



Original Article

The Role of Educational Technology in Improving Access in Rural Areas: A Case Study of YPPK ST. Petrus Yarat Konya Maybrat Regency

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Abstract:

The research examines the role of educational technology in increasing access to education in rural areas, especially in Yppk St Peter's Elementary School in Konya Maybrat Regency as a case study. Rural areas often face challenges in accessing quality education, mainly due to long geographical distances and limited infrastructure. Educational technology has become an important tool in overcoming these obstacles. Through the use of distance learning, access to information, online teacher training, and improved communication, educational technology has enabled students in Maybrat Country to access better education. The use of mobile devices also provides additional flexibility in the teaching-learning process. The research illustrates how the application of educational technology has contributed to the improvement of access to education in rural areas and provides insights that can be used as a reference for similar efforts in similar areas. The results show that education technology has great potential in expanding the scope of education in rural areas such as Maybrat Country and enabling continuous improvement in the quality of education there. Here, almost all parents are able to send their children to school. The obstacle in this globalization era, namely the application or use of ICT-based learning media, is still experiencing limitations because of its geographical reach, the provision of infrastructure facilities and the need for quality improvement for teachers through training, mentoring, control from related agencies and continuous evaluation.



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Keywords: Technology, Education, Society

Introduction

Education as one of the important aspects to create and direct humans to think critically and idealistically. Education can also be called a link in life. If education does not run properly, then this will greatly affect the life of the nation. Education greatly determines the progress or failure of a nation. If the education carried out goes well, the nation will also progress. So, the result of the success of education itself is a successful generation. Reciprocal relations occur between education and the social life of the community. Therefore, education has full responsibility in delivering the nation's next generation in facing the progress of the times ([Samsudin, 2019](#)).

Education plays an important role in developing humans holistically both in aspects of knowledge, skills and attitudes to prepare humans to become individuals who are able to provide benefits and contribute sustainably. Education should be designed so that someone is able to identify various solutions to future problems. Not just to prepare the younger generation to be ready and able to work. However, the most important thing is education as a process of preparing the skills needed to become responsible citizens and directly involved in solving various problems (problem solvers) in the future in accordance with the changes and developments of the times.

Judging from the concept, the community itself in a collection of people varies in self-quality, ranging from the uneducated to the highly educated. On the other hand, from the aspect of the educational environment, people in non-formal education environments deliberately and plan for all members who are given education but not systematically. Therefore, it is expected that every citizen of the community has aspirations and actively contributes to fostering education. Furthermore, without community support and participation, it is not expected that education can develop and grow as expected. Therefore, as one of the environments for educational activities, the community has a considerable influence on the continuity of all activities that discuss educational problems ([Hasbullah, 2015](#)).

Basic Education itself is a very important education in the process of forming Human Resources for the future and as a prospective successor of the nation, so that the role of the learning process greatly determines the success of the learners. In the era of revolution 4.0, educational institutions are required to produce quality graduates, one of which is by utilizing technological media. So that teachers today must be able to adapt to technology, especially for learning media. The use of learning media with the use of technology today can affect achievement results, students in ancient times the teacher learning process still used a manual system where teachers still used chalk in learning methods.

To be able to change a fixed mindset into a growth mindset, proper education is needed and develops in accordance with the times. The world of education should be able to make innovations and positive changes for the advancement of education. This can be achieved if in educational activities a global transfer and renewal is carried out by utilizing information technology in educational activities.

As a generation born with information technology, elementary school students at this time are no strangers to even dependence on technological devices. Various online fitul provided by companies engaged in information technology, pamper users with ease and unlimited interaction. Some consider that advances in the field of information technology are a nuisance that must be resisted. Dependence on devices and features of information technology is one of the forms of technological intervention in humans. Intervention cannot be resisted but must be accepted by turning it into a useful potential. So, students' dependence on technological devices is an opportunity to turn them into information technology-based learning resources. Of course, in this case teachers cannot fight and prohibit the use of information technology devices on students, but can maximize the function of these devices as learning resource media. The use of information technology devices owned by students as a medium that can present learning resources for students has not been widely done, especially at the

elementary school level.

