries such as Singapore, Malaysia, and Thailand. Demographically, Riau Islands Province consists of 94.6% waters and 4.4% land. This condition is very different from other provinces in Indonesia, and it significantly influences the implementation of education, both formal and non-formal. Education in Riau Islands Province faces more complex challenges and requires greater effort due to demographic factors and the demands of its maritime territory. In addition, its status as an outermost and frontier region serves as Indonesia's international gateway to neighboring countries. The number of students in Batam City continued to increase in 2025, marked by rapid population growth and limits on the maximum number of students per class to accommodate existing student volume. To meet student needs, teachers who are competent in carrying out their profession are required. Thus, teachers must continue to learn and improve their competencies to achieve national education goals.

Teachers are professional educators whose main duties are to educate, teach, guide, train, assess, and evaluate students to realize national education goals. More than just transferring knowledge, teachers act as role models, learning facilitators, character builders, motivators, and

inspirations for their students. According to Dri Atmaka (2004), teachers assist in students' physical and spiritual development. Mulyasa (2006) stated that teachers play a crucial role in helping students achieve their life goals optimally. Teachers are educators who serve as role models for students and their environment. Therefore, educators must possess personal qualities that include responsibility, authority, and discipline. Meanwhile, according to Prof. Dr. Karwono, teachers are an essential component of learning whose quality must be improved to enhance overall learning quality. He also emphasized that ideal teachers must have adequate academic and professional abilities, a stable personality, and a deep commitment to their profession to develop students' potential into individuals who are faithful, devout, noble, competent, creative, and independent. For this reason, teachers must have superior competencies to manage their classrooms and achieve national education goals.

Facts in the field, in this case at SMP Negeri 46 Batam, indicate that teacher competency still needs to be improved, especially coaching skills to support the personal development of teachers and students through conversations that explore potential, trigger independent solutions, and build positive relationships. Through coaching, teachers can guide colleagues to reflect on their practices, improve competencies, and create a student-centered learning environment in line with the principles of partnership and independence. The mentoring process for students still uses old patterns that focus more on rules and punishment. This contradicts the principles of partnership and independence that foster a positive culture. Based on these issues, teacher self-development is needed to improve their competencies through coaching practices at SMP Negeri 46 Batam, Riau Islands.

To produce competent teachers, the program implemented is a training program to improve teacher competency through the TIRTA coaching model at SMP Negeri 46 Batam, Riau Islands, involving the Batam City Education Office and SD Negeri 004 Bulang, located near SMP Negeri 46 Batam. This training consists of independent learning stages through the Merdeka Mengajar platform in Ruang GTK. Previous research shows that coaching skills are proven effective in improving teacher competencies, particularly in pedagogy, learning management, and self-reflection (Umabiinatun, 2023). The TIRTA coaching model is an adaptation of the GROW model concept adjusted to the Indonesian educational context. TIRTA is an acronym for: (1) **Tanyakan**: asking reflective questions to explore teachers' thinking. (2) **Identifikasi**: identifying strengths and areas for development. (3) **Rencanakan**: developing improvement strategies. (4) **Tindaklanjuti**: implementing action plans. (5) **Afirmasi**: providing positive reinforcement for changes and progress.

Based on the explanation above, the important objective of this research is to describe the management of teacher competency improvement at SMP Negeri 46 Batam, Riau Islands. This activity is essential to support the Ministry of Primary and Secondary Education's program to improve teacher competency in order to realize national education goals. Thus, with competent teachers, Indonesian education can stimulate the achievement of Indonesia's demographic bonus toward a Golden Indonesia in 2045.

Theoretical Review of Educational Management

Definition and Scope of Educational Management

Educational management is the process of planning, organizing, actuating, and controlling educational resources to achieve educational goals effectively and efficiently (Terry, 1977; Bush, 2011). It is both a science and an art that applies management principles to the specific context of educational institutions. Unlike general management, educational management deals with human development, values, and long-term societal outcomes, making it inherently normative and ethical. Bush (2020) The scope of educational management covers all levels of the education system: macro-level (national policy), meso-level (district or school), and micro-level (classroom). At the school level, it includes academic management, student affairs, personnel, finance, facilities, public relations, and special services (Mulyasa, 2011).

