

Student Competence Development in Participating in Science Competition at State Islamic High School (MAN 1), Mataram, Indonesia

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Abstract. The purpose of this study was to formulate effective student competency development at MAN 1 Mataram in improving achievement in science, identify factors that influence student competency development in participating in science competitions at MAN 1 Mataram, and describe the results of implementing student competency development at MAN 1 Mataram in improving achievement in science competitions. This study employs a qualitative approach, utilising a case study method. The data sources used are both primary and secondary. Primary data sources are obtained from teachers, lecturers, alumni, and students who are part of the KSM team. Secondary data sources, on the other hand, are obtained from archives, photographs, and literature studies, including book media. Data collection techniques are carried out through interviews, observation, and documentation. The data analysis procedure involves data collection, analysis, reduction, display, and verification, as well as data examination using credibility tests, transmissibility tests, defendability, and confirmability. The results of this study are: 1) The coaching process follows systematic stages, including scheduled time, additional lesson hours, practice questions with varying difficulty levels (from easy to complex), and private tutoring; 2) Factors that influence student competency coaching at MAN 1 Mataram in participating in science competitions, namely internal and external factors; 3) The implementation of student competency coaching at MAN 1 Mataram has been proven effective in improving science competition achievements, as evidenced by increased academic achievement, strengthened scientific skills, and the development of students' competitive character.

Keywords: Coaching; Competence; Science Competition.

INTRODUCTION

Education in Indonesia, particularly science education, plays a crucial role in preparing the nation's young generation to be intelligent, creative, and innovative; this is in line with the goals of national education as stated in Law No 20 of 2003 concerning the National Education System, namely to educate the nation's life and develop the whole Indonesian person. One effort to achieve this goal is to improve students' competence in science. Science competitions are one of the right places to measure and improve students' competence in science.

Science is fundamental in the era of globalisation because it helps us understand the world around us, improve the quality of life, increase the nation's competitiveness, prepare for the future,

and improve scientific literacy. Therefore, it is essential to continue studying science and developing a scientific culture in society. "Guidance" comes from the word "bina", which means "build". The definition of guidance is a process or approach used to achieve better results. Guidance can be interpreted as development, namely changing something so that it becomes new and has higher value. Guidance also has the meaning of renewal, making something more suitable and valuable for better and more effective needs, so that it can contribute to the success of building quality human resources.

According to authors [1], student development is an effort made by madrasahs to guide, direct, and motivate students so that they can carry out their learning activities effectively, ultimately leading

to growth and development. Student development is an effort by madrasahs (secondary schools) through student activities outside of class hours to ensure that students can grow and develop as whole human beings, in line with the goals of national education and state ideology [2].

This study examines the context of student competency development at MAN 1 Mataram, a state madrasah that has achieved notable success in the field of science. Competence is a combination of knowledge, skills, values and attitudes that are reflected in habits of thinking and acting [3]. Meanwhile, authors [4], defines competence as a unique integrated network of knowledge, skills, attitudes and values that are reflected in patterns of thinking and patterns of action; this can provide a clearer picture of the factors that contribute to student achievement at MAN 1 Mataram, allowing for more effective student competency development that is tailored to the madrasah context. Enriched science curriculum, active and enjoyable science learning, utilisation of Information and Communication Technology (ICT), and collaboration with various parties. High student interest in science and competent graduates in the field of science.

Madrasahs play a crucial role in enhancing the scientific competency of madrasah students. Here are some of the roles of madrasahs in this regard, namely:

- 1) Organising Quality Science Learning;
- 2) Instilling Scientific Attitudes in Students;
- 3) Improving Students' Science Literacy;
- 4) Building a Science Culture in Madrasahs;
- 5) Integrating Science with Islamic Education.

By carrying out these roles, MAN 1 Mataram has specific student competency goals to participate in science competitions. These goals are designed to prepare students to compete competitively in various science competitions at regional, national, and international levels.

