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Analysis Of Factors Of Cultural History Of The Utilization Of Video-Based Technology Media For Education Players

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Abstract

This study aims to examine the cultural-historical factors of educational actors in utilizing video-based educational technology media in learning. The research subject was the acceptance of instructional video technology, in this case, students and teachers. To examine the differences in the acceptance of educational technology, the researcher uses the CHAT theory, namely, the difference in acceptance of this technology is motivated by several cultural and historical factors of the subject that may have influenced it, and is influencing changes and new knowledge structures in the integration of educational technology. This study used a descriptive qualitative approach with a case study method.The results showed that the historical social factors of students and teachers in the integration of video technology in learning were very important, with the finding that the ability to master information and communication techniques, both skills and competence in information technology, was able to implement video in learning, and the subsequent finding that the social background of educational subjects the upper-middle class is more capable of integrating video technology media than subjects from the lower classes.

Introduction

Technology and communication have changed the way humans communicate in various communication contexts, including communication in learning. The integration of technology in the multimedia technology-ed school learning process inevitably requires teachers to adapt to new media in communicating with students in the l ning process. The existence of the coronavirus pandemic has a very influential on the education sector. All elements of education, na ly educational institutions, students, teachers, and parents, also feel the impact of the pandemic, considering that during the pandemic, time, location, and distance are major problems at this time (Kusuma&Hamidah, 2020). So that learning during the pandemic looks for solutions to overcome difficulties in carrying out learning. This presents a challenge to all elements and levels of education to keep classrooms active even though schools are closed.

The teacher is a source of knowledge and uses direct instruction methods, controls information, and is responsible to stud s. Neo (2007) states that the main factors for the success of creating a learning environment are the role of the teacher, the role of students, and the use of learning technology. The role of the teacher has now shifted from previously teaching-oriented tounction as a facilitator for students and guide the learning process. The role of student's changes from passive to active participants (Student oriented) and the role of learning technology is used by the teacher to support learning material.

Educational technology provides the right media for sharing ideas and expe nces in the learning process for students, teachers, and administrators to communicate, exchange knowledge, meet experts and peers, and work part in joint collaborative projects through the use of educational technology (Jhurree, 2005). . Educational technology is a portal for interacting with information, and humans can handle the i mation to solve problems and think critically about information (Katz & Macklin, 2007). Understanding will emerge when teachers are actively involved in learning with technology in various disciplines (Vrasidas&McIsaac, 2001). Future developments in educational technology will continue to influence academic, work, and ind dual activities to have literacy both in technology and information (Sharkey and Brandt, 2008). However, teacher preparation is not based on training on "digital literacy alone" but on preparing the use of technology in constructing, representing, and sharing "knowledge in a real context.

According to Vrasidas and McIsaac (2001), the learning process is a process of constr tion, collaboration, reflection, and negotiation in a social context. In the context of this research, focus on the integration of video technology in the learning process. According to Neo (2007), multimedia technology which has multi-sensory capabilities is used as an instructional tool capable of presenting concepts and ideas with several media such as tests, pictures, animation, sound, and video.Moss argues that video has different characteristics compared to other learning technologies, where video has the advantage of being able to help

students visualize a process or see something processing, moving, and working. Videos provide access to outside worldviews, different visual patterns of knowledge that can be used in the future. Video, among technologies that offer challenges to the means and content of learning, helps balance the concept of learning from teacher-ed learning to study-based learning (Asensio et al, 2002).

The Ministry of Education and Culture has optimized the role of multimedia in the learning process. The provision of instructional videos is currently needed and must meet the criteria by the objectives. The process of making the material must meet certain rules, namely the principles of learning technology. For this reason, various parties, including teachers and students, need to know about constructing, representing, and sharing knowledge using instructional videos, for that research problems are formulated, namely; 1) what is the historical role of Teacher and Student culture in the integration of educational video technology in the learning process? 2) What is the role of educational video technology in the learning process? 3) What is the role of the educational community in these schools in the learning process based on video lessons?

This study uses a social constructionism approach, which looks at technological developments that are a continuous process, therefore technological changes cannot be analyzed as a unidirectional process, are permanent, and cannot be explained by economic law or technological logic. According to Vrasidas and McIsaac (2001), learning is the result of construction, collaboration, reflection, and negotiation in a social context. By developing a constructionist approach model in technology integration in the learning process is the Cultural Historical Activity Theory (CHAT) model, pioneered by Vygotsky. Based on this approach, learning technology is considered to have two important aspects, namely as a tool to be taught and a tool for the learning process (Rivera, et al 2002). In general, Cultural Historical Activity Theory focuses on several factors that have influenced, and are influencing, changes and new knowledge structures (Koszalka and Ping Wu, 1999). According to Engeström's model, Cultural Historical Activity Theory focuses on the following aspects: first, it focuses on the production of outcomes (objects) of knowledge and behavior that are both physical and mental. Second, focus on individual and group subjects that determine the need for objects. The third focuses on the use of tools (technology) from the subject to achieve the object (goal). Fourth, focus on the community in creating norms and rules and to determine the achievement of the expected results. Individual activities are also influenced by various surrounding activities which are complex, dynamic, historical, and transformative (Koszalka and Ping Wu, 1999).

