## A model of madrasa ibtidaiya quality evaluation

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Submitted: 04 May 2017 | Revised: 18 September 2017 | Accepted: 26 September 2017

#### **Abstract**

The study was to develop a *madrasa ibtidaiya* quality evaluation model (MIQEM) for measuring the quality of *madrasa ibtidaiya* (MI), including the input, the process, the short-term outcome, and the long-term outcome. The method implemented in this research was research and development (R & D). The subjects of the study were the principals and teachers of state *madrasa ibtidaiya*. The study concluded that: (1) the a MIQEM was developed through the product selection, review and result analysis, and model draft; (2) the implementation of the developed MIQEM was done by the principals and the teachers by operating the MIQEM instrument; (3) the results of the developed MIQEM implementation showed that it could improve *madrasa ibtidaiya* quality; (4) the results of the model fitness test indicated that the model was fit into the data.

Keywords: evaluation model, quality, madrasa ibtidaiya

#### How to cite item:

Istiyani, D., Zamroni, Z., & Arikunto, S. (2017). A model of madrasa ibtidaiya quality evaluation. *REiD* (Research and Evaluation in Education), 3(1), 28-41. doi:http://dx.doi.org/10.21831/reid.v3i1.13902

### Introduction

Improving the quality of educational institutions is one of the requirements for us to enter globalization era that is full of competition. The existence of madrasa as an Islamic educational institution will not be apart of the global competition. Therefore, quality improvement has been the main agenda in improving the quality of madrasa in order that it can survive in the global era. The development of science and technology has brought about changes in all aspects of the human life in which multiple problems might be solved by the efforts of mastering and increasing science and technology. In addition to bringing the benefits into human life, such changes have also brought human beings into the more intensed global competition. In order to be able to play a certain role in the global competition, as a nation, we should continually improve and increase the human resources quality.

The demand for quality applies in all educational institutions, including *madrasa*. A school or a *madrasa* will be considered as being well-qualified if it has met the national standards that have been stipulated by the government and that have been governed in Indonesia. The graduates of educational institutions are expected to have capacity, science, skills, and behaviors that should be in accordance with the trend. Therefore, there should be efforts for improving the *madrasa* quality.

The number of *Madrasa ibtidaiya* (MI) schools in Indonesia is 21,529 units that have been spread in 34 provinces of Indonesia. The data in 2015 showed that the number of MI schools located in the Province of Central Java was 3,903 units. Based on the data, the number of state MI is very small, namely 114 units. However, in this year the number in-

creased due to the fact that some of the private MI's turned into state MI's. Now, the total number of state MI schools is 1,662 units in the Province of Central Java. This figure is not an overall figure because some of the newly-changed MI are not yet established through the Decree provided by the Ministry of Religious Affairs regarding the newly state institutions and the letter has not been provided yet until the report of the study has been composed.

According to the existing laws and regulations, actually the existence of madrasa schools has the same opportunity as that of general schools. The recognition of the government and the community of the graduates of madrasa school is equal to that of general schools and even the graduates of madrasa schools have a greater opportunity to achieve success because in madrasa schools there are characteristics and culture development efforts especially in the development of Islamic Religious Education (Law No. 20 Year 2003 of Republic of Indonesia on National Education System article 17 and Government Regulation No. 19 Year 2005, on National Education Standard, article 10). The existence of madrasa in the middle of the wave of change also follows the development by putting the first priority on innovation in order to achieve the dreams that the quality of madrasa has truly become the society's idealism. Nowadays, there have already been innovative policies especially the ones stipulated by the Directorate of Madrasa Education. Another regulation that governs the implementation of madrasa schools is the Regulation of Minister Number 90 Year 2013. In the Regulation of the Minister of Religious Affairs, No. 90 Year 2013, article 7, madrasa education is held by the government or the society. In Article 8 of the same regulation, it is stated that the establishment of madrasa that has been held by the government will be regulated by the Minister and the establishment of madrasa that has been held by the society will be governed by the regional office under the permission of the Minister in the form of operational permit provision.

In general, the status of *madrasa* is private; *madrasa* somestimes is a private institu-

tion that has been short of many aspects. For example, the teachers of madrasa schools do not have sufficient income, the book availability is uncertain and the number of facilities might be low in general. Similarly, the learning loads of the students there are very heavy. In relation to the situation, the recent definition regarding madrasa is that a madrasa is a general school that has the characteristics of Islam. The lessons that have this peculiar characteristics are plenty; as a result, these lessons become a certain aspect for the students. Madrasa students attend two types of examination namely Madrasa Examination (the peculiar lessons) and the National Examination. Ironically, people only view the *madrasa* quality based on the results of National Examination and not on the other achievements, for example the students' achievements in affective and spiritual intelligence (Suprayogo, 2007, p. 90).

