Management of Madrasah Teachers Empowerment in Analyzing Higher Order Thinking Skills- Based Test Item in the Semarang City Area

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ABSTRACT:

This study aims to analyze the management of empowerment of madrasa teachers in conducting item analysis based on Higher Order Thinking Skills (HOTS) in the Semarang City area. Using the Participatory Action Research approach, 15 Madrasah Ibtidaiyah teachers were actively involved. The results of the study showed that the training provided was effective in reducing the gap in teachers' understanding of item analysis, reflected in the increased ability to compile question grids. In addition, there was an increase in teacher commitment to mastering item analysis, which was demonstrated through the skill of assembling questions independently. Skills in compiling multiple-choice questions based on HOTS also increased, evidenced by the systematic ability to create distractor answer sheets. These findings recommend the importance of a national certification program in HOTS-based question analysis by the Ministry of Religion in order to improve the competence of madrasa teachers. Structured empowerment management is expected to support the improvement of the quality of madrasah education and prepare students to think critically and analytically.

Keywords: Management, Empowerment, Teachers, Question, HOTS,

INTRODUCTION

Skills reading students in Indonesia, especially students in Class IV of elementary school/Islamic elementary school, is an important thing to do under scrutiny in context education in the East Asian region. The data shows that Indonesian students get an average reading score far below that of other countries such as Hong Kong, Singapore, and Thailand. One of the sources shows that the average skill score read by Indonesian

students is under 60.[1] The study also showed that Indonesian students not only below the regional average but also face challenges in the aspect of understanding reading, with the ability to understand more text low compared to other countries in Southeast Asia.[2] This is an indication that attention must given to the strategy used in the reading process, especially the implementation of metacognition, which has been proven to increase understanding.[3]One of the main issues faced by students is a lack of effective reading strategies, so they have difficulty understanding information, answering demanding questions, and reasoning critically.[4]

Studies emphasize that more learning with an introduced method involving metacognition can help students be more involved in the process of reading.[5] Without development in the matter, the ability of students to manage information from text will still be decreased, and things related to motivation are intrinsic for every student, where low motivation can create a negative cycle in the development of skills literacy.[6] Some efforts have been made to increase the skills and interest of reading students in Indonesia. Implementation of the Literacy Movement School (GLS) as a program developed by the government aimed to repair culture reading among students by introducing interesting books and activities for them to read routinely.[7] Besides that, research shows that literacy programs that focus on cultural reading at

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[1] Vina Anggia Nastitie Ariawan, Tri Ulan Purnamasari, dan Rahman Rahman, "Optimizing Reading Interest through the School Literacy Movement (Gerakan Literasi Sekolah) in Primary School," in *Social, Humanities, and Educational Studies (SHES): Conference Series*, vol. 6, n.d.

[2] Yossinta Intaniasari dan Ratnasari Dyah Utami, "Jurnal basicedu," *Jurnal Basicedu Vol* 6, no. 3 (2022).

[3] Rosalinda Rosalinda dan Fitri Puji Rahmawati, "Implementasi inovasi budaya literasi numerasi MACATUNG di sekolah dasar," *Jurnal Basicedu* 6, no. 4 (2022): 6248–56.

[4] Masnia Masnia et al., "Proses Berpikir Aljabar Berdasarkan Metakognisi," *FIBONACCI: Jurnal Pendidikan Matematika dan Matematika* 9, no. 1 (2023): 89–94.

[5] Rosalinda dan Rahmawati, "Implementasi inovasi budaya literasi numerasi MACATUNG di sekolah dasar."

[6] Wahyuni Dwi Aryani dan Heru Purnomo, "Gerakan Literasi Sekolah (GLS) Dalam Meningkatkan Budaya Membaca Siswa Sekolah Dasar," *JEMARI (Jurnal Edukasi Madrasah Ibtidaiyah)* 5, no. 2 (2023): 71–82.