The CHAT model connects two concepts, namely internalization and externalization in the learning process of how people use existing tools in culture or society to think and act. According to Kszalka and Ping Wu, the subject of education in receiving new technology in the educational process is influenced by three factors, namely technological factors, historical factors and socio-cultural factors of the educational subject. Technological factors are related to the subject's understanding and mastery of technology, historical factors related to the subject's experience of knowing and contact with technology, while socio-cultural factors such as education, gender, habits (Koszalka and Ping Wu, 1999).The CHAT model is used as an effort to understand how individual cultural history factors in receiving video technology-based learning media in learning. This is related to the current condition of Indonesian education, where technology literacy is imbalanced and technology implementation sometimes gets resistance.

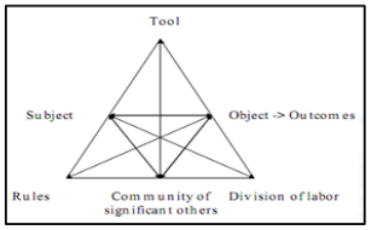

Figure 1. Model Cultural Historical Activity Theory Engeström (Foot, 2001)

1. Definition of Cultural-Historical Activity Theory

Cultural-Historical Activity Theory (CHAT), or commonly abbreviated as activity theory, comes from the socio-historical flow develop by Vygotsky, Luria, and Leontiev. At the heart of this theory is the consciousness that emerges in socially organiz practice. Learning and development, especially social achievement, is achieved through the context of transactions between individuals and the material and social environment, where transactions between active viduals and active environments construct together. Besides, humans use psychological and instrumental tools to transform ideal material and objects into a socially valuable impact. In doing so they transform their psychological and physical processes (anton et al, 2001).

CHAT provides a theoretical and methodological basis in examining how a group of people with different experiences and perspectives work on the same object and can work to solve problems and jointly develop new knowledge or tools to solve problems (Engeström in Sawchuk et al, 2006). According to

Engeström, CHAT has aspects of theoretical distinction as follows: first, it is contextual and is associated with the historical understanding of a particular local practice, its object, mediating artifacts, and social organization. Second, CHAT is based on a theory of knowledge and dialectical thinking which focuses on the creative potential of human cognition. Third, CHAT is seen as a developmental theory that seeks to explain and influence ongoing qualitative change (Sawchuk et al, 2006).

To understand human life and its development, it is necessary to interpret humans as an activity as the basic basis of human existence (human-world-interaction) (Sawchuk et al., 2006), human activity has the following theoretical basis of distinction: first, human activity is seen as a unified relationship. Between subject-object (human-world) and subject-subject (human-human). Activity is seen as a joint activity of transforming objects. Second, activity is present in two main basic patterns which together condition and penetrate each other, namely material and mental activity. The three activities are characterized as basic features such as transformation, cognition, communication, value orientation, and development. The four activities have a macro structure consisting of subjects interacting with objects (interacting with each other), carrying out certain actions and working in a real condition, using certain tools to produce their goals and fulfill their needs and motives, resulting in objective and subjective changes (transformation). Fifth, activities are divided into several activity classes based on a variety of objects, tools, and conditions. The six activities are present in several forms such as play, study, communication, political activities, and work.

2. General CHAT applications

Vygotsky is the earliest scientist to develop the CHAT model with the concept of artifact-mediated action. According to this earliest CHAT model, the action consists of a subject (actor), an object (be it an entity or a goal), and the three assistive devices. In Vygotsky's view, these tools can be both material and conceptual. Language, scientific methods, and models, as well as other forms of cultural artifacts such as computers and telephones (Foot, 2001).

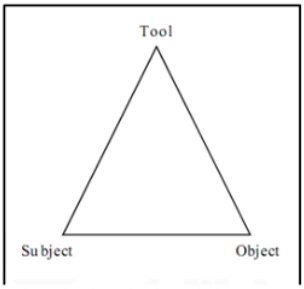

Figure 2.Vygotsky's Cultural Historical Activity Theory Model (Foot, 2001)

According to the CHAT model developed by Engeström, the study of human activity focuses on the production of the results (objects) of knowledge and behavior, both physical and mental. Second, the analysis is focused on both individual and community subjects who determine the needs or motives for the object. Third, the analysis is focused on the use of tools (technology) from the subject to achieve objects (results). Fourth, focus on the communi n creating norms and rules and on determining how the community achieves the expected results. All of these elements are influenced by socio-cultural factors such as knowledge, personal bias, availability of tools, etc. Individual activity is also influenced by various surrounding activities. Activities are complex, dynamic, historical, and transformative (Koszalka and Ping Wu, 1999).

