

# Innovative Online Learning Based on 3CM (Cool-Critical-Creative-Meaningful) Learning to Increase Creativity and Good Character of Elementary School Students During the Covid-19 Pandemic

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**Abstract.** Being creative and having good character is the goal of education in Indonesia. The COVID-19 pandemic has become a challenge in achieving this goal. Since the learning process is carried out online. Teachers have difficulty in planning and implementing the lesson. It is because not all teachers have ability to use technology appropriately. Thus, the learning process is not as expected. This causes boredom in the learning process. Therefore, an appropriate online learning design is needed. In this case, the online learning that provides opportunities for students to develop critical, creative, meaningful thinking skills in fun and challenging ways. One of them is online learning design based on 3CM (Cool-Critical-Creative-Meaningful) learning. The research design used in the present research is descriptive qualitative and RnD (ASSURE model) with the output of the initial data analysis related to the perceptions of school principals, teachers, students and parents about online learning. Questionnaires, online interviews and online FGDs are applied to obtain the qualitative data. Data related to the development of learning activities can be seen from the design development process with the ASSURE model. The results obtained are 89.7% of the 271 teachers that use WhatsApp in the learning process. This causes boredom in learning process so that 72.12% of 271 teachers want to go back to school. The scores result of development of online learning design based on 3CM learning from the aspect of easy access to learning is 4.48 (very good), the content aspect, media and teaching materials is 4.57 (very good) from the assessment of 45 elementary school teachers. The score of student responses to the aspect of easy access to learning is 4.72 (very good), the score of the aspect of content (content), media and teaching materials is 4.72 (very good). To foster creativity and good character, online learning activities are carried out in 4 activities, namely 1) time to play and try challenges (cool), 2) time to criticize (critical), 3) time to be creative (creative), 4) time to reflect and find the meaning (meaningful).

**Keywords:** innovative online learning; 3cm learning; creativity; good character elementary school students; covid-19 pandemic.

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## INTRODUCTION

One of the interesting things about the purpose of Indonesian education is to develop the potential of students to become creative human beings and have good character (Law No. 20 of 2003) [1]. Creativity is also one of the reasons for changing 2013 curriculum. Creativity is one of the main components of 21st century education and contemporary curricula (Tindowen, Bassig, & Cagurangan, 2017; Vale, & Barbosa, 2015; Navarrete, 2013; Sternberg, 2012; Mann, 2006; Sternberg, 2006) [2-7]. Creativity fosters creativity in finding new insights, new perspectives, and new ways of seeing things. The students' creativity becomes something important (Nuha, Waluya, & Junaedi, 2018; Kadir, Lucyana, & Satriawati, 2016; Leikin, 2013) [8-10] and must be developed. The opportunity to

develop creativity is greater than increasing one's learning intelligence (Dyer, Gregersen, & Christensen, 2011) [11].

Creative students must be supported with good character, so that they become whole persons. In this case, individuals who have good academic abilities and skills and a good personality. The problem of education due to the Covid-19 pandemic is that learning activities are carried out from home in the form of online learning. This is in accordance with the policy of the Ministry of Education and Culture of the Republic of Indonesia, namely Learning From Home (BDR) online (Circular Letter of the Minister of Education and Culture of the Republic of Indonesia number 3 of 2020 and Letter of the Secretary General of the Minister of Education and Culture number

35492/A.A5/HK/2020). This sudden change in learning methods makes it difficult for teachers to prepare and carry out the learning. Ordinary learning is still difficult, especially learning that demands the students' creativity. Learning activities are carried out by sending materials and assignments. Then the assignments are done and the results are sent via the WhatsApp group. Students become bored and want to go back to school.

There needs to be a solution to this online learning problem. Teachers need to improve the ability to use ICT and prepare learning activities and measure learning outcomes. For this reason, it is necessary to set an appropriate learning model. One of them is a new model of online learning based on 3CM learning. This learning provides opportunities for students to develop critical, creative, meaningful thinking skills in fun and challenging ways. When they enjoy the learning, creativity increases and provides opportunities to develop good character. To create this new model requires special skills for a teacher. It's not enough just the content, pedagogical abilities and the ability to use technology, but also the ability to combine those three. Thus the problem of online learning can be overcome. Students can still learn in appropriate but challenging way. However, there is also an opportunity to develop critical thinking skills, work creatively and interpret each learning activity. Thus, they have good character.

