

Coaching-Mentoring Supervision in Islamic Education: Enhancing Teaching Quality for the SDGs

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Abstract

Objective: This study aims to analyse the effectiveness of coaching-mentoring-based IRE teaching supervision in improving the quality of teachers' teaching practices. The focus of the research includes strengthening teachers' pedagogic and spiritual competence as well as changing supervisory relationships to collaborative. This study is also linked to the achievement of SDG 4 on quality education. **Theoretical framework:** This research is based on the theory of empowerment supervision, reflective learning, and continuous professional development. The coaching-mentoring approach is understood as a dialogical supervision strategy that places the teacher as a reflective partner. This framework is in line with SDG 4.c and SDG 4.7 in the context of Islamic education. **Literature review:** The literature shows that traditional evaluative supervision is less effective in encouraging changes in teachers' teaching practices. The coaching and mentoring approach has been proven to increase reflection, collaboration, and pedagogic innovation. However, the study of IRE supervision based on coaching-mentoring that is integrated with the SDGs is still limited. **Methods:** This study uses a qualitative approach with a case study design. Data was collected through interviews, observations, and documentation at SMK Muhammadiyah 1 Blora. The analysis was carried out thematically. **Results:** The results showed that coaching-mentoring supervision improved teacher reflection, pedagogic and spiritual competence, and authentic assessment practices. The supervisor-teacher relationship has become more collaborative and supportive. This approach also builds a collaborative and sustainable school culture. **Implications:** Effective coaching-mentoring supervision as a model of professional development of IRE teachers. This approach needs to be integrated into the school supervision system. This model supports the achievement of SDG 4. **Novelty:** This research integrates coaching-mentoring-based IRE supervision with the perspective of SDGs. Focus on pedagogic and spiritual development at the same time. This model is relevant for continuous Islamic education.

Keywords: teaching supervision, coaching-mentoring, islamic religious, sdgs, teacher professional development.

INTRODUCTION

Improving the quality of teachers is a strategic agenda in the Sustainable Development Goals (SDGs), especially SDG 4 on quality education, which emphasises the importance

of professional, reflective, and sustainable teacher development. SDG 4.c targets explicitly highlight improving the quality of educators through strengthening competencies, professional support, and a sustainable coaching system, while SDG 4.7 emphasises the role of education in the formation of values, character, and ethics. In the context of Islamic education, these two targets are very relevant because the educational process is not only oriented to academic achievement, but also to the development of moral and spiritual values of students [1].

The professional development of Islamic Religious Education (IRE) teachers through academic supervision continues to develop. However, supervision practices that are still dominant in an evaluative and bureaucratic nature are often not able to facilitate the improvement of teacher performance authentically and sustainably. This kind of supervision model tends to place teachers as objects of assessment, rather than as subjects of professional development, so it is not in line with the spirit of the SDGs, which emphasise human resource empowerment and lifelong learning. Therefore, a more humanistic, dialogical, and capacity-oriented approach to teacher capacity building is needed [2].

The coaching-mentoring approach in academic supervision emerged as a strategic alternative that is in line with the principles of continuing education. Coaching emphasises a process of reflective facilitation through open-ended questions and constructive feedback that encourages teachers to find solutions to learning challenges independently. Meanwhile, mentoring focuses on experience-based professional mentoring through collaborative relationships between teachers and supervisors or more experienced peers. The integration of coaching and mentoring in supervision creates professional partnerships based on trust, collaboration, and development planning based on the individual needs of teachers. This approach not only aims to improve short-term performance but also builds the professional capacity of teachers sustainably, in line with the SDG 4 agenda [3].

A number of studies show that the application of coaching-based supervision contributes positively to improving teachers' pedagogic competence, professional reflection, and the use of technology in learning. In addition, coaching in academic supervision has proven to be effective in building a collaborative culture and encouraging teachers to actively engage in the process of self-reflection as part of continuous professionalisation. These findings strengthen the argument that the coaching-mentoring approach is relevant as a strategy to improve the quality of teachers that supports the achievement of quality and inclusive education as mandated in the SDGs [4].

