



Implementation of 21st Century Learning in Elementary School

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Abstract: This study describes the perceptions and implementation of 21st century learning in elementary schools. This study uses a descriptive qualitative research method. This research is in the form of field research, namely research conducted in real life to find out the specifics and reality of what happened during society at one time—data collection techniques used in this study using observation, interviews, and documentation. The sample used in this study was 25 people, consisting of 5 school principals and 20 madrasah teachers from three provinces, namely Banten, Jakarta and West Java. The results of teacher perceptions of 21st century learning in elementary schools show that as many as 5 people or 20% of respondents said they knew 21st century learning from internet sources, 7 people or 28% said they knew 21st century learning from teacher training, 8 people or 32% knew about learning 21st century from seminars or workshops, 4 people or 16% of respondents from discussions with colleagues, and 1 person or 4% obtained from scientific journals. While implementing 21st century learning in elementary schools is included in the very good category, this can be seen from 96% of teachers who have implemented 21st century learning. Good perceptions of the learning skills possessed by respondents are continuous with the selection of learning models they use, such as problem-based learning, discovery learning, project-based learning, cooperative learning, and direct learning.

INTRODUCTION

The need for increased mastery of science and technology is increasingly felt, and the more widespread and rational human relations are in the

global order of modern society. This phenomenon can at least be studied from the tendency of three important elements, namely that individuals increasingly need insights and mastery



of new or additional skills for adjustment to the demands of the world of work, career advancement, or self-actualization. Teachers' ability to learn continues to be required to keep up with the flow of change, especially in the development of science and technology. 21st century learning becomes an obligation even *fardu ain* for every teacher to implement it correctly and produce competitive graduate competencies. Before the teacher can implement 21st century learning, of course, he must have knowledge, understanding and skills so that the implementation can run effectively and efficiently. In 21st century learning, three main components must be mastered by teachers including student character development, which includes moral character and performance, and competency components that students must learn, namely creative competence, critical competence, and communicative and collaborative competence.

The obligation of an educator is not only to transmit knowledge but also to produce an attitude, speech, and behaviour of students, and must have an effect towards quality and

competitiveness so that students feel intrigued and motivated to create conditions in learning activities. Very meaningful and fun for students. This is very meaningful for students in learning in the classroom. The educator's role is not only to change children to be smart to be diligent, but students must be able to cultivate clear thoughts, souls and personalities. And finally, educators produce students who can compete and grow to be good human beings, faithful, virtuous, pious, independent, capable, and responsible.

As a teacher in the current era, skills are needed to use information and technology-based media or applications to improve the quality of learning. According to Soemantri, lecturers or teachers must be prepared for industrial and technological advances that have penetrated the education sector, one of which is by being skilled at making digital learning. Digital learning by utilizing information and communication technology in the field of education can play a dual role, namely as a medium or learning aid and as learning materials for students (Novalia et al., 2018). Referring to what was realized by the Ministry of

Education and Culture (Kemdikbud) of the Republic of Indonesia, there are various concepts that education has introduced in the 21st century, including being able to realize it in various school tools (curriculum) from elementary to senior levels, the three concepts are 21st century skills (Trilling & Fadel, 2009), scientific approach (Dyer et al., 2011) authentic learning and authentic assessment (Wiggins & McTighe, 2011). Looking further from the third point of view, these concepts can be introduced and developed in the education curriculum in Indonesia to create a creative nation in the year 2045. The creative Indonesian nation has received encouragement from various findings that have been carried out through research results which strongly indicate the increasing job shifts next time. The future job pyramid will experience various changes, showing that the highest type of work is creative work. While routine activities are taken up by sophisticated digital tools such as robots and other automotive. Creative work requires intelligence and effort with human creativity, which is productive in enriching processed products that are highly competitive and capable of

bringing about changes in a creative and innovative direction. In 21st century education, there is what is called authentic learning, Daryanto & Karim, (2017) said that the learning process of students is carried out based on authentic learning; authentic learning is one of the learning styles carried out outside by conducting various evaluations and how to solve problems. This authentic learning process uses at least three learning models, namely discovery learning, project-based learning, and problem-based learning. Teachers may apply various techniques and learning styles in class according to the specifics of the teaching materials contained in the syllabus.

The 21st century learning conditions most teachers face today are students who use information technology daily. Students have widely used technology products such as smartphones to play games, communicate (chat), or do simple business activities (As'ari, 2016). Furthermore, the 21st century, marked by the rise of the internet, has become the most basic economic infrastructure. Based on this phenomenon, the use of technology is highly dependent on the skills possessed. In education, in

particular, teacher skills in using information technology such as *e-learning* needs to be improved to create digital content for students. This is in accordance with the teacher's task of making learning material relevant to the teacher claim 21st century education.

