Integration of Information Technology and Communication for ICT Subject in Curriculum 2013 Implementation in Junior High School

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Abstract-*The curriculum carried out at every level of education should lead students to have moral and cultural values, various fields of science and the application of technology, skills, which in the end will make students into human beings with character. Mastery of technology is one of the most important competencies for teachers. In Permendiknas Number 16 of 2007 concerning Academic Qualification Standards and Teacher Competencies, there are four competencies that must be mastered by teachers, two of which are pedagogic competence and professional competence. Both of these competencies are very closely related to the use of technology in learning. In the 2013 curriculum, each teacher is required to utilize technology in the learning process. This study aims to see the extent of the use of technology by teachers in the learning process in schools in the city of Padang. This research is a field survey research. The subjects of this study was ICT teachers at SMP 31 Padang. The research method used is quantitative descriptive percentage with data collection techniques in the form of a questionnaire in the form of a Likert scale with a scale of 5. The results obtained from this study are: (a) the utilization of information and communication technology by teachers in ICT learning planning obtains 72.2% results including the high category, (b) the utilization of information technology and communication by teachers in the ICT learning process results 75% is included in the high category, and (c) the utilization of information and communication technology in the evaluation of ICT learning results in 76.3% including in the high category.*

Keywords: Curriculum 2013, Technology of information and Communication

I. INTRODUCTION

Learning is a system, which consists of various components that are interconnected with one another. Learning in a definition is seen as an effort to influence students to learn. It can be said that learning is an effort to teach students. The possible effect of the learning action is that students will (1) learn something they will not learn without the act of learning, or (2) learn something in a more efficient way.

The vision of national education is the realization of the education system as a strong and authoritative social institution to empower all citizens of Indonesia to develop into quality human beings so that they are able and proactively respond to the challenges of an ever changing era. (Rusman, 2010: 3) Regarding this vision, a set of principles for the implementation of education have been established as a basis for implementing education reform. One of these principles is that education is held as a process of civilizing and empowering students that lasts a lifetime. The implication of this principle is a shift in the teaching paradigm to the learning paradigm. Learning is the process of interaction between students and teachers and learning resources in a learning environment.

One important component in the education system is the curriculum, because the curriculum is a guideline in learning activities carried out by educational units. This is in accordance with what is explained Taba (1962) "….*A curriculum is plan for learning: There fore, what is known about the learning process and the development of the individual has bearing on the shaping of curriculum*". As a curriculum guide serves as a reference for teachers in implementing learning in educational units.

The Minister of Education and Culture Regulation No. 81A of 2013 concerning Implementation of the 2013 Curriculum explains that in principle, learning activities are educational processes that provide opportunities for students to develop potential to become increased abilities in attitudes, knowledge and skills. As stated in the 2013 curriculum, Information and Communication Technology (ICT) is integrated into the learning process. A teacher must master information and communication technology in learning. The role of information and communication technology is very important to improve learning efficiency and

effectiveness.Teacher Competency Standards that must be mastered by the teacher in mastering the ability to use information and communication technology (Wijayanti, 2011), are:

1. Operate personal and peripheral computers.
2. Assemble, install, set up, maintain, and track and troubleshoot (troubleshooting) on personal computers.
3. Perform computer programming with one of the object-oriented programming languages.
4. Word processing with personal computers.
5. Processing spreadsheets with personal computers.
6. Processing database (database) with personal computer or server computer.
7. Make interactive presentations that meet the rules of visual and interpersonal communication.

Entering the age of information and communication technology (ICT) today is very important to improve and improve the quality of learning. Information and communication technology systems provide a broad, fast, effective and efficient range of information dissemination to various parts of the world.

Rusman, et al (2011: 78) states that technology literally comes from the Latin texere which means composing or constructing, so that technology should not be limited to the use of machines, although in a narrow sense it is often used in everyday life. Whereas according to Bodnar (2000: 1), information is data that is processed so that it can be used as a basis for making the right decisions. Furthermore Everett M. Roegers (Cangara, 1998: 79) says communication is a process in which an idea is transferred from the source to a recipient or more, with the intention of changing their behavior.

According to Atler, Martin and Lucas in Kadir (2003: 13), information technology includes hardware and software to carry out one or a number of data processing tasks such as capturing, transmitting, storing, retrieving, manipulating or displaying data. UNESCO states that all developed and developing countries need to get ICT access and provide the best educational facilities, so that the younger generation is ready to play a full role in modern society and be able to play a role in the state of knowledge.