In general, the objectives of student competency in participating in science competitions at MAN 1 Mataram can be categorised into three main aspects: mastery of Science Knowledge, Development of Science Skills, and Cultivation of scientific attitudes. The achievement of the objectives of MAN 1 Mataram, specifically student competency in participating in science competitions, is expected to bring benefits to students, madrasahs, the nation, and the state. For students to im-

prove student achievement and abilities in the field of science, foster student interest and talent in the field of science, prepare students to continue their education to a higher level, and increase student competitiveness in the global era. For Madrasahs to improve the image and reputation of the madrasah as a superior madrasah in the field of science, attract the interest of prospective new students, and enhance the quality of education in the madrasah. Meanwhile, the Nation and State produce a young generation that is intelligent, creative, and innovative, who can contribute to the advancement of science and technology in Indonesia.

Several students achieved notable successes in various fields, both at the local, regional, Provincial, National, and international levels. In 2021, winning 1st place in Geography at the Provincial KSM entitled them to advance to the national level, where they represented West Nusa Tenggara in the Madrasah Science Competition. Additionally, they won third place in Economics at the Provincial KSM that same year. In 2022, they won a silver medal in Biology at the International Science Olympiad (ISO), a prestigious online event organised by the Indonesian Competition Institution from January 30 to February 2, 2022. In 2022, they won a gold medal at the Indonesian Student Science Olympiad in Biology at the SMA/MA/SMK level, held at the National level by the Genius Competition on February 20, 2022. Participants from all over Indonesia attended the event. After undergoing a city-level selection, five students from MAN 1 Mataram successfully advanced to the provincial level in the 2023 Madrasah Science Competition (KSM) in the subjects of Mathematics, Physics, Economics, Chemistry, and Geography. The Indonesian Ministry of Religion, the Ministry of Education, Culture, Research, and Technology, along with other reputable institutions, recognised the achievements in both academic and non-academic fields.

METHODS

The research team conducted this study at MAN 1 Mataram, located at Jl. Pendidikan No 31, Dasan Agung Baru, Kec. Selaparang, Mataram City, West Nusa Tenggara. They aimed to achieve the following objectives:

- 1) To formulate effective student competency development at MAN 1 Mataram in improving achievement in science;

2) To identify factors that influence student competency development in participating in science competitions at MAN 1 Mataram;

3) To describe the results of the implementation of student competency development at MAN 1 Mataram in improving achievement in science competitions.

This study employs a qualitative approach to generate descriptive data and written accounts using a case study method. The purpose of qualitative research is to gain a holistic understanding of social phenomena and increase in-depth comprehension [5]. This research method emerged due to a paradigm shift in the way reality, phenomena, or symptoms are viewed [6].

The subjects of this study included the Principal of Madrasah, the Vice Principal of Student Affairs, Teachers involved in the KSM team, Laboratory assistants, KSM supervisor lecturers, Alumni of the KSM team, and Students of MAN 1 Mataram who were part of the KSM team. The reinforcing informant to cross-check the data from the findings was the Vice Principal of Student Affairs. The determination of research subjects in this qualitative research setting employed purposive sampling. Purposive sampling is a technique for selecting research subjects from either key informants or reinforcing informants, with specific considerations in mind [7].

The data sources used in this study include both primary and secondary data. Primary data is data taken directly by researchers from their sources without any intermediaries [5]. Researchers search for and collect data from informants through both interviews and field observations. Data sources in qualitative research are words and actions, as well as written sources, photos and statistics. Primary data sources are obtained from interviews and observations of teachers involved in the KSM team, lecturers associated with the KSM team, KSM alums, and students participating in the KSM team. In this qualitative research, secondary data sources, in addition to words, language, and actions from informants, can also be obtained through literature studies, including books, media, and the internet, to support analysis and discussion.

Data collection can be conducted through interviews, questionnaires, observations, or a combination of these methods [8]. The data analysis technique employed in this study is an interactive model analysis, as described by the authors

[9], comprising data collection, data reduction, data display, and verification. Meanwhile, to check the validity of the data using the Credibility, transferability, dependability, and confirmability tests.

RESULTS AND DISCUSSION

Effective Student Competency Development in Participating in Science Competitions at MAN 1 Mataram. Developing student competencies in participating in science competitions at MAN 1 Mataram requires a systematic and research-based approach to be effective in improving academic achievement. According to authors [10], successful coaching strategies typically integrate project-based learning methods (PBL), scientific research, and intensive guidance focused on problem-solving. In this context, the formation of special olympiad classes with guidance from experienced teachers or academics from universities is a strategic step that can help students understand science concepts in depth and apply them [11]. Additionally, the Problem-Based Learning (PBL) approach has been demonstrated to enhance students' critical thinking skills in solving analytical and complex Olympiad questions [12].

