

## Implementation of assessments in mathematics teacher learning during the covid-19 pandemic: A case study

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**ABSTRACT.** The aims of this study were to: (1) provide an overview of the implementation of assessments in mathematics learning carried out by mathematics teachers at MAN 2 Bone during the covid-19 pandemic, (2) find out the obstacles and obstacles for MAN 2 Bone teachers in carrying out mathematics assessments during the pandemic. covid-19 The research method used is descriptive analysis with quantitative and qualitative approaches. Data were obtained through a questionnaire/questionnaire and interviews. The results showed that the implementation of the assessment carried out by MAN 2 Bone teachers in learning mathematics during the pandemic period was quite well implemented. Even so, there are still teachers who experience problems in carrying out math assessments during the COVID-19 pandemic, starting from the difficulty of assessing students' conceptual understanding of mathematics to the decision to determine the final grade of the semester during the COVID-19 pandemic.

**Keywords:** *Assesment, mathematics, madrasah, covid-19*

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## INTRODUCTION

As a result of the Covid-19 pandemic, reconditioning and redesign of the education delivery process is carried out by all educational institutions. The central and regional governments take policies like this so that the learning process continues and is expected to be able to break the chain of the spread of the Covid-19 virus. Likewise in assessment activities, teachers are required to continue to carry out a varied assessment process (Nur, 2017). In the end, the assessment activities that should have been carried out optimally did not run smoothly due to the Covid-19 pandemic (Sari et al., 2015).

In any condition, education and learning must continue to be carried out as an effort to assist students in increasing their various potentials, including in this case the potential in mathematical abilities (E. Nugraha & Suryadi, 2015). Assessment is an important component in learning that must be done by teachers, assessment is a major role in knowing how teachers do things and what students get after learning something, which allows information about students' understanding, weaknesses, and strengths of mathematics that exist in students. This will certainly help teachers to improve the quality of student learning. This broader view of assessment also requires some precise aspects of proficiency in students' mathematics learning. Some of these aspects include concepts and procedures, processes and practices of mathematics, and the last is the disposition towards mathematics.

Several previous studies have studied mathematics assessment, such as mathematics assessment with self-evaluation, as well as research on how teachers use various factors to assess students, both through the type of assessment used, cognitive assessment, and the value given (Salsabila et al., 2021). Among the several existing studies, there is no research that examines the implementation of mathematical assessments carried out during the pandemic period, especially in Islamic schools (Madrasah), because the COVID-19 pandemic situation is still quite warm. Researchers also feel the need to explore the challenges and obstacles of Madrasah Aliyah teachers in carrying out online math assessments during the COVID-19 pandemic. Therefore, this study was conducted to see how the description of the implementation of mathematical assessments carried out by Madrasah Aliyah teachers online during the covid-19 pandemic that occurred in Indonesia, especially in Bone Regency, so that this research can be used as a reference and solution in responding to learning and teaching. technical assessment of mathematics online or learning from home.

The results of initial observations carried out in several madrasah in Watampone City also did not escape the impact of this online learning. When assessing learning outcomes, some teachers carry out learning assessments as they understand them, both in terms of planning, implementing and reporting the results of the assessment. Based on the phenomenon of the assessment carried out by mathematics teachers during the COVID-19 pandemic and various previous research results, it is necessary to conduct an assessment of the teacher's ability to carry out assessments of mathematics learning. Therefore, this research is important and urgent to be completed because teachers in their pedagogical competence must be able to manage the learning process, including the ability of a teacher to plan assessments, carry out assessments and report the results of learning assessments in schools. Based on this, the purpose of this research is to (1) provide an overview of the implementation of assessments in mathematics learning conducted by Madrasah Aliyah Negeri 2 Bone teachers during the covid-19 pandemic, (2) find out the obstacles and obstacles for MAN 2 Bone teachers in carrying out mathematical assessments during the covid-19 pandemic.

## **METHOD**

Type of research is qualitative (case study) by using descriptive analysis method to provide an overview and explanation of the implementation of mathematics assessment conducted by teachers in madrasah. The approach taken is a quantitative and qualitative approach. A quantitative approach is used to show the percentage of implementation of the assessment in mathematics learning conducted by online madrasa teachers during the covid-19 pandemic. While a qualitative approach is used to analyze the implementation of the assessment in mathematics learning through interviews with teachers, it is oriented to the challenges, obstacles or obstacles faced by teachers in carrying out online assessments during the COVID-19 pandemic.