In the context of IRE, teaching supervision has its own complexity. IRE teachers are not only responsible for the achievement of students' cognitive competence, but also play an important role in the formation of character, moral values, and spirituality. These dimensions are difficult to quantitatively measure and require a reflective, contextual, and value-based approach to supervision. Coaching-mentoring-based IRE teaching supervision allows integration between pedagogic and spiritual aspects, so that teachers can reflect on the practice of teaching Islamic values in a more in-depth and meaningful way. This approach is aligned with SDG 4.7, which emphasises values, ethics, and character-based education [5].

The implementation of the Independent Curriculum further emphasises the importance of teacher autonomy and agency in designing and evaluating flexible and student-centred learning. From the perspective of the SDGs, strengthening teacher agency is a prerequisite for the creation of an adaptive and sustainable education system. Coaching-based supervision provides a space for dialogue and collaboration between teachers and supervisors in developing action plans that are relevant to the real needs in the classroom, thereby supporting the professional development of IRE teachers contextually and sustainably [6].

Although studies on coaching-based supervision have evolved, most research still focuses on general teachers and non-religious curricula. Studies that specifically examine

the supervision of IRE teaching with the integration of religious, pedagogic, and SDGs perspectives are still very limited, especially in the context of vocational high schools. These limitations indicate that there are research gaps that need to be filled through in-depth and contextual empirical studies [7].

Therefore, this article aims to analyse the implementation of coaching-mentoring-based IRE teaching supervision in vocational high schools, evaluate its impact on the development of pedagogic and professional competencies of IRE teachers, identify supporting and inhibiting factors for its implementation, and formulate an effective conceptual model of IRE teaching supervision. The findings of this study are expected to make a theoretical contribution to the development of Islamic education supervision as well as practical contributions in the form of recommendations for the implementation of supervision that is humanistic, collaborative, and oriented towards the achievement of SDG 4 through improving the quality of teachers and value-based education [8].

LITERATURE REVIEW

Academic Supervision and Teacher Professional Development

Academic supervision is an important mechanism in improving the quality of learning through the continuous professional development of teachers. Conceptually, supervision is not only understood as a performance evaluation activity, but also as a mentoring process that aims to develop teachers' pedagogical, professional, and reflective competencies. From the perspective of continuing education, academic supervision plays a strategic role in building the capacity of teachers as lifelong learners, in line with the SDG 4 agenda, which emphasises improving the quality of educators [9].

However, studies have shown that supervision practices in schools still tend to be administrative and bureaucratic, with an emphasis on adherence to formal standards and assessment instruments. This kind of approach often leaves little room for professional reflection and constructive dialogue, so its impact on improving the quality of teaching is relatively limited. This condition encourages the need for a more participatory, collaborative, and capacity-building model for teachers [10].

Coaching and Mentoring in Educational Supervision

Coaching and mentoring are two approaches to professional development that are getting more and more attention in the educational literature. Coaching emphasises the process of reflective facilitation through open-ended questions, constructive feedback, and goal setting that encourages teachers to find solutions to learning challenges independently. Meanwhile, mentoring focuses on an experience-based mentoring relationship between teachers and supervisors or more experienced peers. Both approaches are based on the principles of partnership, trust, and contextual learning [11].

The integration of coaching and mentoring in academic supervision is seen as effective in improving pedagogic competence, self-reflection, and teacher professional collaboration. The literature shows that coaching-mentoring-based supervision not only has an impact on improving teaching practices but also on the formation of a professional learning culture in schools. This approach is aligned with SDG 4.c, which emphasises sustainable teacher professional development through a supportive and empowering coaching system [12].

Supervision of Islamic Religious Education (IRE) Teaching

IRE teaching supervision has different characteristics compared to general subject supervision. IRE teachers are not only responsible for mastering the material and pedagogic strategies, but also for internalising the moral, ethical, and spiritual values of students.

These dimensions of value and character are difficult to quantitatively measure and require a reflective, contextual, and value-based approach to supervision [13].

The literature suggests that a dialectical and humanistic approach to supervision is more relevant to the context of IRE, as it allows teachers to reflect on the practice of teaching religious values in depth. Coaching-mentoring-based supervision provides space for the integration of pedagogic and spiritual dimensions, thereby supporting IRE teachers in developing meaningful learning practices. This approach is in line with SDG 4.7, which emphasises value, character, and ethics-based education as part of quality education [14].