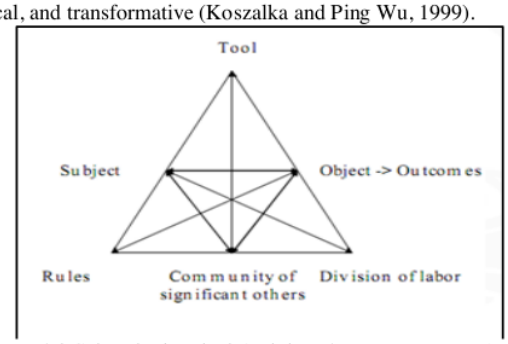

Figure 3. Model Cultural Historical Activity Theory Engeström (Foot, 2001)

3. CHAT based research

Cultural-Historical Activity Theory (CHAT), has earned a place in scientific studies. CHAT is now well established and internationally recognized, especially starting in the 1980s, several philosophers,

sociologists, psychologists, pedagogists in several countries were interested in this theory and began to study and develop it (Lompscher in Sawchuk et al, 2006). Cultural-Historical Activity Theory has been implemented in various fields of science and practitioners. Engeström (2001) uses a Cultural Historical Activity Theory approach in the health sector related to the learning process for patient healing in the hospital industry in Finland. Baran (2010) applies CHAT as a holistic framework in analyzing the complexity of socio-cultural issues that arise in collaborative activities in several institutions and cultural barriers. Boer et al (2002) implemented the Cultural Historical Activity Theory to study the knowledge sharing process in an organizational context.

4. CHAT Application in Classroom and School

Cultural-Historical Activity Theory has also been applied widely in the field of pedagogy or teaching and learning in schools or classrooms. Grove and Dale (2005) applied the Cultural Historical Activity Theory developed by Engeström. Grove and Dale examined the mathematics learning process related to the use of calculators by students to obtain numerical concepts and skills.

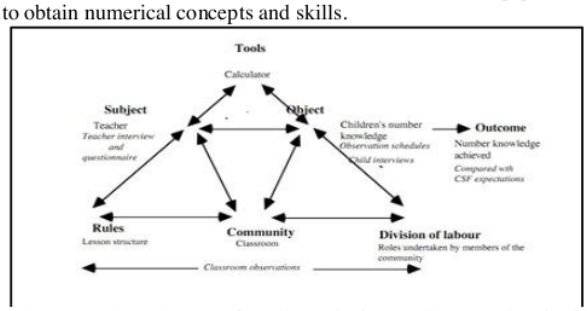

Figure 4. Research on the use of student calculators (Grove and Dale, 2005)

Engeström's CHAT model was also used by Koszalka and Ping Wu (1999). Koszalka and Ping Wu studied the natural science learning process, namely astronomy, mathematics, and technology using educational materials from the American Space Agency (NASA).

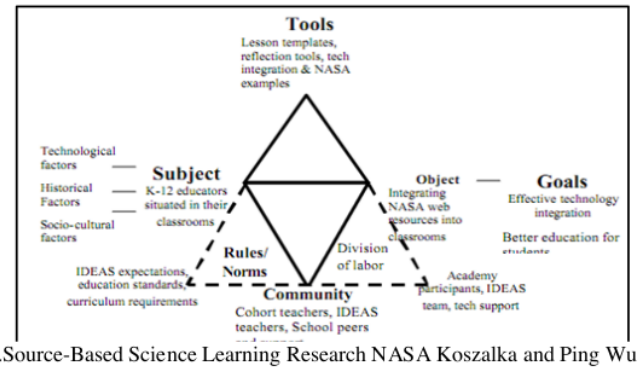

Figure 5.Source-Based Science Learning Research NASA Koszalka and Ping Wu (1999)

5. Educational Technology in the Learning Process

Educational technology is concerned with a specific approach to achieving educational outcomes. Instructional technology is related to the use of several technological processes for teaching and learning needs. The Educational Technology and Communication Association (AECT) defines instructional technology as theory and practice in designing, developing, utilizing, managing and evaluating processes and resources in teaching (Inoue and Bell, 2006). Educational technology relates to the application of science-based knowledge into educational planning and instructional as well as solutions to basic problems of teaching - the learning process. Technology in this case is in the form of applied science. This is related to the educational process with hardware and software systems (Inoue and Bell, 2006). In school-based education, videos are used to enrich lessons and as a supplement for teachers in explaining material in front of the class. Video is a presentation tool used to display information to describe and dynamically visualize knowledge so that understanding of the material is better (Kuhn et al, 2005).

Various studies have been conducted to see the relationship between visuals and memory and knowledge processes (Asensio et al, 2002). According to Hoban's study, it was found that the use of moving images in the teaching and learning process can help students improve understanding of concepts, practice thinking, and solve problems and this is like what teachers do by communicating facts or demonstrating procedures. See the power of video as a visual demonstration, dramatize, portray visual evidence and create an

emotional approach. Images contain hidden or semi-hidden message content with a narrative, emotional, authentic, and symbolic nature (Asensio et al, 2002).