Several research results that discuss the impact of technological advances on students and teachers show that technological advances in the field of information have not been converted as a medium that can connect students with learning resources. The development of increasingly sophisticated technology must be balanced with the running of education in schools. Today, technology with all its advantages is able to provide access to information quickly and unlimitedly so that students can get learning materials easily. This presents a challenge for teachers so that students continue to make teachers the main source of learning for students. Teachers are required to be able to adapt and adapt to all existing changes in order to be able to guide and direct students. Teachers must be able to take on their roles quickly in order to remain the person needed to guide, direct, motivate and design learning that takes place in the classroom.

Improving quality, positive attitude, and professionalism in teaching and learning activities is the purpose of applying information and communication technology. Not only that, technology is expected to be able to solve problems that arise in the world of education along with the challenges and developments of the times. Understanding technology is always evolving and changing in every age by society. In the past, technology was defined as machining equipment, radios, projectors, to be interpreted also as blackboards and books. Nowadays technology is often interpreted as an electronic device. Technology has an important role and contribution in life, including education, namely to optimize learning effectively according to the development, conditions, and needs of the community. This role will be felt if humans can accept and adapt to all changes.

Methods

The method used in this study is to use a descriptive qualitative approach. Data obtained from secondary and literature in accordance with the study and according to field conditions of literature research is carried out by collecting literature data such as books, journals, dictionaries, and sources needed in the preparation of this research. Where the population in this study is several community residents who live in Maybrat Regency. Sampling is from several populations that will be studied in the field to ask for information, including: 1). Principal of SD YPPK St. Petrus Yarat Konya Maybrat Regency, 2) Teacher of SD YPPK St. Petrus Yarat Konya Maybrat Regency, 3) Community Leaders of Maybrat Regency. The data collection is sourced from: 1) Observation, 2) Interview.

Results

Located at SD YPPK St. Petrus Yarat Konya who was interviewed was Mr. Stefanus Turot, S. Pd, Gr as the Principal of SD YPPK St. Petrus Yarat Konya in Maybrat District. "Regarding human resources in this elementary school, it always increases every year. The Maybrat community, has a higher spirit in sending their children to school for the continuity of the welfare of the community and their families". Maybrat society, has been slightly developed and developed and able to compete with others and Human resources in Maybrat are quite a lot but jobs do not yet exist, so it can result in a lot of unemployment.

The results of the interview with Mr. Sergius Turot as Chairman of the Committee are as follows: "When talking about the condition of educational technology and its development at SD YPPK St. Petrus Yarat Konya, Maybrat Regency, it always goes well. Although sometimes there are many challenges and factors that hinder and hinder the quality of education. But this does not hinder the awareness of the community and children and youth in Maybrat Regency in prioritizing education for their future. The results of the teacher interviews stated that they were also ready and

tried to utilize digital tools and skills for the benefit of learning.

The importance of technology and improving education, especially at SD YPPK St. Petrus Yarat Konya, Maybrat Regency, is really expected by the government and the community because without education every human being does nothing. Although Maybrat Regency is one of the new pemekaran districts in Southwest Papua Province which was expanded from the South Sorong Main Regency, in the construction of public facilities and infrastructure such as, improving environmental roads, breakthrough roads to villages, building hospitals, schools, everything already exists. When talking about education in Maybrat Regency, they really prioritize education. Because, with education people will be more honorable in Maybrat Regency so that now we can see that many officials in West Papua Province are from Maybrat Regency.

