Analysis of the Use of Science Instructional Media in the High Grade of State Elementary School 52 in Lima Puluh Sub-District, Pekanbaru City

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Abstract : The use of science learning media has become an obligation of learning as the implementation of active learning curriculum. This study analyzes the teacher's comprehension of the use of instructional media in schools, especially the science intructional media in the high grade of elementary schools. The observed components include teacher comprehension of media, creativity, skills, objectivity, facilities and infrastructure, learning format, practicality, motivation, endurance, suitability of learning objectives, goals of science as an output, science objectives as a process, science objectives as a scientific attitude, conformity media, student learning styles and flexibility. The results of this study indicate that teachers have used intructional media, but tend to procedural according to the guidebook and learning media tend to be only as a complement to learning, does not lead to the learning objectives of science.
Keywords **:** Intructional media, Science, Analyzes.

1. Introduction

Criticos (1996) states that the media is one component of communication as a messenger from the communicator to the communicant. Based on this definition, it can be said that the learning process is a communication process. (in Arief Sadiaman, et al, 2012: 6). The function of the media is for the purpose of instruction where the information contained in the media must involve students either in mind or mentally or in the form of real activities so that learning can take place properly.

Science is a rational and objective knowledge of the universe with all its contents (Hendro Darmojo in Usman Samatowa 2011: 2). Samatowa (2011: 3) IPA is knowledge related to natural phenomena and systematic materiality which is arranged regularly, generally applicable in the form of a combination of observations and experiments. Science is the meaning of nature and various phenomenon/ behavior/ characteristics that are packaged into a set of theories and concepts through of series of scientific process carried out by humans (Mariana & Praginda, 2009; Hermita, N, *et al.* 2013)

Learning media can be interpreted as materials, tools, or techniques used in teaching and learning activities so that the process of interaction and educational communication between teachers and students can take place appropriately and useful. Because of that, learning media have great benefits in helping students learn subject matter. One of them is in the study of sciences.

Science is a subject in elementary school so that students have organized knowledge, ideas and concepts about the natural surroundings, which are obtained from experience through a series of scientific processes. Science Education in Schools is expected to develop curiosity and a positive attitude towards science, technology and society, as a vehicle for educators to learn about themselves and their environment, prospects for further development, and apply it in daily life based on scientific methods. Because science is important for elementary schools, the quality of learning science needs to be improved. To get an increase in learning outcomes is not easy work because many factors. Teachers as one of the triggers of educational success should be able to create renewal in learning development for improving student learning outcomes.
Education activity are usually still teacher-centered learning. The learning process tends to be monotonous so that the absorption of students is not optimal. Based on the experience of the author while participating in the PPL (Program Pengalaman Lapangan) or Field Experience Program, information was obtained about the use of science learning media that is only available in a few science media and not yet used properly.Most teachers still use the lecture method in presenting the material without the use of media. It is clear that the availability and use of instructional media is very important and affects the learning process, and teachers are required and are entitled to use the media provided by the institution. Based on the background of the problems above, the formulation of the problem is how the media use of high-grade science teaching in State Elementary School (SDN) 52 Pekanbaru?

2. Methodology

In this study, researchers used qualitative descriptive research. Sugiyono (2013) states that the research method based on the philosophy of postpositivism, is used to examine the condition of natural objects, where the researcher is a key instrument source, data collection techniques are carried out in triangulation (combined), data analysis is inductive / qualitative, and results qualitative research emphasizes the meaning rather than generalization.
This study will be conducted in all high grade of State Elementary School 52 Pekanbaru. Because the number of high-class teachers in State Elementary School 52 Pekanbaru is 3 teachers where the population is relatively small, less than 30 people, the sampling for the teacher population is by using saturated sampling techniques. Then, data collection techniques are carried out in natural settings, primary data sources, and more data collection techniques on observation, interviews and documentation.
Data analysis techniques carried out, according to Miles and Huberman (Sugiyono, 2013: 246) are 1) data collection period, carried out through instruments that have been made and then sorted out important data, 2) reducing data, is a process of reducing data that is not relevant with research focus, 3) displaying data, the results of data reduction are presented in various visual ways so that clarifying data, with graphs and diagrams, 4) drawing conclusions from verification, is done by looking back at the report to be achieved.

3. Result and Discussion

Research result

Based on observations made by researchers, the media used by high-grade teachers in State Elementary School 52 is teacher A as a 4th grade teacher using alarm clocks and other tools to prove that hard objects can reflect sound and soft objects can absorb sound, teacher B as class 5th grade teacher uses human skeleton media and teacher C as class 6th grade teacher using

laptop and projector media. The results of observation from the assessment of media use are 1) the teacher's understanding of the media can be concluded that teachers A, B and C have understood the contents of the media because all teachers can explain and demonstrate the media used in accordance with the material being studied. This is in accordance with the theory that teachers must fully understand the content of the media used (Teague, 1982). 2) Creativity: Teacher A has better creativity than teacher B and teacher C because teacher A uses props made by himself even by using examples from books. While teacher B and teacher C only use media that is already in school.