Moss argues that video has different characteristics compared to other learning technologies, where video technology has the advantage of being more influential. Videos can help students visualize processes or see things in progress, move, and work. Videos provide access to outside worldviews, different visual patterns of knowledge that can be archived or used in the future. Video, among the new technologies offers new challenges to the way and content of learning, helps balance the concept of learning from teacher-based learning to study-based learning (Asensio et al, 2002). According to Neo (2007: 149), multimedia which has multi-sensory capabilities can be used as an instructional tool capable of describing and presenting concepts and ideas with several media such as tests, images, animation, sound, video. Thus, multi-media can improve learning methods that used to be traditional with "chalk and talk" tools instead of multimedia-based learning.

6. The Knowledge Effect Hierarchy Model

Bloom (1956) developed the concept of an objective taxonomy of the educational process, a conceptual framework for classifying what we expect or students want as a result of the teaching and learning process. Bloom sees taxonomy as a measuring tool but, first as a general measure of learning objectives by facilitating communication on people, levels, and problems. Second, as a tool to determine a curriculum related to educational goals. Third, as a point of view, various educational possibilities facing the limitations of the curriculum can be contrasted. Bloom divides the level of cognition into six categories: knowledge aspects, comprehensive aspects, application aspects, analysis aspects, synthesis aspects, and evaluation aspects.

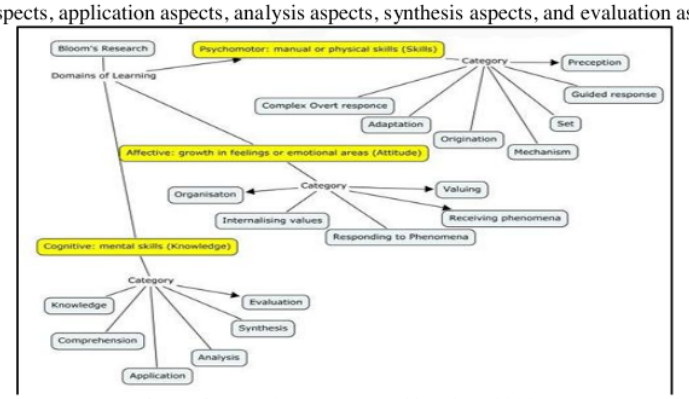

Figure 6.Broom's Taxonomy (Churches, 2009)

The aspect of knowledge is divided into two types, namely specific knowledge in which the type of information or knowledge can be isolated and remembered separately, while universal knowledge or abstraction is related to patterns and relationships where information can be organized or structured (Bloom, 1956). The aspect of understanding is when students are faced with the teaching and learning communication process and they are expected to know what is being communicated and to be able to make some use of the material or ideas contained in it.

7. Educational Technology in the Learning Community

Teachers seem to be very influential in implementing technology in the classroom so that textbooks are no longer the dominant source of knowledge in the learning process. The teacher becomes a facilitator in shaping knowledge in a traditional pedagogical perspective, it is assumed as a source of knowledge using direct instruction methods, and the teacher controls information and is responsible for the information that will be disseminated to students. (Oliver in Neo, 2007: 150).The implementation of new technology is expected to improve the learning process, among others: first, the implementation of technology is expected to create a better learning process so as to create empowerment in students. Second, the implementation of new technology is expected to create a fairer learning process in the sense that digital technology creates democratization or egalitarianism, for example, the internet which provides broad opportunities for students to learn. Fourth, the implementation of technology is expected to create an individual and informal teaching and learning process. Fifth, it is hoped that the implementation of technology will improve the teaching methods of teachers. Sixth, the implementation of technology is expected to be able to improve education management and school organization. (Selwyn, 2011).

According to Vrasidas&McIsaac (2001), the learning process is a construction process, knowledge is not present from internal learning itself but individuals construct based on each experience. The implementation of technology in education changes the educational paradigm from knowledge transmission to knowledge construction. Technology is seen as a tool for content dissemination, and as a tool for educators/students to construct knowledge. The use of technology and culture to communicate, exchange information, construct

knowledge is the basic basis of the constructionist strategy. Teachers should be trained in digital literacy so that students are able to construct knowledge. A constructionist environment is able to create multiple perspectives in a number of contexts. Students are encouraged to maximize various instructional ways to solve problems and solutions in their perspective (Vrasidas and McIsaac, 2001).

8. Video Technology in the Learning Community

For school-based education, videos are used as a supplement for teachers and enrich teaching materials in the classroom. Video becomes a medium for delivering information dynamically to visualize knowledge so that understanding of the material is better (Zahn et all 2005). Images are a more meaningful source of knowledge, persuasion, and pleasure than words, although static images and complementary text can be more attractive when verbal language is no longer sufficient. Various studies have been conducted to see the relationship between visual aids and memory and knowledge processes (Asensio et al, 2002).Video is able to help students visualize a process or see something as progressing, moving, working, and giving access to outside worldviews, different visual patterns of knowledge can be used in the future. The new technology offers video, as a new challenge to the mode and content of learning, helping to balance the concept of learning from teacher-based learning to study-based learning (Asensio et al, 2002). Video is a component in the complexity of a classroom activity system, therefore learning outcomes are highly dependent on the way videos are used as part of the learning environment, for example, how to watch or produce videos integrated into other learning resources and assignments.

