COMPARISON OF JUNIOR HIGH SCHOOL STUDENT MATHEMATICS LEARNING RESULTS BETWEEN STUDENTS WHO LEARNED USING WHATSAPP GROUP MEDIA WITH STUDENTS WHICH LEARNING USING GOOGLE CLASSROOM MEDIA IN PANDEMIC TIME COVID-19

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Abstract

So far, face-to-face learning has been the most effective learning model because it has been implemented in schools and has become the main choice to date. The Covid-19 pandemic that has hit various parts of the world in recent months has changed the habits of various aspects of life, including learning at school. The classic face-to-face learning method that has been a mainstay in schools suddenly has to change drastically with the online model. Whatsapp Group and Google Classroom are distance learning media that are familiar and often used. This study aims to compare the learning outcomes of students whose learners use WhatsApp group and those who use Google Classroom. This type of research is a quasi experiment. The research sample was 40 students of class VIII SMPN 1 Rawamerta and divided into two classes of 20 people each for classes using Whatsapp Group and 20 people using Google Classroom. The results showed that learning with Whatsapp Group was better than learning using Google Classroom. However, online learning still has several weaknesses, including poor signal and no internet quota.

Keywords: Whatsapp Group, Google Classroom, Mathematics Learning Outcomes

Abstrak

Selama ini pembelajaran dengan tatap muka menjadi model pembelajaran yang paling efektif karena telah dilaksanakan di sekolah dan menjadi pilihan utama hingga saat ini. Pandemi Covid-19 yang melanda berbagai belahan dunia dalam beberapa bulan ini telah mengubah kebiasaan berbagai aspek kehidupan, tidak terkecuali pembelajaran di sekolah. Metode pembelajaran klasik dengan tatap muka yang selama ini menjadi andalan di sekolah mendadak harus berubah drastis dengan model daring (online). Whatsapp Group dan Google Classroom merupakan media pembelajaran jarak jauh yang sudah familiar dan sering digunakan. Penelitian ini bertujuan untuk membandingkan hasil belajar siswa yang pembelajaranya menggunakan whatsapp group dan yang menggunakan Google Classroom. Jenis penelitian merupakan quasi experiment. Sampel penelitian adalah siswa dan siswi kelas VIII SMP Negeri 1 Rawamerta sebanyak 40 orang dan dibagi menjadi dua kelas masing-masing 20 orang untuk kelas menggunakan Whatsapp Group dan 20 orang menggunakan Google Classroom. Hasil penelitian menunjukan pembelajaran dengan Whatsapp Group lebih baik daripada yang menggunakan pembelajaran dengan Google Classroom. Namun pembelaran dengan daring masih memiliki beberapa kelemahan diantaranya signal yang kurang bagus dan tidak mempunyai kuota internet..

Kata Kunci: Whatsapp Group, Google Classroom, Hasil Belajar Matematika

INTRODUCTION

Mathematics is a form of human activity "(mathematic as a human activity)". Mathematics as a subject in school is considered to have a very rational, critical, careful, effective and efficient role. Therefore, students must master mathematical knowledge as early as possible (Nadar, 2016: 266).

Mathematics is a subject that is taught starting from Elementary School (SD) to University (PT). This shows how important the role of mathematics is in today's education. The importance of the role of mathematics is also seen in its influence on other subjects. For example, geography, physics and chemistry. In geography, mathematical concepts are used for scales or comparisons to make maps. Meanwhile, in physics and chemistry mathematical concepts are used to facilitate the naming of the formulas being studied (Karim, 2011: 21).

The learning model that is commonly used in mathematics learning in the 2013 curriculum, one of which is by using PBL (Problem Based Learning). This learning model makes students more active and can find new knowledge. As expressed by Suyatno (2009: 58) that: problem is a learning process in which the starting point of learning begins based on problems in real life. Students are stimulated to study problems based on prior knowledge and experience to form new knowledge and experiences.

But the problem is, currently the education system is faced with a situation that requires teachers to be able to master distance learning media, especially during the Covid-19 pandemic outbreak. The distance education system is one of the solutions to overcome difficulties in face-to-face learning with the existence of social distancing rules given the problems of time, location, distance and cost which are major obstacles at this time (Kusuma, JW; Hamidah: 2020). When the Covid-19 pandemic outbreak hit the world, including Indonesia, which has not ended, almost all educators use distance learning (not face to face). The interaction of educators and students is carried out directly or indirectly, for example by chatting via an internet connection (directly) or by sending an email (indirectly) to simply collect assignments (Rahmawati, 2016).