[7] Aryani dan Purnomo.

school can strengthen the interest of students in reading and make it easy to understand complex material.[8] Implementation approaches like utilizing corner reading and activities discussion can also increase interaction between students with material reading and enrich their study experience.[9]

Based on various reports and research required interventions that focus on strengthening culture reading in schools and the application of more effective learning strategies.[10] Educators need to design programs that not only increase skills in technical reading but also grow interest in deep reading among students. Creating an environment supportive of learning development skills requires students to be capable of understanding texts that are more complex and, at the same time, increasing the ability to think critically and solve problems through activities read.[11]

Meanwhile 2006, Indonesia participated in PIRLS activities attended by 45 countries. Indonesia's participation in studies This is to get information on the ability of Indonesian students in the field of literacy to read compared to students in other countries. Study results show (on average) Indonesian children are in the top ranking, fourth from the lowest. Progress in International Reading Literacy Study (PIRLS) activity is one of the efforts important in measuring ability literacy reading at a global level. Indonesia began to participate in studies in 2006 with 45 other countries, with the objective of collecting data and information about achievement literacy read by Indonesian students compared with students in other countries. Based on PIRLS results, average ability literacy read Indonesian students occupy position fourth below, findings

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[8] Ariawan, Purnamasari, dan Rahman, "Optimizing Reading Interest through the School Literacy Movement (Gerakan Literasi Sekolah) in Primary School."

[9] Eddy Saputra dan Achmad Muhajir, "Wakf Based Education Governance in Realizing Islamic Education Institutions Quality," *Al-Risalah: Jurnal Studi Agama dan Pemikiran Islam* 14, no. 1 (2023): 19–31.

[10] Ariawan, Purnamasari, dan Rahman, "Optimizing Reading Interest through the School Literacy Movement (Gerakan Literasi Sekolah) in Primary School."

[11] Diantono Diantono, "Analisis Pengembangan Budaya Literasi Dalam Meningkatkan Kemampuan Verbal Siswa di SDN 63 Bengkulu Selatan," *Jurnal Locus Penelitian Dan Pengabdian* 2, no. 6 (2023): 517–28.

that highlight the challenge in the system of education.[12] PIRLS results not only disclose the level of achievement literacy of students but also provide an outlook about factors that influence achievement. Research shows that environmental literacy at home, especially parental involvement in activity reading and availability of source Power education, play a significant role in increasing literacy among students.[13]

Awareness about the importance of parental involvement becomes more relevant, considering that many studies have found a positive connection between parental involvement and the performance of academic students.[14] Besides factors, environment, family, quality of teaching strategies, and the use of material learning also have an effect on PIRLS results. Studies indicate that the use of various types of reading and the application of comprehension-focused teaching strategies become indicators of important success for students in literacy. Therefore, efforts to increase literacy reading in Indonesia are necessary to be directed at the enrichment method teaching as well as improvement of quality environment study, both at home and at school.[15] Remember that PIRLS results reflect the condition of real education literacy in Indonesia. This is important for the evaluation system of education. This evaluation must directed at the creation of an environment of more educational support for the improvement of literacy-read students. In context with this, various international studies focusing on factors of success literacy can become important for

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[12] Indira Pratiwi, "Penerapan model problem based learning berbantuan audio visual untuk meningkatkan kemampuan berpikir kritis dan hasil belajar siswa," *Journal of Education Action Research* 6, no. 3 (2022): 302–8.

[13] Juan Jesús Torres-Gordillo, Fernando Guzmán-Simón, dan Beatriz García-Ortiz, "Communicative competence assessment for learning: The effect of the application of a model on teachers in Spain," *PloS one* 15, no. 5 (2020): e0233613.

[14] Hanxiao Liu, Karen Simonyan, dan Yiming Yang, "Darts: Differentiable architecture search," *arXiv preprint arXiv:1806.09055*, 2018.

[15] Ivan Chun Hang Lam et al., "Persistence in risk and effect of COVID-19 vaccination on long-term health consequences after SARS-CoV-2 infection," *Nature communications* 15, no. 1 (2024): 1716.

educators and makers' policies to design effective and based interventions.[16]

The low ability to read among students in school, especially students in class IV, is an issue that needs serious attention in Indonesia. Based on research conducted by the Center for Educational Assessment Team and the Department of National Education in 2009 found that as many as 70% of students in Grade IV elementary schools in Indonesia do not have a controlled ability to read well, with a level of understanding of only about 30% of material given reading.[17] Findings this is reinforced by the results of studies like the *Progress in International Reading Literacy Study* (PIRLS), which shows a low level of understanding of reading by Indonesian students compared to other countries, which are influenced, among others, by complex material reading.[18]

However, the increased skills read Not only depends on the quality of the teaching materials but is also influenced by the interest and motivation of students. Factors this, according to research, can reflect the condition of environment learning that exists.[19] Emphasize that lack of interest in reading and motivating students become obstacles in understanding text reading. Therefore, innovative learning strategies, including the integration of learning media and interactive approaches, are required To create an atmosphere of supportive learning. The use of corner reading can be an effective alternative to increasing interest in reading students.[20] At a more detailed level, the approach based on literacy, such as reading dialogic and using diverse material readings, has also been proven effective in growing interest in reading students. Research by Annisa shows that the implementation of various strategies

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[16] John Mark Froiland, Aubrey Peterson, dan Mark L Davison, "The long-term effects of early parent involvement and parent expectation in the USA," *School Psychology International* 34, no. 1 (2013): 33–50.