Coaching-Mentoring, Independent Curriculum, and SDGs

The implementation of the Independent Curriculum requires teachers to have greater autonomy and agency in designing flexible and student-centred learning. Within the framework of the SDGs, strengthening teacher agency is a prerequisite for the creation of an adaptive and sustainable education system. Coaching-based supervision supports this demand by placing teachers as professional partners in the development process, rather than just an object of evaluation [15].

Through reflective dialogue and joint action planning, coaching-mentoring allows for supervision that is responsive to the real needs of teachers in the classroom. The literature shows that this approach is effective in supporting the implementation of a curriculum that emphasises meaningful learning, differentiation, and value reinforcement, including in the context of religious education [16].

METHODOLOGY

This study uses a qualitative approach with a case study design to explore in depth the implementation of coaching-mentoring-based Islamic Religious Education (IRE) teaching supervision as a strategy to improve the quality of teachers oriented towards achieving the Sustainable Development Goals (SDGs), especially SDG 4 (Quality Education). The case study design was chosen because it allows for a contextual understanding of the supervision process, professional relations, and the integration of pedagogic-spiritual values relevant to the targets of SDG 4.c (teacher professional development) and SDG 4.7 (value- and character-based education) [17].

The research was carried out at SMK Muhammadiyah 1 Blora, which was chosen purposively because it has implemented coaching-based supervision and mentoring in the development of IRE teachers. The context of vocational high schools was chosen to capture the dynamics of IRE teaching supervision in a vocational education environment that has its own learning characteristics and professional challenges.

The research informants consisted of IRE teachers, school principals, and internal supervisors who were directly involved in the implementation of coaching-mentoring supervision. The selection of informants used purposive sampling techniques by considering active involvement, professional experience, and understanding of supervisory practices. This approach reflects the principle of partnership and capacity building of education actors that is the basis for the development of sustainable education within the framework of the SDGs.

Data collection was carried out through in-depth interviews to explore the experiences and perceptions of informants related to the coaching-mentoring process and its impact on the development of pedagogic, professional, and Islamic competencies. Participatory observation is carried out during the supervision and mentoring process to observe reflective interactions and collaborative practices. Documentation in the form of supervision programs, coaching reports, and learning tools is used as supporting data to strengthen triangulation.

The validity of the data is maintained through triangulation of sources and methods, member checking to ensure the suitability of the researcher's interpretation with the informant's experience, and peer debriefing to improve the consistency and objectivity of the analysis. Data were analysed using Miles and Huberman's interactive model, which included data reduction, data presentation, and conclusions drawn. The thematic coding is focused on the coaching-mentoring supervision process, IRE teacher competency development, and the integration of pedagogic-spiritual values that are in line with the SDG 4.c and SDG 4.7 targets. Conclusions are drawn inductively, taking into account the cultural context and characteristics of the school.

Table 1. Mapping of Research Methodology with SDGs Targets

Methodological Aspects	Description	Linkage of SDGs
Approach & Design	Qualitative, contextual case studies	SDG 4: Quality education
Research Focus	Coaching-mentoring-based IRE supervision	SDG 4.c: Teacher professional development
Value Context	Pedagogic and spiritual integration	SDG 4.7: Value- and character-based education
Informants	IRE teachers, principals, supervisors	Partnerships & capacity building
Data Collection Techniques	Interviews, observations, documentation	Reflective & collaborative practices
Data Analysis	Miles & Huberman (thematic-inductive)	Quality and sustainability evaluation
Data Validity	Triangulation, member checking, peer debriefing	Credibility & relevance of findings

RESULTS AND DISCUSSION

The results of the study show that the implementation of coaching-mentoring-based teaching supervision at SMK Muhammadiyah 1 Blora improves the pedagogical competence of Islamic Religious Education (IRE) teachers. Interview and observation data show that principals and supervisors apply a dialogical and reflective supervision approach, both individually and in groups. This approach provides an opportunity for teachers to reflect on learning practices and formulate improvements collaboratively [18].