According to Hidayat Nur Wahid (in Supriyadi & Rachman, 2015), the Deputy Chairman of the People's Consultative Council of Republic of Indonesia (MPR RI), there is an unfairness in the budget provision for general schools and for religion-based schools especially in the welfare fund intended for the teachers of madrasa; these teachers have not even received welfare fund. In his opinion, the budget disparity between general schools and religion-based schools, in this case that madrasa schools, has been uncommon. The welfare fund for madrasa teachers is only Rp 1,000,000.00 per month. The amount is very different when it comes to the welfare fund of the teachers who work for general schools, in this case the state schools. The welfare fund for the state schools in Jakarta is around IDR 4,000,000.00 - IDR 5,000,000.00 per month. Another aspiration that he conveys is related to the school operational aid (Bantuan Operasional Sekolah, BOS) for madrasa schools. The BOS for madrasa schools should be bigger than that of the state schools because there are five religion-based lessons that lead to the increasing cost of book provision. In addition to the two fund-related problems, he also conveys another aspiration in relation to the facility and equal opportunities for madrasa students to participate in the National Science Olympic (Olimpiade Sains Nasional, OSN). "So far, the students of madrasa schools have not been invited to join the OSN" (Wakhid, via Supriyadi & Rachman, 2015). Therefore, there should be policies that involve MI in local, national, and even international competitions.

According to the headmaster of MI Al Bidayah, Kholid Mawardi (in Aji, 2015), based on the circulation letter by the Director of Elementary School Coaching, the Ministry of Education and Culture, at least there are five events that the students of MI might attend. In his opinion, the five events of students' competitions are the International Mathematics and Science Olympic (INSO), the National Students' Sport Olympic (Olimpiade Olahraga Siswa Nasional, O2SN), the National Students' Art Competition and Festival (Festival dan Lomba Seni Siswa Nasional, FLS2N), the Elementary School Students' Literature Appreciation (Apresiasi Sastra Siswa Sekolah Dasar, AS3D) and the Students' Art Creation Competition (Lomba Cipta Seni Pelajar, LCSP). MI schools actually expect that there will be equality in terms of achievements between the elementary schools and the madrasa ibtidaiya schools. However, in practice, there are still many views that doubt the achievements of MI school students. One of the evidence is the failure of three students from an MI school in the County of Semarang to attend the National Science Olympic (Olimpiade Sains Nasional, OSN) at the provincial level whereas the three students won the OSN at the county level. Therefore, MI students who have achievements should be involved in any competitions.

The entry of MI into the part of National Education System does not decrease the act of discrimination toward *madrasa*. Madrasa schools, or in this case MI schools, still suffer from unfair treatment in displaying the quality of their students in the competitions. The reason was that *madrasa* schools have been considered less qualified for such a long time; as a result, the students of general elementary schools have uncertainty and inconfidence when they have to compete with those of *madrasa* schools which always suffer from drawbacks, disparity, and marginalization. The disparity perhaps is one of the rea-

sons why *madrasa* schools have been labeled as second-class institutions since the operationalization of *madrasa* schools has been in very low condition. However, *madrasa* schools are educational institutions that have been closer to the lower class people because most of these schools are located in the villages.

The observers of madrasa are frequently unfair in comparing madrasa schools and general schools. The achievements of madrasa schools in delivering their students to study highly religious values and nobility so that the students will not be trapped in the underworld that has been widely spread nowadays have gained less attention and even have been forgotten. The phenomena found in the field show that the students of madrasa schools, starting from the madrasa ibtidaiya, madrasa tsanawiya to madrasa aliya, do not commit any worse juvenile misbehavior. This aspect might be one of the madrasa strengths in comparison to general schools; in other words, the students of madrasa have the characteristics called as al-akhlaq-al karimah (Suprayogo, 2007, p. 7).

On the other hand, there is a different reality, namely, the appearance of madrasa schools that frequently gain achievements in the city, county, provincial, or even in the national level. According to Kuswanto (2015) in the official blog of MIN Purwokerto, in the Decree of Decision by the Directorate General of Islam Education Number 4472 Year 2015 regarding the Madrasa Science Competition, the Madrasa Art and Sport Competition, the 2015 National Expo and Science Paper Competition, MIN Purwokerto Central Iava won the silver medal in the national mathematics and science competition. MIN Purwokerto is one of the MI schools in the Province of Central Java that frequently gains achievements in several competitions.

The achievements that have been gained by the students of MIN 1 Purwokerto in Central Java province, as having been stated by the Supervisor of Islam Education for the Sub-County of East Purwokerto, Rustanto, in his speech, make the people in the Sub-County of East Purwokerto proud of the *madrasa* school students. In addition, MIN Purwokerto won the 1<sup>st</sup> Place of 2013 Male English Speech Competition in the Province of Cen-

tral Java and the 2<sup>nd</sup> Place of 2015 *Musabaqah Tilawatil Quran* (MTQ, an Indonesian Islamic religious festival held at national level, aimed at glorification of the Quran, in which the participants compete at reciting al-Quran employing *qira'at*—a method of recitation) competition in the Province of Central Java. These achievements are the evidence that the students of MI schools might gain achievements. The improvement in MIN Purwokerto becomes a solid proof that *madrasa* schools will have better performance than general schools if madrasa schools are well-managed.

