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The Assistance of Developing Minimum Competency Assessment (MCA) Questions for Primary, Secondary and High School Teachers for All Subjects

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INFORMASI ARTIKEL

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ABSTRAK

In Indonesia conducts minimum competency assessments and character surveys to map and enhance the quality of education nationally. The government through the ministry of education and culture has made a revolution in the field of education, one of which is the independent learning curriculum. the purpose of this research is to develop valid and reliable minimum competency assessment questions in various subjects at the Primary, secondary and senior high school levels. This research method is zoom meeting and offline. The results of this study show that participants were very enthusiastic despite time constraints during face-to-face meetings (offline). While the results of the research when the zoom meeting was conducted, the educator began to present the results and there were still a few mistakes then given suggestions for improvement by the trainer. The results of this research show the implementation of assisting in the preparation of MCA questions at Porong Muhammadiyah ran smoothly and helped teachers add insight, skills and experience in developing MCA questions related to a variety of subjects.

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PENDAHULUAN (15-20% dari 5000-8000 kata)

In Indonesia conducts minimum competency assessments and character surveys to map and enhance the quality of education nationally (Handayani et al., 2021). The government through the ministry of education and culture has made a revolution in the field of education, one of which is the independent learning curriculum. There are four policies in the independent learning curriculum, including replacing the National Standard School Examination by returning this program to school policy; The National Examination was replaced with Minimum Competency Assessment (MCA) and character surveys; the thirteen components contained in the Learning Implementation Plan were replaced into 3

components; and the New Student Admission Regulations which are proportionally oriented (Elina et al., 2022). MCA as a substitute for the National Exam where the MCA itself is part of the national assessment. The implementation of national assessment aims to describe the conditions, processes, and learning outcomes in schools so that they can improve the quality of education in schools, and in the regions as a result will accelerate the quality of education nationally.

To achieve national education standards, a continuous monitoring process is necessary. The results obtained from the evaluation of education standards can be used as a milestone for improving the quality of education. The drawback of the national exam is that it is not effective in improving the quality of education. The implementation of the national exam is not carried out transparently so that the related parties do not understand the assessment process. The value of the national exam is used as a determining factor for graduation, which results in students cheating in working on questions. The advantage of the national exam is that it can be used as an educational evaluation by applying educational standards and can be considered as a mapping of the quality of education in academic units. National exams can also develop existing learning to stimulate students to become better at taking educational programs. The National Examination is given only in certain subjects, while Regulation of Ministry of Education and Culture of the Republic of Indonesia will hold the exam is conducted for all subjects. Makarim made a breakthrough called the National Assessment. The National Assessment consists of a Minimum Competency Assessment and a character survey (Suliyanah et al., 2021). The National Assessment and National Examination have a very basic difference, namely they do not evaluate the achievements of individual students, but evaluate them as a whole, and are carried out periodically to map the education system. In general, the assessment does not only assess knowledge, but includes all methods used to collect information about knowledge, abilities, understanding, attitudes, and motivation (Nasution et al, 2021). The educational component cannot be separated from educational evaluation. Planning, implementation, and assessment mutually influence the achievement of learning processes and outcomes (Supandi et al., 2022).

Proper planning is essential in the education system also. Educational institutions should have quality metrics or milestones like vision, mission, objectives and outcomes. The objectives may be a combination of short-term and long-term goals (Amirtharaj et al., 2022). One of them is the education curriculum. The education curriculum in Indonesia has changed twelve times, from before independence to the present. The curriculum changes began in 1947, 1952, 1964, 1968, 1975, 1984, 1994, 2004, 2006, and 2013. Changes that occur are based on the results of analysis, evaluation, predictions, and the challenges faced are constantly changing. Curriculum change policies are dynamic, contextual, and relative. Dynamic because it develops according to the needs of the times and is open to criticism. Contextual because it is needed and based on the context of the era, and relative because the resulting curriculum policies are seen as good or perfect in their time and will become irrelevant in the following periods (Hadi et al., 2023). The education curriculum has short-term and long-term goals. To clarify the notions of curriculum resources. In this body of work, curriculum resources are defined as all the material resources that are developed and used by teachers and students in their interactions with the subjects in or for teaching and learning, both inside and outside the classroom. Hence, curriculum resources would compose of the following: (1) text resources (e.g., textbooks, teacher curricular guidelines, websites, worksheets, syllabi, and tests), (2) other material resources (e.g., manipulatives and calculators), and (3) digital-based curriculum resources (e.g., interactive e-textbooks). According to the previous description, it can be concluded that the MCA is included in the text resources that are part of the curriculum itself (Staberg et al., 2023).

