# Implementation of E-Learning Based on Mic.Teams In Science Learning In Elementary School

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## ABSTRACT

*Purpose*: This study aims to describe 1) Mic.Teams e-learning planning on science online learning in Elementary School 2) implementation of Mic. Teams -based e-learning 3) Mic.Teams based e-learning evaluation.

*Methodology*: This research approach is qualitative, with descriptive method. Data were collected by interview and observation. Interactive data analysis techniques are data reduction, data presentation, and drawing conclusions. While the validity of the data with triangulation techniques and sources. Data sources consist of principals and teachers.

*Results*: The results showed that 1) Mic.Teams e-learning planning on science online learning at SDN 1 Wonogiri are carried out systematically by the school and teachers, namely the school principal's policy of forming an IT E-Learning teams, register teachers and students in office 365 accounts and teachers prepare distance learning tools in the form of syllabus, prota, promissory notes, lesson plans, teaching materials, assessment programs and LKPD. 2) Implementation of Mic.Teams -based e-learning begins with the teacher creating a virtual class and including members in the created class and utilizing the online meeting features, posts and assignments in learning 3) Mic.Teams based e-learning evaluation are conducted every month covering the cognitive, affective and psychomotor domains. The results of this study are used as a source of input and reflection material for schools about the implementation of Mic.Teams and as material for self-evaluation to contribute to efforts to improve the quality, process and learning outcomes of students online.

**Keywords**: Utilization, E-Learning, Mic.Teams

## INTRODUCTION

Currently the world is still faced with the COVID-19 virus pandemic which has spread, not only Indonesia, but other countries are also affected by this pandemic. The government has made efforts to reduce the spread of this virus, including social distancing policies. In 2021 the government will enforce the PPKM policy (Enforcement of Restrictions on Community Activities), starting from Emergency PPKM to PPKM Level I to IV.This pandemic has an impact on various sectors, resulting in the rate of growth and development of the nation being hampered. Sectors affected by this pandemic include social, economic and education. The Education Unit is one part of the education sector that is directly affected by the COVID-19 pandemic, namely by hampering student learning activities. Nevertheless, the process of learning activities for students must continue to run and be carried out even though it is not face-to-face. During the Covid-19 pandemic, schools must continue to carry out learning for students(Wibowo & Khairunas, 2020).

Online learning is an alternative in learning that is carried out to carry out learning during the pandemic by not meeting face to face. Online-based learning continues to be pursued by all education stakeholders, so that learning continues to be carried out according to the nature of learning. The definition of online learning is that E-Learning is a technology that has made a major contribution to the improvement of the learning process.(Dzul Rachman, 2019). According to Gunawan, (2020) online learning is one type of electronic-based learning. The tools that can be used in this learning include smartphones, laptops or computers that are supported by an adequate internet network.

Each education unit is looking for the easiest and most suitable application platform according to the ability of teachers and students to adapt the changes in the learning process from face to face to Distance Learning (PJJ).(Yuangga & Sunarsi, 2020). According to Jayul & Irwanto.(2020)distance

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learning is a learning approach that is not directly face to face during learning. Internet-based media are usually used in learning. For example animated videos, Youtube and google classroom, WhatsApp and others(Rahmawati, 2016). Purpose One of the applications that can be used to support distance learning is Microsoft Teams or called Mic.Teams. Mic.Teams is part of Microsoft Office 365. According to Martin & Tapp (2019) Microsoft Office 365 channels are the collaboration spaces within a Team where tutors and learners work collaboratively on tasks or access learning materials. Microsoft Teams 365 (Ms Teams) is a learning platform that allows teachers and students to collaborate and interact during online learning(Rakhmawati & Sulistianingsih, 2020).Although there are several application options such as google classrooms, zoom meeting which has been used since the beginning pandemic however, the school is not able to monitor and evaluate teacher performance and student involvement during the teaching and learning process. One of the weaknesses of the application used before Mic.Teams is that the application does not have Indonesian language features, so its use is less effective and efficient for learning with students. This is confirmed by research(Yulistyanti et al., 2021) which states that the zoom technology does not provide Indonesian language as a feature to support discussions or live broadcasts.