According to Jamun Effendi, the Head of Madrasa Education, the Regional Office of Ministry of Religious Affairs for the Province of Central Java, in an article of Sejahtera Magazine published by the Sub-Department of Information and the Human Relationship for the Regional Office of Ministry of Religious Affairs for the Province of Central Java, since the issuance of Law No. 20 Year 2003 of Republic of Indonesia on National Education System, the position of madrasa schools become equal to that of other formal schools. The position of madrasa schools becomes stronger and more robust after the issue of Law No. 14 Year 2005 of Republic of Indonesia about Teachers and Lecturers, the Government Regulation No. 19 Year 2005, on National Education Standard, and the Government Regulation No. 55 Year 2007 on Religion Education and Religious Education. The development of madrasa schools in the Province of Central Java has been very rapid. In 2005 the number of Madrasa ibtidaiya schools was 3,903 units. The very rapid development has been followed by the interest of the society to entrust their children's formal education to madrasa schools. In 2013/ 2014, the number of madrasa ibtidaiya schools was 1,296,315 units, while in 2014/2015 the number was 1,347,206 units. This situation shows that the society has increased their trust toward madrasa schools in terms of their children's education.

The government gives positive responses by planning to turn the private status of *madrasa* schools into state status through the Ministry of Religious Affairs, especially for madrasa schools located in the far remote

area, as an effort to increase and equalize the madrasa quality. However, the government should pay attention to the exclusiveness of these madrasa schools. According to the Director of Madrasa Education, Kholis (2015), the Ministry of Religious Affairs has issued Regulation of the Minister of Religious Affairs, No. 14 Year 2014, on Establishment of Government-Held Madrasa Schools and the Changing of Private Status into State Status for Society-Held Madrasa Schools, the status change is conducted in order to ensure the quality improvement of institution-based madrasa schools. In the Ministery of Religious Affairs Regulation Number 14 Year 2014 Verse 1 Article 3, it is stated that a madrasa school is a formal educational unit under the supervision of Ministry of Religious Affairs that holds general education with Islam's uniqueness and one of such schools is madrasa Ibtidaiya or MI.

The explanation describes that madrasa school has actually has an equal opportunity with general school and thus to be a quality Islamic education institution will be easier for madrasa schools. The opportunity might be found in the recognition that takes the form of laws and government regulations. However, improving the quality of madrasa schools is not easy because it demands revision in multiple aspects and support from all stakeholders. The societal image of the madrasa schools has been better; madrasa schools that used to be labeled as the second-class institution now might not be underestimated. Some madrasa schools have shown their achievements in the local, national, and even international level competitions. With their uniqueness, they have started to prove themselves as an educational institution that might be equal to general schools and even be greater than general schools.

According to Supaat (2011, pp. 166–167), the materials of Islam Education in accordance with the national curriculum only provide elementary or very limited religious knowledge and, therefore, the materials are considered not suitable for the identity of *madrasa* schools. Based on this fact, all madrasa schools add the Islamic education subject with several reviews in order to enrich the

Islamic content. This action impacts the curriculum of MI schools in the form of additional lesson (overload) that leads to the increasing burden of the students (overburden). Meanwhile, the peculiarity of Islam education is as follows: (1) an education that has been encouraged by the teachings of Islam; and (2) an education that has been encouraged by the religious situations. The uniqueness of madrasa schools is that in addition to developing the cognitive, affective and psychomotoric aspects, madrasa schools also develop the spiritual aspect. The indicator of spiritual aspect development in madrasa schools is the existence of Islamic Education development. In other words, MI schools have their different characteristics, namely having spiritual aspect development or Islamic Education development.

Looking at the different characteristics of madrasa schools, MI schools have an added value. According to Jubaedi (2013), the most prominent peculiarity that MI schools have is that the students of MI schools are not involved in the drug abuse and the massive brawl. Up to now, the students of MI schools have not been involved in such negative behaviors. This peculiarity has been the evidence of spiritual aspect development. The schools that have spiritual aspect development will be different from general schools. Compared to general schools, MI schools demand a special evaluation instrument for measuring the quality of MI schools. Actually, in evaluating the quality of madrasa school achievements, there should be a different evaluation model because implementing the evaluation model similar to that of the general school will cause unfairness to the madrasa school. So far there has not been an effective MI evaluation model that evaluates the MI quality. Therefore, the recent study developed an evaluation model for measuring the MI quality.

#### Method

The study is a research and development study adopting the model suggested by Borg and Gall (1983, p. 772) who state that "Educational research and development (R &

D) is a process used to develop and validate educational product."

This study used several methods namely descriptive, evaluative and survey methods. The descriptive method was used in the preliminary study in order to gather the data regarding the MI school condition. Then, the evaluative method was used in order to evaluate the process of a product development. According to Tyler in Mertens (2010, p. 56), an evaluation method attempts to develop certain objectives based on certain evaluation models that have been implemented. In this study, the researchers implemented the logic model that had been adapted to the evaluation model under study. Then, the survey method was applied in order to describe quantitatively the tendencies, the behaviors or the opinions of a population by gathering the sample of the population. Based on the sample, generalization was made (Creswell, 2010, p. 216). According to Neuman (2013, p. 343), through the survey method the researchers might gather accurate, reliable and valid information or data but the survey should be conducted under serious efforts and paradigm. In practice, the survey method was conducted by asking the respondents several questions regarding their opinions, characteristics or attitudes toward several matters that had been studied.