METHOD

This type of research is a quasi-experimental research to see the consequences of a treatment by comparing the learning outcomes of two class groups (independent class) or two time groups with the same class (dependent class) (Sugiyono, 2010). The research design used was the One Shot Case Study, in which subjects were given certain treatments followed by observations at the time of applying the treatment and measuring the consequences of these treatments. Research design

$$\frac{NR \quad X \quad O}{NR \qquad O}$$

(sugiyono, 2011 : 112)

Information :
NR   = Placement of subjects into groups
X   = Learning with Whatsapp Group / Google Classroom
O   = Math Test

RESULT AND DISCUSSIONS
Whatsapp and Google Classroom Learning

Whatsapp is the most widely used chat application, especially in Indonesia. The use of WA social media has become one of the social media that covers the overall interests of the community in communicating to meet their respective needs. Jubile Enterprise in Anwar N & Riadi I (2017) defines whatsapp as a chat application that can send text messages, images, sounds, locations and videos to other people using any type of smartphone. Suryadi (2018) added that when viewed from the function WhatsApp is almost the same as the SMS application that is commonly used on old cellphones. However, WhatsApp does not use pulses like SMS charges in general, but uses the internet network in accordance with technological developments that are currently connected to the network and identified by a Hand Phone (HP) number.

This Whatsapp application is also equipped with various menu options that support such as New Group, New Broadcast, Whatsapp Web, Starred Messages and Settings. The complete features available on the Whatsapp application make its users increase rapidly. Whatsapp Group is currently used as a forum for discussion to solve various problems, questions and something important that must be conveyed to the people who are members of it. This discussion through Whatsapp Group really helps users to communicate in distance learning. (Ricu Sidiq, 2019). But in the implementation of this application, some students have complained about the lack of interaction and educators tend to often give assignments so that students feel overwhelmed by these tasks (Kusuma, JW; Hamidah: 2020).

Google Classroom is an application that allows the creation of classrooms in cyberspace. In addition, Google Classroom can be a means of distributing assignments, submitting assignments and even assessing submitted assignments (Herman in Hammi, 2017). Thus, this application can help facilitate lecturers and students in carrying out the learning process more deeply. This is because both students and lecturers can collect assignments, distribute assignments, assess assignments at home or anywhere without being bound by time limits or class hours. Google Classroom's main goal is to streamline the process of sharing files between teachers and students. Google Classroom combines Google Drive for assignment creation and distribution, Google Docs, Sheets, Slides for writing, Gmail for communication, and Google Calendar for scheduling. Students can be invited to join classes via a private code, or be automatically imported from the school domain.

The following is an analysis of student mathematics learning outcomes using the Whatsapp Group and Google Classroom learning media.

Table 1. Description of Student Learning Outcomes

Analysis	Media Whatsapp Group	Media Google Classroom
Minimum Value	54	42
Maxium Value	82	78
Standard Deviation	8.322	8.177
Average	64.90	59.10
Student response to learning	95%	80%

Based on Table 1, it can be seen that the average learning outcomes of students using Whatsapp Group 64.90 media are higher than those of students using Google Classroom media 59.10, but the average score is still in the moderate category, then the minimum and maximum scores of Whatsapp Group media are higher compared to the minimum and maximum values of Google Classroom media. Furthermore, the student response to learning with Whatsapp Group media was higher than Google Classroom media, namely 95% : 80%. There are several things that cause student responses to not reach 100%, for example students do not have a quota, the internet connection is interrupted or students are in locations that are not covered by an internet connection. But even so, the achievement of students' responses to the two learning media is still high.

Furthermore, student learning outcomes data with Whatsapp Group and Google Classroom media were tested for normality using the Shapiro-Wilk normality test using SPSS software, and obtained a $sig = 0.023$ on student learning outcomes data using Whatsapp Group media and $sig = 0.191$ on student learning outcomes data with Google Classroom media. This means that one of the data is not normally distributed because the significance value is less than 0.05. Because one of the data was not normally distributed, the next step was a nonparametric test using the Mann-Whitney test.