Functions of Educational Management

Most scholars adopt the POAC framework derived from classical management theory (Terry, 1977; Koontz & O'Donnell, 1976) which consist of (1) Planning: The process of defining goals, establishing strategies, and developing action plans to coordinate activities. In education, this includes strategic planning, school work plans, annual work plans, and lesson planning. Effective planning is data-driven and participatory (Caldwell & Spinks, 1992). (2) Organizing: Arranging and allocating human and material resources. This involves establishing organizational structure, job descriptions, delegation of authority, and coordination mechanisms. In schools, organizing creates clear divisions such as curriculum, student affairs, and infrastructure teams. (3) Actuating or Leading: Directing and influencing people to achieve organizational goals. This function includes leadership, motivation, communication, and conflict management. Contemporary views emphasize instructional leadership, where principals focus on improving teaching and learning rather than merely administration. (4) Controlling or Evaluating: Monitoring activities to ensure conformity with plans and taking corrective action when necessary. In education, this includes supervision, performance appraisal, quality assurance, and school self-evaluation (Hoy & Miskel, 2013; Sergiovanni, 2009; Hallinger, 2011).

Relationship Between Educational Management and School Effectiveness

School effectiveness refers to the extent to which a school achieves its stated educational goals, particularly in terms of student learning outcomes, equity, and stakeholder satisfaction. A substantial body of literature establishes educational management as a key determinant of school effectiveness (Scheerens, 2000)

Management Functions as Predictors of Effectiveness

Empirical studies demonstrate that the quality of POAC implementation directly influences school performance. Reynolds and Teddlie (2000) in their review of school effectiveness research found that “purposeful leadership” and “monitoring of student progress” both elements of the actuating and controlling functions consistently differentiate effective from ineffective schools. Hallinger and Heck (2010) conducted a meta-analysis of 40 studies and concluded that principals’ instructional leadership, as part of the actuating function, has a statistically significant indirect effect on student achievement mediated by school capacity and teacher practices.

School-Based Management and Effectiveness

The decentralization of management through School-Based Management (SBM) has been linked to improved effectiveness when accompanied by capacity building. Caldwell (2005) argues that SBM increases effectiveness because it enables schools to align resources with local needs, fosters ownership, and speeds up decision-making. However, the World Bank (2008) cautions that SBM only improves outcomes if schools have strong management capacity; otherwise, autonomy without accountability leads to inefficiency.

Systems Perspective on Effectiveness

Using a systems approach, Hoy and Miskel (2013) conceptualize school effectiveness as the optimal transformation of inputs (students, teachers, funds) into outputs (achievement, skills, values) through effective management processes. Effective educational management ensures that the school system maintains internal alignment among subsystems curriculum, instruction, and assessment while remaining adaptive to external demands from parents, government, and industry.

Evidence from Indonesian Context

In Indonesia, studies by the Ministry of Education and World Bank (2010) on SBM implementation found that schools with high management scores on the School Self-Evaluation instrument had significantly higher national exam scores and lower dropout rates. Principals who

scored high on instructional leadership were able to mobilize teachers to conduct lesson study and use assessment data for improvement, which directly enhanced classroom effectiveness (Surya, 2018).

Mediating Role of Teacher Quality and School Climate

Leithwood et al. (2004) proposed that educational management influences student outcomes indirectly through two mediating pathways: (1) Rational path management improves teacher quality via recruitment, professional development, and supervision, and (2) Emotional path management creates a positive school climate, collective teacher efficacy, and student motivation. Thus, management effectiveness should be measured not only by administrative compliance but by its impact on teaching and learning processes. In summary, effective educational management is a necessary condition for school effectiveness. While it does not teach students directly, it creates the organizational conditions clear goals, aligned resources, motivated staff, and continuous monitoring that make effective teaching and learning possible. Weakness in any management function produces “organizational bottlenecks” that constrain student outcomes regardless of teacher competence or curriculum quality.

Theoretical Review

Definition of Teaching Competency Teaching competency refers to an integrated set of knowledge, skills, attitudes, and values that enable teachers to perform their professional duties effectively to facilitate student learning (Shulman, 1987; Selvi, 2010). It is not merely the mastery of subject matter, but the ability to transform content knowledge into pedagogically powerful forms that are adapted to the diverse needs of learners. Competency is therefore performance-based and observable in classroom practice, distinguishing it from abstract qualifications or certificates. According to the OECD, teaching competencies are “the complex combination of knowledge, skills, understanding, values, and attitudes that lead to effective action in situ.” This definition emphasizes that competency is contextual and manifested in real teaching situations rather than in Isolation (2009).