Along with the times, technology in its development certainly brings changes to life, especially in the world of education which will also continue to develop. For this reason, the field of education must always make comprehensive innovations because the field of education has an important role and is a factor that supports the success of the system in the learning and teaching process. There are three principles that are used as a reference source in developing and utilizing educational technology, namely by introducing the system or media to be used, oriented to students and utilizing various resources used for learning activities ([Arief S. Sadiman, 2018](#)). At this time, we often encounter learning and teaching processes that apply educational technology with a combination of tools or media as technological facilities in learning activities. Currently, learning media from technology products have grown and varied from simple to sophisticated learning media. The technology and learning media used must have the potential to support learning and teaching activities and the most important thing is the interaction between educators and students. Educational technology can be interpreted as the handling or implementation of educators systematically according to a certain system ([Nasution, 2010](#)).

Then the interview results of Mrs. Henderika Bame as a figure of Yarat Village, Aifat District, Maybrat Regency. There are several obstacles or inhibiting factors of an education, including the following: 1) In every school there is still a shortage of teachers in the field of study. 2) There are some teachers who lack discipline in carrying out their duties. 3) The distance from home to school is very far. Equitable distribution and expansion of access to education in Maybrat district is directed at efforts to expand the capacity of education units and provide equal opportunities for all students from various groups of society both socially, economically, gender, location of residence and level of intellectual ability and physical condition.

Then there are several steps and efforts made by the government are as follows: 1) Educational facilities and infrastructure have been built such as school buildings both from the lowest level to the head of higher education level and complete with facilities and health workers 2) Scholarships are always given to underprivileged children. 3) The cost of education is not too expensive for elementary schools. 4) The construction of telephone and wifi networks in each district already exists, so as to make it easier for people and children to communicate long distances with other people and school children to find assignments. Then in terms of educational technology, the Maybrat district government must also pay attention to supporting educational facilities such as computers, electricity to support computers, teaching and learning equipment, because all of these are supports for the ongoing improvement through education.

Educational technology invites teachers to prepare problematic for the teaching and learning process as a hypothesis that must be tested for effectiveness. Thus, educational technology encourages the teaching profession to develop into a "science". Currently, both public and private schools are trying to reorganize their education systems. Many school programs are offered to the community, both majors and school status, namely superior, model, international, acceleration and infrastructure. What is clear is that school changes to face the global world must be prepared from elements

of quality human resources so that they are able to think about creating educational designs, have good management tips and do not stutter towards education.

So, it can be said that between educational innovation and educational technology is a unity that cannot be separated. Innovation is the object and educational technology is the subject. The existence of technology must be interpreted as an effort to increase effectiveness and efficiency which of course technology cannot be separated from problems, because technology is born and developed to solve problems faced by humans. Related to that, educational technology is also seen as a product and process. It can be concluded that educational technology is not only a science but also a source of information and learning resources that are in accordance with educational needs that can facilitate the learning process ([Andri & SP, 2017](#)). Education technology is the study and practice ethically to facilitate learning and performance improvement through the creation, utilization and management of technological resources appropriately. Educational technology is a field that is concerned with efforts to facilitate the learning process and improve performance through design, and good management of technology resources. Educational technology is a field of applied science that combines synergistically several disciplines with the intention of facilitating the learning process, improving the quality of learning, and improving performance ([Surani, 2019](#)).

Educational technology is a business model to design or design, implement and assess overall learning and teaching activities so that learning is more specific, using a combination of practical learning resources to achieve the objectives of more effective learning activities. Educational technology can be interpreted as a method to facilitate learning activities by using or utilizing and managing learning resources as visual aids appropriately ([Januszewski & Molenda, 2008](#)). Another opinion states that educational technology is a comprehensive process which involves humans, methods, theories, ideas, media to analyze a problem, plan, select, manage, and utilize everything related to learning activities ([Munir, 2008](#)).

From these definitions, it can be concluded that educational technology is a system to facilitate the course of learning activities both individuals and groups in order to realize an effective and efficient learning and teaching process, and is a systematic and critical approach in solving problems in education and can contribute to developing the potential of students.