[17] Froiland, Peterson, dan Davison.

[18] Ririn Noviyanti Putri, "Indonesia dalam menghadapi pandemi Covid-19," *Jurnal Ilmiah Universitas Batanghari Jambi* 20, no. 2 (2020): 705–9.

[19] Takdir Takdir, Sudiyono Sudiyono, dan Dwi Fauzia Putra, "Kontribusi lingkungan belajar dan motivasi belajar terhadap hasil belajar IPS siswa Sekolah Dasar," *Efektor* 10, no. 1 (2023): 88–100.

[20] Hefni Dwika Sari, Riandi Riandi, dan Hertien Koosbandiah Surtikanti, "Bahan Ajar Digital Bermuatan Potensi Lokal Untuk Meningkatkan Pemahaman Konsep dan Motivasi Belajar Pada Materi Bioteknologi Konvensional," *Jurnal Basicedu* 8, no. 1 (2024): 263–76.

contributes to understanding student text and having a close connection with academic performance overall. Literacy is the foundation of education.[21] The beginning also works To equip students with the ability to access and understand more knowledge .

In conclusion, the low ability to read among students in class IV in Indonesia is a complex problem that requires handling through a holistic education strategy. This covers the development of appropriate teaching materials with context culture, the creation of an environment conducive to learning, as well as implementation methods of interesting and interactive learning.[22] In an effort to reach objective literacy, study sustainability and innovation in practice education To give optimal results.[23] The low ability to read understanding among students in school, especially students in class IV, is issues that need serious attention in Indonesia. Based on research conducted by the Center for Educational Assessment Team and the Department of National Education in 2009 found that as many as 70% of students in Grade IV elementary schools in Indonesia do not have a controlled ability to read well, with a level of understanding only about 30% of material given reading.[24] These findings are reinforced by the results from studies like the *Progress in International Reading Literacy Study* (PIRLS), which shows that Indonesian students' low level of understanding of reading compared to other countries is influenced, among others, by complex material reading.[25]

However, increased reading skills depend not only on the quality of the teaching materials but also on the interest and motivation of students. These factors, according to research, can reflect the condition of

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[21] Annisa Novianti Taufik et al., "Pengembangan e-book kontekstual berorientasi kearifan lokal Banten untuk siswa SMP," *Jurnal Pendidikan Mipa* 13, no. 4 (2023): 1095–1104.

[22] Meyta Nur Vadia, Tuti Iriani, dan Santoso Sri Handoyo, "Analisa Kebutuhan Pengembangan Media Video Pembelajaran Keterampilan Membimbing Diskusi Kelompok Kecil," *Jurnal Pendidikan West Science* 1, no. 05 (2023): 242–48.

[23] Mochammad Ronaldy Aji Saputra, Faiqotul Jannah, dan Riris Nurkholidah Rambe, "Implementasi kegiatan pojok baca untuk meningkatkan minat dan literasi membaca peserta didik di Madrasah Aliyah Negeri Sumenep," *EUNOIA (Jurnal Pendidikan Bahasa Indonesia)* 3, no. 2 (2023): 89–103.

[24] Froiland, Peterson, dan Davison, "The long-term effects of early parent involvement and parent expectation in the USA."

[25] Putri, "Indonesia dalam menghadapi pandemi Covid-19."

environment learning that exists.[26] Emphasize that lack of interest in reading and motivation students become obstacles big in understanding text reading. Therefore, innovative learning strategies, including the integration of learning media and interactive approaches, are required To create an atmosphere of supportive learning. The use of corner reading can be an effective alternative to increasing interest in reading students.[27] At a more detailed level, the approach based on literacy, such as reading dialogic and using diverse material readings, has also been proven effective in growing interest in reading students. Research by Taufik shows that the implementation of various strategies contributes to understanding student text and having a close connection to academic performance overall.[28] Literacy is a foundation education in the beginning, and it also works to equip students with the ability to access and understand knowledge more.[29]

In conclusion, the low ability to read among students in class IV in Indonesia is a complex problem that requires handling through a holistic education strategy. This covers the development of appropriate teaching materials with context culture, the creation of an environment conducive to learning, as well and implementation methods for interesting and interactive learning. [30] In an effort to reach objective literacy, needed study sustainability and innovation in practice education to give optimal results.[31] Studying and understanding reading students, especially at the level of basic school, has become important in knowledge education. A study conducted by the Center for Educational Assessment Team in 2009

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[26] Takdir, Sudiyono, dan Putra, "Kontribusi lingkungan belajar dan motivasi belajar terhadap hasil belajar IPS siswa Sekolah Dasar."