The nine steps of research and development efforts which have been proposed by Borg and Gall would be summarized into four stages as follows. In the first stage, the preliminary study was conducted, including gathering the information by means of both literature and field review of the description of well-qualified MI schools. In the second stage, the MI quality evaluation model (EQ-MI Model) was drafted, including the model, the guidelines, and the instrument. As having been explained, up to now there has not been any appropriate evaluation instrument that might be implemented for evaluating the MI school quality. Therefore, the draft of the instrument would be based on the results of observations by the researchers. After drafting the instrument, the researchers performed the feasibility test in terms of readability and the expert judgement. Next, in the third stage, the

model was tested, including the limited scale test in the Kedungwuni State *Madrasa Ibtidaiya* school located in the County of Pekalongan and the Sumurrejo State *Madrasa Ibtidaiya* School located in the Capitol of Semarang, and the expanded scale test in 10 state *Madrasa Ibtidaiya* schools in the Province of Central Java. Last but not least, in the the fourth stage, the final product was revised.

The study had three components that would be evaluated namely the components of Islamic boarding school input, the process quality, and the output of alumni. The component of input was related to the evaluation of the concept of Islamic boarding school (vision, mission and objectives), the competencies of *kiai*, the competencies of *ustaz*, and the facility. Then, the component of process quality included the learning evaluation and the assessment evaluation. Next, the component of output discussed the competencies of Islamic boarding school alumni.

The subjects in the study were the principals and the teachers of madrasa ibtidaiya schools. In gathering the sample, the researchers had certain considerations regarding the category of MI schools. The MI schools that had been selected as the population and the sample of the study were the state MI schools, not private MI schools, located in the Province of Central Java since the characteristics of both MI schools were different; state MI schools were developed by the government, whereas private MI schools were developed by the society. The sample of state MI schools was selected from ex-residence in the Province of Central Java. The sample was established using the stratified purposive sampling technique, a technique that had been implemented for gathering the sample based on several requirements (Borg & Gall, 1983, p. 248).

The overall number of respondents was 183 teachers and 9 principals of state MI schools. The data were gathered through a questionnaire, documentation, observation, and interviews. The questionnaire was used to attain the data regarding the respondents' attitudes towards the measurement of the MI school quality. The data gathered through observation, documentation and interviews

were the data regarding the *madrasa* school characteristics such as the physical condition relation of state MI schools, the data regarding the MI school students' attitude in the short-term and the middle-term outcome and the data regarding the internal environmental condition of state MI schools.

The developmental study was conducted in two main stages. The first stage was the preliminary stage that included the activity of gathering information based on the theory and preliminary product development based on the results of field observation regarding the well-qualified MI schools. These activities were intended to design the draft of MI quality evaluation model. The second stage was expert judgement and field testing that consisted of the stage number five to number ten in the procedures proposed by Borg and Gall.

In the first stage or the preliminary activity, the researchers conducted a preliminary study and the developmental study. The preliminary activity was conducted in order to analyze the academic matters regarding madrasa schools and the needs for evaluation of the MI schools. In the second stage, the researchers performed the preliminary product development starting from the draft of model design and the instrument until the implementation experiment and analysis. The development of MIQEM began with the concept and the field condition by involving Madrasa education experts and practitioners. In order to produce a well-qualified instrument, the researchers implemented the expert validation in order to improve the model under development. The validation was conducted in order to get suggestions and criticisms to improve the MIQEM.

In the following step, the researchers performed the instrument testing in order to measure the validity, reliability and respondents' assessment regarding the MIQEM. The testing was performed in two stages, namely the limited scale testing and the expanded scale testing.

The instrument validity was measured in two aspects. The first aspect was the content validity, conducted through the consideration of *madrasa* teachers and principals, through the agreement of experts, and also

through the process of expert judgement. The second aspect was the construct validity conducted by performing instrument testing toward 30 teachers through the implementation of SPSS 16 software. The analysis technique used was the SPSS software.

In the limited scale testing, the reference used in measuring the validity of instrument quality was that the validity score should be > 0.30. According to Azwar (2007, pp. 179–181), there is a general agreement that the coefficient of validity might be considered satisfying if the validity score is above  $T_{xy} = 0.30$ . On the other hand, the reliability score of the instrument is in the range between 0.60 and 0.80 (Stevens, 1996, p. 372).

The data analysis technique used in the expanded scale testing was the descriptive statistical analysis through SPSS Version 17.00 Program and the Second Order Confirmatory Factory Analysis (CFA) through the Lisrel program. The Confirmatory Factor Analysis is a model designed under an assumption that the model would describe, explain or measure the empirical data in several relative parameters. The model was based on the information priority regarding the data structure in the form of theories, specifically or hypothetically (Joreskog & Sorbom, 1993, p. 22).

