

Urgency of 21st Century Skills in Elementary Schools

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Abstract. This study aims to examine the urgency of 21st century learning skills in elementary schools. The type of research that will be used is library research with descriptive analytical methods, namely a series of activities related to the method of collecting library data to describe the situation in what way. Data analysis will be used, namely content analysis. In the 21st century, students are required to have creative thinking skills, critical thinking and problem solving, communication and collaboration. The problem-based learning model can be an alternative solution to improve 21st century skills. PBL has six syntaxes, namely oriented students to problems, organizing students to learn, guiding individual and group investigations, developing and presenting work, and analyzing and evaluating the problem-solving process. . Through this research it was concluded that 21st century skills can grow and improve cooperation in a group to solve certain problems, increase tolerance for differences in friends' opinions, try to think critically and creatively to solve problems about connecting things.

Keywords: Critical thinking, creative thinking, collaboration, communications, problem based learning.

How to Cite: Prayuda, Y. (2023). Urgency of 21st Century Skills in Elementary Schools. *Proceeding The 5th International Conference on Elementary Education*, 5(1), 736-743.

INTRODUCTION

Because education is moving in a more advanced direction, competition in education sector occurs in every nation in line with advances in technology that will become more sophisticated. Services that focus on information and knowledge have significantly replaced manufacturing services over the last century (Scott, 2015). As a result of the need for educators to encourage students to develop their character and potential as individuals to be smart, critical, creative, innovative, communicative, collaborative, as well as problem solver in the moment. the idea of self-learning as a step forward towards a more humanist approach to education would be. Teaching students to think critically is one way to encourage independent learning. developing the urgency of 21st century skills students will have to master. According to the United Nations Development Program (UNDP) Human Development Report 2016, Indonesia's Human Development Index (IPM) in 2017 was only 70.81, placing it in 113th place in 188 countries, dropping to 110th in 2014. For All (EFA) Worldwide Observing Report 2011: "Based on the findings of the study "The Hidden Crisis, Armed Conflict, and Education" to be Implemented by UNESCO, Indonesia's Education Development Index fell from 65th in 2011 to 69th in 127 countries (Majid, 2014).

Gustine (2018) found that the majority of educators are still not sure what critical literacy is and how to prepare critical classes. In fact, critical-based classes require teachers to be critical. literacy to prepare students to think critically (Mc Sertaiel, 2006). Apart from that, critique must be made the main foundation as soon as possible to build a nation that will be intelligent and cultured. Therefore, elementary school teachers must have ave faith in appropriate as well as understanding of 21st century skills before applying them in the classroom. 20 of 2003, Training is "a conscious and regulated work to create a learning environment and educational experience with the aim that students effectively grow their ability to effectively grow their ability to have strength, poise, character, knowledge, strict respectability, and skills needed throughout the world in everyday life. "This holds true for national education systems. The goal of 21st century education is to make learning more accessible to students. Access to education in the 21st century is simpler, faster, and cheaper, as Saavedra and Opfer, V. D. (2012) would argue. The Internet will now be accessible anywhere in the world enabling anyone to share information about education, such as research findings, learning theories, learning best practices, and learning will be usable in various countries. One of the solutions, which the 21st century is about to talk about a lot these

days, needs to be taken seriously. Education is one of the most important aspects in creating a quality generation. According to the findings of the research to be conducted by Trilling and Fadel [2], many people will have graduated high school, whether they have a diploma or not. Still lacking the following competencies: 1) Direct and written communication methods; 2) Detailed view and description of cases; 3) Experience and work ethics; 4) Alliances and work in teams; 5) work in various groups; 6) use of technology; and 7) leadership and project management. Indonesia is considered a destination country for foreign investment and is even the main destination in the ASEAN region, according to the findings of the 2014 ASEAN Business Outlook Survey. This shows a negative fact: Indonesian workers have lower wages and skills compared to workers in neighboring countries, such as the Philippines, will have the best quality graduates will be ready to work. having qualified alumni to face the progress of the globalization era will continue to be creative with innovation.