9. CHAT and Educational Technology in a Communication Technology Perspecti

Educational technology in the perspective of communication technology is seen as a change and communication platform in the learning process and presents the right media to share ideas and experiences in the learning process so that students, teachers, and administrators can communicate, exchange knowledge and concerns, meet experts and peers, and part work in joint collaboration through the use of technology in the learning process (Jhurree, 2005).To analyze participatory communication in the learning process, the researcher uses CHAT in the context of research to link the concept of educational technology construction and learning communication with a focus on internalization and externalization in the learning process. Learning is how people use existing tools in a culture or society to think and act. (Wertsch 1991, Säljö 1999). Internalization is related to the reproduction of culture whereas externalization is related to the process of creating new ways that users use (Engeström 1999). The educational process when you need tools in the form of educational technology in learning is related to the educational process with hardware and software systems. Communication technology continues to be used to increase productivity. One of the important elements of information technology is the ability to engage learners in an interactive format (Goyal et al, 2010).

RESEARCH METHODOLOGY

This study uses a qualitative approach, in the form of inductive logic, where categories provide context information that leads to patterns and theories that help explain a phenomenon. The important thing in qualitative research is the effort to understand the attitudes, views, feelings, and behavior of both individuals and groups of people (Moleong, 2008). The qualitative research used in this research is a case study. According to Yin (2003), a case study is scientific research that investigates a contemporary phenomenon in the context of life, especially when the boundaries between the phenomenon and the context are not clear. Case study research is a research strategy consisting of all-encompassing methods covering design logic, data collection techniques, and specific approaches to data analysts. This case study researcher uses a single case study approach, in the context of the use of video technology in the learning community. In particular, the subjects studied were technology mastery factors, historical factors, and socio-cultural factors. The second research framework examines the role of educational technology (Zahn, 2005, Asensio et al, 2002).

Research subject

The subjects in this study were teachers and students, while the school community was the supporting informant. Researchers used a purposive informant retrieval strategy to select informants in accordance with the research objectives. Determination of subjects and informants in this study through a case based on certain required criteria. This research takes the location of the city of Medan as the research area, which in general is familiar with educational technology including video and more adequate educational technology infrastructure support. The subjects of the teachers and students selected were the criteria for having known educational videos for more than one year.

Data analysis technique

Creswell (2007) suggests four forms of data analysis and interpretation in case study research. First, categorical aggregation, the researcher looks for a collection of examples from the data and hopes that the meaning of the related issue will emerge. Second, direct interpretation, on the one hand, the case study researcher looks for a single example and then interprets it without looking at many other examples. It is a process of bringing together separate data and putting them together to make them meaningful. Third, set a pattern and look at the relationship between two or more categories. Fourth, develop a natural generalization

from analyzing the data, the conclusion that people can learn from cases, and the final part of the analysis activity is a description of the conclusion and verification.

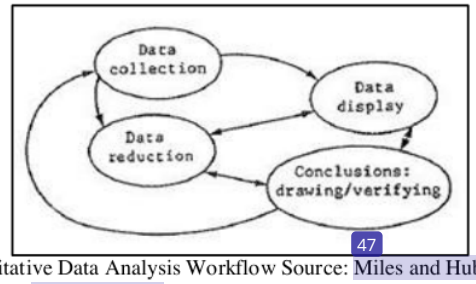

Figure 6 Qualitative Data Analysis Workflow Source: Miles and Huberman (1994)

RESULTS AND RESEARCH DISCUSSION

The contents of the Strategic Plan (RENSTRA) of the Ministry of Education and National Culture, namely that technology will affect education development in the next five years, among others; (1) disparities in ICT literacy between regions, (2) the need for mastery and application of science and technology in order to face global demands, (3) the occurrence of gaps between technological developments and mastery of science and technology in educational institutions, the increasing role of ICT in various aspects of life including in the field education, (5) the increasing need to share knowledge by utilizing ICT, (6) the development of the internet which eliminates boundaries and time for communication and access to information, and (7) the development of the internet which also has a negative impact on values and norms community and provide opportunities for plagiarism and violations of intellectual property rights.

Based on the ICT-based School Development Master Plan program of the Ministry of Education and National Culture, there are four aspects that are the pillars of the success of integrating ICT in schools that need attention both in the preparation and implementation stages of ICT-based school development. The four aspects or pillars consist of; 1) Aspects of Human Resources (Human), 2) Aspects of Technology, 3) Aspects of ICT-based educational content, 4) Aspects of Policy.The basic concept of research used in analyzing Learning Video Technology Media in the World of Education uses the CHAT model developed by Engeström (Koszalka and Ping Wu, 1999). Based on the Engestrom model in the context of this study, the analysis of the research results will focus on four basic things, namely, first, the analysis of educational subjects that utilize video technology media, namely, teachers and students. Second, the analysis is focused on the use of video technology media from students and teachers. Second, the analysis of knowledge constructed in the educational process through video-based learning. Fourth, the analysis of the educational community is related to the rules or policies of video technology media (in this context the educational curriculum) and the second is the division of work teams in the community.