## LITERATURE REVIEW

Online learning is learning in a network or known as SPADA (Online Learning System) which is a translation of the Online Learning System (Chaeruman, Wibawa, & Syahrial, 2018) [12]. This online learning is a program that aims to increase students' access to high-quality education through the application of blended learning (Watson, 2008) [13]. Thus the concept of online learning was developed based on the concept of blended learning. Blended learning is learning that combines face-to-face learning and online learning by looking at the advantages of both, not just a mixture (Bonk, & Graham, 2006) [14].

There are two requirements for learning activities carried out with blended learning, namely synchronous activities (learning activities between teachers and students are carried out at the same time both face-to-face and virtual) and asynchronous (independent learning activities by participants carried out anytime, anywhere and

anytime). not bound by time with the teacher). Both of these activities must be prepared properly so that they will mutually strengthen the learning process of students (Bonk, & Graham, 2006) [14] which has implications for student learning outcomes. To be able to prepare and organize online learning well, it is necessary to have the ability to master technology, pedagogy and mastery of content or TPACK (Wahyudi, Winanto, & Relmasira, 2015) [15].

The 3CM (Cool-Critical-Creative-Meaningful) learning model was developed by Wahyudi [16]. This learning model is a learning model that involves the work of the left and right brain. A learning model that not only gives students the opportunity to think using logic, but also provides an opportunity to develop the work of the right brain which is the center of creativity, initiative, and art.

Learning begins by creating a enjoyable atmosphere through the presentation of interesting and challenging contextual events (Cool). This situation will make it easier for teachers to raise the level of thinking of students to think about problems from the given contextual events and criticize these problems (Critical). Hierarchy of thinking that begins with this happy condition, will allow students to produce good and correct problem solving (Critical). This is the foundation to invite them to think about the possibility of solving other different problems as a creative product of their creativity (Creative). The creativity results produced by students become the basis for reflecting on what they can while learning and finding the benefits of these results in their daily lives (Meaningful). Creativity is a person's ability to generate new insights, new approaches, new perspectives, or new ways (Istiqomah, Rochmad, & Mulyono, 2017) [17].

Creativity is the quality of integration of a person and becomes a person's capital to work (Khairullina, Bakhtizin, Gaisina, Kosintseva, & Belonozhko, 2016) [18]. Creativity includes aspects of fluency, novelty, and elaboration (Moma, 2017; Fatah, Suryadi, Sabandar, & Turmudi, 2016; Maharani, & Waluya, 2015) [19-21]. Creativity arises because there is an atmosphere, environment and community that are conditioned to do something creative (Huang, 2020; Huang, 2016). [22,23].

The creativity of students becomes something important [24] and needs to be developed through a creative thinking process (Kadir, Lucyana, & Satriawati, 2016; Leikin, & Elgrabli, 2015)

[25,26]. This condition demands the ability of a teacher to develop the creativity of students in the right way (Trnova, & Trna, 2014) [27]. Creativity foster the students to produce something and solve the problems as one of the main components in 21<sup>st</sup> century education and contemporary curriculum (Vale, & Barbosa, 2015; Navarrete, 2013; Sternberg, 2012; Mann, 2006) [3-6].

## METHOD

### Research Goal

The aims of this study were to: (1) determine the perceptions of school principals, teachers, students and parents towards the online learning process and find out the online learning platform and its results; (2) develop a renewable online learning model based on 3CM learning in accordance with the context of the school and students; 3) improve creativity and good character of elementary school students.

