

What do Elementary School Teachers Think About 6Cs?

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ABSTRAK

Keterampilan abad ke 21 merupakan keterampilan yang sangat penting untuk ditanamkan pada setiap proses pembelajaran di sekolah dasar. Guru harus memiliki pandangan bahwa menanamkan 6Cs. Penelitian ini bertujuan untuk menganalisis persepsi guru sekolah dasar mengenai keterampilan abad ke 21 khususnya 6Cs pada pembelajaran di sekolah dasar. Metode yang digunakan dalam penelitian ini adalah metode deskriptif. Subjek penelitian diperoleh secara acak, yaitu sebanyak 71 orang guru sekolah dasar. Instrumen penelitian menggunakan kuesioner dalam bentuk google form. Data yang diperoleh kemudian dianalisis dan ditentukan kategorinya. Hasil penelitian menunjukkan bahwa persepsi guru sekolah dasar pada aspek pengetahuan yaitu keterampilan abad ke 21 adalah keterampilan yang harus dimiliki dan ditanamkan kepada siswa di abad ke 21 sangat tinggi. Pada aspek pemahaman, persepsi guru mengenai alasan pentingnya 6 Cs ditanamkan kepada siswa sekolah dasar juga sangat tinggi. Pada aspek penerapan, guru memiliki persepsi yang tinggi dalam menanamkan 6 Cs dalam pembelajaran di sekolah dasar, baik yang dilakukan melalui penggunaan model pembelajaran yang inovatif maupun melalui penggunaan media pembelajaran yang interaktif.

ABSTRACT

21st-century skills are very important to be instilled in every learning process in elementary schools. Teachers must have the view that is instilling the 6 Cs. This study aims to analyze elementary school teachers' perceptions regarding 21st-century skills, especially the 6 Cs in learning in elementary schools. The method used in this research is the descriptive method. The research subjects were obtained randomly, namely as many as 71 elementary school teachers. The research instrument used a questionnaire in the form of a Google form. The data obtained were then analyzed, and the categories were determined. The results showed that elementary school teachers' perceptions of the knowledge aspect, namely 21st-century skills, must be owned and instilled in students in the 21st century, which is very high. In the aspect of understanding, the teacher's perception of the reasons for the importance of the 6 Cs instilling in elementary school students is also very high. In the implementation aspect, teachers have a high perception of instilling the 6 Cs in elementary school learning, either through innovative learning models or through interactive learning media.

1. INTRODUCTION

The 21st century has brought changes to various fields of human life (Karta et al., 2022; Redhana, 2019; Santika, 2021) including the field of education (Parmiti et al., 2022; Salsabila & Agustian, 2021; Siddiq et al., 2017). These changes are caused by changes in globalization which are triggered by the rapid development of information and communication technology (Kivunja, 2014; Maftuh, 2011; Salsabila & Agustian, 2021) as well as changes in technology and culture so that causing difficulties in determining what things students should learn and what teachers should train to prepare their students for the future (Hasan, 2019; Kereluik et al., 2013; Mahendra, 2018). To be able to adapt to various challenges in this century, humans need special skills and competencies, these skills are not only literacy and numeracy, but are called 21st century skills (Kim et al., 2019), namely skills that must be mastered by every individual in the world. the 21st century, in this case the younger generation must have 21st century skills so that they

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can play a good role when living in society both now and in the future (Ananiadou & Claro, 2009; Voogt et al., 2013).

Schools and the world of education are currently facing unpredictable challenges, so teachers in the 21st century must be able to create a learning environment that suits children's lives, besides that with frequent changes in learning technology and learning environments, the skills needed are also constantly changing and modifications were made (Breivik, 2010; Shiroishi et al., 2018; Silber-Varod et al., 2019; Soule & Warrick, 2015). Teachers in this century, apart from having to have knowledge of their disciplines, must also be able to develop and train other domains of knowledge, such as providing subject matter accompanied by the importance of appreciating students' critical thinking skills when working on learning assignments; know that technology is important, and know when, how and why it is used. Advances in technology and infrastructure in the 21st century have brought people closer but at the same time further away, this is due to the availability of opportunities to interact more easily from different parts of the world, so teachers must be able to provide learning that can facilitate and foster emotional awareness, cultural competence, and leadership skills to produce meaningful and positive-value interactions for students (Kereluik et al., 2013; Malik, 2018).