Dimensions of Teachers’ Teaching Competencies

Several models have been developed to classify teaching competencies. Three of the most widely cited frameworks are:

1) Shulman’s Model of Teacher Knowledge Base

Shulman proposed seven categories that form the foundation of teaching competency: (1) Content Knowledge: Deep understanding of the subject matter. (2) General Pedagogical Knowledge: Broad principles and strategies of classroom management and organization. (3) Curriculum Knowledge: Familiarity with materials and programs that serve as tools of the trade. (4) Pedagogical Content Knowledge (PCK): The blending of content and pedagogy into an understanding of how particular topics are organized, represented, and adapted to learners’ interests and abilities. PCK is considered the hallmark of expert teaching. (5) Knowledge of Learners: Understanding students’ characteristics, preconceptions, and learning difficulties. (6) Knowledge of Educational Contexts: Awareness of school, community, and cultural factors. (7) Knowledge of Educational Ends: Understanding the purposes, values, and philosophical grounds of education (1986; 1987).

2) Indonesian Law No. 14/2005 on Teachers and Lecturers

In the Indonesian context, teaching competency is legally mandated to include four core competencies: (1) Pedagogical Competency: Ability to manage student learning, including understanding learners, designing and implementing instruction, evaluating outcomes, and developing student potential. (2) Personality Competency: Steady, mature, wise, and authoritative personal qualities that serve as role models for students. (3) Social Competency: Ability to communicate and interact effectively with students, fellow teachers, parents, and the community. (4) Professional Competency: Broad and deep mastery of learning material, including mastery of curriculum, scientific substance, and scholarly structure of the subject.

3) Danielson's Framework for Teaching

This framework divides teaching competency into four domains of professional practice: Planning and Preparation: (1) Demonstrating knowledge of content and pedagogy, setting instructional outcomes, and designing coherent instruction. (2) Classroom Environment: Creating a culture for learning and managing classroom procedures. (3) Instruction: Communicating with students, using questioning and discussion techniques, and engaging students in learning. (4) Professional Responsibilities: Reflecting on teaching, maintaining records, and participating in professional communities.

Indicators of Effective Teaching Competencies

Based on synthesis of the above models, effective teaching competencies can be observed through several key indicators: (1) Instructional Design Competency: The ability to formulate clear learning objectives, select appropriate materials, and design varied learning activities aligned with students' developmental levels. (2) Instructional Implementation Competency: Skill in delivering material, managing time, using instructional media, applying learning models, and conducting apperception, core activities, and closure systematically. (3) Classroom Management Competency: Creating a positive, safe, and democratic learning climate; managing student behavior; and organizing physical space to support interaction. (4) Assessment Competency: Designing, administering, and analysing authentic assessments; providing constructive feedback; and using results for instructional improvement. (5) Technology Integration Competency: Ability to utilize ICT and digital platforms to enhance engagement and accommodate 21st-century learning [UNESCO (Mulyasa, 2013; Brown, 2018).

Relationship Between Teaching Competency and Learning Outcomes

Numerous empirical studies confirm a positive correlation between teachers' teaching competencies and student achievement. Darling-Hammond (2000) found that teacher quality, measured by certification, subject-matter knowledge, and pedagogical training, is the strongest school-related predictor of student learning. In the Indonesian context, studies by Jalal et al. (2009) showed that teachers with higher professional and pedagogical competency scores produced students with significantly better national exam results. More recent evidence during the COVID-19 disruption further reinforces this link. König, Jäger-Biela, and Glutsch (2020) investigated early-career teachers in Germany during school closures and found that teachers with stronger pedagogical competence and ICT-related competence were significantly better at mastering the challenges of emergency remote teaching, maintaining instructional quality, and sustaining student engagement. Their study revealed that teacher competence not only predicts face-to-face learning outcomes but also determines adaptability and effectiveness in technology-mediated learning environments. This finding extends Darling-Hammond's conclusion by showing that in the 21st century context, teaching competency must include digital pedagogical skills to ensure learning continuity and quality. Thus, improving teaching competency covering pedagogical, professional, personal, social, and digital dimensions is a strategic entry point for enhancing educational quality in both normal and crisis situations

METHODOLOGY

This study employed a qualitative approach with a descriptive research type. The qualitative approach was chosen because this study aims to deeply understand the process of managing teacher competency improvement through the practice of the TIRTA coaching model at SMPN 46 Batam. Descriptive research was used to systematically, factually, and accurately describe the phenomenon under study. This research was conducted at SMP Negeri 46 Batam, located on Bulang Kebam Island, Bulang District, Batam City, Riau Islands Province. This study also involved elementary school teachers on Bulang Kebam Island. The research was carried out from September to October 2025, starting from the preparation stage, data collection, to data analysis.