[27] Sari, Riandi, dan Surtikanti, "Bahan Ajar Digital Bermuatan Potensi Lokal Untuk Meningkatkan Pemahaman Konsep dan Motivasi Belajar Pada Materi Bioteknologi Konvensional."

[28] Taufik et al., "Pengembangan e-book kontekstual berorientasi kearifan lokal Banten untuk siswa SMP."

[29] Sari, Riandi, dan Surtikanti, "Bahan Ajar Digital Bermuatan Potensi Lokal Untuk Meningkatkan Pemahaman Konsep dan Motivasi Belajar Pada Materi Bioteknologi Konvensional."

[30] Vadia, Iriani, dan Handoyo, "Analisa Kebutuhan Pengembangan Media Video Pembelajaran Keterampilan Membimbing Diskusi Kelompok Kecil."

[31] Saputra, Jannah, dan Rambe, "Implementasi kegiatan pojok baca untuk meningkatkan minat dan literasi membaca peserta didik di Madrasah Aliyah Negeri Sumenep."

indicated that the level of understanding of student class IV in Indonesia is still very low. Study the design questions based on Indonesian context and culture, in line with the principles used in international studies such as PIRLS. Findings from this Study show that students are only capable of controlling about 30% of material reading, both of a literary nature, informational and literature.

In general, results of international PIRLS also show the performance of Indonesian students in understanding reading, even though the comparison number specifically needs to be done carefully, remembering the different complexity and length of text being tested.[32] Besides that, research previously confirmed that motivation to read plays a role in the ability to understand students who read. Students with high motivation in reading tend to be more involved in activity reading, which in turn contributes positively to their academic achievement.[33] Based on the findings mentioned, learning strategies that aim To increase motivation in reading, like using material relevant to reading with context culture students, need to be optimized in practice learning. This effort is important to remember the reading base becomes the foundation in the development of understanding reading students. Therefore, intervention in early childhood focused on the development of reading skills is very necessary.[34]

Furthermore, research also shows that learning explicitly about understanding strategies read capable increases the skills literacy of students, especially at the stage beginning their education. However, even though there are similar results between local and international studies, steps for improvement aimed at improving teaching strategies and motivating students have become crucial in an effort to increase the quality of understanding read by students in Indonesia. [35] Observation of

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[32] Dede Salim Nahdi et al., "Mapping Geometric Minds: Exploring 3D Thinking Skills of Elementary School Students Using the Van Hiele Model," *Journal of Education For Sustainable Innovation* 2, no. 1 (2024): 94–106.

[33] Yasemin Kuşdemir dan Pinar Bulut, "The relationship between elementary school students' reading comprehension and reading motivation," *Journal of Education and Training Studies* 6, no. 12 (2018).

[34] Barbara R Foorman et al., "The structure of oral language and reading and their relation to comprehension in Kindergarten through Grade 2," *Reading and writing* 28 (2015): 655–81.

[35] Jeanne Wanzek et al., "Current evidence on the effects of intensive early reading interventions," *Journal of learning disabilities* 51, no. 6 (2018): 612–24.

challenges faced by teachers in compiling question exams reveals a number of constraints important that influence the quality of teaching materials and evaluation. First, the limitations in choosing a draft or base-appropriate theory hinder conformity between material tests and objective learning.[36] Second, in determining aspect measurement, teachers tend to focus on the realm of cognitive because of limitations experienced, so aspects of affective and psychomotor are often neglected. However, understanding skills at a high level (HOTS) is required to produce a more comprehensive assessment.[37]

Third, teachers face difficulty in making question choices of double quality, such as producing option homogeneous answers and effective distractors, which have the potential to lower validity and reliability in exams.[38] Another difficulty is measuring the level of difficulty of the question in a way that is right. Lastly, the use of language questions that are not in accordance with the student's level of understanding can cause error interpretation.[39] Based on the above facts, it can delivered that empowerment of madrasah teachers in activity analysis grain question HOTS is an important step for increasing the quality of the questions that have been arranged. Therefore, by understanding existing challenges and improving teachers' ability to compile questions, expect quality evaluation, and increase results, study students can increase significantly.