The *madrasa ibtidaiya* quality evaluation (MIQE) hypothetical model was tested empirically in the study and the testing included the input quality, the process quality, and the outcome quality. For the model theoretical fitness into the empirical data of the evaluation model in the study, the researchers referred to several criteria of Goodness of Fit (Sitinjak & Sugiarto, 2006, p. 65).

### Findings and Discussion

Based on the stages of the study and the development that had been conducted, the results of the study are explained as follows. The preliminary stage was the preliminary study that had been conducted by means of literature review and field study and the preliminary stage resulted in the selection stage through the observation and reading activity. The stage finally narrowed down into the condition of *Madrasa* schools in the Province of Central Java, specifically into the condition

of madrasa ibtidaiya. From the results of observation of the madrasa condition, most madrasa ibtidaiya schools have been marginalized in comparison with general schools because there is disparity in the educational quality between madrasa schools and general schools. On one side, madrasa schools have been more prominent in terms of academic and non-academic achievements in comparison to general schools. Madrasa schools that have national achievements are Madrasa Kudus, State Madrasa Purwokerto, State Madrasa Kedungwuni in the County of Pekalongan, and Muhammadiyah Madrasa Ibtidaiya Purbalingga. These madrasa ibtidaiya schools have been able to prove themselves as the wellqualified educational institutions.

The portrait of *madrasa* as an educational institution with different characteristics in comparison with general schools should also be evaluated differently. Madrasa schools not only teach general subjects but also develop the subjects of Islam Education in a wider scale namely: Hadits and Quran, Arabic Language, *Fiqih*, Islamic Theology and Character (*akidah akhlak*), and the History of Islam Culture. Therefore, in determining the well-qualified *madrasa* schools there should be different evaluation instrument.

In the next stage, the researchers performed the literature review in order to investigate and to review the theories that supported the model under development. The researchers conducted theoretical review from several theories related to the development of evaluation concept, logic model, quality and madrasa schools. The researchers adopted the logic model as the tool for evaluating the MI school quality. The sequence of logic model that the inspired the researchers was the basic logic model that had been adapted by reducing one of its components. The results of investigation toward the logic model showed that there were many variants of logic model. Therefore, the researchers referred to and adopted the basic logic model. In order to attain the valid data regarding the MI schools located in the Province of Central Java, the researchers also conducted another investigation by means of Education Management Information System (EMIS) toward the Ministry of Religious Affairs in the Province of Central Java regarding *madrasa ibtidaiya* schools in 2012.

The field study was conducted specifically to the State Madrasa Ibtidaiya Kedungwuni, the County of Pekalongan, in August 2012. State Madrasa Ibtidaiya Kedungwuni was an elementary-madrasa school that became parents' choice. The researchers conducted observation and interviews in the state madrasa school in order to explore the data regarding the input, the process, and the output of madrasa schools. The preliminary study resulted in the data regarding several variables and indicators of well-qualified MI and these variables and indicators might be a matter of consideration for the parents who entrusted the education of their children to the state madrasa ibtidaiya schools.

According to Siti Fatimah, the Vice Principal for curriculum in State Madrasa Ibtidaiya Kedungwuni, the student enrollment was conducted selectively because the number of the participants that were always over the limit. The selection process involved the administrative aspect and the test, namely the selection of age and the test of basic capacity; as a result, every year State Madrasa Ibtidaiya Kedungwuni always refused the student candidates due to the limited capacity and the abundant number of entrance test participants. The society's high interest, responses and enthusiasm might be caused by the fact that the school had shown success in competition with other schools or other madrasa schools. The school had shown its superiority over other schools in its academic and nonacademic achievements in the county level, the ex-residence level and the provincial level.

The academic and also non-academic achievements of the State *Madrasa Ibtidaiya* Kedung-wuni became an evidence that the MI school might gain several achievements; as a result, the vision of such *madrasa* school would be specific superiority. An example of the academic achievement that the state *madrasa* school had attained was that several students of State *Madrasa Ibtidaiya* Kedung-wuni used to win the first place of optic olympic that was held by the Walisongo State Islamic Institution in February 2012. Other

competitions that the students of State Madrasa Ibtidaiya Kedungwuni won were the mathematics olympic, the science olympic, the provincial level Musabaqoh Tilawatil Quran (MTQ), the first place of Nationally Standardized Madrasa Final Examination (Ujian Akhir Madrasah Berstandar Nasional, UAMBN), the first place of healthy school competition, the first place of boyscout competition, the badminton competition and the karate competition.

The next stage in the study was the planning stage. The objective of the planning stage was to elaborate the evaluation concept, the quality, the madrasa school, the logic model, the input, the process and the outcome. Then, the researchers defined all of the logic model components including the input, the process, and the outcome. In order to evaluate the MI quality, the next preparation was elaborating the objectives of performing the evaluation of the MI quality. Next, the researchers constructed madrasa ibtidaiya quality evaluation model (MIQEM). The design of the evaluation model was developed from the logic model that referred to the theoretical foundation of quality, evaluation and madrasah so that the components developed in the model included the input, the process, the shortterm outcome and the mid-term outcome of MI schools. After that, the researchers elaborated the indicators of the input, the process and the outcome variables.