1. Analysis of the historical social roles of teachers and students in the integration of educational video technology media in the teaching and learning process in the classroom

Teachers and students the main subjects in the learning process in the classroom. According to Koszalka and Ping Wu (1999), there are three factors that influence the subject in accepting new technology, including technological, historical, and socio-cultural aspects of mastery. In the context of this research, it will examine the factors of technical mastery of technology, historical and social culture of teachers and students, and their role in the integration of video technology media in the teaching and learning process in the classroom.With the integration of video technology media in the learning process by teachers and students, each school has very contrasting conditions. The first condition is that the school, which is the majority of teachers and students, still has not integrated video in the teaching and learning process.

According to Neo (2007), currently, the teacher's role has shifted from previously being the sole party with the authority of knowledge and information to being a party that functions as a facilitator for students and guides them in the teaching and learning process. The role of students changes from being passive to being active participants in the teaching and learning process. Third, the use of technology in the teaching process and learning environment. Technology is used by teachers to describe and support educational materials. The historical aspect is about the experience factor of the educational subject both teachers and students in getting to know video technology media in the learning process. In line with Hoban's opinion, he sees that learning facts or knowledge concepts is not produced by the transfer of knowledge by the teacher but the result of student interaction and video material (Asensio et al, 2002). Teachers who reject the integration of educational videos can be said to be teachers who see the learning process as one-way communication for the transfer of knowledge instead of using an interactive communication approach.

According to Dholakia and Kshetri (2003), as a social product, technology is not free of values or culture. The level of compatibility between the values and norms of technology and the values or norms (adopted) of its users greatly determines the pattern of technology use. In the context of this research, it is

known that the integration of video technology media in the learning process is also very much determined by the different socio-cultural backgrounds of teachers and students of education.Schools that are low in the integration of instructional video technology media are characterized by a school with a social background of teachers and lower secondary students who have very low access to video technology media. We push it "said NasrunSiregar, a teacher at SMA Negeri 2 Medan. A similar condition is also experienced by SMPN 29 Medan, where the majority of the students are lower middle school "let alone video applications, for example, laptops from one class at most only 5 children have," said Purba, Principal of SMPN 29 Medan

While the condi20s are different, SMA Negeri 2 Medan with the condition of the social background of high school students of the integration of video technology media in the learning process is very high. According to Purba, students who are familiar with technological developments tend to be more resistant to teachers who still use conventional teaching patterns who do not want to implement videos in the learning process. Aspects related to changes in the social relations of teachers and students, the use of video technology media tends to be implemented in the context of teacher-student relations that are fluid in communication where teachers are able to be more adaptive and listen to suggestions from students. Teachers who have a conservative view will t3d to close themselves and maintain communication distance and students are afraid to provide input. This is in line with the study conducted by Neo. Currently, the teacher's role has shifted from previously being the sole party that has the authority 54knowledge and information to the party that functions as a facilitator for stu3nts and guides them in the teaching and learning process. The role of students changes from being passive to being active participants in the teaching and learning process. Technology is used by teachers to describe and support educatio1l materials (Neo, 2007: 150)

2. The Role of Educational Video Technology Media in the Teaching and Learning Process in the Classroom

Teachers and students as the main subjects of education construct the role of video technology media in the teaching and learning process from various perspectives. First, video technology media is constructed as a learning medium that is able to lighten the teacher's task compared to using conventional learning patterns (lectures). "There is a lot of energy to teach in a conventional way. For example, preparing to read the material again. With technology we are helped by technological facilities, we broadcast videos. Our students are more easily understood by students, "said NasrunSiregar. Furthermore, Nasrun explained that the video technology media integrated with the teaching and learning process is not only complementary or only additional material from conventional methods but can also be a substitute or become the main material in the learning process in the classroom.

According to Moss, the video has different characteristics compared to other learning technologies, where video technology has the advantage of being more influential. Videos are able to help stud20s visualize processes or see things as progressing, moving, working (Asensio et al, 2002). The construction of the role of video technology media in the learning process in the classroom which is far more radical11s stated by Purba Guru SMA Negeri 2 Medan. Purba assessed that educational materials should be based on the integration of Information and Communication Technology, including videos, in every subject matter delivered by the teacher. According to him, the conventional learni11model is outdated and can no longer be accepted by students. The important role of educational video media in the teaching and learning process in the classroom is also not only to help to understand the material but also to motivate student learning, and to encourage student participation in class. This is in line with the findings of Bravo et al. (2011) which underlines that the use of video technology can increase motivation and facilitate the transmission of information to students because audiovisual content creates dynamics in the classroom, helps students understand subjects, makes content more interesting and reduces absenteeism in class. Another study also indicated a similar thing where the use of video-based pedagogies was able to encourage students to collaborate and have conversations in class.