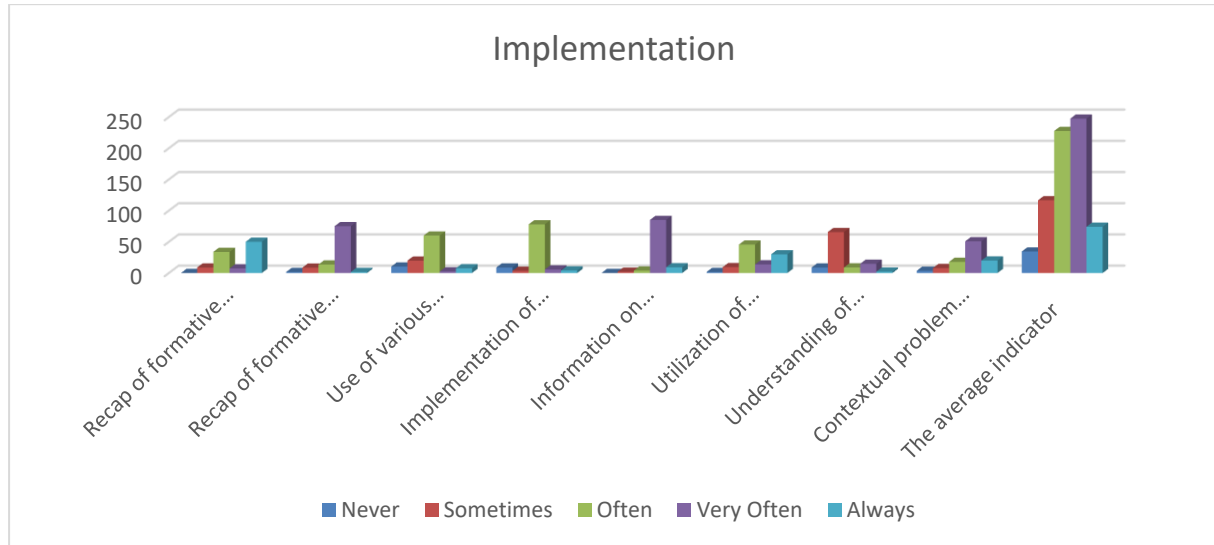
This research was conducted in Madrasah Aliyah in Watampone City. The instruments used are questionnaires, interviews and documentation. The questionnaire contains statements related to aspects of the implementation of the assessment carried out by madrasah teachers online during the COVID-19 pandemic. The interview questions are more directed at the obstacles, obstacles faced by madrasa teachers in the assessment process during the covid-19 pandemic. The data analysis used is quantitative and qualitative descriptive analysis which describes the implementation and constraints in the implementation of the mathematics teacher assessment.

## **RESULT AND DISCUSSION**

### **Result**

#### **Overview of the Implementation Teacher Assessment**

The research conducted in October 2021 on the implementation of learning assessment by the Mathematics teacher of Madrasah Aliyah Negeri 2 Bone during the COVID-19 pandemic, the following results were obtained.



Based on the table above, the highest average percentage is found in frequent answers (32.41%), which means that it can be said that the overall implementation of the mathematics assessment carried out by mathematics teachers at MAN 2 Bone during the covid-19 pandemic was quite carried out. If it is broken down by indicator, it can be explained as follows. In the indicator of the implementation of the recap of the recapitulation of formative mathematics, it was obtained information that before the Covid-19 pandemic, teachers were more likely to recap the results of students' mathematical formative assessments in the assessment book than during the pandemic (Andriani, 2015). This can be illustrated from the percentage results for statements "Before the Covid-19 pandemic, I carried out formative mathematics assessments in every material topic that I recapitulated in the assessment book". None of the teachers answered never, a small proportion of teachers answered sometimes and very often, less than half answered often, and half answered always. While in the statement "During the Covid-19 pandemic, I carried out formative assessments of student mathematics in every topic of material that I recapitulated in the assessment book"(Mansyur & Harun, 2015). From these statements, there are teachers who answered never, sometimes and very often, although only a small part, less than half of the teachers answered often and always. In indicators of the use of various assessment techniques, there are still some teachers who do not use them, but most mathematics teachers still often carry out various assessment techniques even though they are during the COVID-19 pandemic (Amelia et al., 2020).