The Indonesian education system has changed to accommodate globalization in the 21st century so that students can compete with students from other nations in the future. In the 21st century, the aim of education is to create an equal, intelligent, and noble society. That is, students can learn from the teacher or vice versa, students actively build their own knowledge from various sources with the teacher acting as a facilitator, and learning activities can be carried out anywhere by combining the use of information technology and digital communication. having the 4C Critical thinking skills (ability to think critically), communication (ability to communicate with other parties), collaboration (ability to work with other parties), and creative thinking (creative and innovative mindset) are these four things. skills will be developed if the teacher plans learning according to the learning model (Ramadhani, 2017).

METHOD

This type of research is descriptive research with a literature approach. According to Sugiyono (2018; 11), descriptive research is research that will be carried out to find out the value of the independent variable, either one variable or more (independent) without making comparisons, or linking one variable to another. Furthermore, according to Nawawi (2018; 63), the descriptive method can be interpreted as a problem-solving procedure that will be investigated by describing/describing the state of the subject/object of research (a person, institution, community, etc.) at present based on the facts that will appear.

RESULTS

21st Century Skills

To cultivate high-quality students, educators play an important role in imparting skills that will be relevant to the 21st century. The Meteriti Group and North Central Regional Educational Laboratory say that there are four categories of skills for the 21st century: computerized age proficiency, imaginative reasoning, successful correspondence, and high efficiency (Lemke, 2003). Griffin and Care, E. (2015) will use four categories to define 21st century skills. People must first be able to think in certain ways, such as metacognition, making decisions, thinking critically, creatively, and looking for ways to solve problems. Second, being able to collaborate effectively with others and communicate effectively. Third, information technology literacy, using the right tools, and having knowledge will be enough for the job. Fourth, being a good citizen by being involved in government, showing social responsibility, being competent, and always learning skills will be related to your career. The tendency to emphasize important skills such as creativity, innovation, curiosity, intelligence, and adaptability runs through some of the definitions above. Trilling & Fadel, C. (2009) describes 21st century skills as follows: 1) skills for life and work, 2) learning skills and creativity, and 3) media skills and information technology. The rainbow of 21st century knowledge skills serves as an illustration of 21st century skills. Learning activities can be carried out anywhere by integrating the use of digital information and communication technology, realizing the ideals of 21st century skills education to create a society that will be equal, intelligent, and have noble character, namely students can learn from the teacher or vice versa, students will actively construct their own knowledge on various sides with the teacher as a facilitator. 4C Critical thinking abilities (critical

thinking skills), communication (ability to communicate with other parties), working with other parties), and creative thinking (creative and innovative mindset) are four skills that can be developed if the teacher plans learning according to the learning model. Learning (MARWIYAH, M. 2022).

Students must have a number of skills in order to be successful in education in the 21st century. In *The Partnership for 21st Century Skills* (Trilling and Fadel, 2012), it is stated that students must be taught the following critical thinking skills in a learning context. 21st century education: 1) Students are expected to be able to reason well; 2) Students are able to think in systems; 3) students can make decisions as well as assessments; and (4) students have problem-solving skills. In order for students to get used to using reasoning systems to solve problems, the statement above means that critical thinking competence for students is very important to be carried out through the learning process in class, it must be implemented.