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Meanwhile, the facts of the search regarding the development of MCA questions was carried out by several previous researchers. One of the previous research reveals that MCA questions can measure students' numeracy literacy skills. The development of MCA questions based on the PISA framework in order to train students' numeracy skills. In other study the development of infographic-based MCA questions has also been carried out on history subject. The development of MCA questions is not only intended for students but also to assist teachers in compiling them. The results show that most of the students performed better on literacy than numeracy tests. The previous research above has emphasized the measurement of mathematical literacy using essay test, while the use of the MCA test in the form of conventional multiple choice and complex multiple choice and its characteristics have not been widely studied. Likewise, the use of complex multiple-choice questions becomes something new for students and is classified into difficult questions. From this description, the development of MCA questions is still designed for mathematics subjects that have to do with measuring mathematical literacy. However, there are several other studies that relate MCA to other subjects (Rokhim et al., 2022). The MCA question development instrument is very related to chemistry learning, this is in line with all teacher statements. Chemistry is one of the most difficult subjects because it contains many theoretical concepts and calculations, through this MCA instrument it really helps teachers deliver material and makes it easier for students to understand. MCA builds constructivism in improving students' literacy and numeracy skills. The character of numeracy literacy MCA questions must use contextual and informative stimuli that are used to measure students' reasoning abilities (Apipatunnisa et al., 2022). The form of MCA questions is a form of cross-competency, cross-field and cross-subject questions. This shows that the development of MCA questions can be linked to various subjects (Yamtinah et al., 2022). There are various forms of questions in MCA, such as multiple-choice, complex multiplechoice, matchmaking, short stuffing, and description. MCA is computer-based and adaptive, i.e., the questions presented depending on the ability of the learners. If the student can answer correctly, then further questions can be given more complex questions. On the other hand, if the student answers wrongly, then the next question is simple. MCA participants are all education units. However, not all students can follow MCA because MCA participants are selected randomly. The results of MCA are used for school reflection facilities to improve learning in schools. (Hidayah et al., 2021)

The characteristics of students' metacognitive abilities in solving absolute value problems are divided into three types of metacognitive abilities including 1) low ability, 2) medium ability and 3) high ability. Metacognition also helps find more effective ways to solve problems. Meanwhile, metacognitive ability is the ability to use cognitive processes that involve their thinking processes such as planning, controlling and evaluating. Furthermore, the metacognitive ability of low-skilled students only exists in the awareness component, which only thinks about questions. Students that are capable of solving problems in a procedural way do not realize that there are still inappropriate steps. In the evaluation component, they do not check the correctness of the answers obtained. Students with medium ability solve problems in a procedural way. In the regulation component, students do not realize that there are still inappropriate steps in solving problems. In the evaluation component, students do not check the correctness of the answers they have obtained. High ability students are able to solve problems in different ways and are able to distinguish the process of obtaining accurate information and think of effective strategies to solve problems (Adinda et al., 2023).

The researcher encountered the fact that at the Muhammadiyah Porong College there are primary, secondary, and high school levels that are still not optimal in developing MCA questions for all subjects. Therefore, it is necessary to equalize the perception of the importance of MCA and assistance in developing MCA questions for teachers by conducting a study of the characteristics of the MCA test in

the form of ordinary multiple choice and complex multiple choice to provide information about the characteristics of the questions so that future MCA test development considers the number of forms of questions used more proportionally. Based on the description above, the purpose of the research is to develop valid and reliable minimum competency assessment questions in various subjects at the primary, secondary and senior high school levels. This research has an important urgency to be carried out because the minimum competency assessment is a national policy whose implementation will only be carried out in 2021 so that it will become an example for the development of similar assessments in the future.

METODE

Mentoring activities were carried out for primary, secondary, and high school teachers at Perguruan Muhammadiyah Porong Sidoarjo. There were 23 Primary school teachers, 10 secondary high school teachers, and 15 high school teachers. Activities are carried out through 2 stages, namely direct assistance (offline) and online assistance through zoom meetings. The offline activity procedure was carried out at Muhammadiyah Porong College, which began with a common perception of MCA questions, signs of writing MCA questions, and practical examples of MCA questions, then teachers developed MCA questions according to the subjects they taught by following the MCA question template. Each teacher developed 5 MCA questions with different types of questions complete with question grids. The MCA questions that have been developed are then reviewed by the mentoring team online through the zoom meeting. The results of the mentoring team's review are used as the basis for improving the MCA questions, which will then be collected to the google drive link as MCA questions for the school question bank. These reviewed MCA questions will be further developed by teachers as evaluation questions for the subjects they teach.