The success of coaching is also greatly influenced by supporting factors, such as the availability of laboratories, the active role of supervising teachers, and student motivation. Research by authors [13] indicates that adequate laboratory facilities play a significant role in enhancing students' experimental skills, which are a crucial aspect in science competitions. Additionally, the support of teachers who possess high competence in their fields and have experience guiding students in competitions significantly influences their academic achievements. Student motivation is also a crucial factor, where psychological coaching and regular practice can increase their self-confidence and competitiveness in facing the challenges of the Olympiad. By utilising digital-based learning technology, such as e-learning platforms and artificial intelligence (AI), students can more easily access learning materials that align with the needs of the competition [14].

The leadership team at MAN 1 Mataram can take several strategic steps to enhance the effectiveness of coaching. First, madrasahs can develop additional curricula specifically for olympiads that are tailored to national and international competition standards [14]. School administrators should conduct regular teacher training sessions

to update teachers on developments in science and the latest educational strategies [15]. Additionally, collaborating with universities and research institutions can provide students with opportunities to receive guidance from experts and access more advanced research facilities [16]. Finally, financial support through scholarships or sponsorships from external parties can help provide better facilities and offer incentives for students who excel [17]. By implementing these strategies comprehensively, MAN 1 Mataram can produce highly competent students who can compete at the national and international levels in the field of science.

Factors Influencing Student Competency Development in Participating in Science Competitions at MAN 1 Mataram. Student competency development in participating in science competitions at MAN 1 Mataram is influenced by various factors that can determine the effectiveness of training and student readiness in academic competitions. One of the main factors is the curriculum and learning methods applied in the development. According to authors [18], an inquiry-based learning and problem-based learning (PBL) approach can improve students' critical thinking skills, which are essential in science competitions. Additionally, the blended learning method, which combines online and offline learning, enables students to access competition materials more flexibly [19]. Not only the learning method, but also the duration and intensity of development, have a significant influence on student readiness. A study by authors [20] found that madrasas implementing a periodic development system, which included simulation questions and laboratory experiments, achieved a higher success rate in science competitions compared to madrasas that only provided development before the competition.

In addition to academic factors, the role of teachers and mentors is also a crucial factor in fostering student competency. Teachers with experience in guiding science Olympiads can provide more effective problem-solving strategies and build student motivation to achieve higher levels [21]. Furthermore, collaboration with universities and research institutions plays a crucial role in providing students with additional insights. Research conducted by authors [22] found that madrasas that collaborate with universities in offering science coaching have a higher success rate in academic competitions. In addition to teachers, support from parents is also very influ-

ential in shaping students' competitive mentality. A study conducted by authors [23] found that students with strong family support, in the form of both motivation and access to learning facilities at home, tend to perform better in science competitions.

Another factor that is no less important is the availability of supporting facilities and resources in fostering science competencies. According to research by authors [24], madrasas with complete laboratories and experimental-based teaching materials have a higher success rate in producing outstanding students in science olympiads. In addition, the use of technology such as computer-based testing and artificial intelligence (AI)-based learning applications is also an essential element in improving students' understanding of complex science concepts [10]. Support from the government and educational institutions, in the form of funding and scholarships for outstanding students, is also a factor that can increase students' motivation to compete [25]. By optimising these factors, MAN 1 Mataram can create a more effective coaching system and produce students who can compete in science competitions both at the national and international levels.

Implementation of Student Competency Development in Improving Science Competition Achievement at MAN 1 Mataram. Student competency development in improving science competition achievements at MAN 1 Mataram is achieved through the formation of science study groups, including Mathematics, Physics, Chemistry, Biology, Economics, Geography, and Informatics groups, by Madrasahs. This activity is held routinely outside of formal class hours. The implementation is a regular meeting schedule with planned materials and activities, guidance by competent and dedicated science teachers, and a focus on deepening the material, solving Olympiad questions, and developing experimental skills. Its implementation can also increase the number of students who pass the selection to the provincial and national levels in various science competitions. According to research by authors [26], madrasahs that implement problem-based learning (PBL) and inquiry learning-based coaching strategies can improve students' conceptual understanding and critical thinking skills, which contribute to their success in academic competitions. Additionally, intensive guidance programs implemented periodically have helped students become better prepared to face the challenges of

competition, as evidenced by the increase in their average scores on the Olympiad exam simulation [27].