As an implication, learning in schools in the 21st century must be able to develop various 21st century skills. Related to the development of 21st century skills starting from 4 Cs (Binkley et al., 2012; Fullan, 2007; Golinkoff & Hirsh-Pasek, 2016; Trilling & Fadel, 2009), character (Karta et al., 2022) and citizenship (Golinkoff & Hirsh-Pasek, 2016). Based on the literature review in previous research, it has been concluded that there are 6 components that must be instilled in students in elementary schools called the 6 Cs, including Character, Critical thinking, Creativity, Citizenship, Collaboration and Communication (Anggraeni et al., 2022). In the 6 Cs there are characters which are the main foundation in developing various other C components. The reason why the 6 Cs are very important in elementary school is because elementary school is a level of formal education which is the foundation for developing the 6 Cs component. The 6 Cs component needs to be trained continuously and sustainably, because through mastering the 6 Cs elementary school students are expected to be able to have good character skills, good critical thinking skills, high creativity, the ability to understand the role of a good citizen of the world, effective collaboration skills, as well as good communication skills as a provision for the key to success in the future. Regarding the implementation of learning that is oriented towards the development of the 6 Cs of students, there are many methods that can be used to teach 21st century skills, including direct learning, demonstrations, modelling, discussions, simulations, journal writing, questioning, reflection, and project-based learning (Bell, 2010; Jacobson-Lundeberg, 2016).

However, initial findings in elementary schools in Sumedang City show that learning has not been optimal in instilling 21st century skills, for example in the analysis of lesson planning that has been made it has not stated in writing what indicators of collaboration skills students want to achieve. This has an impact on the implementation of the learning process which also does not facilitate students to develop their collaboration skills. Likewise, when observing the learning process in class, when students are given the opportunity to communicate their work, students even have difficulty introducing themselves and their groups, furthermore the ability of students to speak well and clearly and express opinions is also lacking. Previous research shows there are several reasons why teachers have difficulty teaching 21st century skills even though students have learned to use the constructivism model to learn and obtain information (Saavedra, A. R. & Opfer, 2012), this is because students are not given training to apply their knowledge in new context; communicate the information obtained in a more complex manner; use information for problem solving; and use that information to develop creativity. The teacher's limited knowledge in understanding the concept and implementation of 21st century skills is also one of the reasons not to apply learning capable of developing 21st century skills in schools (Junedi et al., 2020; Kim et al., 2019).

Based on the findings above, it is necessary to analyze how teachers perceive the importance of instilling these 6 Cs in elementary schools. This needs to be done because the teacher's perception of the importance of the 6 Cs will affect the learning process that will be carried out. Teachers who understand the needs of their students will facilitate students to get these various needs, so teachers must know the nature of teaching and learning activities first, because the main task of a teacher is to organize effective learning (Iskandarwassid & Sunendar, 2018; Lase, 2020). Teachers also play an important role as planners, executors, and also as evaluators, besides that teachers can innovate in all components contained in the education system and implement these innovations in the learning process (Sujana & Sopandi, 2020); the teacher must also be able to act as a facilitator in order to create a conducive learning environment so that active learning can take place (Buchari, 2018; Warsono & Hariyanto., 2017). Because the quality of learning in the classroom can be an important trigger for changing education, besides that the teacher's perception of the learning strategies that will be used with students also greatly influences

student learning outcomes (Kim et al., 2019; Sang et al., 2018). Based on the above studies, this study aims to analyze how teachers perceive the importance of instilling the 6 Cs in students in elementary school learning in terms of teacher knowledge, understanding and application.

2. METHOD

This study uses a descriptive method, namely the data obtained is then analyzed and described based on existing findings. The subjects in this study were 71 elementary school teachers from several regions in Indonesia, with various backgrounds such as having an educator certificate, types of teachers who teach in low and high grades, and the gender of the teacher. The research subjects were taken randomly (random sampling) based on the Google form link provided and distributed to the WhatsApp group. The details of the background of the subjects involved in the research can be seen in Table 1.

Table 1. Research Subjects

Subject Background		Total
Certificate Educator	Certified	21
	No Certified	50
Types of Teachers	Lower Grade	35
	High Grade	36
Gender	Male	19
	Female	52
Total subjects		71

Data collection techniques in this study used non-test techniques. The research instrument used a questionnaire in the form of a Google form, the aim was to obtain data regarding the perceptions of elementary school teachers regarding 6 Cs. The indicators used in the teacher's perception questionnaire regarding the 6 Cs can be seen in Table 2.

Table 2. Questionnaire Indicators

Indicator	Descriptor
Knowledge	Knowledge of 21st century skills Resources for 21st century skills 4 Cs as part of 21st century skills Development of 21st century skills Component 6 Cs
Understanding	The Importance of embedded in elementary schools 6 Cs Reasons for the Importance of instilling in elementary schools 6 Cs
Applications	The importance of embedding the 6Cs in learning Use of innovative learning models to embed the 6Cs Use of interactive learning media to embed 6Cs

The data obtained from the google form were then analyzed using simple statistics so that the percentage of each item in the questionnaire was obtained, then the perceived value was categorized based on Table 3.