In accordance with the theory that the materials are packaged by the teachers usually have a significant outcome on learning (Teague, 1982). 3) Skills: from the way the teacher uses the media, and the teacher performs the activities well, neatly arranged and smooth it can be concluded that teachers A, B and teacher C are skilled in using the media. And according to the theory of media that skill is capable of conducting well and neatly (Weber). 4) Objectives: The results of teacher A's selection of media are not appropriate because only a few children are seen to be active in learning, teacher B chooses media that is appropriate to the learning material and understanding of children in the classroom because the child is active when the teacher invites them to come forward to repeat the location of the bone and teacher C has also chosen the appropriate media because of the class tranquility and students pay serious attention when the teacher explains the material. 5) Facilities and infrastructure: Based on the three teachers, teachers A, B and C already recognize the condition of the learning place and equipment that affect the media so that the use of instructional media works well, because class and school conditions support the use of the media they use when learning. 6) Learning format: The curriculum used by SDN 52 is K-13 for 4th and 5th grade while grade 6 uses the KTSP curriculum. Based on the three teachers, teacher A and teacher B have not conducted learning according to the learning format in the 2013 curriculum because in learning K-13 curriculum for thematic learning, namely integrated learning from various subjects into the theme (Permendikbud No. 67 of 2013). While teacher C has done learning according to the learning format in KTSP.

This is consistent with the theory that the instructional media must be in accordance with the learning format used (Teague, 1982). 7) Practicality: According to the Large Indonesian Language Dictionary / Kamus Besar Bahasa Indonesia (KBBI), practical is easy to use and run. Teachers A, B and C have chosen practical media because students can use the media well. 8)Motivation: Based on observations, the three teachers have chosen a medium that is able to attract students' attention even though teacher A has difficulty in controlling the class because the children in the class are curious to hear the sound produced. While teachers B and C succeed in attracting students' attention and also controlling the class. This is in accordance with the theory that the media used must be flexible (Arsyad, 2011). 9) Endurance: Strong and well-designed materials can be made, stored, reused and utilized in various ways.

These materials will be remembered by the learners and these materials must be made, integrated, and presented in such a way as to enable the learners to obtain the necessary impact (Sharon, 2011). In accordance with this theory teachers A, B and C have chosen a medium that is resistant and not easily damaged. 10) Suitability of learning media: Based on these observations, the three teachers who have taught using the media have adjusted to the learning objectives of science that science education is directed to find out and act, so that it can help students to gain a deeper understanding of the environment (Damanhuri and Mahmud 2011) so that every child in the class understands what is happening in the environment. 11) Sciences goal as an output: Based on these observations, the three teachers who have taught using the

media have adjusted to the learning objectives of science as a product that contains principles, laws and theories that can explain and understand nature and the various phenomena that occur inside (Damanhuri and Mahmud 2011). And the three teachers have provided examples of sound learning links with their environment. 12) Sciences goal as a process: from the observations only teacher B who has taught using the media to adjust to the objectives of science learning as a process that is to understand something concept, students are not notified by the teacher, but the teacher provides opportunities for students to obtain and find concepts through experience students by developing basic skills while teacher A and teacher C have not let the child be active in the classroom, but only listen to the teacher and repeat what the teacher has explained. 13) Sciences goal as a scientific attitude: the results of this observation are only teacher B who has taught using the media to adapt to the objectives of science learning as a scientific attitude because the teacher provides opportunities for children to express what is in children's minds about learning and make children think critically.

While teachers A and C do not give children the opportunity to think critically. 14) Suitability of the media: the results of this observation indicate that teacher A uses a simulation method, teacher B uses direct learning methods and teacher C uses lecture and question and answer methods. Each teacher has adapted the use of media with learning methods. 15) Student learning style: in this observations, teachers B and C have chosen a media that is appropriate to the student's learning style because it makes class B students become active and class C students pay attention to the teacher, while teacher A is not suitable in media selection because make the children uncontrolled. 16) flexibility: from observations, teachers A and B have chosen a medium that can be used anywhere, while teacher C has not chosen flexible media because there are still obstacles if the use is outdoors. Based on the discussion, The results of this study indicate that teachers have used intructional media, but tend to procedural according to the guidebook and learning media tend to be only as a complement to learning, does not lead to the learning objectives of science, although some of the observed learning media components look successful. This is based on the results of field observations which show the teacher is still not good at controlling the class and the teacher's skills in teaching.

4. Conclusion

Based on the results of the study and the discussion in the previous chapter, it can be concluded that teachers at State Elementary School 52 have not fully understood the media used in accordance with the components of selection assessment in the use of science learning media in high grade.

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