21st century learning is learning that prepares the 21st century generation where advances in Technology and Communication which are developing so quickly, influence various aspects of life, including the teaching and learning process. One example of the progress of Information and Communication Technology influencing the learning process is that students are given the opportunity and required to be able to develop skills in mastering information and communication technology, especially computers, so that students can use technology in the learning process, which aims to achieve thinking skills and study.

21st century learning continues to experience dramatic and unpredictable changes due to rapidly developing technological advances (Faulkner et al., 2016). Efforts to meet the demands of education, work and commerce in the 21st century require additional skills

such as communication skills, technological intelligence, global outlook, the ability to work collaboratively, digital skills, and the ability to use more innovative applications. Learning in the past century can no longer be used because education must keep up with the rapid technological developments that are developing at all levels of world society, such as internet use (Geisinger, 2016).

Three concepts of 21st century education have been adopted by the Ministry of Education and Culture of the Republic of Indonesia to develop a curriculum for Elementary School, Junior High School, Senior High School and Vocational High School. These three concepts are adapted to develop education towards Creative Indonesia in 2045. This creative Indonesia is supported by research results which show the existence of creative work. While routine work will be taken over by robots and automation technology. Creative work requires intelligence and creative power to produce creative and innovative products (Setiawan, 2018).

METHOD

The research method used by researchers is a descriptive qualitative

method. This research is in the form of field research conducted in real life to find out the specifics and reality of what is happening during society at a time – data collection techniques used in this study using observation, interviews, and documentation. The sample used in this study was 25 people, consisting of 5 school principals and 20 madrasah teachers from three provinces, namely Banten, Jakarta and West Java. The determination of the research location took into account the following: (1) having facilities and infrastructure to support the implementation of research activities, and (2) having the same characteristics; this can be seen from the school's status, namely having an "A" accreditation issued by the National Accreditation Board for Schools /Madrasah (BAN-SM).

The technique of cluster random sampling determined the sampling of this study. This technique determines the sample when the object to be studied or the data source is very broad. In this study, researchers made observations around February before Covid-19. The purpose of the observations in this study was to obtain an overview of how the implementation of 21st century

learning is related to teacher knowledge, skills, tasks and roles. In this case, the researcher immediately visited the location and looked at and recorded data related to research on the implementation of 21st century learning. However, this was not yet complete due to the constraints of the Covid-19 outbreak. Then in May, the research team created instruments distributed to 25 respondents consisting of 20 elementary school teachers and 5 elementary school principals, to follow up on data in the field. Then the researcher conducted online interviews which were conducted in this interview the researcher used structured interviews, and the information obtained during the interview was related to the teacher's knowledge of 21st century learning, teacher skills in the 21st century, and learning media when in class following the 21st century learning model. (Hadi, 2017) states that in this digital age era, one can say that changes in technological developments have occurred in world interpreters, especially in the field of education; it is time to use technology to find solutions; this is a wise action. One of the uses of technology in the world of education is

one of them by using video media as a medium that can be fun and innovative in the world of elementary school children, where the use of video media is one of the computer technologies that leads to the implementation of 21st century learning.

RESULT & DISCUSSION

Result

In this study, the researcher will explain in detail related to the application of 21st century learning in elementary schools; the implementation of 21st century learning must have been realized in the world of education, especially in elementary schools.

1. Teacher Perceptions of Preparation for Implementation of 21st Century Learning in Elementary Schools

As for the role of the teacher in 21st century learning, it is known that the teacher plays a major role in building the character of students so that it is helpful for religion, homeland, nation and state; this can be connected with several conditions that have been implemented in several countries that the teacher's role is not only as an educator, including teachers, must be able to use various learning

strategies that develop critical thinking skills and be able to solve problems, not only that teachers must be able to master educational technology that continues to develop and be able to have management skills in the classroom. The international world's demands on teachers' duties entering the 21st century are not light; teachers are expected to be able and able to carry out a learning process that is based on and implements the four pillars of learning recommended by the International Commission UNESCO for Education and implementation of learning namely learning to know, Learning to do, Learning to be, learning to live together. Given that the research was carried out during the Covid-19 period, this research seeks to reveal what kind of readiness teachers are in implementing their duties related to the current situation, where teachers are required to make various learning activities that are all in the network, things that teachers must develop during this pandemic have a lot to do with the implementation of 21st century

learning, teacher activities in learning activities that must be prepared include:

- a. Teachers must be able to operate computers, both Word, Excel, and Powerpoint as learning media as intermediaries for transferring knowledge to students
- b. Able to create various media that can be uploaded in cyberspace, or virtual worlds
- c. Able to have creativity in motivating students in the digital world.
- d. Able to implement various learning methods effectively in the online learning activity
- e. Teachers are required to have media such as laptops and Android

The results of teacher perceptions of 21st century learning in elementary school included the good category; this can be seen from the respondents already knowing about learning the 21st century from various sources. Some of the findings from observations and interviews with the teachers sampled in this study appear that as

many as 19 respondents already knew 21st century learning. Then the questions regarding sources of obtaining knowledge about 21st century learning were, as many as 5 people or 20% of respondents revealed knowing 21st century learning from internet sources, 7 people or 28% said they knew 21st century learning from teacher training, 8 people or 32 respondents knew 21st century learning from seminars or workshops, 4 people or 16% of respondents from discussions with colleagues, and 1 person or 4% obtained from scientific journals.

2. Implementation of 21st Century Learning in Elementary Schools

Overall, the results of the respondents' answers to the implementation of 21st century learning in elementary schools were included in the very good category; this can be seen from 96% of teachers who have to implement learning 21st century in schools precisely. The good perception of the learning skills possessed by the respondents is continuous with the selection of the learning model they

use. Learning models that have been used based on the results of online interviews can be obtained by 7 people or 28% using problem-based learning models, 6 people or 24% using discovery learning, 4 people or 16% using project-based learning, 3 people or 12% use cooperative learning, and 1 person or 4% still use direct learning.

Discussion

1. Teacher Perceptions of Preparation for Implementation of 21st Century Learning in Elementary Schools

A good perception of this aspect was obtained because many respondents had attended 21st century skills workshops, namely as many as 8 people or 32%. This study's results align with the research of Sinay et al., which states that teachers have better perceptions after attending a workshop than those who do not (Sinay, 2019). Teachers who have attended workshops will understand better that creativity and innovation are important to be applied in all subjects. Good teacher perceptions will help students master aspects of creative thinking

and innovation because creativity and innovation are skills needed for readiness to face the 21st century, which requires many new solutions and creativity (Kereluik et al., 2013). Creative thinking and innovation need to be applied by teachers so that students can face global life in the 21st century. For this reason, teachers must be able to direct students and apply new ideas in learning (Sahin, 2009). The three main components that teachers must be able to apply in learning are; the ability to think creatively individually, think creatively with others and implement innovation. In the learning process, teachers who can direct their students to think creatively and innovate are creative and innovative. So it is not surprising that teachers who have good perceptions of aspects of creative thinking and innovation will have the opportunity to get students who can master creative and innovative thinking skills in learning (Sinay, 2019).

2. Implementation of 21st Century Learning in Elementary Schools

The good perception of the learning skills possessed by the respondents is continuous with the selection of the learning model they use. In learning, problem-based learning models support the application of learning skills in the 21st century. According to Alismail and McGuire, this model trains students to discuss and analyze problems and topics related to facts. This approach directs students to investigate problems, explain, generate ideas, analyze data, and provide assessments to find the right solution (Alismail & McGuire, 2015).

The use of the most chosen learning model is discovery learning and project-based learning. The use of discovery learning and project-based learning is appropriate for use in learning in the 21st century. Project-based learning and discovery learning models are learning models centred on student activity to support the application of 21st century skills. According to Hidayah et al., using

student center-based learning models provides opportunities for students to actively hone their abilities in learning skills (Hidayah et al., 2017).

CONSLUSION

Based on the discussion that has been described, the conclusions of this study are as follows:

1. The results of teachers' perceptions of 21st century learning in elementary schools obtained data that they revealed that they knew 21st century learning as many as 5 people or 20% of respondents said they knew 21st century learning from internet sources, 7 people or 28% said they knew 21st century learning from teacher training, 8 people or 32% know about 21st century learning from seminars or workshops, 4 people or 16% of respondents from discussions with colleagues, and 1 person or 4% are obtained from scientific journals.
2. The implementation of 21st century learning in elementary schools is included in the very good category; this can be seen from 96% of teachers who have implemented 21st century learning. Good

perceptions of learning skills possessed by respondents are irrational with the selection of learning models they use, such as problem-based learning, discovery learning, project-based learning, cooperative learning, and direct learning.

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