HASIL DAN PEMBAHASAN

Hasil

1. Offline mentoring stage

a. Assistance for MCA Problem Development in Primary School

Assistance activities on the preparation of Minimum Competency Assessment-based questions were carried out individually in accordance with the subjects taught by each. The participants were divided into subject clusters, after they understood the nature of the Minimum Competency Assessment in the assessment system explained by the presenters. The presenters assisted in turns and approached the participants one by one. A culture-based approach and language was used in assisting each participant. With culture-based discussions, the mentoring participants felt happy and enthusiastic to share the challenges they faced in preparing questions oriented to the Minimum Competency Assessment. The sociocultural approach can be used in scientific discussions in mentoring the development of Minimum Competency Assessment questions in Primary schools. The mentoring of each individual went well and smoothly, marked by the number of participants who asked questions and other individuals responded, then ended with input from the presenters for each.

Furthermore, the mentoring participants agreed that the assistance in developing Minimum Competency Assessment-oriented questions was made into an online workshop through zoom to support their success in developing Minimum Competency Assessment questions and

refreshing knowledge about learning innovations. The mentoring participants also asked for the understanding and willingness of the presenters to assist them in developing the next stage of the Minimum Competency Assessment questions..

b. Assistance for MCA Problem Development in Secondary School

The initial potential of some secondary high school teachers has recognized what MCA is related to the development of questions. Some teachers have attended the presentation of MCA material offline and online. However, they experienced difficulties in making questions because they had to adjust the subjects they taught. The enthusiasm of the participants consisting of several secondary high school teachers with various subjects was shown by their readiness and participation who participated in the activity with enthusiasm and even asked for special time for assistance in developing MCA questions. Therefore, the speaker provided assistance on the next MCA questions as a form of follow-up due to limited time so that further assistance was carried out online where each participant presented the results of their project (compiling MCA questions) according to the subjects they taught.

c. Assistance for MCA Problem Development in High Schools

Even so, some senior high schools in the Porong area have the potential and readiness to welcome the implementation of the National Assessment in terms of infrastructure. Only a few high schools in the Porong area have implemented the Computer-Based National Assessment. The mentoring was conducted from morning to afternoon through lectures, discussions, questions and answers and assignments. The activity was intended to equip the teachers' knowledge about the MCA and the forms of assessment in the MCA. To validate the stabilization of the MCA material, the teachers were directed to discuss and work in small groups. By discussing in their respective groups, teachers can consolidate the material they understand with other teachers (peer debriefing) who are their members. After providing knowledge, then provide guidance in applying the knowledge that has been obtained. Coaching activities are realized by instructing teachers to apply the development of MCA questions individually. This is so that teachers can apply and realize their knowledge. Therefore, individual practice activities were held on each mentoring schedule. In this case the community service team accompanies each individual in developing MCA questions as a realization of mentoring and validating their ability to develop MCA questions to improve the quality of teaching and learning, not for the achievement of the student learning process.

2. Online mentoring stage

a. Assistance for MCA Problem Development in Primary School

This activity began with an opening by the speaker, who briefly explained (reviewed) related to making MCA questions and MCA assessments known from existing theories. Furthermore, there was an explanation of how to model questions and a discussion about the difficulties experienced by teachers in making questions. In the next session, each participant was invited to present the results of the development of MCA questions that had been prepared according to the subjects they taught. This assistance was carried out online through the zoom meet application. Then, after the presentation of the results by each participant, a discussion session was held in which the presenters gave comments to improve the questions. From the discussion session related to the presentation of the results of each participant that had been submitted, most teachers expressed difficulties in developing and linking the MCA questions. In the last session an evaluation was carried out by providing responses to participants containing

responses to the implementation of mentoring activities boldly here. The questionnaire is in the form of closed statements regarding satisfaction, suitability of participants' expectations and needs, benefits and providing solutions and willingness to become participants if holding further activities. From the results of distributing the questionnaire, it can be seen that this training activity was very well carried out, because it was in accordance with the expectations and needs of the teacher. In addition, this activity is also very useful and provides problem solving for the problems faced by teachers. The teacher was also very satisfied with the activity and hoped for further activities. Of course, with some suggestions and input that have been submitted through the questionnaire provided. In fact, as many as 82% of participants expressed their willingness to become participants again if continuous follow-up activities were held.