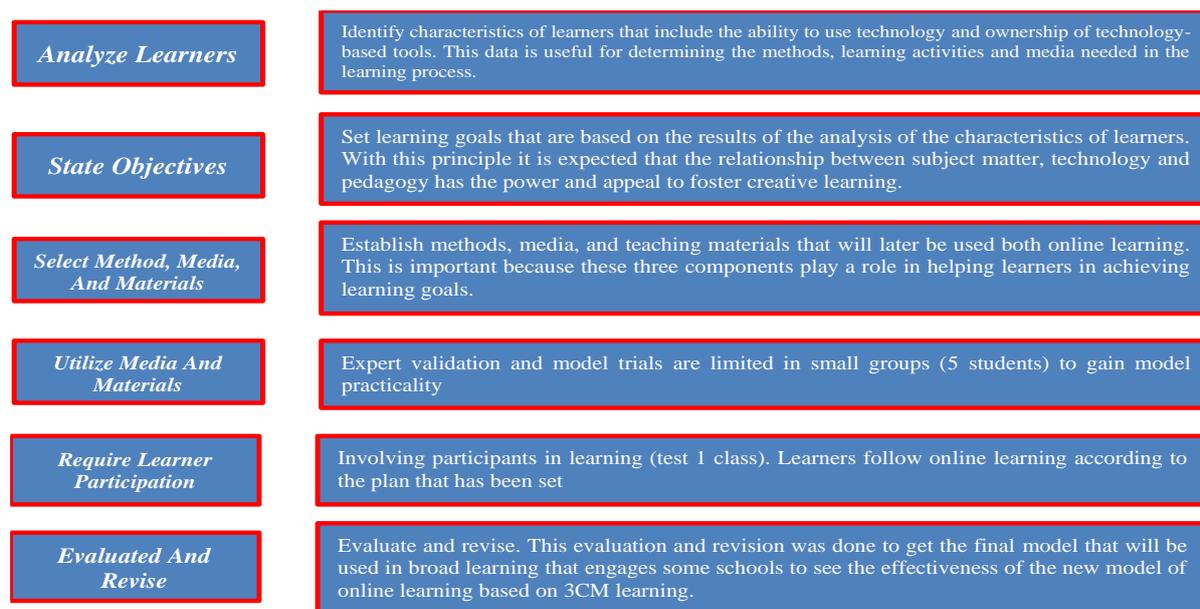
### Samples and Data Collection

The population in this study were principals and teachers of elementary schools. For students and parents, the samples were taken from grade 5 students and parents. The reason for the sampling of grade 5 was that grade 5 students were able to study independently in online learning facilities. So the asynchronous learning activities work well. There are 2 types of data in this study, namely data on perceptions of principals, teachers, students and parents about online learning and data on the results of online learning

development based on 3CM learning. Qualitative data collection techniques used questionnaires, online interviews and online FGDs. Data from the development results collected through the process of developing a model with an ASSURE design. The impact of the implementation of the model was on the creativity data and students' good character of. Creativity data was taken through creative products produced by students during the learning process and independent projects. Character data was either taken from the results of student observations during learning and when working on independent tasks (asynchronous).

### Analyzing of Data

This study used a descriptive qualitative research approach and RnD (ASSURE model) with the output of the initial data analysis related to the perceptions of principals, teachers, students and parents about online learning. These results are the initial data to analyze the suitability of the model with the model theory. Data on perceptions of principals, teachers, students and parents about online learning were analyzed by using qualitative analysis methods according to (Creswell, 2012; Miles & Huberman, 1994) [31,32], namely data reduction, data presentation, and drawing conclusions. Data on the results of the development of 3CM-based online learning were analyzed based on the development steps according to the ASSURE design (Smaldino, Lowther, Russell, & Mims, 2008) [33] with the following steps.



**Figure 1.** Development Steps with ASSURE

Creativity data were analyzed by means of evaluating creative products produced by students during the learning process and independent projects. Good character data was analyzed according to the characters that appeared during learning. It was according to the material and the learning process carried out both during learning and when working on independent tasks (asynchronous).

## RESULTS AND DISCUSSION

The results obtained are in accordance with the research design used, namely qualitative descriptive and RnD (ASSURE model) with the output of the results of the initial data analysis related to the perceptions of principals, teachers, students and parents about online learning and the results of developing innovative online learning based on 3CM learning. The results of both will be explained briefly and clearly below.