From the test results with the Mann-Whitney test, the Asymp value was obtained. Sig. (2-tailed) of 0.042, the value of Asymp. Sig. (2-tailed) is less than 0.05. Thus there is an average difference between the results of learning mathematics between students using Whatsapp Group media and learning outcomes of learning mathematics using Google Classroom media

Problems that cause the ineffectiveness of the problem description

What causes ineffectiveness in learning is student access to internet signals and quota which is a problem because not all students are from the upper middle class in terms of economics and middle students, but there are some students who belong to the economic group of the lower middle class with only capital joining with students who are at the level of middle and upper in terms of learning so that the expected learning is still far from expected because there are several factors that cannot be digested by all the material by each student in the application provide

CONCLUSION

Whatsapp Group and Google Classroom are applications that are commonly applied in the teaching and learning process that is carried out through online or online learning. Student mathematics learning outcomes using Whatsapp Group media are better than mathematics learning outcomes using Google Classroom media, but still in the moderate category, with the Whatsapp Group the flow of information related to learning activities at school to students and parents of students becomes fast and accurate. Of course, there are still some shortcomings in learning using Whatsaap Group and Google Classroom media, but teachers can combine them with other online learning media so that distance learning can be more varied as an effort to prevent student boredom during learning.

REFERENCES

Anwar, N & Riadi, I. (2017). Analisis Investigasi Forensik WhatsApp Messenger Smartphone Terhadap WhatsApp Berbasis Web. Jurnal Ilmu Teknik Elektro Komputer dan Informatika (JITEKI). Vol. 3, No. 1, Juni 2017. Program Studi Teknik Informatika, Universitas Ahmad Dahlan.

Hammi, Zedha. (2017). Implementasi Google Classroom Pada Kelas XI IPA MAN 2 Kudus. Universitas Negeri Semarang.

Karim, Asrul. 2011. Penerapan Metode Penemuan Terbimbing dalam Pembelajaran Matematika untuk Meningkatkan Pemahaman Konsep dan Kemampuan Berpikir Kritis Siswa Sekolah Dasar. Disajikan dalam Seminar Nasional Matematika Terapan. Pendidikan Guru Sekolah Dasar (PGSD) FKIP Universitas Almuslim.

Kusuma, J. W., & Hamidah, H. (2020). Perbandingan Hasil Belajar Matematika dengan Penggunaan Platform Whatsapp Group dan Webinar Zoom dalam Pembelajaran Jarak Jauh pada Masa Pandemik Covid-19. Jurnal Ilmiah Pendidikan Matematika. Volume 5 No. 1, P-ISSN: 2502-7638; E-ISSN: 2502-8391. Serang: Universitas Bina Bangsa.

Nadar (2016). Pengaruh Pendekatan Matematika Realistik dan Bentuk Portofolio Terhadap Kemampuan Koneksi Matematika. Jurnal Pendidikan Dasar. Vol. 7. No 2, hal 265 – 282.

Rahmawati, I. (2016). Pelatihan Dan Pengembangan Pendidikan Jarak Jauh Berbasis Digital Class Platform Edmodo. Repository.ut.ac.id. hal. 593–607. Universitas Terbuka.

Ricu Sidiq. (2019). Pemanfaatan Whatsapp Group dalam Pengimplementasian Nilai-Nilai Karakter Pancasila Pada Era Disrupsi. Jurnal Putri Hijau Vol. 4 No.2, hal.145–154. Fakultas Ilmu Sosial. Universitas Negeri Medan.

Sugiyono, (2010). Metode Penelitian Pendidikan Pendekatan Kuantitatif, Kualitatif, dan R & D. Bandung: Alfabeta.

Sugiyono. (2011). Metode penelitian kombinasi, kuantitatif dan kualitatif. Bandung : Alfabeta.

Suryadi. (2018). Penggunaan Media Sosial WhatsApp Pengaruhnya terhadap Disiplin Belajar Peserta Didik pada Mata Pelajaran PAI. Skrispi Tidak Diterbitkan. Jurusan Ilmu Tarbiyah dan Keguruan. UIN Syarif Hidayatullah.

Suyatno. (2009). Menjelajah Pembelajaran Inofatif. Sidoarjo: Masmedia Buana Pusaka