The research subjects in this study were the school principal, teachers, and parties involved in implementing the TIRTA coaching model at SMPN 46 Batam. Meanwhile, the object of the research was the management of teacher competency improvement through the TIRTA coaching model practice, which includes the planning, implementation, and evaluation stages of coaching.

The data collection techniques used in this study began with observation. Observations were conducted to directly observe the implementation of the TIRTA coaching model in improving teacher competency, including interactions between the coach and coaches. Next was interviews. In-depth interviews were conducted with the school principal and teachers to obtain information regarding the planning, implementation, and impact of the TIRTA coaching model on improving teacher competency. The next technique was activity documentation. Documentation was used to collect supporting data such as school programs, coaching schedules, meeting minutes, and evaluation reports related to coaching practices.

Data analysis was carried out using an interactive analysis model which includes data reduction, data display, and conclusion drawing. Data reduction is the process of selecting and simplifying data relevant to the research focus. Data display is the organization of data in narrative form to make it easier to understand. Conclusion drawing is the process of interpreting data to obtain meaning and conclusions regarding the management of teacher competency improvement through the TIRTA coaching model. To ensure data validity, this study used triangulation techniques, namely source triangulation and technique triangulation. Data obtained from observations, interviews, and documentation were compared to ensure accuracy and consistency.

RESULT AND DISCUSSION

This research was conducted managerially, consisting of the stages of planning, organizing, implementation, monitoring, and evaluation. Below is a descriptive explanation of the research implementation stages.

1. Planning

Based on the results of interviews and documentation, the planning of teacher competency improvement at SMPN 46 Batam was carried out in a structured manner and oriented toward teachers' needs. The school principal together with the school development team formulated a coaching program as part of the continuous professional development program. The coaching model used was the TIRTA model, which consists of the stages of Tujuan (Goal), Identifikasi (Identification), Rencana Tindakan (Action Plan), and Tanggung Jawab (Responsibility).

Planning began with an analysis of teacher competency needs through learning reflection, academic supervision, and professional discussions. The results of the analysis became the basis for determining coaching goals. In addition, the school also prepared a coaching schedule, appointed coaches (the school principal or senior teachers), and prepared supporting instruments such as coaching guidelines and reflection sheets. Thorough planning is an important factor in the success of the TIRTA coaching model. The findings of this study are in line with educational management theory, which states that needs-based planning will result in an effective development program. Analysing teacher needs is the appropriate first step in designing a coaching program.

2. Organizing

The organization of coaching management at SMPN 46 Batam was carried out with a clear division of roles and responsibilities. The school principal acted as the main person responsible for the program, while senior teachers or teacher-leaders were appointed as coaches. Teachers who were the target of competency improvement acted as coaches. This simple yet functional organizational structure allowed coordination to run well. Each party understood their duties, so the implementation of coaching could proceed effectively. In addition, communication among teachers was built collaboratively, creating a culture of collective learning. Clear and collaborative

organizing supports the creation of a conducive school climate. The division of roles among the school principal, coaches, and teachers reflects the principle of participatory management. This is in line with the concept of coaching, which emphasizes partnership and equality.

3. Implementation

The implementation of the TIRTA coaching model at SMPN 46 Batam was carried out continuously and reflectively. The coaching process began with the Tujuan (Goal) stage, namely setting specific and realistic teacher competency development goals. Next, in the Identifikasi (Identification) stage, the coach helped teachers identify actual conditions, challenges, and potential they possessed. The Rencana Tindakan (Action Plan) stage was carried out by formulating concrete steps that teachers would take to improve their competencies, whether in lesson planning, learning implementation, or evaluation. The final stage was Tanggung Jawab (Responsibility), where teachers committed to implementing the agreed-upon plan and conducting independent reflection.

Observation results showed that the implementation of the TIRTA coaching model encouraged teachers to become more open, reflective, and responsible for their professional development. The implementation of the TIRTA coaching model proved effective in improving teacher competency because this model positions teachers as the main subjects of development. The reflective and solution-oriented approach encourages teachers to discover their potential and solutions independently. Below are some documentations of the activities during the implementation.