After a meeting was held between the principal and the teacher, the result was decided that the suitable and suitable Platforms for use in online learning between teachers and students at SDN 1 Wonogiri was the Microsoft Teams application or Mic.Teams. The decision was taken because both teachers and students at SDN 1 Wonogiri already has a Microsoft Office 365 account. Because with this account, teachers and students will be able to log in by accessing the Mic. Teams easily. This decision was welcomed by the teachers because with these platforms they were confident that they could carry out the learning process with students even though they were online. Before starting learning with Mic.Teams with students, the teacher first took part in the training held at the school. For students, they do not experience significant difficulties because they are millennials who are not technologically stuttering. With the Mic app. Teams, learning is easy to follow, virtual classrooms are available, teachers and students can hold discussions through the meeting room (meeting), teachers can greet and make announcements in public posts, teachers can send assignments in the task menu. Microsoft Teams is an application made by Microsoft which is designed in one package that has a complete program. This application is designed so as to make it easier for users to access information flexibly that is not bound by time and place teachers can say hello and make announcements in public posts, teachers can send assignments in the task menu. Microsoft Teams is an application made by Microsoft which is designed in one package that has a complete program. This application is designed so as to make it easier for users to access information flexibly that is not bound by time and place teachers can say hello and make announcements in public posts, teachers can send assignments in the task menu. Microsoft Teams is an application made by Microsoft which is designed in one package that has a complete program. This application is designed so as to make it easier for users to access information flexibly that is not bound by time and place(Widiyarso & Sutama, 2021).

Some research on learning to use Microsoft Teams during the Covid 19 pandemic, namely:(Situmorang, 2020). The research is to find out the percentage of achievement in learning interest in mathematics education program students from FKIP UHN who are taught by learning Microsoft Teams for Education). The results of the research show that: 1) Overall, the interest in learning of students who take lessons using Microsoft Teams for Education is in the «Very Good» category because 94 people out of 110 people or around 85.46% of students have achieved high scores (?75). . 2) The percentage increase in the achievement of student interest in learning before and after learning the concept achievement model for each indicator is 49.22%, 49.48%, 49.48%, and 52.34 (all categories are very good).

Kartini.(2021). His research is on the adaptation of class X students to teaching staff and learning through the TEAMS application from Microsoft Office 365 in the Distance Learning process during the pandemic. The results of the research are that by using the TEAMS application students can study well, providing opportunities for easier learning and students feel happy because they can meet

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the teacher and can get explanations of assignments and materials by the teacher even though they are virtual.

Afiani & Faradita. (2021). Her research on online learning using Ms. Teams during the covid-19 pandemic in class IV SD Muhammadiyah 26 Surabaya. The results showed that the students' activities during online learning using Ms. Teams during the covid-19 pandemic (1) students paid attention to the material during online learning, (2) students did not focus on listening to the teacher when online learning took place, (3) students were less active in asking questions during online learning, (4) students copied the material provided. given by the teacher in online learning, (5) students are less creative in responding to the teacher's explanation when online learning, and (6) students are enthusiastic about participating in online learning from the beginning to the end of the lesson accompanied by timely attendance. Some of the constraining factors when learning online are: (1) lack of awareness of parents or guardians of students that online learning is very important, (2) limited facilities owned by students, (3) unstable network conditions.

Based on the previous explanation, it can be seen that Mic.Teams learning has been widely applied and researched its application at various levels, namely universities, high schools, and elementary schools. This shows that at the elementary level, the application of learning with Mic. Teams is still small or its nature is still in its infancy. Therefore,research needs to be done to describe 1) Mic-based e-learning planning. Teams on science online learning in Elementary School 2) implementation of Mic-based e-learning. Teams on online learning science in elementary schools 3) evaluation of Mic-based e-learning. Teams on science online learning in Elementary School

## RESEARCH METHODS

This research approach is qualitative, with descriptive method. The object of the research is the implementation of Mic.Teams-based E-Learning in Science Online Learning in Elementary Schools. The research subjects were 26 students of Class VI consisting of 15 boys and 11 girls. Their average age is 11 years Research Place at SDN 1 Wonogiri. Research time is semester 1 of the 2021/2022 academic year.