Critical Thinking

Students must be able to think critically to develop a quality mindset that will last during the learning process or quiz competition to prepare them for competition. The main difficulty lies in teaching critical thinking and encouraging students to examine their own thinking. "Using or involving careful judgment" is the definition of "critical" in Webster's New Encyclopedic All New 1994 Edition, so "critical thinking" can be interpreted as thinking that requires careful decision making. Ennis (1996) offers a different understanding, namely: The purpose of critical thinking is to make informed decisions about our beliefs and actions. According to Stobaugh (2013:2-3), critical thinking is the capacity to provide original responses. Eggen and Kauchak (2012: According to 119), critical thinking is the capacity and tendency to draw conclusions based on evidence. Dwyer and Rainbolt (2012:5) state that critical thinking is the ability to evaluate other people correctly. arguments as well as building your own arguments will be convincing. After that, Santrock (2011: 303) says that critical thinking involves thinking about an event in a reflective, productive, and evaluative manner. Based on the assessment of the experts above, it tends to be predictable that determining reasoning is a skill that must be driven by students in providing responses considering that evidence will be smart, useful and evaluative in an incident. If someone has certain characteristics, he can be said to be able to think critically. are some of the qualities individuals will express to have a basic scholar. Lau (2011: 2) refers to a person's ability to think critically if they: 1) understand the logical relationships that exist between ideas; 2) express your thoughts clearly and concisely; 3) find, create, and evaluate arguments; 4) weighing the advantages and disadvantages of an option; 5) examine hypotheses as well as evidence; 6) Look for errors and general reasoning inconsistencies; 7) matic problem solving behavior system; (8) determine the significance and relevance of ideas; 9) evaluating one's values and beliefs; and (10) assessing a person's thinking capacity. One of the stages of higher order thinking is teaching students to think critically, which is a cognitive skill. . According to Costa (Prihastuti, 2020), the process of higher-order thinking or also called complex thinking can be broken down into four categories: problem solving, decision making, critical thinking, and creative thinking. Humans are always faced with problems that will require solutions in society, will require critical thinking skills. By nature, data is needed to make logical decisions and solve problems, and critical thinking skills will both be needed to make the right choices. It is possible to draw conclusions, based on the statement above, that the perspective of a critical thinker has an open-minded tendency in deciding a problem, enabling decision making based on evidence.

Creative Thinking

Instilling creative thinking so that new approaches emerge will lead to innovation and the growth of a generation that will be more competitive and create new things in learning. Students who will learn creatively in the classroom will be creative, and students who will be creative usually have greater strengths and abilities than average (non-creative) students. Learning will be effective or further development of high-level reasoning will be used to solve learning problems which will result in the ability to think creatively as creative. component. foster an understanding of innovative ways of thinking based on solutions that students will produce to

solve problems in learning or events that will occur in the environment. According to the arguments of Ruggiero and Evans in Siswono, this is used in the child's creative thinking process. elementary school students to develop new concepts (Rachma, 2022). The two hemispheres of the brain work best when thinking creatively. In elementary schools, creativity is centered on creating activities that will ultimately lead to satisfaction without neglecting the benefits. Children's creativity must be developed as a whole as a fundamental ability. In the sense that children's creativity is physical (physical) and non-physical (non-physical) is translated into the capacity to make or produce work. According to Pehkonen (1997), creative thinking is a combination of thinking based on logical and divergent awareness. As a result, combining logic and intuition is necessary for creative thinking. To create something new, think creatively as a group or by combining logical and divergent thinking. Creative thinking can be seen in the creation of something new. Someone will go through the stages of synthesizing ideas, building ideas, planning their implementation, and laying them out. ideas into actions to produce something or new products in creative thinking. Creativity is the product to be intended (Siswono, 2007). It is possible to draw conclusions that creative thinking has five characteristics: fluency, adaptability, originality, elaboration, and evaluation. These characteristics will provide perspective on the creative process and assist individuals in generating innovative solutions to certain problems. (Wanelly & Fauzan, 2020).

Collaboration

Educators are able to collaborate with students to practice and realize educational goals when one of the goals is for students to develop character that will be in line with Pancasila, the foundation of the balance of the Indonesian nation. Because of the importance of collaboration (Collaborative) can be interpreted as collaboration or collaboration, education emphasizes an attitude that will be marked by working together with friends, family, and the community in the surrounding environment. Mozghan and Marjan in 2012: 491) Collaborative learning is a teaching and learning method in which a group of students collaborates in solving problems, completing assignments, and making products. Smith and MacGregor, on the other hand (Marjan and Mozghan, 2012:492) put it this way: "Collaborative learning" refers to various educational methods that involve students and teachers communicating intellectually. In most cases, students collaborate in groups of two or more to seek understanding, solution, understanding, or product creation.