Figure 1. Coaching Process in the School

4. Monitoring

Monitoring was carried out by the school principal through direct and indirect supervision. Direct monitoring was conducted by attending the coaching process and observing classroom learning. Indirect monitoring was carried out through teacher reflection reports and follow-up discussions. This monitoring aimed to ensure that the coaching process proceeded according to the plan and the principles of the TIRTA model. In addition, monitoring also functioned as a means of mentoring so that teachers did not feel rigidly supervised, but rather supported in their self-development process. Monitoring in this study was not merely a form of control, but professional mentoring. This approach strengthened teacher motivation and improved the quality of coaching implementation. This is in line with the principles of modern academic supervision, which is humanistic and constructive.

5. Evaluation

Evaluation was conducted periodically to assess the effectiveness of the TIRTA coaching model in improving teacher competency. Evaluation was carried out through teacher reflection, learning supervision results, and improvements in the quality of lesson planning and implementation. The evaluation results showed an increase in teacher competency, especially in pedagogical and professional aspects. Teachers became more confident, able to reflect on learning, and demonstrated positive changes in their teaching practices. Evaluation serves as a means of reflection and continuous improvement. The evaluation results indicated that the TIRTA coaching model was able to improve teacher competency gradually and sustainably, making it a viable strategy for teacher professional development in schools. Below are the tables and graphs of the research results:

Table 1. Teacher Competency Assessment Results Before and After the Training

Competency Aspect	Before	After	Improvement
Learning reflection	60%	88%	28%
Coaching communication skills	55%	85%	30%
Development of follow-up action plans	62%	90%	28%
Teacher collaboration	58%	87%	29%

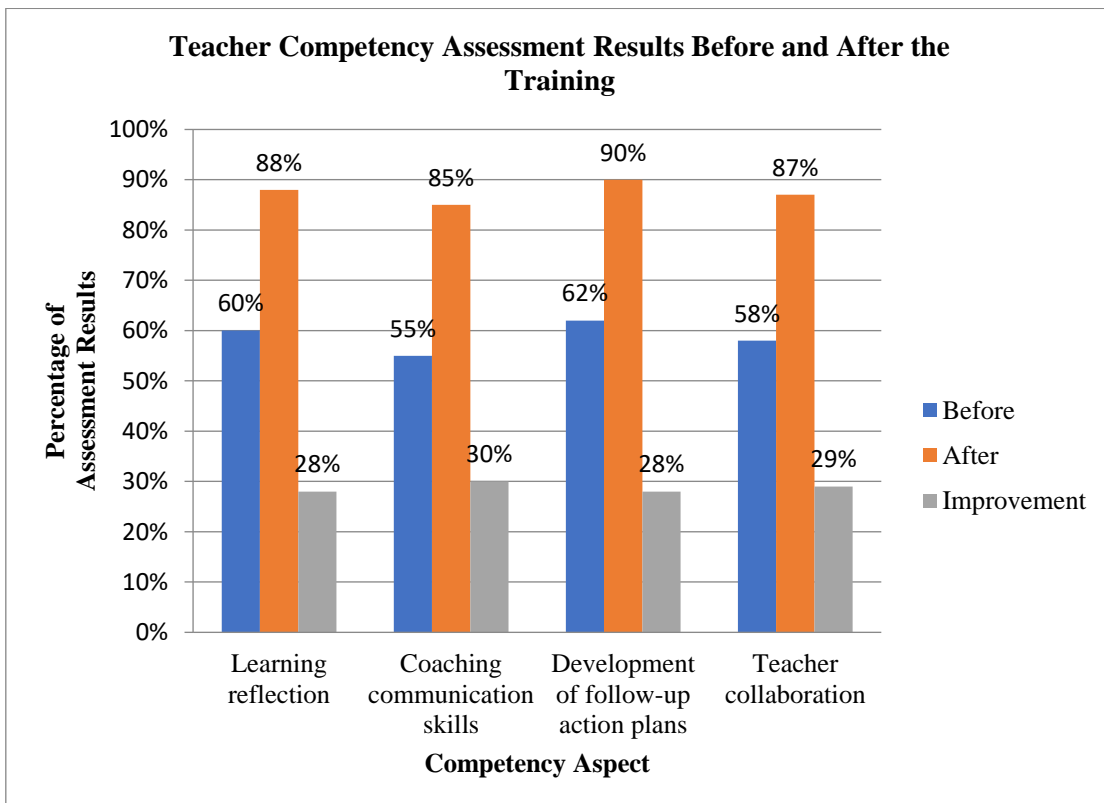


Figure 2. Teacher Competency Assessment Results Before and After the Training

Based on the data in the table and graph of teacher competency measurement results, it was found that the TIRTA coaching model was able to improve teacher competency in four competency aspects: learning reflection by 28%, coaching communication skills by 30%, development of follow-up action plans by 28%, and teacher collaboration by 29%. Teachers stated that the coaching process

using the TIRTA model helped them find solutions from their own experiences, rather than merely receiving instructions from the school principal. In addition, this approach fostered a culture of mutual support among colleagues. These results are in line with Whitmore's (2017) research, which emphasized that coaching increases self-awareness and individual professional responsibility. Thus, the implementation of the TIRTA coaching model can be an effective strategy for teacher professional development in schools.