The positive impact of implementing this coaching is evident not only in the increase in the number of students who excel, but also in the strengthening of their academic character. According to research conducted by authors [28], students who participate in coaching programs consistently demonstrate improvements in learning discipline, problem-solving skills, and teamwork abilities. Additionally, the use of technology in coaching, such as computer-based simulations and interactive online learning, also contributes to enhancing the effectiveness of training [29]. Thus, the results of implementing student competency coaching at MAN 1 Mataram have proven effective in improving science competition achievements, as evidenced by increased academic achievement, strengthened scientific skills, and the development of students' competitive character.

The success of this coaching program is also supported by increased involvement of mentor teachers and collaboration with higher education institutions. A study conducted by authors [30] demonstrated that direct mentoring from experienced teachers in science olympiads has a significant impact on student achievement. Additionally, collaboration with universities through training and guidance on laboratory experiments provides students with access to more in-depth learning materials and methods [31]. Motivational factors also play a significant role in student achievement. Research by authors [32] indicates that the presence of academic awards and incentives can enhance students' enthusiasm and

competitiveness in participating in science competitions.

CONCLUSIONS

Teachers and school administrators at State Islamic High School 1 (MAN 1), Mataram, can draw the following conclusions from the findings and discussion of the research results regarding the development of student competencies in participating in science competitions:

- 1) The coaching of MAN 1 Mataram students' competency in participating in science competitions has been carried out thoroughly, involving all parties, from teachers and administrative staff to students and parents. The coaching process follows systematic stages, including scheduled time, additional lesson hours, practice questions with varying difficulty levels (from easy to challenging), and private tutoring.
- 2) Factors that influence the development of student competency in participating in science competitions at MAN 1 Mataram include both internal and external factors. These internal factors include motivation, student interest, self-discipline, and self-confidence. External factors include family support, madrasah environment, supervising and mentoring teachers, and curriculum.
- 3) The implementation of student competency development at MAN 1 Mataram has proven effective in improving science competition achievements, both by enhancing academic performance, strengthening scientific skills, and fostering students' competitive character.

REFERENCES

1. Fitria, Y., Hasanah, F. N., & Gistituati, N. (2018). Critical thinking skills of prospective elementary school teachers in Integrated Science-Mathematics lectures. *Journal of Education and Learning (EduLearn)*, 12(4), 597–603. doi: [10.11591/edulearn.v12i4.9633](https://doi.org/10.11591/edulearn.v12i4.9633)
2. Hadiyanto, H. (2013). *Manajemen Peserta Didik Bernuansa Pendidikan Karakter* [Student Management with a Character Education Focus]. Jakarta: Al-Wasath (in Indonesian).
3. Mulyasa, E. (2002). *Kurikulum Berbasis Kompetensi: Konsep, Karakteristik, dan Implementasi* [Competency-based Curriculum: Concepts, Characteristics, and Implementation]. Bandung: Remaja Rosdakarya (in Indonesian).
4. Arifin, Z. (2014). *Penelitian Pendidikan Metode dan Paradigma Baru* [New Methods and Paradigms in Educational Research]. Bandung: Remaja Rosdakarya (in Indonesian).
5. Moelong, L. J. (2018). *Metodologi Penelitian Kualitatif* [Qualitative Research Methodology]. Bandung: PT Remaja Rosdakarya (in Indonesian).