The preliminary product development of MIQEM started from the example of wellqualified MI as the initial concept that had been built on the theory and the field study. After viewing the indicators of effective and well-qualified school and State Madrasa Ibtidaiya Kedungwuni, the researchers designed a model that was adjusted to several theoretical concepts that had been designed previously. From these indicators, the researchers drafted the guidelines of MIQEM. In this stage, the researchers also designed the profile of the model, the manual of model implementation, the instrument, the assessment rubric, the manual of interview and the observation. The results of preliminary MIQEM are described in Figure 1.

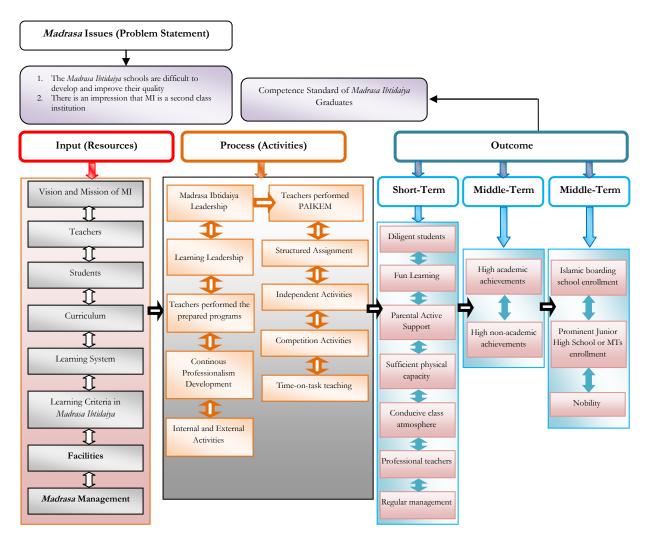


Figure 1. The result of preliminary madrasa ibtidaiya quality evaluation model (MIQEM)

Afterwards, the researchers performed the expert validation after the model had been drafted in the form of: model, manual of model implementation, guidelines, and instrument. The expert judgement involved several experts in the domain of evaluation, model development, methodology and basic educational concept. The feedback of the model aspects in the expert judgement according to the expert of model charts was as follows: the variables and the sub-variables should be put appropriately, had not been in a good order and should be grouped. Therefore, the researchers did a sub-variable reposition in the more appropriate places and rearranged the indicators in the input, process, and outcome variable.

The study did not need to include the long-term outcome. Therefore, the research-

ers revised the outcome variable by limiting the study into the middle-term outcome. In this stage, the researchers rearranged the MIQEM especially in the parts that belonged to the input, process, and output components.

After the instrument had been validated by the experts, the researchers performed preliminary testing. The preliminary testing that was implemented was the readibility test. The objective of implementing the readability test was to re-check whether or not the instrument that had been designed could be understood in terms of content, language, writing mechanics and measurement manner so that in the actual testing in the field the respondents would not be confused or would directly understand the content of the MIQEM instrument. In relation to the preliminary testing, the researchers performed the limited

scale testing with State Madrasa Ibtidaiya Kedungwuni located in the County of Pekalongan and State Madrasa Ibtidaiya Sumurrejo located in Gunung Pati, the Capital of Semarang, as the population. The sample was 30 teachers from the two madrasa schools. After conducting the limited scale testing toward the sample teachers, the researchers attained the empirical data and found that there were several items whose validity was below 0.30. As a result, instead of eliminating these items, the researchers revised these items for the next stage. The less-functioned or the less-valid items were improved in terms of language structure, substance and writing mechanics. The items whose validity was below standard of validity measures were improved maximally in this stage.

After the items had been improved, the researchers conducted the main testing in 10 state *madrasa ibitidaiya* schools in the Province of Central Java involving 183 teachers and 9 principals. Based on the standards had been determined by the researchers, the results of the modified development by Sudijono (2004, pp. 329–339), in the quantitative data analysis,

the researchers found the mean score from the quantitative data that had been attained by means of evaluation instrument and convered the mean score into the five-point scale assessment; after that, the researchers described the data. Based on the results of the description, the researchers defined the basis for assessing the developed evaluation model. The conversion of the quantitative data into the qualitative data by means of five-point scale technique made use of the guidelines designed by Sudijono (2004, pp. 329–339). For the conversion guidelines, the researchers referred to the aspects summarized in Table 1 for defining the MI quality.

Based on the mean score and the classification of the results of the development, the evaluation model, the instrument and the evaluation manual as the results of development with the following assessment standards were assessed. The percentage 183 *madrasa* teachers' evaluation of the 10 state *madrasa ibtidaiya* schools by means of special instrument designed for the teachers are shown in Table 3, Table 4, and Table 5.