CONCLUSION AND RECOMMENDATIONS

Based on the research results and discussion on the Analysis of Teacher Competency Improvement Management through TIRTA Coaching Model Practices at SMPN 46 Batam, the following conclusions can be drawn: (1) Based on the research results and discussion, it can be concluded that the management of teacher competency improvement through TIRTA coaching model practices at SMPN 46 Batam has been implemented effectively and systematically through five management functions: planning, organizing, implementation, monitoring, and evaluation. (2) In the planning stage, the coaching program was designed based on a needs analysis of teachers, focusing on pedagogical and professional competencies that required strengthening. The planning process involved the school principal, senior teachers, and appointed coaches to ensure the program aligned with school goals and teacher development needs. (3) In the organizing stage, clear roles and responsibilities were established. The principal acted as policy maker and facilitator, coaches served as professional partners, and teachers participated as active coaches. This collaborative structure created a supportive environment for continuous professional growth.

The implementation of the TIRTA coaching model which emphasizes Tujuan (Goal), Identifikasi (Identification), Rencana Aksi (Action Plan), Tanggung Jawab (Responsibility), and Apresiasi (Appreciation) encouraged teachers to become more reflective, independent, and accountable for their competency development. Teachers reported increased self-awareness in identifying teaching challenges and were more proactive in designing solutions. Monitoring was carried out humanistically through regular observation, dialogue, and constructive feedback rather than rigid supervision. This approach positioned coaching as professional mentoring, which increased teacher trust and openness during the process.

Evaluation results showed measurable improvements in teacher competencies, particularly in pedagogical aspects such as lesson planning, learning innovation, and classroom management, as well as professional aspects such as mastery of content and commitment to continuous learning. The data indicated increased teacher confidence and student engagement in the learning process. Therefore, the TIRTA coaching model is considered effective and relevant as a strategy for teacher development in schools. The model not only enhances individual teacher competencies but also builds a collaborative school culture oriented toward sustainable quality improvement.

Based on the conclusions, several recommendations are proposed for schools, teachers, policymakers, and future researchers to ensure the sustainability and broader impact of the TIRTA coaching model. For Schools and Principals: Schools should continue to optimize the implementation of the TIRTA coaching model by making it an integral part of the teacher professional development program, not just a temporary project. Principals are expected to provide strong policy support through clear regulations, allocate sufficient budget and time for coaching activities, and facilitate regular training for coaches to maintain the quality of mentoring. Additionally, schools should develop an internal monitoring system to ensure coaching is conducted consistently and its results are documented as part of the school's quality assurance.

For Teachers: Teachers are encouraged to actively utilize coaching as a reflective space and a means of continuous professional growth. They should view coaches as professional partners rather than evaluators, be open in identifying teaching challenges, and take full responsibility for implementing agreed-upon action plans. Building a community of practice among teachers is also

recommended to share experiences and best practices gained from coaching sessions.

For Education Offices and Policymakers: The Batam City Education Office and other relevant stakeholders are advised to adopt and adapt the TIRTA coaching model as one of the formal strategies for teacher competency improvement at the regional level. Support can be provided through policy dissemination, provision of coaching facilitators, and recognition or incentives for schools that successfully implement coaching programs. Integrating coaching into the teacher career development system will strengthen its long-term implementation.

For Future Researchers: Future research is recommended to explore the TIRTA coaching model in different contexts, such as elementary schools, vocational schools, or schools in rural areas, to test its adaptability and effectiveness across diverse settings. Researchers can also employ varied approaches, such as longitudinal studies to measure long-term impact, or mixed-methods research to gain deeper insights into teacher behavioral changes. Further studies on the correlation between coaching and student learning outcomes are also needed to strengthen empirical evidence of the model's impact. Overall, the sustainability of the TIRTA coaching model depends on collaborative commitment among all school stakeholders and continuous innovation in its implementation.

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