Table 3. Perceived Percentage Interpretation

Percentage (%)	Category
81 - 100	Very High
61 - 80	High
41 - 60	Moderate
21 - 40	Low
0 - 20	Very Low

Importance of 6 Cs	Percentage (%)	Category
To prepare students to become successful and productive human beings in the 21st century	89.9	Very High
To equip students to deal with the increasing complexities of life and work in the 21st century	89.0	Very High
To equip students to become effective workers and citizens in society	88.5	Very High
To prepare students in the current development of the times and technology	88.2	Very High

The highest percentage of teachers' reasons for the importance of instilling the 6 Cs in elementary school students is to prepare students to become successful and productive human beings in the 21st century, however, all teachers have very high perceptions regarding the reasons for the importance of these 6 Cs.

Application

In the implementation aspect, elementary school teachers have a high perception with a percentage of 72.1% for instilling the 6 Cs in students in learning. The perceptions of elementary school teachers regarding the application of innovative learning models used in learning to instil the 6 Cs can be seen in [Table 8](#).

Table 8. Teacher's Perception Regarding the Use of Innovative Learning Models to Instil 6 Cs

Innovative Learning Model	Percentage (%)	Category
Project Based Learning	74.4	High
Inquiry Learning	72.4	High
Cooperative Learning	74.1	High
Direct Learning	73.8	High
Problem Based Learning	75.2	High
RADEC Learning Models	78.9	High
STEM	76.1	High

The use of RADEC Learning Models has the highest percentage, then Problem Based Learning, STEM, Project Based Learning, Cooperative Learning, Direct Learning, and the lowest is Inquiry Learning, however, the teacher's perception of the use of innovative learning models to embed these 6 Cs all are in the high category. This is because the RADEC learning model is an ideal learning model that seeks to accommodate learning on various important current issues that can build a nation's generation with characteristics according to the demands of the times ([Sopandi, 2023](#)).

Furthermore, the perceptions of elementary school teachers regarding the application of interactive learning media used in learning to instil the 6 Cs can be seen in [Table 9](#).

Table 9. Teacher's Perception Regarding the Use of Interactive Learning Media to Instil 6 Cs

Interactive Learning Media	Percentage (%)	Category
Learning Video	71.3	High
Smartphone Applications (WhatsApp, Kahoot, Quizizz)	70.7	High
Power Point/ Canva	73.8	High
Electronic book (eBook) / Pdf	73.0	High
Edmodo	79.2	High

Teachers' perceptions regarding the use of interactive learning media to instill the 6 Cs in elementary schools with the highest percentage using Edmodo, then learning videos, power points, electronic books, and smartphone applications. However, the teacher's perceptions are all in the high category.

Discussion

The perception of elementary school teachers on the knowledge aspect regarding 21st century skills is a skill that must be possessed by elementary school students in the 21st century is very high. Teachers acquire knowledge about these 21st century skills from various sources of information both

online and offline, including from print media/newspapers and electronic media/TV, workshops/teacher training, seminars/webinar, online media/internet. However, teachers obtain more information from workshops, seminars/webinar activities and online media. This online media is an information channel that uses the internet with speed access to information that is not limited by space and time (Antara et al., 2022; Mahmud et al., 2018; Riduwan, 2021). Teachers must be able to meet their information needs independently because this can support learning activities in class (Ahsani et al., 2021; Silvana et al., 2019). Teachers must first have good knowledge and understanding of competencies in the 21st century, because globalization and modernization have created a world that is increasingly diverse and interconnected, so that individuals can understand and play a role properly. Humans must (1) have more complex competencies, (2) master constantly changing technologies, and (3) understand existing information. So that both teachers and learning in elementary schools must also be able to adapt to the need for the importance of developing students' 21st century competencies, one of which is by optimizing technology as a tool to improve the quality of learning in the classroom (Lase, 2020; Susilo & Sarkowi, 2018).

The perception of elementary school teachers on the knowledge aspect that the 4 Cs components (Critical Thinking, Creativity, Collaboration and Communication) are part of the 21st century skills is very high. Furthermore, the teacher's perception that Character and Citizenship are important components that must be instilled in students in elementary schools besides the 4Cs is also very high. This shows that the teacher already knows very well that the 6 Cs component is important to instill in students in elementary schools, besides that the teacher must also have a reasonable perception of 21st century learning, so that it can help students' 21st century skills (Sang et al., 2018; Tuzlukova et al., 2018). However, previous research shows that there are still many students who do not acquire 21st century skills when learning, this is because learning cannot accommodate and practice these skills (Mayasari et al., 2016).