In indicators of informing the results of the assessment to students and parents as feedback on student work, there are still some teachers who don't do it at all, a small part of them answer sometimes and very often, less than half answer often and always. On the indicators of understanding concepts and using mathematical procedures, a small proportion of teachers answered never, very often, and often, less than half answered sometimes and often. However, most teachers said they often gave assignments and math problems related to understanding concepts and procedural use (Diana et al., 2020)

For contextual problem-solving indicators, none of the teachers who gave assignments or math problems answered never. This means that all teachers have given assignments and questions based on contextual problem solving (Rangkuti et al., 2020). A small number of teachers answered often and always, and less than half answered sometimes and often. In providing assessments through assignments and questions that reflect the content of the mathematics

curriculum, none of the teachers answered never. This means that all teachers assess students through assignments and other questions in accordance with what is stated in the curriculum. A small percentage answered sometimes and very often, and less than half answered always and often, although the largest percentage answered often. The last indicator of the implementation of the assessment is the use of assessment observations. In this indicator, the percentage most answered by the teacher is that they never use the observation sheet in the assessment, this percentage is close to almost half of the mathematics teachers at MAN 2 Bone never use it. For answers sometimes under the percentage of answers never, for answers often, very often and always only a small part of the teacher answered.

### **Constraints and Obstacles in the Implementation of the Mathematics Teacher Assessment of MAN 2 Bone**

Based on the results of interviews conducted by mathematics teachers at Madrasah Aliyah Negeri 2 Bone, several explanations were obtained of various obstacles and obstacles experienced by elementary school teachers during the COVID-19 pandemic. Some of them are as follows. (1) In carrying out online assessments during the pandemic, the teacher's focus is only on the cognitive domain (Kahfi, 2021). Teachers do not want to bother in conducting affective and psychomotor assessments. According to the teacher, affective and psychomotor assessment can only be done face-to-face, while in learning from home the teacher is not able to make these observations. (2) Learning mathematics online is considered more difficult, because according to the teacher, mathematics requires the use of formulas that need to be taught directly to students. (3) In carrying out online assessments, teachers cannot monitor the math skills of each student individually. Teachers and students rarely use video-based applications, so teachers are not able to observe directly how the skills and abilities of students in doing math tasks. (4) In assessing and recapitulating students' mathematics learning outcomes, teachers often find doubts about the results obtained by students. The answers given by students are more likely to be perfect. Teachers feel that students are suddenly smart when learning from home, even though during face-to-face learning at school students often find scores below the standard. (5) Online assessment during the pandemic is carried out by sending assignments via whatsapp group, due to memory limitations so that not all student assignments can be seen. In addition, students are often late in sending assignments due to quota constraints for students with middle to lower economic parents. (6). Not all students or parents/guardians have smartphones, so not all students can from home learn or study online with the teacher. Thus, teachers cannot make assessments of students, especially to recap, so this also makes it difficult for teachers to make decisions to determine the final grade of the semester. (7) Teachers and students have not been able to use more sophisticated applications in online learning during the covid-19 pandemic, this is due to several factors behind it, including that not all children have Android phones, limited ability to use technology, limited quota capabilities, and so forth. (8) Online learning and assessment is difficult for madrasah children in remote villages due to the lack of internet network facilities and not all of the students themselves have personal devices or come from well-to-do families.

### **Discussion**

Based on the results obtained on the findings regarding the implementation of formative assessment in mathematics learning, both before the pandemic and during the pandemic, it is obtained that there is a tendency for a small number of teachers not to carry out formative assessments during the COVID-19 pandemic, this is inversely proportional at the time of the COVID-19 pandemic. before the pandemic (Munir et al., 2021). The results of the study showed that there were teachers who answered that they had never carried out formative assessments during the COVID-19 pandemic. The success/failure of implementing the curriculum in schools is very dependent on teachers and principals because these two figures are the key that determines and drives various components and other dimensions of the school, without reducing the

importance of other education personnel (M. Nugraha, 2018). The curriculum is basically a tool in an effort to achieve educational goals. No matter how good the curriculum design is, it depends on the mastery of the curriculum.

Based on the disclosure of the reasons given, information was obtained from the teacher that in carrying out online assessments during the pandemic, it was very difficult for students and parents who were less open to learning (Salim, Zulaika, et al., 2021). So there are often problems in collecting questions that are late and don't even collect. Not all students have devices and data packages at all times so that not all students can be assessed for their work. This makes teachers reluctant to carry out formative assessments (Amelia et al., 2020). Formative assessment is an assessment that is carried out throughout the teaching process, this assessment becomes a monitor evaluation to find out what is really learning and what is not, which can then help shape the next subject matter. In any condition, assessment must be done, because assessment is one of the keys to success in learning. Not only education leaders but also the efforts of the students themselves, by learning for themselves what to do if they see or become victims of sexual violence. Because the main thing in preventing and having the courage to have an opinion is the existence of clear knowledge about sexual violence (Diana et al., 2020). Then how do students provide sex knowledge to their families so that their minds are open about it so that support is obtained not only from the school but also by parents. Always have a good relationship with the family, always tell what things have been going through (Rani Nurhayati, n.d.).