Communication

If educational actors want to improve the quality of education, they must communicate effectively, communication is a real form of educational success. Shows the success of the learning process, namely the participation of communication and the ability of students to communicate through presentations or by informing parents. about the understanding of learning in schools will have the meaning and value of students' cognitive abilities, where the ability of students to communicate effectively is very decisive. write with other people. Children in elementary school can improve their communication skills in many ways. When it comes to trying to express what is on their mind, elementary school students need opportunities and motivation to be right. Activities to develop children's communication skills must be free from inclinations and justifications. Reading stories, novels, and fairy tales and presenting completed assignments are two of the most effective ways to improve elementary school students' communication skills. Students' communication skills are the ability to send messages to others. Neither with acquaintances will ever hear such tales. , students' cognitive abilities are judged in part by their ability to communicate effectively. The rainbow of 21st century knowledge skills is a scheme that will encapsulate 21st century skills. Since then, 21 non-profit organizations have created an educational framework for the 21st century. century as well as modifying plans. Students must master the skills, knowledge, and expertise described in this framework to be successful in life and work. Key subjects as well as 21st century themes, 21st century learning outcomes for students, and support systems are all included in this framework.

Problem Based Learning

Problems will be encountered as long as learning cannot be separated from the educational process. According to Sucipto (2017), the problem-based learning model is suitable for learning students to think critically, creatively, innovatively, work together, and solve problems. According to Finkle and Torp (1995), "Problem-Based Learning" is the creation of a learning system that will combine problem-solving strategies and basic knowledge and skills. This is carried out by requiring students to play an active role as everyday problem solvers which will not be well structured. In order for students to respond quickly and learn by solving problems, it was actually started thousands of years ago, educators in elementary schools associate learning with everyday life. Students may learn through a series of exercises or educational experiences that will engage students effectively in tracking their own responses. According to Graff & Kolmos, A. (2007), Socrates, who would live from 470 BC to 399 BC, asking students questions would be able to reveal hidden knowledge. "Multiple working hypotheses method", will be developed by T.C. Chamberlin in 1889, can be used to solve problems (Mukharomah, 2021). According to Herman (2016), John Dewey tries to teach students how to solve problems by placing them in real-world situations. -Experienced in the concept of troubleshooting instructions. Class school is one of the trainings for students that must be focused and made with various critical thinking techniques to develop, problem-based learning called Issue Based Learning (PBL) has become very popular in the world of schooling. Based on his research in the 1960s with chemistry students at McMaster University in Canada, Don Woods coined the term PBL (Mukharomah, 2021). In addition, PBL is widely used around the world and is known as a learning technique at the McMaster College welfare school. It will have an essential way of thinking with three main dreams. Spaulding (1969) said that there are three visions including: a vision for education, a vision for medicine and its role in society, and a vision for humans and society. Therefore, there are several reasons why the Problem Based Learning (PBL) approach is suitable for use in elementary schools to foster students to be independent, resilient and responsible.

Is Problem Based Learning Able to Train 21st Century Skills

Educators will recognize the importance of education in meeting the demands of today's era and try to equip their students with skills that will be relevant to the 21st century by using a problem-based learning model to face competition and challenges influenced by the rapid development of technology at this time. These abilities are needed so that students can survive and succeed in an increasingly competitive environment. The next inquiry is, "How do educators package learning to equip students with 21st century skills?" Can problem-based learning teach skills for the 21st Century? The issue of constructing learning is shaped by the premise of a highly imaginative learning hypothesis (eg constructivism and experiential learning) by defining issues across multiple disciplines to get the setting right. Educators can use problem-based learning (PBL) in a variety of ways to help students become competent problem solvers and face future challenges. Stat Edens ed in 2000, students can acquire skills relevant to the 21st century through problem-based instruction (Priyadi, 2021). Because PBL is able to link theory and practice and develop competencies such as problem solving, communication, and collaboration skills, researchers acknowledge that it can develop students' skills for the 21st century (Graham, 2010; 2012, Graham). According to research findings to be conducted in 1996 by Woods, D.R., PBL has a positive impact on students' perceptions of their learning environment, increases their confidence and skills in problem solving, fosters positive participation in lifelong learning, and improves processing abilities. Based on the findings of five articles in the literature review, it was determined that primary school teachers should prioritize teaching 21st century students skills to help them succeed academically. The importance of educators having character, knowledge, and skills will be needed to instill 4C skills in the 21st century, including Based on this literature review, critical thinking (critical thinking skills), communication (ability to communicate with other parties), collaboration (ability to work with other parties), as well as creative thinking (the mindset of being creative and innovative) are four abilities that can be developed if the teacher plans learning using the learning model that will be used by elementary school educators to be