Examples of the application of technology in the field of education such as Zoom, Google Meet, Classroom, E-learning have become facilities that in learning activities can be delivered through electronic media such as radio, video, internet and so on as instruments that facilitate learning activities anytime and anywhere. Not only that, currently there are also many course institutions that are carried out online to help learning activities outside public schools ([Jamun, 2016](#)).

In realizing good education, educational technology is needed to produce quality human resources and also improve the education and teaching process that causes many learning problems in the community ([Achyadiania, 2016](#)). It is necessary to develop new innovations in all fields of education such as content and curriculum development, provision of facilities and infrastructure facilities and development of educational technology in KBM such as system development and more innovative strategies, which can be used for all groups ([Mukarromah, 2017](#)). Innovation is not only carried out at the formal education level but also non-formal in order to realize lifelong education, where, when and by anyone without age restrictions according to their context and needs ([Elihami & Saharuddin, 2017](#)). Educational technology has an important role to improve the quality and quality of education but is also important to implement educational equity. This becomes a problem in the world of education if it cannot be handled, because it will have a bad impact on the lives of the wider community. Educational technology if it can be a solution to existing problems, but back again how educational technology is used appropriately or not, depends on the readiness of human resources. This affects the results of the use of educational

technology. Therefore, it is necessary to provide training and development of human resources that aim to build a superior and competitive educational organization.

The role of educational technology in realizing quality education is 1) Providing learning facilities through the process of planning, developing, utilizing, managing and evaluating learning resources. 2) Solve existing learning problems and be studied thoroughly by combining various scientific disciplines in an integrated manner. 3) Utilizing technology that can make work effective and efficient, both as a product and process to solve learning problems. 4) Provide alternative solutions to educational organizational performance problems by structured using performance and instructional design. 5) Can give birth to new innovations in the field of education and teaching to solve existing problems.

Educational technology is very instrumental in the educational revolution that has occurred. At this stage the teacher's function is not as central in the learning process, but turns into a student-centered where the teacher only becomes a facilitator for providing the learning needs of students in an effort to prepare learning resources and media ([Surani, 2019](#)). The role of educational technology is also urgently needed to provide the right platform for distance learning. Video conferences such as google meet and zoom are platforms that are widely used in this era. It is hoped that this can improve human capabilities with a variety of communication media and provide new experiences. Educators who become facilitators in learning must also be able to design learning strategies so that students are not easily saturated. In essence, educational technology is present to solve learning problems in humans where, when, who and by what method.

Conclusion

Educational technology can be interpreted as a handle or implementation of education systematically. As a technological process, education is abstract. In this case, educational technology can be understood as a complex and integrated process that involves people, procedures, ideas, tools, and organizations to analyze problems, find ways to solve problems, implement, assess, and manage problem solving that covers all aspects of human learning. Then there is the role of educational technology in realizing quality education, namely: 1) providing learning facilities through the process of planning, developing, utilizing, managing and evaluating learning resources. 2) Solve existing learning problems and be studied thoroughly by combining various scientific disciplines in an integrated manner. 3) Utilizing technology that can make work effective and efficient, both as a product and process to solve learning problems. 4) Provide alternative solutions to educational organizational performance problems by structured using performance and instructional design. 5) Can give birth to new innovations in the field of education and teaching to solve existing problems. There are several efforts and steps taken by the Maybrat Regency government are as follows: Educational facilities and infrastructure have been built such as school buildings both from the lowest level to the head of higher education level and complete with facilities and health workers, Scholarships are always given to underprivileged children, Education costs are not too expensive specifically for elementary schools, The construction of telephone and wifi networks in each district already exists, so that it can facilitate the flow of communication between 2 directions that are far from each other. Especially for parents who have educated children outside the city. The Maybrat community has almost been a little prosperous and prosperous with everything they feel all this because of the full attention of the government who wants to prosper the people in Maybrat Regency well.

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