The principal as an educational leader plays a very important role in improving the quality of the school he leads, especially in responding to globalization in the current era of Society 5.0. (Padli & Rusdi, 2020). To increase his capacity as a leader, the principal must at least have the competence to support his professional performance by making efforts to respond to the current of globalization. One of the efforts that can be made by school principals to face the era of Society 5.0 is to improve the quality of learning for Generation Z in the schools they lead (Saragih et al., 2020). Among the supporting media in the more effective learning process is whatsapp group media because whatsapp group media is the easiest online learning media to implement (Salim, Azwardi, et al., 2021). In addition, problems that are often found are facilities and also problems with quotas from students. Because not all students have adequate facilities for learning activities during the implementation of the emergency curriculum. Therefore, educators want students who have problems related to facilities and quotas to take advantage of facilities and also wifi at school, especially for students who get a percentage assignment on that day (Juhaeni et al., 2021).

A school principal should be able to convince the community that everything has gone well, including curriculum planning and implementation, provision and utilization of teacher resources, recruitment of student resources, school collaboration with parents, and quality graduates (Rahmatullah, 2021). The principal as a vital element for effectiveness in educational institutions determines the high and low quality of the institution, the principal is likened to the education commander who carries out the control function of various patterns of teaching and educational activities in it, therefore the success of a madrasah depends on the extent to which the implementation of the mission charged above his shoulders, personality, and ability to get along with the elements that exist in successful principals are those who understand the existence of the madrasa as a complex and unique organization, and are able to carry out the principal's role as a leader who is given the responsibility to lead the school (Citraningsih et al., 2021). Utilization of formative assessment data obtained by teachers is an important point in improving the quality of learning and the student character after this pandemic on the next topic (Oktavian & Hasanah, 2021). Formative assessment should be carried out regularly to find out, check, identify, and analyze students' understanding during the learning activities (Permana et al., 2021).

## CONCLUSION

Implementation of the mathematics assessment carried out by the mathematics teacher of Madrasah Aliyah Negeri 2 Bone as a whole has gone quite well although there are still many obstacles and obstacles that must be faced by teachers during the assessment during the covid-19 pandemic. This study reveals the various steps and efforts taken by teachers in carrying out mathematics assessments during the pandemic. In addition, this study also revealed various kinds of challenges, obstacles, and various obstacles faced by teachers in carrying out learning and assessment during the pandemic, ranging from the difficulty of obtaining networks in remote areas, the economic factors of students' parents so that they could not support facilities *learning from home*, the willingness and readiness of parents in accompanying children *learning from home*, to the doubts about the results of the assessment obtained. Therefore, this study recommends for the Indonesian government, especially in the Bone Regency area to be able to fully facilitate the readiness of *learning from home* for better education and to provide professional development programs for teachers, so that teachers always have creative and innovative ideas in conducting learning and assessment in any condition.