Data were collected by interview and observation. Interviews were conducted based on the focus of the research that had been made. Interviews were conducted with the Principal of SDN 1 Wonogiri and class VI teachers to obtain information about the implementation of Mic.Teams-based E-Learning in Science Online Learning. There are 6 items of questions asked While the observation is to observe the implementation of Mic.Teams-based E-Learning in Science Online Learning. This research was conducted using interactive data analysis techniques, namely data reduction, data presentation, and drawing conclusions (Miles & Huberman, 1992). While the validity of the data with triangulation techniques and sources.Triangulation technique is a technique that is carried out using various techniques. Source triangulation is done by checking the data that has been obtained from several sources.

## RESEARCH RESULT AND DISCUSSION

### Mic.Teams based e-learning planning on science online learning in Elementary School

In the interview, the Principal of SDN 1 Wonogiri (Mr. Mahmud Yunus, S.Pd) explained that Learning planning with a distance model using Mic.Teams at SDN 1 Wonogiri is carried out systematically by the school and teachers, especially classroom teachers in the Thematic Learning Content of Science Lessons. The principal also explained that in support of this policy, the school formed the IT E-Learning teams and its programs. At the planning stage of using Mic.Teams, the Principal enrolled all teachers and students for an office 365 account in order to log in and access the Mic application. Teams. The school's efforts paid off, with the success of teachers and students getting an Office 365 account so that the Mic. Teams is ready to be used as an online learning medium at

SDN 1 Wonogiri so that students can understand the material easily. According to opinion(Diana, 2020) that the learning process using Microsoft Teams makes it easier for students to understand the material.

In addition to planning in online media by the school, teachers also do planning. Based on the results of interviews with the sixth grade teacher (Ms. Agnes Rini Widiyatmi, S.Pd) explained that the teacher prepared distance learning tools in the form of syllabus, prota, promissory note, lesson plans, teaching materials, assessment programs and LKPD.The online learning implementation plan (RPP) compiled by the teacher consists of identity, core competencies, basic competencies, materials, learning objectives, steps, learning media, teaching materials, and assessments(Sartika & Susanti, 2019). According to Princess et al.,(2021)The teacher prepares the LKPD first which is used for teaching. In addition to lesson plans and LKPD, teachers also prepare teaching materials in the form of learning videos taken from You Tube. The teacher prepares the material to be taught to students in class from the student book. In addition, the teacher also prepares material from other than books. In line with Dwi Puji Astuti, Arifin Muslim. (2020) stated that the teacher collects material that is sourced apart from existing books as well as from Google. This is because there is only one source book/package book in schools, so teachers look for other materials so that the sources they get are not only from one source, but from other sources as well.

During preparation the teacher also learns the subject matter to be taught so that when the learning takes place the teacher has mastered the material. The Class VI teacher also explained that during this pandemic there was a reduction in the number of thematic learning hours in each meeting. In normal learning the number of hours for one time Thematic learning meetings are 4 hours of lessons, but during the distance learning pandemic, the number of hours of lessons is reduced to 2 hours of lessons in each meeting. In accordance with the government's policy on the emergency curriculum which is a simplification of the national curriculum. Basically, the emergency curriculum is more flexible with a reduction in basic competencies for each subject so that teachers and students can focus on essential competencies and prerequisite competencies for continued learning at the next level.(MoEC, 2020). This shows that the government's policy has forced schools to implement an emergency curriculum during the COVID-19 pandemic. Thus, learning that takes place during the COVID-19 pandemic is carried out by reducing the hours of learning. However, it does not reduce the effectiveness of learning activities.

### Implementation of Mic.Teams based e-learning on science online learning in Elementary School

Based on the results of interviews with the Principal, the Mic Application was explained. Teams is used as a distance learning medium during the covid 19 pandemic by teachers and students at SDN 1 Wonogiri with the aim of providing convenience, order and coordination during the distance learning process. In addition, with the use of Mic. Teams The continuity of the learning process between teachers and students can be monitored by the Principal. All teachers at SDN 1 Wonogiri use the Mic application. Teams in learning, including Class VI teachers in the Thematic lessons of science content.