LITERATURE REVIEW
2.1   Empowerment

Empowerment or empowerment has now become central in development, emphasizing the importance of the participation of the public in pushing for independence and the transformation of social,

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[36] Ainia Hidayah dan Syahrani Syahrani, "Internal quality assurance system of education in financing standards and assessment standards," *Indonesian Journal of Education (INJOE)* 2, no. 3 (2022): 291–300.

[37] Heri Retnawati et al., "Teachers' Knowledge about Higher-Order Thinking Skills and Its Learning Strategy.," *Problems of Education in the 21st Century* 76, no. 2 (2018): 215–30.

[38] Thomas H Davenport, *The AI advantage: How to put the artificial intelligence revolution to work* (mit Press, 2018).

[39] Bambang Subali dan Luisa Diana Handoyo, "The Mastery of Technological, Pedagogical, and Content Knowledge among Indonesian Biology Teachers.," *European Journal of Educational Research* 10, no. 3 (2021): 1063–73.

economic, political, and cultural factors.[40] Through making decisions participatory, empowerment optimizes change norms and social relationships, strengthening social justice, social and economic, as well as increasing the quality of life for the public.[41] Integration of principles empowerment in policy development becomes key to transformation to an inclusive and sustainable collective.[42]

Besides that, the empowerment strategy optimizes the collective potential to push justice with expanded access and capacity to the public in the fight for his rights. Successful empowerment has proven capable of reducing injustice, raising the quality of life, and becoming a key integration in policy development and sustainability.[43] Thus, commitment to empowerment becomes an absolute condition for creating transformation inclusive and sustainable social.

2.2   Understanding Empowerment

Empowerment of the public is a vital aspect of development, where the participation of the active public becomes an element key to reaching independent and sustainable progress. Approach participatory, such as conservation programs in the environment, has proven capable of increasing involvement in society and optimizing potential locally.[44] An empowerment model that emphasizes the improvement capacity of society is also considered important in pushing an understanding of the environment and strengthening power competition through non-formal education.[45] In addition, supporting the company through the Corporate

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[40] Enggar Dwiki Egiwirantia dan Nia Ashton Destrity, "Participatory Development Communication for Family Food Security during the Covid-19 Pandemic," *Jurnal ASPIKOM* 8, no. 1 (2023): 29–44.

[41] Nia Kurniasih, Sekar Inten Mulyani, dan Hendris Hendris, "Local Resources-Based Community Empowerment Model to Achieve Food Security in the Indonesian Border Community of North Sebatik," *Jurnal Kawistara* 13, no. 1 (2023): 56–68.

[42] Laili Rahma Halimah dan Sari Viciawati Machdum, "Analysis of Participatory Development in Implementing Decentralized Waste Management," *Amalee: Indonesian Journal of Community Research and Engagement* 4, no. 1 (2023): 267–81.

[43] Siska Okta Mahdona dan Setiawati Setiawati, "Community Empowerment through Environmental Conservation Program," *KOLOKIUM: Jurnal Pendidikan Luar Sekolah* 11, no. 3 (2023): 1071–78.

[44] Mahdona dan Setiawati.

[45] Rudi Saprudin Darwis et al., "Kewirausahaan Sosial Dalam Pemberdayaan Masyarakat," *Focus: Jurnal Pekerjaan Sosial* 4, no. 2 (2021): 135–47.

Social Responsibility (CSR) program plays a big role in providing training and access to business capital,[46] with synergy, cross-sector becomes key success empowerment public.

In the implementation of empowerment programs, the public adopts various methodologies, such as approach through interviews and observations,[47] As well as a SWOT analysis to evaluate program effectiveness.[48] Approach holistic that prioritizes involvement active public proven to give impact sustainable positive. In a way, overall, success empowerment communities rely heavily on an inclusive and collaborative approach, involving all parties to build independent economic, social, and awareness in the environment.

Empowerment public is an approach important in increasing the capacity of the community, different from the traditional models like helping frequent charities create dependence.[49] Empowerment is effectively marked by the participation of the active public in making decisions to increase autonomy and resilience,[50] Temporary role party external more directed at support development capacity, not control. Involvement in an active community proved to increase the success and sustainability of development programs in line with the principle of " from, by, and for " community," which places the public as an actor.

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[46] Riany Laila Nurwulan, "PEMBERDAYAAN MASYARAKAT PROGRAM CORPORATE SOCIAL RESPONSIBILITY (CSR) BIDANG LINGKUNGAN: PROGRAM CORPORATE SOCIAL RESPONSIBILITY (CSR) BIDANG LINGKUNGAN," *Jurnal Ilmu Kesejahteraan Sosial HUMANITAS* 4, no. 1 (2022): 1–20.