## BIBLIOGRAPHY

- Amelia, S., Tursina, T., Nikmah, S., & Sofyan, F. A. (2020). Sistematika penilaian autentik dalam pembelajaran daring di rumah lewat televisi saat terjadinya covid-19. *Wahana Didaktika: Jurnal Ilmu Kependidikan*, 18(2), 120–131.
- Andriani, S. (2015). Evaluasi CSE-UCLA pada studi proses pembelajaran matematika. *Al-Jabar: Jurnal Pendidikan Matematika*, 6(2), 167–176.
- Citrainingsih, D., Khilmiyah, A., & Yamin, M. N. (2021). School Image Management during the Covid-19 Pandemic Era at Budi Mulia Dua Junior High School of Yogyakarta. *Tarbiawi: Jurnal Keilmuan Manajemen Pendidikan*, 7(01), 113–122.
- Diana, P., Marethi, I., & Pamungkas, A. S. (2020). Kemampuan pemahaman konsep matematis siswa: ditinjau dari kategori kecemasan matematik. *SJME (Supremum Journal of Mathematics Education)*, 4(1), 24–32.
- Juhaeni, A., Sanusi, A., Wasliman, I., & Hanafiah, H. (2021). Strategic Management of Quality Improvement of Madrasah Aliyah Graduates in Modern Islamic Boarding Schools. *Tarbiawi: Jurnal Keilmuan Manajemen Pendidikan*, 7(01), 33–46.
- Kahfi, A. (2021). Dampak pembelajaran daring di masa pandemi covid 19 terhadap perkembangan kognitif anak. *Dirasah: Jurnal Pemikiran Dan Pendidikan Dasar Islam*, 4(1), 14–23.
- Mansyur, S., & Harun, R. (2015). Asesmen pembelajaran di sekolah: Panduan bagi guru dan calon guru. *Yogyakarta: Pustaka Pelajar*.
- Munir, M., Syamsudin, T. A., Hanafiah, H., & Sauri, R. S. (2021). Implementation of Mathematics Learning through OFPISA Model in Vocational High School of Banten Province. *Tarbiawi: Jurnal Keilmuan Manajemen Pendidikan*, 7(02), 157–164.
- Nugraha, E., & Suryadi, D. (2015). Peningkatan kemampuan berfikir matematis siswa SD kelas iii melalui pembelajaran Matematika realistik berbasis permainan tradisional. *EduHumaniora | Jurnal Pendidikan Dasar Kampus Cibiru*, 7(1).
- Nugraha, M. (2018). Manajemen Kelas Dalam Meningkatkan Proses Pembelajaran. *Tarbiawi: Jurnal Keilmuan Manajemen Pendidikan*, 4(01), 27–44.
- Nur, S. M. (2017). Pengembangan Perangkat Penilaian Kinerja Peserta Didik Pada Materi Pokok Sistem Ekskresi. *Jurnal Ilmiah Pena: Sains Dan Ilmu Pendidikan*, 7(2), 1–9.
- Oktavian, I. R., & Hasanah, E. (2021). Implementasi Manajemen Pendidikan Karakter. *Jurnal Inovasi Dan Manajemen Pendidikan*, 1(1), 1–10.
- Padli, F., & Rusdi, R. (2020). Respon siswa dalam pembelajaran online selama pandemi. *Social Landscape Journal*, 1(3), 1–7.

- Permana, O., Trisnamansyah, S., Muchtar, H. S., Muttaqien, K., & Sudaryo, Y. (2021). Learning Management in Developing Students' Hard Skills and Soft Skills. *Tarbawi: Jurnal Keilmuan Manajemen Pendidikan*, 7(02), 209–222.
- Rahmatullah, M. (2021). Education Management in the New Normal Era: A Literature Study. *Tarbawi: Jurnal Keilmuan Manajemen Pendidikan*, 7(01), 79–86.
- Rangkuti, R. K., Ritonga, W. A., & Ritonga, S. I. (2020). Penerapan Pembelajaran Matematika Realistik Untuk Meningkatkan Kemampuan Pemecahan Masalah Matematis. *Al-Khawarizmi: Jurnal Pendidikan Matematika*, 1(1), 15–21.
- Rani Nurhayati, M. P. (n.d.). *17 Strategi Pembelajaran Mudah untuk Kelas Tatap Muka dan Daring*. GUEPEDIA.
- Salim, S., Azwardi, A., Ritonga, M., & Widiastuty, R. (2021). Leadership Role of Madrasah Aliyah Head in Improving the Quality of Education. *Tarbawi: Jurnal Keilmuan Manajemen Pendidikan*, 7(01), 25–32.
- Salim, S., Zulaika, Z., Miranda, N., & Amin, A. (2021). Distance Learning: Implementation in Langkat Elementary School during the Covid-19 Pandemic. *Tarbawi: Jurnal Keilmuan Manajemen Pendidikan*, 7(01), 87–92.
- Salsabila, U. H., Utami, S. N., Zahra, A., Haikal, F., & Cahyono, A. (2021). Pengaruh Penggunaan Media Belajar Online Selama Pandemi. *Jurnal Ilmiah Wahana Pendidikan*, 7(1), 1–9.
- Saragih, N. I., Hartati, V., & Fauzi, M. (2020). Tren, tantangan, dan perspektif dalam sistem logistik pada masa dan pasca (New Normal) Pandemi Covid-19 di Indonesia. *Jurnal Rekayasa Sistem Industri*, 9(2), 77–86.
- Sari, E. N., Rosyidatun, E. S., & Juanengsih, N. (2015). Profil Penilaian Otentik pada Konsep Biologi di SMA Negerikota Tangerang Selatan. *Jurnal Penelitian Dan Pembelajaran IPA*, 1(1), 26–41.