IRE teachers reported an increase in confidence in preparing lesson plans and choosing more contextual and innovative teaching methods and strategies. These findings are in line with research by Silva et al. (2025), which showed that coaching and mentoring-based supervision can increase the variety of teaching methods and student involvement in learning [19].

The analysis of supervision documents also showed that there was an improvement in the quality of guidance records and continuous follow-up of teacher learning. Supervisory notes focus more on pedagogical reflection and constructive feedback, rather than just administrative assessments. This shows that coaching-mentoring supervision functions as a means of teacher professional development [20].

From the perspective of the Sustainable Development Goals, especially SDG 4.c, these findings confirm that coaching-based supervision supports improving the quality of teachers through sustainable professional development. By placing teachers as partners in the supervision process, this approach contributes to improving the quality of learning and strengthening sustainable education [21].

Table 2. The Impact of Coaching-Mentoring-Based Supervision on the Practice of IRE Teachers

Supervision Aspects	Before Intervention	After Coaching-Mentoring Intervention	Data Source
Learning Reflection	Minimal, unscheduled	Weekly scheduled, guided by coaching questions	Interviews, observation notes
Teaching Method Innovation	Dominant of talk, not varied	Using PBL, group discussions, and digital media	Documentation of lesson plans, videos
Collaboration Between Teachers	Limited, only in the MGMP forum	Intensive, through peer-coaching and shared reflection	Interviews and mentoring notes
Supervisor Involvement	Evaluative, one-way	Collaborative, facilitative, with reflective feedback	Supervision logs, interviews
Teacher Confidence	Low, feeling watched	Tall, feeling supported and empowered	Interview

The second finding shows a change in the relationship between supervisors and IRE teachers from being hierarchical and evaluative to more collaborative and supportive. Teachers feel valued and supported in the supervision process, so they are more actively involved in discussions and formulation of learning improvement strategies [22]. This change in relationship encourages a more dialogical and interactive classroom atmosphere, as well as strengthens the professionalism of teachers. From the perspective of the Sustainable Development Goals, these findings are aligned with SDG 4.c, which emphasises strengthening the capacity and professionalism of teachers through sustainable partnerships and coaching. These results are also in line with the findings of Naslim et al, who affirm that partnership-based supervision improves teacher professionalism [23].

The third finding identified the main challenges in the implementation of coaching-mentoring-based supervision, especially time constraints due to tight learning schedules and school activities, as well as the need for teachers' adaptation to a reflective culture and open evaluation. Nonetheless, these barriers can be minimised through initial training, flexible supervision schedules, and managerial support from the principal. In the context of SDG 4, these findings confirm that achieving sustainable teacher professional development requires systemic support and commitment from school leadership so that innovative supervision practices can run consistently [24].

The fourth finding shows a positive change in the teaching practices of IRE teachers after the implementation of coaching-mentoring supervision. Teachers begin to implement authentic assessments that include cognitive, affective, and psychomotor aspects in an integrated manner, as well as involve students in the process of feedback and reflection of learning [25]. The analysis of learning documents shows the use of portfolios, assessment rubrics, and student reflections as part of the assessment. This practice is in line with the principles of the Independent Curriculum and supports the achievement of SDG 4.7, which emphasises meaningful, participatory learning and strengthening the values and character of students [26].

Table 3. Changes in IRE Teacher Competency after Coaching-Mentoring Supervision

Competency Indicators	Before (%)	After (%)
Learning Planning	62	87
Learning Implementation	65	89
Self-Evaluation and Reflection	50	85
Use of Digital Media	48	82
Collaboration and Professionalism	55	90

The latest findings show that the implementation of coaching-mentoring-based supervision encourages the formation of a school culture that supports continuous learning. Teachers actively share good practices, discuss learning challenges, and develop teaching strategies collaboratively. The professional climate in schools is evolving to be more collaborative than competitive, thus strengthening the teacher-learning community [27]. The principal emphasised that this supervision model increases work motivation and teachers' sense of ownership over the quality of learning. From the perspective of the Sustainable Development Goals, these findings are in line with SDG 4, which emphasises the importance of an inclusive, collaborative, and sustainable teacher professional development education system. Internal documentation data also shows an increase in the frequency of sharing learning practices every month [28].