[47] Herman Sodik dan Didi Tahyudin, "EVALUASI PEMBERDAYAAN MASYARAKAT MELALUI PROGRAM DANA BERGULIR BLU PUSAT P2H DI GAPOKTAN BERINGIN JAYA DESA TALANG BERINGIN KECAMATAN PULAU PANGGUNG KABUPATEN TANGGAMUS.," *Journal of Syntax Literate* 8, no. 2 (2023).

[48] Dina Fadhila dan Dwi Astutik, "Penguatan modal sosial dalam program pemberdayaan masyarakat kampung sayur organik dan dampaknya terhadap kesejahteraan ekonomi," *Jurnal Penelitian Dan Pengembangan Sains Dan Humaniora* 7, no. 1 (2023): 102–11.

[49] Qorirah Iftinani, Widya Hasian Situmeang, dan Leonard Dharmawan, "Pengembangan Masyarakat Program Holistik Pembinaan dan Pengembangan Desa (PHP2D) pada Kelompok Rukuntani di Desa Bantarsari," *Jurnal Sosial Terapan* 1, no. 1 (2023): 63–72.

[50] Tuhfatul Mubarokah Assalamah dan Nur Hidayatus Syarifah, "Analisis Karakteristik, Partisipasi, dan Sikap Komunitas terhadap Program CSR PT Pelindo III," *TUTURAN: Jurnal Ilmu Komunikasi, Sosial dan Humaniora* 2, no. 4 (2024): 156–69.

Strengthening capacity through local training skills and knowledge becomes key to creating an independent society that manages source power and the process of government.[51] When society's own capacity is said, they are more capable of determining needs and their own future. Empowerment is true not only for questions help but also for building a sense of ownership and responsibility and answers collectively for the improvement of quality of life.[52] Therefore, an approach based on a community that strengthens local leadership and prioritizes work with the same facilitator with the public becomes very important.

Aspect important in an empowerment program public is a program that is designed by the community itself, is able to answer the needs of the base community, teacher involvement is thirsty for knowledge and marginalized groups , built from resource local, sensitive to values and culture local, pays attention to impact environment, no create dependency, various party related involved (agency government, institution research, college high, NGOs, private sector, and other parties others), and implemented in a way sustainable.

METHOD

The following sentence arrangement is systematic, brief, and concise, and it contains aspect type research, research process, location, participants, instruments, and data analysis. This study uses the method *of Participatory Action Research* (PAR) to empower 15 elementary school teachers in the Semarang City area to analyze questions based on *higher-order thinking Skills* (HOTS). The study is implemented through four stages: planning, action, observation, and reflection. Participants were chosen based on criteria of experience teaching ≥3 years, involvement in learning HOTS, and willingness to follow the whole process. Instruments study covering interview, observation, documentation questions, and pre-post training questionnaire. Data were analyzed in a qualitative way through reduction, presentation, and

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[51] Catharina Dwi Astuti Depari dan Mutiara Cininta, "Perancangan Kawasan Wisata Berbasis Partisipasi Komunitas dan Karakter Lokal di Dusun Trucuk, Desa Triwidadi, Bantul," *Jurnal Atma Inovasia* 3, no. 2 (2023): 139–47.

[52] Aqna Khoiru Aqilla dan Aulia Prita Rahmasari, "Tinjauan Terhadap Peran Aktif Warga dalam Menerapkan Nilai Kewarganegaraan di Masyarakat: Studi Kasus di Lingkungan RT 027/RW 009 Kelurahan Mojoroto Kota Kediri," *Jurnal Pemberdayaan Ekonomi dan Masyarakat* 1, no. 3 (2024): 13.

withdrawal conclusion each cycle, with validity guarded through triangulation sources, methods, and confirmation results to participants.

RESULT AND DISCUSSION

This study disclose that implementation management teacher empowerment in analysis grain question HOTS based has a positive impact on skills analysis about madrasah teachers. Three aspects were mainly found in the discussion.