student-centered. These abilities include the ability to develop and solve problems and the skills to think through questions related to: causal relationships, points of view or perspectives, evidence, possibilities and debates. A person not only gains knowledge but also the ability to use that knowledge and experience. as a reference in the future to be ready to compete competitively with the skills to be obtained in educational institutions or with 21st century skills to grow and develop students through 21st century skills. Being a good person will be able to think critically when solving problems, be creative and innovative, and cooperate with others. It is hoped that the quality of students and teachers will improve so that they can produce qualified graduates by developing critical thinking skills, communication skills, collaboration skills, as well as creative and innovative mindsets. Reflective thought will be directed to decide what to do or believe, in this case it is not arbitrary, does not bring any conclusions except the best conclusions, accepts critical thinking skills as a thinking process. According to Siregar & Unimed (2018), critical thinking is a way of thinking that will allow people to think in different ways, such as the ability to develop and solve problems and develop thinking skills by asking questions about: causal relationships, points of view or perspectives, evidence, possibilities , and controversy In accordance with the objectives of the independent curriculum, one way to solve problems in the learning process, the idea of implementing Problem Based Learning (Problem Based Learning).

The PBL learning model for 21st century skills for elementary school students is effective (Nuraeni, 2021). 6 The syntax is explained by John Dewey in Problem Based Learning (PBL):

1. Create a problem, including the steps students will have to take to solve it.
2. Dissecting the problem, so that students specifically survey the problem according to a different perspective.
3. Students develop hypotheses, or various potential solutions to problems based on their knowledge.
4. The steps students search for and describe information will be needed for problem solving while collecting data.
5. When testing the hypothesis, students make decisions based on whether or not the hypothesis will have been proposed.
6. Students must make suggestions for solving problems, in particular they must describe suggestions that can be implemented based on the results of submitting hypotheses and formulating conclusions.

Students will benefit from participating in real-world or simulated experiences and developing their intellectual and thinking skills through the use of this self-regulated learner problem-based learning model.

Table 1. Sintaks Problem Based Learning (PBL)

Phase	Teacher Role
1. Student orientation to the proble.	The teacher explains the learning objectives, all materials will be needed, and encourages students to participate in problem solving activities will be selected.
2. Organizing students for learning.	The teacher assists students in identifying and managing learning tasks related to problems.
3. Guiding individual and group investigations.	Students are encouraged by the teacher to do research, experiments, or observations that will be appropriate to get explanations and solve problems.
4. Develop and present the work.	Students are assisted by the teacher in planning and preparing appropriate work, conducting experiments or observations to obtain explanations, and solving problems.
5. Analyze and evaluate the problem solving process.	Teachers assist students in reflecting on or evaluating their investigations and the methods they will use.

When the Problem Based Learning (PBL) model is used, 21st century skills are more about students' abilities to communicate, share, and collaborate, use information to solve complex problems, adapt to new demands, innovate, and be creative, and use technology more effectively to create new knowledge will be understood by students.

CONCLUSION

Theoretically, based on scientific evidence, it is necessary to apply 21st century skills in elementary schools to shape students' character and be able to solve problems. Because, based on the development of education and the competitiveness of graduates, a teacher must have good competency in order to compete with other nations. Bisertag education faces significant challenges in today's rapidly evolving world. The responsibility of educators lies in preparing our nation's future generations to face the challenge of cultivating quality character.

One approach is to equip students with skills relevant to the 21st century through the education they will receive in school. Unfortunately, many educators still use traditional teaching methods that will not pay attention to the needs of the 21st century. Learning to be able to practice 21st century skills must be student-centered, collaborative, and relevant to students' everyday lives. In accordance with the current situation, independent learning grows students to think critically, creatively, and innovatively, able to communicate, collaborate, and be able to solve problems that will be encountered. They also have an independent character that will be strong in learning and will have an impression of meaningfulness that will be attached to students in elementary schools. Problem-based learning is a learning model that will use a constructivist approach and is reported to be able to train students' 21st century skills to realize the goals of the educational curriculum.

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