Figure 1. Assistance in Developing MCA Questions Online with Primary School Teachers'

Based Figure 1, meanwhile, the suggestions given by the speaker to the participants after presenting the results of making the development of MCA questions according to the subjects he taught were as follows:

1. The description of the question is too short, it would be nice to add it because it is classified as Indonesian content.
2. Competencies and sub-competencies are adapted to existing templates so that they find information, not determine vocabulary.
3. It's good, there are various forms of questions and the reading text includes pictures and not just the reading text. Most of them still use literacy content, but no one uses numeracy content.

b. Assistance for MCA Problem Development in Secondary School

This mentoring activity begins with delivering material related to the MCA topic then presenting the results of making the development of MCA questions that have been compiled. The activity ended with a discussion session after the presentation of the results. The results of the community service activities for the participants (Secondary School Teachers) received a warm and positive response from the school, especially because this program suited their needs. The form of this positive response can be seen from the enthusiasm and active participation, both from the school and from the mentoring participants. The motivation of the mentoring participants to take part in the process of this activity was quite enthusiastic. This indicates a desire to improve their abilities in developing MCA questions according to the subjects being taught.

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Figure 2. Assistance in Developing MCA Questions Online with Secondary School Teachers'

Based on Figure 2, meanwhile, the suggestions given by the speaker, to the participants after presenting the results of making the development of MCA questions according to the subjects they taught, were as follows:

1. When making MCA questions, of course there must be literacy which is then linked to culture or science (counting process).
2. Competencies and sub-competencies in literacy are adapted to templates so that they find information that is not a terminal key.
3. Additional questions may be made from one reading or may be from other questions
4. If you use a scientific context, the literacy must be added, there are paragraphs in the problem, there is a lack of information contained in the problem and it has not led to the target

c. Assistance for MCA Problem Development in High Schools

The importance of this assistance is for participants (high school teachers), because they will understand the essence of MCA, they don't just compile MCA questions for granted, but they understand what they compose MCA questions in relation to their subjects. the lessons he taught. With this assistance, there has been a good change where at first the teachers were just familiar with MCA policies, now they can develop instruments for MCA questions in various subjects.

Figure 3. Assitance ini Developing MCA Questions Online with High School Teachers'

Based ono Figure 3, meanwhile, the suggestions given by the speaker, to the participants after presenting the results of making the development of MCA questions according to the subjects they taught, were as follows:

1. Correct or add information contained in the problem (reading).
2. Add text or reading to the problem.
3. The competencies used should evaluate or reflect, because questions show whether a reading is correct or not, not interpretation. If interpreting, then there must be data that is interpreted

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Pembahasan

The developed concept of competency assessment stipulates the mandatory presence of all these processes. These processes have two equal and mandatory "sides" including 1) External, expressed as an "objectifying" component of evaluation, when the decision subject of the test case is evaluated by experts and 2) Internal, as expressed in the "subjective" component, where the subject evaluates himself. In addition, the success of professional solutions and research, allows them to be evaluated, using criteria including 1) Assessment of personal qualities necessary for professional, educational and research purposes; 2) Assessment of the process and results (products) of professional activities (real or simulated); 3) Professional and social role of the future specialist in the conditions of certain circumstances. (Jandildinov et al., 2013)

In the teaching-learning environment, there is a constant need to gauge the outcome or the quality of responsiveness of the teaching and learning process. This important symbiotic process generally referred to as assessment, does not only occur after teaching but can also be undertaken before teaching is affected or during the teaching process. More specifically, concepts of test, measurement, and evaluation continue to dominate educational practice around the world. Though several scholars have advanced multiple interpretations, definitions and clarifications to these important educational concepts (Adom et al., 2020). From a series of mentoring activities for the development of MCA questions, it was carried out offline and online, in which there were three presenters, namely Dr. Nur Efendi, M.Pd ; Dr. Septi Budi Sartika, M.Pd and Noly Shofiyah, M.Pd, M.Sc. This assistance is very useful for the participants to develop and improve the competence of Muhammadiyah Porong college teachers in making MCA question instruments. This agrees with previous research according to (Ulyah et al., 2021) explains that The Workshop on the Introduction of Minimum Competency Assessment was held to facilitate teachers of SMAN 1 Babat Lamongan and MAN 2 Lamongan in understanding and designing MCA-based quastions. After participating in the workshop, there is an increase in the ability of teachers SMAN 1 Babat and MAN 2 Lamongan in understanding the MCA-based question with an increase in the average post-test value of 24.19 points. However, in the ability to design MCA-based question, there was only an increase of 5.95 points. These improvement values suggest that the teachers need more assistance in designing MCA-based questions. Therefore, the recommendation is to conduct a follow-up mentoring regarding the competence to design MCA-based questions.

