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Utilization of Digital Applications in Learning Assessment

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Abstract. This study aims to analyze the problems faced by teachers in the use of digital report cards in learning assessment activities in the *Madrasah Ibtidaiyah* Nahdlatul Ulama, Kraksaan, Probolinggo, East Java, Indonesia. This research uses a qualitative approach with case study. The results showed that the problems faced by teachers in the use of digital report cards in *madrasah* are as follows; the complexity of making grading descriptions from numbers into letters and the complexity of entering grades, the number of teachers who are less familiar with technological devices, and the lack of time to process report cards and the limitations of teacher access to existing applications.

1. Introduction

The learning done by the teacher is aimed at achieving the basic competencies formulated in the curriculum, as well as the evaluation techniques [1]. Evaluation or assessment is carried out to measure and assess the level of achievement of Basic Competencies that have been carried out by the teacher in the classroom [2]. Assessment is also used to determine strengths and weaknesses in the learning process [3]. It can be used as a basis for decision making for further improvement. Assessments are carried out thoroughly and continuously on the learning process and outcomes in the 2013 curriculum system, so that complete value information is obtained.

The assessment of students who use the manual system, it turns out a lot of time and money wasted, where the teacher must use a lot of time in printing grades, collect files, and present information on student grades, and sometimes even errors occur in the process [4]. Therefore, the need for an application that provides solutions to overcome these problems through a web-based online report card application, so that difficulties for teachers can be overcome [5].

Along with the development of technology and information, the assessment system is no longer done manually, but has been based on the use of media technology by utilizing the internet. Utilization of

technology and information devices is expected to improve the quality of education [6], improve time and resource efficiency for schools [7], both in teaching and learning activities and school administration [8], as in making digital report cards.

Through this system, it makes it easy for teachers to collect, calculate, and process student grades, even to the printing of student report cards [9]. With the help of communication and information technology devices, a calculation will be faster, data processing is also faster [10], the control can be done automatically, and the output is diverse and interesting [11].

Given the importance of digital report cards application systems for processing student grades, the *Madrasah Ibtidaiyah* Nahlatul Ulama, Kraksaan, Probolinggo, East Java, strives to provide optimal service to teachers in managing student grades. However, in practice in the field, there are many obstacles faced by teachers in using this digital report card application system, so they need to get serious attention from *madrasah* leaders.

Based on the phenomena above, the researcher seeks to analyze the problems faced by the teacher in the use of digital report cards in learning assessment activities in the *Madrasah Ibtidaiyah* Nahdlatul Ulama, Kraksaan, Probolinggo, East Java.

Learning Assessment Through Digital Report Card Application

Learning assessment activities carried out by the teacher aim to obtain certainty about the success of student learning, and provide input to the teacher regarding what must then be done in teaching activities, in order to be better. In other words, the assessment conducted by the teacher aims to find out the subject matter delivered, whether it has been mastered by students or not [12]. In addition, whether the teaching activities carried out were in accordance with what was expected or not.

Assessment relates to every part of the educational process, not just learning success, but includes all teaching and learning process. Assessment activities are not only limited to the characteristics [13]. Through assessments conducted by teachers, will give an idea of the extent to which the delivery of learning or educational goals can be achieved in accordance with the desired goals. Assessment becomes the teacher's instrument in measuring the achievement of competencies of the planned learning process and the achievement of specified learning objectives [14]. Through assessment, the teacher will know the development of learning outcomes, intelligence, special talents, interests, social relationships, attitudes and personalities of students or students as well as the success of a learning program

Assessment is understood as teacher activities related to decision making about the achievement of competencies or learning outcomes of students who take part in certain learning processes [15]. For this reason, data is needed as reliable information as a basis for decision making. The decision is related to whether or not the students have succeeded in achieving a competency.

To facilitate teachers in assessing students, it is necessary to use information technology [16]. With the development of information technology at this time, it requires *madrasah* to compete in the use of computer technology in its management aspects [17]. This is because computerization has entered the educational curriculum in Indonesia [18].

Digital report card application is part of the utilization of information technology that is used by *madrasah* to manage student assessment systems. This application is made with a website-based, meaning users can use this application by opening a special web address that has been provided by the *madrasah*.