3.1   Improvement Teacher Understanding and Skills.

Intensive training and mentoring for teachers in compiling questions based on Higher Order Thinking Skills (HOTS) have proven effective in increasing the ability to teach them and the results of Study students. Research shows that modelling and training specifically on HOTS helps in developing patterns of critical students through innovative and challenging assessments, where the grid question is designed to reach objective deep learning.[53] This shows that when teachers are trained to compile HOTS, they are capable of creating experiences learning more deeply and stimulating thinking critically students.[54]

Training sustainability not only provides material but also creates an environment of dynamic and interactive learning, which is very important for the implementation of HOTS skills in class.[55] With the existence of a continuous mentoring process, teachers are expected not only to understand but also to be able to implement HOTS in their teaching process. Research shows that teachers who are trained and get support in understanding the HOTS concepts are more capable of designing questions that can stimulate critical-thinking students.[56] Further, support and feedback from colleagues and peers become

[53] Mami Hajaroh, "High order thinking skill sebagai landasan dalam pengembangan asesmen dan evaluasi pendidikan," *Foundasia* 12, no. 2 (2021).

[54] Karina Dania Agusta et al., "Zr-MOFs–catalyzed transfer hydrogenation of furfural to furfuryl alcohol: Unveiled performance of DUT-52," *Molecular Catalysis* 524 (2022): 112265.

[55] Endang Komara et al., "Manajemen Penguatan Pembelajaran Bahasa Indonesia Berbasis Higher Order Thinking Skills (HOTS) Untuk Mencapai Lulusan Bermutu," *JIIP-Jurnal Ilmiah Ilmu Pendidikan* 6, no. 8 (2023): 5862–73.

[56] Zilvira Willenda, Eko Kuntarto, dan Violita Zahyuni, "Analisis Kemampuan Siswa Kelas I dalam Menyelesaikan Soal HOTS Pelajaran Bahasa Indonesia," *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini* 8, no. 1 (2024): 12–20.

important elements in this process, which strengthens cooperation and the development of expertise among teachers.

In frame-reach objective education in the 21st century, effective training and mentoring are very influential to teacher competence in developing tools facilitating assessment thinking critical students. Research results disclose that the success of training programs has an impact not only on teachers but also on the quality of learning gained by students. Implementation of HOTS in teaching contributes to the improvement of the ability of analytical, evaluative, and creative students, who are one of the main pillars of modern education.[57]

In general, overall, it can concluded that effort training and mentoring intensives for teachers in improvement ability compilation HOTS questions are an effective strategy that can advance education, stimulate thinking critical students, and produce ready individuals to face future challenges.[58]

3.2 Increasing Teacher Commitment.

Teachers are committed to changing patterns of thinking and improving the quality of the problems they experience, making significant progress. This is reflected in their active participation during session training and in implementation techniques obtained in the questions they create. This commitment becomes more strong because the teacher feels more believed self in using the HOTS approach in the learning process.

Teachers are committed to changing patterns of thinking and improving the quality of the problems they experience, making significant progress. This is reflected in their active participation during session training and in implementation techniques obtained in the questions they create. For example, research shows that compilation questions at a high level (HOTS) still becomes a challenge for many teachers, but after following training, they show significant improvement in their competence. This commitment becomes more strong because the teacher feels more believed self in using the HOTS

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[57] Riska Imanda, Sri Setiawaty, dan Haves Qausar, "Pendampingan Siswa Sekolah Dasar Melalui Pembelajaran Model Discovery Learning Berorientasi HOTS," *Jurnal Pengabdian Sosial* 1, no. 4 (2024): 205–10.

[58] Dwi Ajeng Safitri, Kartono Kartono, dan Rio Pranata, "Pengembangan Soal High Order Thinking Skill (HOTS) pada Pembelajaran Tematik Kelas V di SDN 36 Pontianak Selatan," *AS-SABIQUN* 6, no. 1 (2024): 122–46.

approach in the learning process. Research shows that trusting the teacher self plays an important role in effective teaching and the application of various methods news in class.

This is also in line with the results that show that improvement in teacher competence correlates with satisfaction and commitment to the school. In addition, the enhancement of quality learning carried out by teachers compilation good questions impacts quality education in a way as a whole, which is objectively important in the reorientation of education in Indonesia. The commitment of teachers shows this not only produces a more effective learning process that is interesting for students but also improves the results of their studies. Therefore, the effort to keep increasing teacher competence through training and developing professionals is a strategic step for supporting successful education in the country.

3.3 Challenges and Obstacles Faced.

Empowerment of madrasah teachers in context analysis grain questions based on Higher Order Thinking Skills (HOTS) is a strategic step for increasing quality learning as well as skills to design questions that can stimulate the ability to think critically to students. Various Studies show that an approach to HOTS in education can the development of skills critical participants. For example, research by Supeno et al. explains that implementing interactive learning and approach andragogy in teachers in the madrasa environment can increase their capacity to convey material better.[59] Besides that, the emphasis on teacher professionalism was expressed by Barus and Rohman, who showed that the teacher meets the requirements of a standard professional and, in general, will be more successful in implementing method development-focused teaching skills and thinking level.