Likewise in instilling character in elementary schools, for example in the implementation of character education, it turns out that learning activities have not yet been shown, student attitudes have not been well documented, the teacher's lack of understanding in implementing character education and there is no synergy between character education in schools and character education in home, and the lack of instruments to measure student character (Darmayanti & Wibowo, 2014; Putu et al., 2022; Taunu & Iriani, 2019). In addition, several obstacles in character education, namely the influence of the environment are not good, the teacher has not been able to choose character values that are appropriate to the subject matter and has not been able to be a good role model in instilling the selected character values (Sari & Puspita, 2019; Taunu & Iriani, 2019). Another example is citizenship, where the teacher has not looked at the importance of citizenship, besides that the teacher also does not understand citizenship content (Safitri & Ramadan, 2022). In contrast to critical thinking, teachers view the use of critical thinking skills as very important to instill in learning, but in practice it turns out to be very lacking in support (Tuzlukova et al., 2018).

Furthermore, the aspect of understanding elementary school teachers regarding the reasons for the importance of 6 Cs to be instilled in elementary schools is also very high. Some of these reasons include the 6 Cs can equip students to face challenges and circumstances in an uncertain future, prepare students to become successful and productive human beings in the 21st century, equip students to face the increasing complexity of life and work in the 21st century, equip students become effective workers and citizens in society, preparing students for the current developments of the times and technology. Children need skills to become thinkers, entrepreneurs, and be good members of society while having a satisfying personal life (Golinkoff & Hirsh-Pasek, 2016). Therefore, schools must be able to provide ways for students to think, have collaboration and communication skills in order to become economically productive, personally successful, and actively involved in various things (Anagün, 2018; Binkley et al., 2012). In the 21st century, all students at every level of education face extreme global competition, technology driven by the flow of information and fast media saturation, this is the reason why the education system must prepare students with the skills needed in this era of globalization (Afandi et al., 2019). This can be done through the alignment between the curriculum, learning activities, and the learning environment which can support the development of competencies needed by students in the 21st century (Anagün, 2018).

In the aspect of applying the teacher's perception to instill the 6 Cs in students in learning is in the high category. Meanwhile, according to elementary school teachers, innovative learning models that can be used to instill the 6 Cs can use Project Based Learning, Inquiry Learning, Cooperative Learning, Direct Learning, Problem Based Learning, RADEC Learning Models and STEM. Teachers can develop students' abilities through the use of learning strategies, and students can share learning techniques and strategies according to their wishes (Adijaya et al., 2023; Tuzlukova et al., 2018). Previous research shows that there

are several important factors that can support the implementation of 4 Cs learning, namely peer support, the seriousness of the teacher in giving attention to students while learning and the teacher's ability to understand and implement the 4 C learning (Selman & Jaedun, 2020). So that the perception of elementary school teachers regarding the application of interactive learning media used in learning to instill the 6 Cs is also very important. This is evident from the high perception of elementary school teachers in using interactive learning media such as the use of instructional videos, smartphone applications, power point, electronic books and Edmodo.

The use of technology for learning practices in the 21st century has indeed become a necessity. Therefore teachers in the 21st century apart from having to have good insight and understanding of 21st century skills, have good skills in applying learning that can facilitate students to achieve the competencies needed in this century, but also have to be able to designing learning that is oriented towards the use of technology for better learning implementation. However, it turns out that this high teacher perception has not been matched by good digital literacy skills, especially for making effective learning designs, which are implemented pedagogically and are able to properly utilize existing technology. This is because the main challenge facing education today is how to design learning in the midst of technological advances that offer various ways to interact, collaborate and communicate with various multimedia (Conole, 2014; Salsabila & Agustian, 2021). Therefore, teachers must have a willingness to continue learning, especially regarding technological developments and must be willing to be friends with technology.

The results of this study are expected to provide information and insight to teachers so that they can facilitate students to be able to develop the 6 Cs of students in elementary schools, as well as motivation for teachers in implementing various innovative learning models and interactive learning media that are in line with the demands of 21st century learning. The limitations in this study are the data collection techniques that are not carried out directly to the teacher, because it is still in a state of the Covid 19 pandemic. So the level of seriousness of the teacher in filling out the goggle form is not known. However, the teachers who filled out this questionnaire came from various regions in Indonesia, also obtained from various different backgrounds so that they had diversity in the characteristics of the subjects involved in the research.

4. CONCLUSION

Based on the findings in the research above, it can be concluded that the perceptions of elementary school teachers regarding the 6 Cs in terms of knowledge and understanding aspects are very high, while the aspects of application in learning have a high category. However, the teacher's high perception of the importance of instilling the 6 Cs in elementary schools must be proven by real conditions in the field, therefore further research is needed to find out how the implementation of learning that occurs today and its suitability with the demands of 21st century learning, especially those oriented-on planting 6 Cs students.

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