Based on the results of interviews with Class VI teachers, it was explained that face-to-face learning activities online were carried out by entering the Mic. Teams. But previously the teacher had created a Maya Class and included members in the created class. Maya class consists of teachers and all students in class VI, totaling 26 students. In the Maya Class there are several features that can be used for learning activities. These features include online meetings/online meetings, posts and tasks. To conduct an online meeting is done with an online meeting. In these activities, the teacher can convey the material directly in audio-visual. As presented in the following figure:
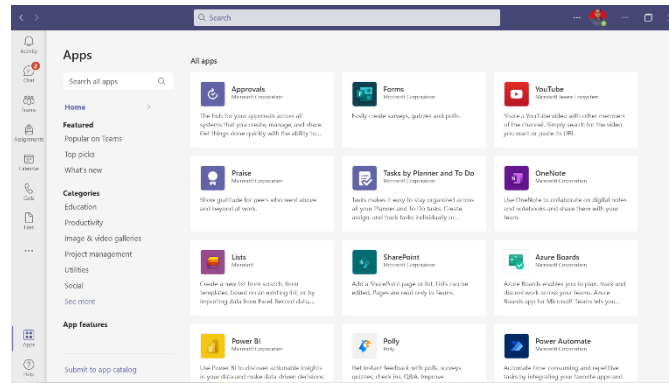
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**Figure 1**. The features in the Mic. Teams

Based on the results of observations, meeting activities began with making an online meeting schedule by the teacher on the calendar in Microsoft Teams. On the day and time specified according to the online meeting schedule, the teacher distributes the meeting link/meeting link to students through the Class VI WhatsApp Group, making it easier for students to join the specified online meeting. In the online meeting activities held, the number of class VI students who participated and joined were 25 out of 26 students or 96%. This means that the majority of students can participate in these activities. With many students who are enthusiastic and participate in these activities, it means that the learning process through the online system in class VI can run smoothly. Before using online meetings, students only asked questions via chat in WhatsApp groups,

In addition to online meeting activities, on the VI virtual class homepage there is also a posting menu. In this menu the teacher can convey material in the form of writing, photos, or videos. Even more interesting, in the post menu, the material can be directly connected to the youtube link. Making it easier for educators to present quality material according to the theme being taught through youtube links. Likewise, students' insight into learning materials is getting wider. At the time of the study, the teacher presented Vegetative Plant Reproduction using the Mic application. Teams. For the deepening of the material, the teacher carries out practice-based learning activities through the assignment feature. Students observe the plants around where they live and then classify the types of reproduction.

The results of the observations are reported and sent through the assignment feature along with documentation (photos) of their activities. With practice-based science learning, students can carry out activities that can deepen the material and develop their potential. In addition, so that students are not bored in online learning. According to opinion(Winangun, 2021) with a simple practicum is able to provide new learning nuances to students so as to eliminate students' boredom with the monotonous online learning system. Thus, practical learning can make students enthusiastic in learning and eliminate their boredom.

The following are the results of the learning screenshot using the Mic application. Teams. In Class VI SDN 1 Wonogiri:
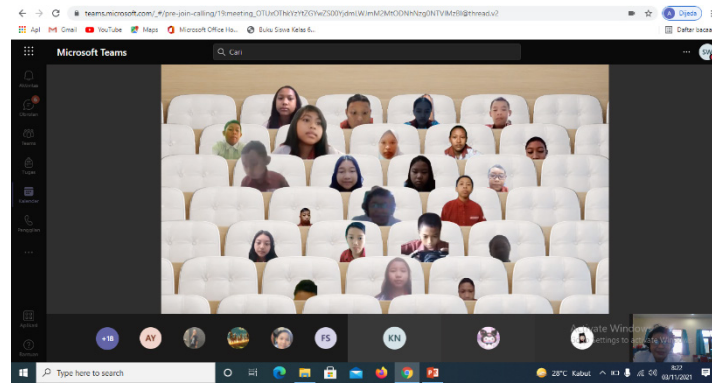
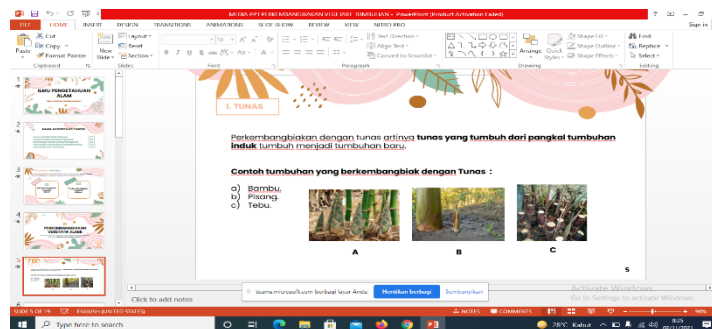Figure 2. Teachers and students can have virtual meetings