Another role of technology media in the learning process is as a means of evaluating the teaching and learning process not only to convey material from teachers and stu3nts but on the contrary to measure students' abilities. What happens in the context of SMA N34ri 2 Medan is in line with the study conducted by Neo (2007), through the creation of multimedia-based projects, students will improve their critical thinking skills, problem-solving skills, communication skills and expose them to current group or teamwork. Needed in real-world situations. Multimedia has thus made it very possible for learners to be involved in their work. In this context, it can be said that educational videos are a vehicle for developing collaborative learning communication between students to solve learni3 problems and between students and teachers.The integration of educational video technology media into the teaching and learning process has encountered a number of obstacles. First, the infrastructure barrier is not all schools have adequate infrastructure support such as the internet and supporting equipment such as laptops, computers, LCD projectors.

3. Knowledge Formed in Learning Process Based on Educational Video Technology Media

This study uses the knowledge concept of Bloom (1956) which divides knowledge in the learning process into six forms, namely understanding, interpretation, application, analysis, synthesis, evaluation. In the context of the research, it will be studied how teachers and students construct knowledge from the learning

process that integrates video technology media. Students' understanding of the subject matter taught by the teacher through video technology media is easier to understand. “From students, they understand better than pronounce, repeat writing, especially physics, many natural phenomena. If children see it directly, they can understand difficult words,”saidNasrunSiregar. A video is a presentation tool used to display information to describe and dynamically visualize knowledge so that understanding of the material is better (Zahn et al, 2005). Students interpreted video technology-based learning as more interesting than conventional learning which focused on teacher lectures. "Students are very enthusiastic, if learning uses video, I happen to teach physics," said Purba, Deputy Principal of SMP Negeri 29 Medan.

Teacher and student knowledge regarding the ability to evaluate the integration of video technology media in the teaching and learning process.NasrunSiregar evaluated in general the integration of educational video technology media is still far from satisfactory. "In general, not satisfied. It is still very far, only ten 10 percent, so we hope that there is not only one method in the learning process, whether only conventional, which is even better variety”. However, the integration of video in education will not always increase students' knowledge because according to Karpinnen (2005), video is only one component in the complexity of a learning activity system. Learning outcomes are highly dependent on the way the video is used as part of the overall learning environment, for example, how viewing or producing videos are integrated into other learning resources and assignments.

4. The Role of the Educational Community in Schools in the Educational Video-Based Learning Process

The concept of community refers to the additional concept of CHAT developed by Engeström, namely the norm that regulates the subject's actions towards an object and relationships with other participants in the activity, both communities of people who share common interests and involvement with the same object. The three divisions of labor include a relatively horizontal and vertical division of tasks related to the distribution of power, position, access to resources, and rewards (Foot, 2001). Norms in the context of this study are related to the educational curriculum, the school education community, and finally the division of labor in the community.The educational curriculum becomes the basic norm or frame of reference for teachers in carrying out classroom learning. In the context of research associated with the integration of video technology media in classroom learning, the curriculum is still encouraging for teachers to implement ICT, including video. A similar opinion was expressed by NasrunSiregar who considered that the ICT method was not a necessity depending on schools and teachers because the large curriculum was the authority of each education unit and according to Nasrun the current curriculum focused more on character building than ICT integration, while the application of ICT-based curricula was on integration. Video technology media in learning is currently unrealistically implemented because of the imbalance between regions and curriculum implementation.

The integration of video technology media in classroom learning is not only influenced by the subject factor of teachers and students alone, but the results of this study also illustrate that the role of management of school leaders/principals as the responsibility for the school in encouraging the integration of educational videos is very large, and the current condition is not all school principals who take the initiative. Provide ICT integration support, including video.

Another formal group communication used by school management is a discussion forum for Learning Practice Designs. School support is not only in increasing teacher competence, the successful integration of educational video media in the educational process will largely be determined by school management support for infrastructure, equipment, and video material. According to NasrunSiregar with the development of new technology. It is impossible for a school education unit with limited ability to provide existing technological developments. Moreover, according to regulations, schools are not allowed to ask for educational contributions from the guardians of students again after the government has disbursed BOS (school operational assistance).

CONCLUSION

Based on this research, it can be concluded the role of teacher and student historical social factors in the integration of educational video technology in the teaching and learning process in the classroom is very important. The first factor concerns the ability to mastery of techniques both skills and competence in information technology being able to implement video in the learning process. The second factor is social, the social background of upper-middle-class education subjects will be more able and accustomed to integrating video technology media than subjects from the lower middle class. The three historical factors, educational subjects who are familiar with conventional learning media tend to refuse to integrate educational video media in the learning process. The role of the first video technology media as an educational aid media so that the material can be understood, the construction of the integration of educational videos is also a vehicle to motivate student learning and provide new experiences, the three educational media technologies play a role in creating collaborative communication between teachers and students and between fellow students in completing problems in the learning process.