Table 1. The guidelines of qualitative data into quantitative data conversion

Formula	Mean Score	Classification
$X > \bar{x}_i + 1.8 x s b_i$	> 4.2	Very Good
$\bar{X}_i + 0.6 x s b_i < X \le \bar{x}_i + 1.8 x s b_i$	> 3.4 - 4.2	Good
$\bar{X}_i - 0.6 x s b_i < X \le \bar{x}_i + 0.6 x s b_i$	> 2.6 - 3.4	Moderate
$\bar{X}_i - 1.8 x s b_i < X \le \bar{x}_i - 0.6 x s b_i$	> 1.8 - 2.6	Poor
$X > \bar{x}_i - 1.8 \ x \ s b_i$	≤ 1.8	Very Poor

Table 2. Standards of assessment

Mean Score	Classification	Conclusions
> 4.2	Very Good	Very Well-Qualified
> 3.4 - 4.2	Good	Well-Qualified
> 2.6 - 3.4	Moderate	Moderate
> 1.8 - 2.6	Poor	Ill-Qualified
≤ 1.8	Very Poor	Very Ill-Qualified

Table 4. Results of assessment percentage from the teachers toward the MI process

Mean Score	Process	Conclusions
> 4.2	10.70%	Very Well-Qualified
> 3.4 - 4.2	87.90%	Well-Qualified
> 2.6 - 3.4	1.50%	Moderate
> 1.8 - 2.6	0.0%	Ill-Qualified
≤ 1.8	0.0%	Very Ill-Qualified

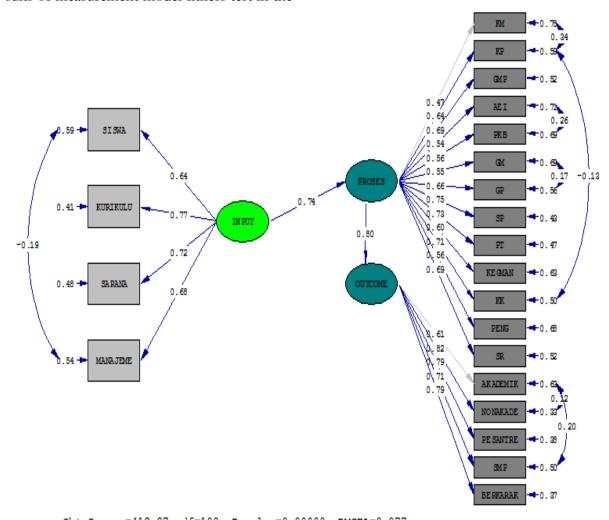
Table 3. Percentage of teachers' evaluation of the MI input

Mean Score	Input	Conclusions
> 4.2	11,1 %	Very Well-Qualified
> 3.4 - 4.2	84.2 %	Well-Qualified
> 2.6 - 3.4	4.7%	Moderate
> 1.8 - 2.6	0.0%	Ill-Qualified
≤ 1.8	0.0%	Very Ill-Qualified

Table 5. Results of teachers' assessment percentage toward the MI outcome

Mean Score	Outcome	Conclusions	
> 4.2	8%	Very Well-Qualified	
> 3.4 - 4.2	85%	Well-Qualified	
> 2.6 - 3.4	7%	Moderate	
> 1.8 - 2.6	0%	Ill-Qualified	
≤ 1.8	0%	Very Ill-Qualified	

The results of the measurement of the model fitness based on the results of printed out data analysis by means of LISREl 8.50 showed the following data of EQ-MI model fitness results. The results of Measurement Model Fit Test in the input construct were that the Root Mean Square of Approximation (RMSEA) were equal to 0.048 and the Goodness of Fit (GFI) score was equal to 0.828 or  $0.82 \le GFI \ge 0.90$ ; in other words, the model was marginally fit. Then, the Comparative Fit Index (CFI) score was equal to 0.912 and the Incremental Fit Index (IFI) score was equal to 0.914; in other words, the model was fit into the data. Therefore, the researchers concluded that the input variable construct model that was proposed was fit into the data. The results of measurement model fitness test in the process construct showed that the Root Mean Square Error of Approximation (RMSEA) was equal to 0.051, the Non Normed Fit Index (NNFI) score was equal to 0.822, the CFI score was equal to 0.84 and the IFI score was equal to 0.845; in other words, the model was fit into the data. In the outcome construct, the Root Mean Square Error of Approximation (RMSEA) was smaller than 0.080, namely 0.050 < 0.080, the Comparative Fit Index (CFI) score was bigger than 0.900, namely 0.931>0.900, the Non Normed Fit Index (NNFI) was also bigger than 0.900, namely 0.916 > 0.900. In other words, the developed model was fit for correcting the NNFI measure; as a result, the model was fit into the data.



Chi-Square=412.37, df=198, P-value=0.00000, RMSEA=0.077

Figure 2. Results of model fitness

Based on the results of the analysis of all of the MIQEM components including the input, process and output, MIQEM feasibility or fitness testing was performed to identify the inter-variable causality. The results of fitness testing indicated that the model was fit into the data. The results were explained by the Comparative Fit Index (CFI) score of 0.907≥0.900, the Root Mean Square Error of Approximation (RMSEA) score of  $0.077 \le$ 0.800 and the Root Mean Square Residual (RMSR) of 0.018 < 1.000. There were three criteria that had been met; in other words, the model was fit into the data. The results of the significance testing of the estimates of overall loading factor coeffcient showed that the significance and standardized coefficient of the loading factor of each indicator had provided the above cut-off value score (the above cutoff value should be at least 0.500). Based on the results of measurement model fitness, the final figure of MIQEM can be seen in Figure 2. The results of hypothesis testing in the study were as follows.