6. Saebani, B. A. (2008). *Metode Penelitian* [Research Methodology]. Bandung: Pustaka Setia (in Indonesian).
7. Sugiyono, P. D. (2019). *Metode Penelitian Pendidikan (Kuantitatif, Kualitatif, Kombinasi, R&D Dan Penelitian Pendidikan)* [Educational Research Methods (Quantitative, Qualitative, Combined, R&D and Educational Research)]. *Journal Educational Research Methods*, 67 (in Indonesian).
8. Sugiyono. (2022). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D* [Quantitative, Qualitative, and R&D Research Methods]. Bandung: Alfabeta (in Indonesian).
9. Huberman, A. M., & Miles, M. B. (1984). *Analisis Data Kualitatif* [Qualitative Data Analysis]. Universitas Indonesia Press (in Indonesian).
10. Suryanti, R., Jahidin, J., & Fadlil, M. (2024). Artificial Intelligence in Education: Bibliometric and Systematic Literature Review from 2019–2024. *International Education Trend Issues*, 2(2), 231–255. doi: [10.56442/ieti.v2i2.647](https://doi.org/10.56442/ieti.v2i2.647)
11. Del Carmen Granado-Alcón, M., Gómez-Baya, D., Herrera-Gutiérrez, E., Vélez-Toral, M., Alonso-Martín, P., & Martínez-Frutos, M. T. (2020). Project-Based Learning and the Acquisition of Competencies and Knowledge Transfer in Higher Education. *Sustainability*, 12(23), 10062. doi: [10.3390/su122310062](https://doi.org/10.3390/su122310062)
12. Leite, L., & Luís Dourado, L. (2024). Problem-Based learning in science Education: Achievements, pitfalls and ways forward. In *MDPI eBooks*. doi: [10.3390/books978-3-7258-0878-6](https://doi.org/10.3390/books978-3-7258-0878-6)
13. Wahidah, A. I., Mardiana, A., Iriani, S. A., Safitri, A., Nihaya, A. F., & Nafiah, M. (2021). The Effectiveness of Using the Laboratory in Learning Science. *Pedagogik Jurnal Pendidikan*, 8(2), 418–440. doi: [10.33650/pjp.v8i2.2248](https://doi.org/10.33650/pjp.v8i2.2248)
14. Rohman, A., Meraj, G., Isna, A., Taruna, M. M., Rachmadhani, A., Atmanto, N. E., & Nasikhin, N. (2024). Challenges in Islamic Education Curriculum Development: A comparative study of Indonesia, Pakistan, and India. *International Journal of Learning Teaching and Educational Research*, 23(6), 504–523. doi: [10.26803/ijlter.23.6.23](https://doi.org/10.26803/ijlter.23.6.23)
15. Karampelas, K. (2024). Teacher Training in Science Education: Insights into Research Trends through a Bibliometric Approach. In *IntechOpen eBooks*. doi: [10.5772/intechopen.1005273](https://doi.org/10.5772/intechopen.1005273)
16. Rahman, N. A., Ilwandri, N. I., Santosa, N. T. A., Gunawan, N. R. G., Suharyat, N. Y., Putra, N. R., & Sofianora, N. A. (2024). Effectiveness of Problem-Based Learning Model in Science Learning: A Meta-Analysis Study. *International Journal of Education and Literature*, 3(1), 62–74. doi: [10.55606/ijel.v3i1.6](https://doi.org/10.55606/ijel.v3i1.6)
17. Supriatna, D., Windarta, L. R. P., & Syamsuri, S. (2025). Challenges and opportunities in the internationalisation of Islamic Higher Education. *Fenomena*, 24(1), 105–120. doi: [10.35719/fenomena.v24i1.242](https://doi.org/10.35719/fenomena.v24i1.242)
18. Villanea, G. R. (2023). [Influence of Inquiry-Based Science Activities on Students' Achievement](#). *Psychology and Education: a Multidisciplinary Journal*, 16.
19. Locke, S., Thomas, S., Marlette, S., Bracey, G., Mayer, G., Weinberg, J., Holt, J., & White, B. (2015). Blended Learning Training for Mentors of STEM Team Competitions. *Proceedings of the 7th International Conference on Computer Supported Education*, 331–337. doi: .
20. Abernathy, T. V., & Vineyard, R. N. (2001). Academic competitions in science: What are the rewards for students? *The Clearing House A Journal of Educational Strategies, Issues and Ideas*, 74(5), 269–276. doi: [10.1080/00098650109599206](https://doi.org/10.1080/00098650109599206)
21. Wirt, J. L. (2011). [An Analysis of Science Olympiad Participants' Perceptions Regarding Their Experience with the Science and Engineering Academic Competition](#). (Thesis; Seton Hall University)
22. Saito, E., Imansyah, H., Kubok, I., & Hendayana, S. (2006). A study of the partnership between schools and universities to improve science and mathematics education in Indonesia.