II. METHOD

The research that will be carried out is in the form of descriptive statistics. This approach was chosen in accordance with the problems to be studied, namely the Integration of Information and Communication Technology in Learning in the Implementation of 2013 Curriculum in Junior High Schools in Padang Timur District, Padang City. The combination of these two approaches will strengthen the study related to the overall phenomenon to be studied. Combining this approach is popular and can be done, especially in the social sciences (Creswell, 2003, Gray, Milles in Mazlan, 2010). It was also emphasized that in order to produce a better understanding of the research problem a combination of quantitative and qualitative approaches is needed compared to using quantitative or qualitative approaches alone (Creswell, 2008, 2010).

III. RESULT AND DISCUSSION

The level of integration of information technology and communication by teachers in learning is converted as follows:

Table 1. Level of integration

Percentage range	Utilization rate
80% - 100%	Very high
60% - 79%	High
40% - 59%	Medium
20% - 39%	Low
0 – 19%	Very Low

Based on the results of the study, the results are converted as follows:

Table 2. Result of measurement

Learning Planning	72,2%
Learning Process	75%
Learning Evaluation	76,3%

From the conversion results table 2 above, the results of research on the integration of information and communication technology by the ICT teacher in learning can integrate information and communication technology in learning planning by 72.2%. These results are included in the high category, but teachers have not fully understood the planning of learning by integrating information and communication technology. Therefore the teacher does not maximize the integration of information and communication technology in learning.

At the stage of the learning process, the results were 75%. These results are included in the high category but the teacher does not maximize the integration of information and communication technology in the process.

In the evaluation of learning obtained results of 76.3%. These results are included in the high category but the teacher does not maximize the integration of information and communication technology in the evaluation of learning.

1. Planning
   Hamzah B. Uno (2008: 2) also states that planning is a satisfying way to make activities run smoothly, accompanied by various anticipatory steps to minimize the gap that occurs so that the activity reaches its intended goals. Based on the definitions in above, it can be concluded that planning contains at least 4 elements, namely:
   1) There are goals that must be achieved
   2) There are strategies to achieve goals
   3) Supporting resources
   4) Implementation of each decision.
   Planning is a way to make an activity run smoothly, accompanied by various anticipatory steps to minimize existing gaps and achieve predetermined goals. Planning is the result of the process of thinking and assessment and selection from various alternatives that are considered to have more value for effectiveness and efficiency, which is the beginning of all the processes of implementing rational activities.

2. Process
   Learning is a process of teaching and learning activities that also play a role in determining the success of student learning. From the learning process, there will be a reciprocal activity between the teacher and students to reach a better goal. This is in line with the opinion of Jogiyanto (2007: 12) who said that learning as a process in which an activity originates or changes through the reaction of a situation faced and the characteristics of the change in activity can be explained based on reaction tendencies, maturity or change temporary changes. In the implementation of learning by using information and communication technology adjusted between the characteristics of the use of information technology and communication with the characteristics of students. The use of information and communication technology that can make students learn independently and search for learning resources.

3. Evaluation
   Sudjana (2013) states that in carrying out the assessment must pay attention to the following aspects:
   a) Components of instructional objectives
   b) Components of teaching materials
   c) Components of students
   d) Teacher components
   e) Components of learning tools and resources
   f) Assessment component
   In the 2013 curriculum, the assessment of processes that are carried out through observation and reflection must be aimed at improving the learning program and improving the quality of service to students. This needs to be done to encourage continuous quality improvement so that it can foster a learning culture as well as a work culture to make today better than yesterday and tomorrow must be better than today (Mulyasa, 2013: 144).

IV. Conclusion

Based on the results of research on the use of information and communication technology in learning by ICT teachers at SMP 31 Padang in order to implement the 2013 curriculum, the following data was obtained:

a. The use of teacher information and communication technology in planning learning for English language teachers has a percentage of 72.2%. These results are included in the high category but not maximal.
b. The use of teacher information and communication technology in the learning process for English language teachers has a percentage of 75%. These results are included in the high category but not maximal.
c. Utilization of teacher information and communication technology in learning evaluation for English teachers 76.3%. These results are included in the high category but not maximal.

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