Various teachers responded to the opportunities and challenges of implementing MCA. The majority of science teachers have the perception that this policy is appropriate and suitable for implementation. However, some science teachers feel that this policy is not suitable for implementation in Indonesia. An archipelagic country with an uneven distribution of educational facilities to remote areas is a challenge for the implementation of MCA. In addition, the ICT literacy of students and teachers can be a challenge for MCA implementation. The contribution that science teachers can make to the success of the MCA implementation is to familiarize students with contextual learning and assessment processes following everyday life. Bringing real-world science problems to the learning and assessment process will contribute to the improvement of their science literacy and HOTS. This study is expected to contribute to providing a complete analysis of teacher perceptions of the MMR. The habit of using contextual instruments and HOTS is one of the recommendations of this study to familiarize students with MCA.

That the success of students in answering MCA questions begins with the role of stakeholders in implementing and facilitating literacy and numeracy-based learning, the implementation methods

used for the implementation of MCA, as well as materials or content and adequate infrastructure. From this process, the supporting factors for the successful implementation of MCA consist of four aspects, namely: stakeholders, implementation methods, materials or content, and infrastructure. The most significant factor supporting the implementation of MCA is the method of implementation, namely the cultivation of school literacy-numeration and MCA-based learning. The intellectual development of students can only be understood in the cultural context and student experience. In addition, the application of MCA in the learning process is combined with other methods, models, approaches, or strategies. As well as involving students in playing an active role, carrying out the reasoning process in solving MCA questions, and having sufficient numeracy and literacy skills can potentially also improve other higher-order thinking skills, such as critical thinking skills, creative thinking and problem-solving (Sani et al., 2023).

There are many things that can be done in order to increase knowledge about MCA. One way that teachers can do it is by practicing and searching for MCA reference questions on the internet and following MCA Series of Teacher Learning Program. Not only that, teachers can always read the latest information about MCA which will make them more knowledgeable. After having sufficient knowledge, over time their attitudes in the affective component also change, so they can become wiser in determining their liking and liking for MCA. Then, after they have positive cognitive and affective attitudes, it will be easier to manifest it in positive behavior as well (Herman et al., 2022).

The success of policy implementation is not seen from the compliance of the implementers of policy implementation, but it is seen from the impact or influence caused by policy implementation on the recipients of policy implementers / implementers. For example, the policy of replacing the National Examination with the National Assessment, with the aim of measuring the quality of education in all schools and madrasah, as well as an equivalency program at the primary and secondary levels. Is the implementation of MCA able to unravel the tangled threads that cause the deterioration of the quality of education in Indonesia, or is it just a project like the national assessment activities, which poured a large budget without any impact on improving education. In Indonesia itself, there are many examples of the failure of the implementation of policies or programs launched by the government, as one example is the National Examination policy, after lasting for more than 10 years, it has no impact on PISA results as one of the benchmarks of the quality of education in a country. There are six factors that determine the failure or failure of the policy implementation process, namely 1) the quality of the policy itself, 2) the adequacy of policy inputs 3) the accuracy of the instruments used to achieve goals, 4) the capacity of the implementor, 5) the characteristics and support of the target group, greatly affecting the policy implementation process 6) the geographical, social, economic and political environment in which the implementation is carried out (Aisah et al., 2021). Thus, the teachers have to master Minimum Competency Assessment (MCA) as the basic competencies needed by all students to develop their own capacity and participate positively in society. This technical guidance focuses on designing reading comprehension to improve the teachers' competence in designing reading MCA. The participants of this technical guidance can design and provide information about the level of student competence in learning reading. Teachers of various subjects can use this level of competence to develop effective and quality learning strategies. (Nurjati et al., 2022)

Conclusion

Based on the results and discussion above, it can be concluded that the assistance for the development of MCA questions at the Porong Muhammadiyah College runs smoothly even though there are still

obstacles and limitations in implementation such as limited time and limited teacher skills in developing MCA questions. However, in general, the implementation of assisting in the preparation of MCA questions at Porong Muhammadiyah ran smoothly and helped teachers add insight, skills and experience in developing MCA questions related to a variety of subjects.

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