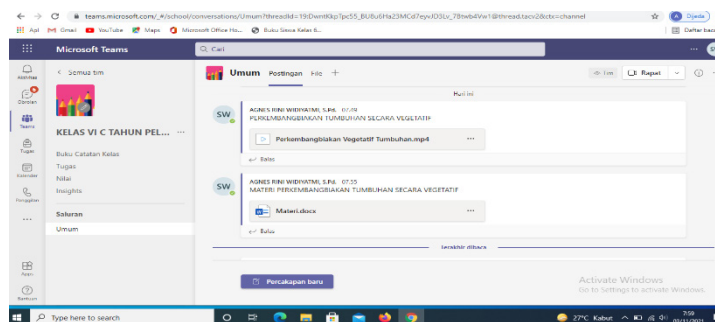Figure 3. Teachers can share screen material and students can immediately see the show



Figure 4. Teachers can send material on the Posts menu feature

**Mic.Teams based e-learning evaluation on science online learning in Elementary School**

Based on the results of interviews with the principal, it was explained that the evaluation of learning using the Mic.Teams application at SDN 1 Wonogiri was carried out every month. Usually on the last week of every month. Learning evaluation is adjusted to the learning objectives. Based on the result of interviews with the teacher, it was explained that the evaluation used by the teacher includes 3 assessment domains, namely cognitive, affective, and psychomotor.

1. Cognitive Domain,

   This assessment of the cognitive domain aims to measure the mastery of basic scientific concepts (content objects) in the form of essential materials as key concepts and main principles. This is as stated by Rosyidi.(2020) that this cognitive domain is a domain that involves more mental/brain activities. In this realm, the teacher assesses through questions using a test technique in the form of a HOTS Essay with a total of 10 questions. The questions made refer to Basic Competencies or KD 3.1 IPA (vegetative propagation of plants).HOTS is the highest thinking ability compared

to just memorizing or retelling. HOTS is very important for teachers. According to research results(Rozi & Hanum, 2019) To realize 21st century learning and HOTS, teachers must have good process skills in learning. Cognitive learning outcomes of students with the application of Mic.Teams can be shown as in Table 1.

Table 1. Student Learning Outcomes

| Data | Learning outcomes Cognitive |
|---|---|
| The highest score | 90 |
| Lowest Value | 60 |
| Completeness | 85 |
| Average | 79 |
| Category | Well |

Based on table 1, it is known that the average value of student learning outcomes is 79 with the details of students who get a score of ≤ 75 totaling 4 people and students who get a score ≥ of 75 totaling 22 people, so it can be categorized that 85% of students achieve KKM / Complete scores, while 15% of students have not achieved the KKM score / have not completed. Learning outcomes are categorized as good because they have reached 85% completeness. Students work on questions in the form of essays.

2. Affective Domain,

In this realm the teacher assesses through discipline in sending assignments. Students need to be disciplined so that the assignments given by the teacher can be done and collected according to the time given. According to research Purwanti E, (2020) Student discipline in schools grows because teachers make class rules, give additional grades to students who are quick to do assignments, and make class picket schedules. Discipline assessment uses observation techniques. Discipline indicators assessed are obeying class rules, doing assignments well, submitting assignments on time. The results of the interview with the sixth grade teacher at the end of the learning activity the teacher gave assignments through the task menu. Students just upload their answers on the menu. Educators can immediately correct answers from students and can immediately provide grades. Likewise, students can also immediately see the value of the results of their work after being corrected and rated by the teacher.
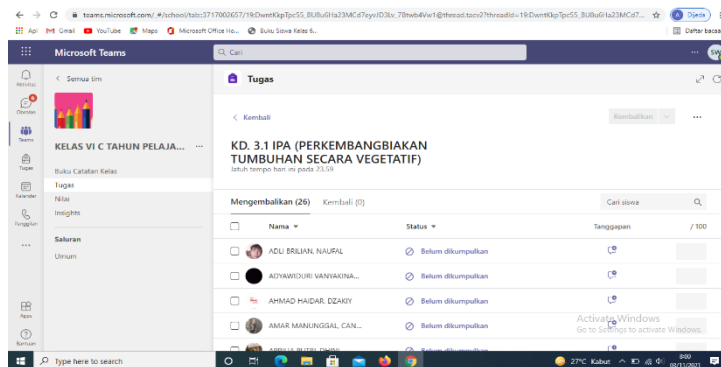