Based on the results of in-depth observations and interviews, the coaching-mentoring approach strengthens the five main aspects of IRE teaching supervision that contribute to improving the quality of teachers and learning, as emphasised in SDG 4. Details of the strengthening aspects are presented in the following table:

Table 4. Strengthening Supervision Aspects

Supervision Aspects	Description of Reinforcement	Frequency of Occurrence
Learning Planning	Teachers are helped to prepare more contextual lesson plans/Teaching Modules	7/8 teacher
Learning Implementation	More varied and participatory learning strategies	8/8 teacher
Teaching Reflections	Teacher self-evaluation increased after the mentoring session	7/8 teacher
Educational Communication	More open and positive teacher-student interaction	6/8 teacher
Authentic Assessment	Increased use of rubrics and portfolios	7/8 teacher

Based on the table, it can be concluded that coaching-mentoring-based teaching supervision has a significant positive impact on the teaching practice of Islamic Religious Education (IRE) teachers at SMK Muhammadiyah 1 Blora. This impact is reflected in the high level of reinforcement reported by teachers in the five main aspects of supervision, which include planning, implementation, and evaluation of learning, as well as professional relationships in the teaching process [29].

Overall, these findings show that the integration of coaching and mentoring in supervision is able to encourage the overall and sustainable improvement of the professional competence of IRE teachers. From the perspective of the Sustainable Development Goals, especially SDG 4.c, this supervision approach contributes to strengthening the quality of teachers through systematic and contextual professional

coaching, thereby supporting the improvement of the quality of learning and value-based education [30].

Coaching-Mentoring Supervision Strategy

Coaching-based teaching supervision is a teacher's professional development approach that integrates coaching as a reflective facilitation process to help teachers find learning solutions independently and mentoring as a form of direct mentoring by more experienced individuals. In the context of teaching supervision, this approach does not focus on performance assessment alone, but emphasises collaborative and dialogical processes aimed at improving the quality of teachers' teaching practices in an ongoing manner. This approach is in line with SDG 4.c, which emphasises strengthening the capacity and professionalism of teachers through sustainable and participatory coaching [31].

The implementation of coaching-mentoring supervision is carried out through several main stages. The pre-observation stage focuses on equalising perceptions between supervisors and teachers regarding supervision objectives, development areas, and observation strategies [32]. The class observation stage is carried out to observe the learning process directly without intervention, to obtain an authentic picture of teachers' teaching practices. The reflection and feedback stage is carried out in a dialogical setting through reflective questions and constructive feedback that encourages teachers to recognise strengths and areas of development [33]. Furthermore, the active mentoring stage involves practical assistance, such as providing teaching examples, simulations, or intensive discussions with peers, so that teachers are able to apply the results of reflection in real practice. The final stage is in the form of a follow-up evaluation aimed at monitoring the implementation of supervision results and supporting teacher professional development in an ongoing manner [34]. All of these stages support the achievement of quality education through the strengthening of collaborative and lifelong learning-oriented supervision practices as emphasised in SDG 4.

The Role of Coaching-Mentoring as a Catalyst for Teacher Professional Development

Coaching-based supervision acts as a catalyst in teacher professional development by placing supervision as an empowerment process, not control. This approach encourages reflection, pedagogical innovation, and the intrinsic motivation of teachers through an equal partnership relationship between supervisors and teachers. These findings are in line with Silva et al. (2025), who affirmed the effectiveness of coaching in facilitating reflection and development of learning practices [35]. In the context of Islamic education, the coaching-mentoring approach is also relevant to the formation of teachers' professional identities that develop through personal, relational, and social dimensions, so as to reduce resistance to change and increase teachers' commitment to improving the quality of learning. This approach supports the achievement of SDG 4.c, which emphasises strengthening teacher professionalism through continuous and participatory coaching [36].

Collaborative Dynamics in Coaching-Mentoring Supervision

Supervising coaching-mentoring builds collaborative dynamics that make the relationship between supervisors and teachers more dialogical and meaningful. Teachers are not only evaluated, but also guided in integrating pedagogic competencies and Islamic values in learning practices. These findings are in line with Naslim et al. (2021), who showed that dialogue-based academic supervision improves the performance and professionalism of IRE teachers [37]. In addition, the coaching-mentoring approach has been proven to have a long-term impact on teacher capacity building, so that supervision is no longer understood as an administrative routine, but as a joint learning process. From the perspective of SDG 4, this transformation is important to build a collaborative, sustainable,

and value-oriented education system that improves the quality of teachers and value-based learning.