BIBLIOGRAPHY

Asensio et al, (2002) *Video Streaming: A Guide for Educational Development* JISC

Baran, B., &Cagiltay, K. (2010).*The Dynamics of Online Communities in the Activity Theory Framework*. Educational Technology & Society Journal

Barron & Goldman, (1994) *Infusing Technology into Preservice Teacher Education*. Eric Journal.

Becker, H. (1999). *Internet use by teachers. Irvine, CA: Center for Research on Information Technology and Organizations*, University of California, Irvine.

Blanton, W.E.,et al (2001) *The Fifth Dimension: Application of Cultural- Historical Activity Theory, Inquiry-Based Learning, Computers, and Telecommunications to Change Prospective Teachers Preconceptions*. Journal of Educational Computing Research

Bloom B S (ed.) (1956) *Taxonomy of Educational Objectives, the classification of educational goals – Handbook*: Cognitive Domain New York

Boer, N., et al. (2002). *An Activity Theory Approach for Studying the Situated of Knowledge Sharing*. In Proceedings of the 35th Hawaii International Conference on System Science, Hawaii, USA, 7th-10th January, 2002.

Couros, Alec (2003) *Innovation, Change Theory and the Acceptance of New Technologies: A Literature Review*

Cresswell, J. W. (2007). *Research Design: Qualitative & Quantitative Approach*-Terjemahanbahasa Indonesia. Jakarta: KIK Press.

Daymondan Holloway (2005).*Qualitative Research Methods in Public Relations and Marketing Communications* Taylor & Francis

Duffy, T. M., & Cunningham, D. J. (1996).*Constructivism: Implications for the design and delivery of instruction. In D. H. Jonassen (Eds.)*, Handbook of Research for Educational Communications and Technology Simon & Shuster Macmillan.

Engeström, Y. (2001). *Expansive Learning at Work: Toward an Activity Theoretical Reconceptualization*. Journal of Education andWork.

Groves, S. and Dale, J. (2005) *Using Activity Theory in Researching Young Children's Use of Calculators*. Paper presented at the Australian Association for Research in Education (AARE) Conference, Melbourne Victoria.

Jacobson T danServaes J (1999) *Theoretical approaches to Participatory Communication*, Hampton-IAMCR,

Jenkins, H. (2006). *Confronting the Challenges of Participatory Culture: Media Education for the 21st Century*.Chicago: The MacArthur Foundation.

Hole, Y., &Snehal, P. &Bhaskar, M. (2018).Service marketing and quality strategies. Periodicals of engineering and natural sciences,6 (1), 182-196.

Hole, Y., &Snehal, P. &Bhaskar, M. (2019). Porter's five forces model: gives you a competitive advantage. Journal of Advanced Research in Dynamical and Control System, 11 (4), 1436-1448.

Katz, I. and Macklin, A. S. (2007).*Information and Communication Technology (ICT) literacy: Integration and Assessment in Higher Education*. Purdue University

Koszalka, Tiffany A. dan Wu, Chun-Ping 2001 *A Cultural Historical Activity theory [CHAT] Analysis of Technology Integration: Case Study of two teachers* Syracuse University.

Kusuma, J. W., &Hamidah.(2020). Platform Whatsapp Group Dan Webinar Zoom DalamPembelajaranJarakJauhPadaMasaJurnalIlmiahPendidikanMatematika Volume, 5(1).

Nair, K.S. & White, S.A. (1999). *The Catalyst Communicator: Facilitation without Fear. In S.A. White (Ed.), The art of facilitating participation*.Sage Publications

NanjappaAlokadanGrant,Michael M. (2003) *Constructing on Constructivism: The Role of Technology* University of Memphis.

Neo, K. (2007) *Using multimedia in a constructivist learning environment in the Malaysian classroom*.Australian Journal of Educational Technology.

Ritchie & Lewis (2003).*Qualitative Research Practice: A Guide for Social Science Students and Researchers* Sage.

Rivera, Hector *2002 Technology and Pedagogy in Early Childhood Education: Guidance from Cultural-Historical-Activity Theory and Developmentally Appropriate Instruction*. Information Technology in Childhood Education Journal

Sawchuk,P., et al (2006). *Critical Perspectives on Activity: Explorations across Education, Work, and Everyday Life*. Cambridge UniversityPress.

Sharkey& Brandt, (2008) *Integrating Technology Literacy and Information Literacy* PurdueUniversity.

Smaldino, Sharon E et al *2000 Instructional Media and Technologies for Learning*. Pearson.

Vanderstoepdan Johnston, (2009) *Research Methods for Everyday Life: Blending Qualitative and Quantitative Approaches* John Wiley & Sons.

VrasidasCharalambosdanMcIsaac Marina S. 2001 *Integrating Technology in Teaching and Teacher Education: Implications for Policy and Curriculum Reform* Educational Media InternationalJournal.

Yin, R. K. (2003).*Case Study Research: Design and Methods*. Third Edition. London. Sage.

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