2. Research Method

This research uses a qualitative-descriptive approach with case study. This study seeks to analyze the problems faced by teachers in the use of digital report cards in learning assessment activities in the *Madrasah Ibtidaiyah* Nahdlatul Ulama, Kraksaan, Probolinggo, East Java.

Data collection techniques are carried out through interviews, observations and documentation that are carried out in a planned, structured and systematic manner. Data that has been collected, analyzed and reduced with reference to the focus of the study, and followed by drawing conclusions or verification. To check the validity of the data, the researchers triangulated the data.

3. Result and Discussions

The results showed that; the problems faced by teachers in the use of digital report cards in learning assessment activities in the *Madrasah Ibtidaiyah* Nahdlatul Ulama, Kraksaan, Probolinggo, East Java as follows;

First, the complexity of making a rating description from numbers into letters and the complexity of entering values. Based on the results of interviews and observations conducted by researchers, it was found that teachers had difficulty in processing report cards using the digital report card application in the 2013 curriculum. The difficulty faced by teachers in this case is when they want to describe the value of numbers into letters. This is as expressed by Solihin (2020) through his statement; "We often have difficulty in making a description of the attitudes held by students, when making reports to parents through report cards". Likewise with statements from homeroom teacher of V (five) class; "The assessment system for the 2013 curriculum is very complicated, because it must include all grades consisting of three aspects, namely; aspects of attitude, social, spiritual, knowledge and skills aspects ".

Second, many teachers are less familiar with technological devices. This is due to the large number of teachers who are elderly, so they have obstacles related to charging digital report cards. In fact, they also many do not have a laptop to fill out these report cards. In addition, the number of columns that must be filled out makes the teacher have to ask for help from other teachers to process and finish their report cards.

Third, lack of time to process report cards. The 2013 curriculum is considered more complex compared to KTSP both in terms of preparation, learning process, and assessment. With the large number of students in the *madrasah*, as well as the thematic learning approach, making the teachers in the *Madrasah Ibtidaiyah* Nahdlatul Ulama must be very clever in managing the time. The details of the 2013 curriculum assessment and the sheer number of grades that need to be entered make it difficult for teachers and have to go the extra mile to complete their grades.

Fourth, teacher access limitations. Ideally, the digital raport application can be operated online based on Web and Android anytime and from anywhere. However, in its implementation in the field, the process of using and inputting grades can only be done at the *madrasah* only, and cannot be done at home or at the place in accordance with the readiness of the teachers. If the work of the digital report card application can only be done in *madrasah*, it certainly adds to the burden of teachers, especially with the existence of a pandemic corona virus (covid-19). Input value that must be done in *madrasah*, is because the application is still limited to one area. digital report cards must use a wifi, charging can be done when the server is on, and the teacher must not be far from the server.

4. Conclusion

Based on the results of the study above, it can be concluded that the use of digital report cards in the learning assessment activities at the *Madrasah Ibtidaiyah* Nahdlatul Ulama, Kraksaan, Probolinggo, East Java is technically in accordance with the guidelines for using the digital report card application, but in its implementation there are obstacles, so it needs to be followed up immediately by policy makers, so that

the purpose of implementing the application of digital *madrasah* report cards in the management of student learning outcomes assessment can be carried out quickly, precisely, accurately, effectively and efficiently.

References

[1]   M. E. Mahmud and S. Suratman, "Evaluasi Program Manajemen Pembelajaran Pada Sekolah Adiwiyata Kalimantan Timur," *Al-Tanzim J. Manaj. Pendidik. Islam*, vol. 3, no. 2, pp. 85–96, 2019.

[2]   Hefniy, A. Fauzi, Faridy, and R. Fatmasari, "National assessment management based on information and communication technology and its effect on emotional intelligence learners," *J. Phys. Conf. Ser.*, vol. 1175, no. 1, pp. 9–13, 2019.

[3]   P. Serow and J. Clark, "Assessment for Learning Techniques in the Pacific Island Context : What are Teachers ' Views ?," in *Mathematics Education Research: Impacting Practice (Proceedings of the 42nd annual conference of the Mathematics Education Research Group of Australasia)*, 2019, pp. 644–651.