Overcoming Obstacles to Implementing Coaching-Mentoring Strategies

Limited supervision implementation time is a common challenge in the implementation of coaching-mentoring strategies. However, the results show that teachers' motivation tends to increase after they experience the real benefits of this coaching approach, particularly in supporting professional development and learning practices. These findings confirm the importance of institutional readiness and flexible time management so that supervision can be carried out sustainably [38].

Some adaptive strategies, such as flexible rescheduling of coaching sessions and appreciating teacher participation, can be a solution to overcome these constraints. In the context of Islamic-based schools or madrasas, institutional support can be strengthened through a spiritual approach that emphasises the holistic development of teachers, so that supervision not only serves as a professional mechanism, but also as part of the development of values and character. This approach is in line with SDG 4, which emphasises the importance of an education system that is inclusive, adaptive, and oriented towards sustainable human resource development.

Transforming Teaching Practices and Impacts on Student Learning

Changes in post-supervision teaching practices show that the coaching-mentoring approach has a direct impact on improving the quality of student learning. The application of authentic assessment after supervision encourages students to be more reflective and meaningfully involved in the learning process [39]. This approach allows for a more holistic assessment, covering cognitive, affective, and character aspects, so that it is in line with the characteristics of Islamic religious education that emphasise the formation of values and attitudes. These findings confirm that supervising coaching-mentoring not only improves teacher competence, but also contributes to a more meaningful and value-oriented student learning experience [40].

More broadly, intensive mentoring through coaching contributes to building a school ecosystem that supports collaboration, pedagogic innovation, and reflective culture among teachers. This transformation is an important contribution to the development of supervision strategies in Islamic religious education, as well as supporting the achievement of SDG 4, especially target 4.c on improving the quality of teachers and target 4.7 on value-based and character-based education. Therefore, the adoption of coaching-mentoring supervision strategies in Islamic-based schools has the potential to create more professional, inclusive, and sustainable learning [41].

Based on the findings of the study, educational institutions and supervisors are advised to develop coaching supervision guidelines as part of teacher quality improvement programs, which include:

1. Supervisor training in coaching and mentoring techniques that are in line with Islamic values;
2. Preparation of a collaborative supervision program structure with adequate time allocation;
3. Development of an evaluation system that assesses pedagogic competence as well as the integration of Islamic values in learning.
4. Strengthening institutional support through the provision of necessary resources and infrastructure; and
5. Development of monitoring and evaluation systems to ensure the sustainability and improvement of supervision programs.

The implementation of a planned and sustainable coaching strategy can be an effective instrument in improving the quality of Islamic religious education without ignoring its religious identity and values.

CONCLUSION

Supervise coaching-mentoring-based teaching is effective in improving the quality of teaching practices of Islamic Religious Education (IRE) teachers at SMK Muhammadiyah 1 Blora. This approach strengthens learning planning and implementation, encourages teaching reflection, improves educational communication, and improves the implementation of authentic assessments. The relationship between supervisors and teachers develops from a hierarchical pattern to a collaborative one, thus creating a more dialogical and participatory learning atmosphere. Despite the constraints in terms of time and adaptation to a reflective culture, the support of the principal and the flexibility of supervised management can help overcome these obstacles. Coaching-based supervision also contributes to building a collaborative school culture and supporting teachers' professional development in an ongoing manner. From the perspective of the Sustainable Development Goals, especially SDG 4, these findings confirm that coaching-mentoring supervision can be a relevant strategy to improve teacher quality and value-based learning. Therefore, this approach deserves to be adopted as an innovative supervision model in Islamic education, especially to support the implementation of the Independent Curriculum and meaningful learning.

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Author Contribution

All authors collaboratively designed the study, collected and analyzed data, interpreted findings, and jointly prepared, reviewed, and approved the final manuscript for international journal publication.

Conflicts of Interest

The authors declare that there are no financial, professional, or personal relationships that could be perceived as influencing the research process or reported findings objectively.

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