Figure 5. Teachers can give assignments on the task menu

Based on the results of observations, the student's response to the completion of the tasks given by the teacher was quite good. Student responses to the assignments given by the teacher vary,

there are students who are given assignments immediately and sent to Mic.Teams, there are also those who only see that their assignments are not immediately done and sent, although on the deadline for collecting, there are also those who are late in sending. Duty. To motivate students, the teacher provides additional value rewards for those who submit assignments on time, the teacher also always reminds students who have not submitted assignments. Discipline students are 19 students and there are 7 students who are not disciplined in working on assignments.

3. Psychomotor Domain,

This learning outcome is a domain related to skills or the ability to act after a person receives a certain learning experience. In this realm the teacher assesses through practice in the form of videos. Psychomotor learning outcomes are a continuation of cognitive and affective learning outcomes. This will be possible after students show certain behaviors or actions in accordance with the meanings contained in these two domains in everyday life. The psychomotor assessment technique carried out is with iinstrument. The indicators used are valid, reliable, and practical. The instrument can be used for psychomotor competency assessment. According to research results Fuadi et al., (2015), it was concluded that the competency-based PAP (Psychomotor Aspect Assessment) - IPA instrument for green plant material was feasible and could increase the mastery of psychomotor competence.

Psychomotor assessment in Mic.Teams learning has been carried out well. By learning through this media the teacher can provide an explanation of the procedures for implementing practical activities that will be carried out by students, namely by observing plant species. After carrying out these practical activities, students send videos of the results of their activities through Mic. Teams. Of course, with these practical activities, it is hoped that it can generate motivation to learn science, develop basic skills in carrying out experiments, become a vehicle for learning scientific approaches and as a support in understanding subject matter.

Learning through Mic. Teams is already based on a science process. According to research conducted by Firdaus & Subekti.(2021) that student interest in online learning is in the very interested category so that Microsoft Teams media is well used in the learning process.

## CONCLUSION

Based on the results of research that has outlined, then can conclusion drawn as follows.

1. Mic. Teams based e-learning planning on science online learning at SDN 1 Wonogiri

   carried out systematically by the school and teachers. This is realized by the policy of the principal by forming the PJJ IT team and its programs and registering all teachers and students to get an office 365 account so they can enter and access the Mic application. Teams. Teachers also prepare distance learning tools in the form of syllabus, prota, promissory notes, lesson plans, teaching materials, assessment programs and LKPD.

2. Implementation of Mic.Teams based e-learning on science online learning at SDN 1 Wonogiri

   Beginning with the teacher creating a Virtual Class and including members in the created class. In this virtual class, there are several features that can be used, including online meetings/online meetings, posts and assignments. To conduct an online meeting is done with an online meeting. At the online meeting held, the number of class VI students who participated and joined was 25 students or 96%. On the VI virtual class homepage there is also a post menu. In this menu the teacher can convey material in the form of writing, photos, or videos. At the end of the online learning activity, the teacher gives assignments through the task menu.

3. Mic.Teams based e-learning evaluation on science online learning at SDN 1 Wonogiri is carried out every month. Usually on the last week of every month. What is evaluated in this activity is the cognitive, affective and psychomotor domains.The implications of this research can be used as a reference and foothold in conducting learning with Mic-based IPA E-Learning media.

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Teams. Suggestions for Mic users. Teams to better master the existing features so that they can do Mic.Teams-based learning optimally.

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