[4]   F. A. Wijasty, L. D. Utami, R. T. Yunandar, and P. Priyono, "Aplikasi Sistem Informasi Raport Online (Studi Kasus: Mi Darul Muta'Allimien Leuwiliang Bogor)," *JITK (Jurnal Ilmu Pengetah. dan Teknol. Komputer)*, vol. 5, no. 1, pp. 103–110, 2019.

[5]   D. A. Budiman and D. M. Nugraha, "Aplikasi Raport Online Berbasis Web menggunakan framework CodeIgniter (Studi Kasus di SMK Angkasa 1 Margahayu)," *J. Comput. Bisnis*, vol. 13, no. 2, pp. 112–121, 2019.

[6]   A. Aristoteles, W. Widiarti, and R. A. Permana, "Analisis dan Pengembangan Sistem Informasi Rapor Online Berbasis Web dan Mobile pada SMA Negeri 1 Gedong Tataan," *J. Komputasi*, vol. 1, no. 1, pp. 81–94, 2013.

[7]   A. Rofiq, "Wealth Management Strategi Pengelolaan Asset:Transparansi, Akuntabilitas, Efektifitas, Efisiensi," *Al-Tanzim J. Manaj. Pendidik. Islam*, vol. 1, no. 1, pp. 67–75, 2017.

[8]   K. A. Livingstone, "The Place of Information and Communication Technologies in Curriculum Design and Development," *Int. J. Educ. Dev. Using Inf. Commun. Technol.*, vol. 15, no. 4, pp. 180–197, 2019.

[9]   W. S. Prabowo and C. Agustina, "Perancangan Sistem Informasi Pengolahan Nilai Rapor Berbasis Web Pada SMK Negeri 1 Purworejo," *J. Khatulistiwa Inform.*, vol. 5, no. 1, pp. 48–57, 2017.

[10]   M. A. Hamedoğlu, "The Use of Information and Communication Technologies in Classroom Management in Primary Schools," *Malaysian Online J. Educ. Technol.*, vol. 7, no. 4, pp. 145–154, 2019.

[11]   H. Sulaiman, I.- Indriyanti, and M. Qomaruddin, "Program Aplikasi Pengolahan Nilai Rapor Siswa pada MDTA Nurul Ikhlas Kabupaten Sukabumi," *J. Sist. dan Teknol. Inf.*, vol. 7, no. 1, pp. 40–46, 2019.

[12]   N. Brunker, C. Grice, N. Brunker, and C. Grice, "Assessment for Learning while Learning to Assess : Assessment in Initial Teacher Education Through the Eyes of Pre-Service Teachers and Teacher Educators Assessment For Learning While Learning To Assess : Assessment In Initial Teacher Educators," *Aust. J. Teach. Educ.*, vol. 44, no. 9, pp. 88–109, 2019.

[13]   I. Anugraheni, "Analisa Faktor-Faktor yang Mempengaruhi Proses Belajar Guru-Guru Sekolah Dasar," *Kelola J. Manaj. Pendidik.*, vol. 4, no. 2, pp. 205–212, 2017.

[14]   M. M. E. I. Bali, "Interaksi Edukatif Pendidikan Islam Perspektif Buya Hamka dalam Menghadapi Society Era," *Manag. Indones. J. Educ. Manag.*, vol. 2, no. 1, pp. 62–76, 2020.

[15]   J. Alam and T. Aktar, "Assessment Challenges & Impact of Formative Portfolio Assessment (FPA) on EFL Learners ' Writing Performance : A Case Study on the Preparatory English Language Course," *English Lang. Teach.*, vol. 12, no. 7, pp. 161–172, 2019.

[16]   A. Brijmohan, G. Orpwood, E. S. Brown, and R. A. Childs, "Collaboration Between Content

Experts and Assessment Specialists : Using a Validity Argument Framework to Develop a College Mathematics Assessment," *Can. J. Educ. / Rev. Can. l'éducation*, vol. 41, no. 2, pp. 584–600, 2018.

[17] H. Baharun, "Management information systems in education : the significance of e-public relation for enhancing competitiveness of higher education," *J. Phys. Conf. Ser.*, vol. 1175, no. 1, 2019.

[18] C. Muali *et al.*, "Free Online Learning Based on Rich Internet Applications; The Experimentation of Critical Thinking about Student Learning Style," in *Journal of Physics: Conference Series*, 2018, vol. 1114, no. 1, pp. 1–6.