Next, in the context of empowerment and development of teacher capacity, research by Abinnashih and Nurfuadi highlights that the competence of the head of the madrasah has a role in increasing performance education, including supporting teachers to design and

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[59] Supeno Supeno et al., "Penerapan Pembelajaran Interaktif Tenaga Pendidik Di SMP Daar El Nuur Pesantren Yayasan Al –Salam, Pandeglang , Propinsi Banten," *J-Abdi Jurnal Pengabdian Kepada Masyarakat* 1, no. 8 (2022): 1725–30, https://doi.org/10.53625/jabdi.v1i8.963.

implement effective HOTS questions. The head of the madrasah is expected to provide good training and administration to prepare teachers to achieve the desired learning targets.[60] Besides that, activity empowerment through teacher communities such as the Teacher Study Club, as expressed by Sumarti and Ali, creates a receptacle for teachers to exchange thoughts and experiences in developing interesting and stimulating teaching materials.[61]

Research conducted by Murdjoko et al. found the emphasis on implementation learning differentiated in madrasahs, which is very relevant to the objective of increasing the quality of HOTS questions. Learning differentiation allows teachers to give more attention to the needs of individual students so that quality learning can be improved. Thus, the development of teacher skills in analyzing and designing questions HOTS not only impacts quality learning but also brings change significant to character and skills to think critically more students good in face challenges in the future.

In general, overall, although there is a challenge in the implementation of a teacher empowerment program, the results show that through the improvement of teacher competence and the use of appropriate approaches, quality learning in madrasahs can increase in a way significantly and impact the development of participants' education.

CONCLUSION

This study confirms that analysis grain questions based on higher-order thinking Skills (HOTS) is a step essential in increasing quality evaluation learning. Findings mainly show that implementation technique analysis systematic questions, such as evaluation validity, power difference, and effectiveness a deceiver, in a way significant can increase the quality of questions. The question that has been analyzed

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[60] Ibnu Abinnashih dan Nurfuadi Nurfuadi, "Kompetensi Manajerial Kepala Madrasah Dalam Meningkatkan Kinerja Pendidik Dan Tenaga Kependidikan," *Edukatif Jurnal Ilmu Pendidikan* 5, no. 1 (2023): 543–49, https://doi.org/10.31004/edukatif.v5i1.4451.
[61] Sri Susilogati Sumarti dan Mohamad Ali, "Pengembangan Sekolah Berbasis Masyarakat: Refleksi Pengalaman Di Mi Muhammadiyah Program Khusus," *Inovatif Jurnal Penelitian Pendidikan Agama Dan Kebudayaan* 9, no. 1 (2023): 111–26, https://doi.org/10.55148/inovatif.v9i1.317.

and revised not only reflects the achievement objective curriculum but is also able to evaluate the ability to think level tall students in a way that is more accurate.

In general, this research strengthens HOTS's position in framework evaluation education by reference to the theory assessment that emphasizes validity and diagnostics results learning. This strengthens the existing literature and confirms the importance of integration analysis questions in practice evaluation based on competence. In general practical, this research contributes in the form of a concrete strategy for teachers to do analysis and revision grain questions and emphasizes the need for training to increase teachers' ability to compile and evaluate HOTS questions in general.

Required policy institutional that encourages teacher training in compilation and analysis of HOTS (Higher Order Thinking Skills) questions for increased quality assessment and learning. Integration of analysis questions to in-cycle evaluation learning in a way routine becomes step strategic in building culture reflective and corrective sustainability. Besides that, the findings from the analysis process question can utilized as a base in the development of aligned teaching and assessment tools with curriculum so that support more meaningful learning and competency-oriented 21st century.

Limitations from this study, which was located in space, limited the scope of analysis theory and previous studies without being accompanied by empirical testing directly to questions used in the field. In addition, further context research is dominant at the level of education (for example, junior high schools) and also limits generalization to other levels.

Besides that, participatory action research shows (1) the erosion gap in understanding teachers in analysis grain matter, which is marked by teachers' ability to make grid questions based on HOTS, (2) increasing teacher commitment to changes in know analysis grain matter, thing this marked teacher's ability in assemble question, (3) teachers the more skilled in make question form choice double seen from capable teachers make appropriate question with indicators, teachers are able make sheet answer deceiver, teacher is able make main question no give instruction to direction correct answer.

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