International Journal of Educational Development, 27(2), 194–204.
doi: [10.1016/j.ijedudev.2006.07.012](https://doi.org/10.1016/j.ijedudev.2006.07.012)

23. Mwesigye, G., Kaziro, N. (2025). Parental Involvement and Its Influence on Students' Academic Achievement: A Case Study of Primary Schools in Jinja District, Uganda. *Metropolitan Journal Of Academic Pedagogical Research*, 4(2), 322-331.
24. Mukti, B. I., & Arikunto, S. (2019). Laboratory Management of Science in Improving Student Achievements in SMA Lubuklinggau. *3rd International Conference on Learning Innovation and Quality Education*.
25. Mukodas, A., Boeriswati, E., & Sujanto, B. (2024). A free education policy research in Indonesian public senior high school: The evaluation with context input process product model application. *International Journal of Innovative Research and Scientific Studies*, 8(1), 261–271.
doi: [10.53894/ijirss.v8i1.3752](https://doi.org/10.53894/ijirss.v8i1.3752)
26. Grevtseva, G. Y., Litvak, R. A., Tsiulina, M. V., Balikaeva, M. B., & Pavlichenko, A. A. (2018). Scientific Olympiad as a Means of Students' Youth Development. *SHS Web of Conferences*, 50, 01205.
doi: [10.1051/shsconf/20185001205](https://doi.org/10.1051/shsconf/20185001205)
27. Ariyanti, G., Rahajeng, R., & Sumadji, A. R. (2019). Pembinaan Olimpiade Sains Melalui Pemberdayaan Klub Matematika dan IPA Bagi Siswa SMP di Kota Madiun [Science Olympiad Training Through Empowerment of Mathematics and Science Clubs for Junior High School Students in Madiun City]. *Jurnal Abdimas BSI Jurnal Pengabdian Kepada Masyarakat*, 2(2), 350–358.
doi: [10.31294/jabdimas.v2i2.5667](https://doi.org/10.31294/jabdimas.v2i2.5667) (in Indonesian).
28. Wiyoko, T., Megawati, M., Aprizan, A., & Avana, N. (2019). Peningkatan Kompetensi Siswa Melalui Pembinaan Olimpiade Sains (Osn) [Improving Student Competence through Science Olympiad (OSN) Coaching]. *Warta LPM*, 22(2), 67–75. doi: [10.23917/warta.v22i2.8619](https://doi.org/10.23917/warta.v22i2.8619) (in Indonesian).
29. Rahman, N. F. A., Wang, S. L., Ng, T. F., & Ghoneim, A. S. (2024). Artificial Intelligence in Education: A Systematic Review of Machine Learning for Predicting Student Performance. *Journal of Advanced Research in Applied Sciences and Engineering Technology*, 54(1), 198–221.
doi: [10.37934/araset.54.1.198221](https://doi.org/10.37934/araset.54.1.198221)
30. Hanaris, F. (2023). Peran Guru Dalam Meningkatkan Motivasi Belajar Siswa: Strategi Dan Pendekatan Yang Efektif [The Role of Teachers in Improving Student Motivation: Effective Strategies and Approaches]. *Jurnal Kajian Pendidikan Dan Psikologi*, 1(1), 1–11.
doi: [10.61397/jkpp.v1i1.9](https://doi.org/10.61397/jkpp.v1i1.9) (in Indonesian).
31. Parisu, C. Z. L., Saputra, E. E., & Lasisi. (2025). Integrasi Literasi Sains Dan Pendidikan Karakter Dalam Pembelajaran IPA Di Sekolah Dasar [Integration of Science Literacy and Character Education in Science Learning in Primary Schools]. *Journal of Human And Education*, 5(1), 864-872 (in Indonesian).
32. Mario, N. M. (2024). Faktor-Faktor pendorong prestasi belajar peserta didik di Makassar [Factors driving student achievement in Makassar]. *TUTURAN Jurnal Ilmu Komunikasi Sosial Dan Humaniora*, 2(2), 321–332. doi: [10.47861/tuturan.v2i2.1072](https://doi.org/10.47861/tuturan.v2i2.1072) (in Indonesian).