# The Input Has a Significant Positive Effect on the Process

The structure in Figure 2 shows that from the relationship between the input and the process, the researchers found the correlation value equal to 0.740 and the t-count equal to 5.780. That the t-count was bigger than the t-table (5.780 > 1.977) showed that the variables were significant and the coefficient score was positive, thus the researchers concluded that the hypothesis which stated that the input had a significant positive effect on the process was "accepted". The effect of the input on the process was 54.7%, and the other 55.3% effect on the process came from other variables.

# The Process Has a Significant Positive Effect on the Outcome

The structure in Figure 2 shows that from the relationship between the process and the outcome. The researchers found the correlation value was equal to 0.803 and the t-count was equal to 5.262. That the t-count was bigger than the t-table (5.262>1.977) showed that the variables was significant and

the coefficient score was positive, and thus the researchers concluded that the hypothesis which stated that the process had a significant positive effect on the outcome was "accepted".

Based on the results of model fitness test, the second stage revision was performed. This stage was the final stage of MIQEM development and in this stage the researchers viewed the results of the tryout of a big amount of data in each variable. The instrument items whose score was still below standards were eliminated and omitted. The reason was that the model was not fit into the data if the researchers kept these items. The items which had low validity were considered to be malfunctioned or not providing contribution toward the model; as a result, the model was not fit into the data. In this stage the researchers also rearranged the model instrument so that it would be a model that might be implemented by the madrasa ibtidaiya schools. The researchers rearranged the instrument in each variable. Then, in several dimensions there were some eliminated items and, as a result, the number of the items decreased. After the instrument had been rearranged, the MIQEM was rearranged as well because there was one dimension that should be omitted whereas the dimension used to be the part of the model.

After several revisions and tests, the MIQEM could be implemented for evaluating the quality of the *madrasa ibtidaiya* schools. By implementing the MIQEM, the users might define whether *madrasa ibtidaiya* schools were qualified or not. The final MIQEM is presented in Figure 3.

# **Conclusion and Suggestions**

Based on the results of the study, several conclusions are drawn. First, MIQEM was developed by performing the product selection, reviewing and drafting the model. Then, the researchers have also performed the preliminary product development, expert validation, limited scale experiment, first stage revision, expanded scale experiment, and second stage revision as part of the model development. As a result, the researchers have attained the MIQEM.

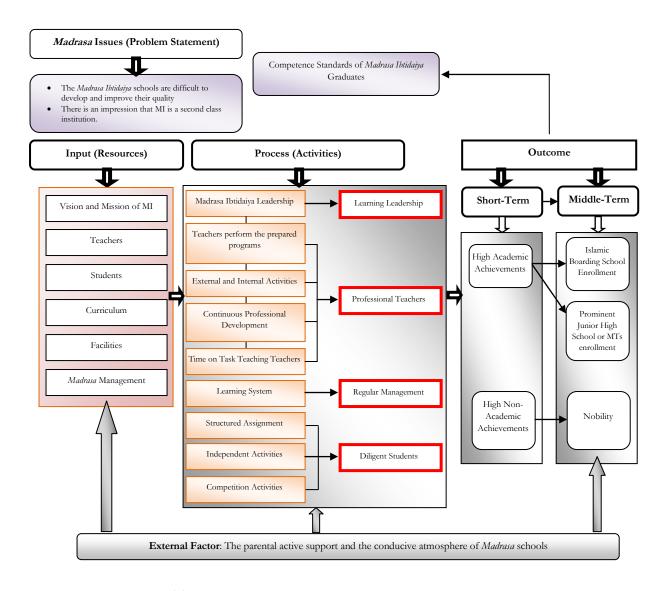


Figure 3. The final madrasa ibtidaiya quality evaluation model (MIQEM)

The implementation of the MIQEM was conducted by the teachers and the principals of madrasa schools by making use of the MIQEM instrument. The results of the implementation might be used for improving madrasa school quality. The results of model fitness test indicated that the model was fit into the data. These results are explained by the Comparative Fit Index (CFI) score that is equal to 0.907, the Root Mean Square Error of Approximation (RMSEA) score that is equal to 0.018 and the Root Mean Square Residual (RMSR) score that is equal to 0.018. The results of meaningfulness test toward the overall estimates of loading factor coefficient in is very significant and the score of each indicator is above the cut-off value which should be at least 0.50. Based on the results of readability test, the expert judgement and the limited-scale experiment and the expanded scale experiment in the field, the MIQEM could be considered effective in measuring MI quality.

The implication of the study is that the MIQEM will provide information regarding MI schools so that it could be used for improving the quality of MI schools, including the input, the process and the outcome. The researchers suggest that the government may implement the developed MIQEM to measure and improve MI school quality.

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