### A. Perceptions of Online Learning and Its Implementation

Data on perceptions of online learning and its implementation were collected using an online questionnaire instrument. There were 271 respondents who gave feedback on the questionnaire given. The results of a survey of online learning activities during this pandemic which were carried out in public schools and private schools showed that 52.4% of educators had carried out learning process activities in schools with full online mode, 45.4% of educators used blended learning mode, namely combining online and offline activities, and the rest are home visits, and take advantage of various other learning media. Based on the data obtained, 89.7% of teachers use Whatsapp groups to provide online learning facilities to students. The teacher sends videos, lesson materials, assignments viaWhatsapps groups. Students learn from all the materials sent by the teacher. Based on the survey results, followed by online interviews to provide more complete information. Based on the results of the interview, the teacher said that they were correct in carrying out online learning because they had used the internet network andWhatsapps facilities. This simple concept ultimately limits the teacher's understanding of what online learning should be. Learning activities are only limited to providing materials and assignments, not paying attention to pedagogical aspects, supporting media, and also the synchronous and asynchronous concepts as one of the strengths in online learning carried out

in the concept of blended learning. This is not in accordance with the supposed concepts of online learning and blended learning (Chaeruman, Wibawa, & Syahrial, 2018; Watson, 2008; Bonk & Graham, 2006). Learning activities are still focused on understanding the important thing there are materials and assignments for students. The understanding of online learning is only limited to using the internet network without any thought on how the activity can provide learning facilities that provide opportunities for students to learn effectively. This causes student learning saturation, so that 72.12% of the 271 teachers want to go back to school so that students can study well. Based on the results of this survey, it was followed by a Focus Group Discussion (FGD) with the principal, teachers and parents. The FGD activity presented 3 resource persons, the Dean of FKIP, the Salatiga LP3S Management, the Principal and Teachers of Elementary, Middle and High School. The three resource persons are Dr. Ihdi Amin, M.Pd (Head of SMAN 01 Paguyangan Brebes), Dr. Mawardi, M.Pd (SWCU Lecturer/Educational Technology Expert) and Adi Winanto, S.Pd., M.Pd (SWCU Lecturer/Science Learning Developer with TPACK). Activities are carried out by sharing experiences of implementing online learning both in schools, and the online learning mentoring process carried out by lecturers. Online learning in schools shows that all teachers are not ready to plan, develop, and implement online learning. This is because the ability to use IT is still weak. Circumstances that are sudden and must be done quickly cause not all teachers are ready. Most online learning platforms use Group WA and Google Classroom. During the mentoring process carried out by lecturers for teachers in online learning, it was found that there were still many teachers who were not ready. Most teachers have not planned online learning well. This causes the online learning process has not had a good impact on students during online learning from home. These results indicate that the teacher's factor greatly determines the success of online learning. It takes the ability to understand what and how online learning is right, not just sending materials and assignments, but also being able to design synchronous and asynchronous activities well (Chaeruman, Wibawa, & Syahrial, 2018; Watson, 2008; Bonk & Graham, 2006). In addition, it also requires the ability to collaborate on technology, content and pedagogy (TPACK) in online learning (Wahyudi, Winanto, & Relmasira, 2015; Smaldino, Lowther, Russell, & Mims, 2008).

## **B. Results of the Development of Innovative Online Learning Based on 3CM Learning**

The process of developing innovative online learning based on 3CM learning is carried out with the ASSURE development principle with the following steps.

### **1. Analyze Learners**

The first step is to identify the characteristics of students who will be involved in innovative online learning based on 3CM learning. Based on the results of identification and analysis of the characteristics of students, class 5 was taken as a sample. This is done because they are able to learn independently, both synchronously and asynchronously. Based on the data obtained from the school and the results of joint coordination with students, it was found that 15 students out of 20 total existing students were able to use online learning facilities. These results are used as a reference to determine the online learning activities that will be carried out. Another characteristic obtained is that students still need contextual media and teaching materials by using real problems in their lives.

### **2. State Objectives**

In accordance with the school's learning calendar, learning activities are carried out at the beginning of semester 1 of the 2021-2022 Academic Year. The learning activities developed are learning activities for Theme 1 Animal and Human Movement Organs. To implement innovative online learning based on 3CM learning, the learning objectives are formulated with the concept of ABCD (Audience-Behavior-Condition-Degree) and the concept of 3CM Learning (Cool-Creative-Creative-Meaningful). The following is an example of formulating learning objectives for one 3CM learning cycle.

- a. Given the opportunity to play games and accept challenges, students show a happy attitude, and are enthusiastic in learning.
- b. Given the opportunity to criticize the content of videos about the diversity of animals in Indonesia, students are able to distinguish the various organs of movement of animals in Indonesia carefully and correctly.
- c. Given the opportunity to observe the teacher's explanation of animal movement organs with the help of power points at the zoom meeting, students are able to conclude the difference between passive and active organs of motion in animals with their own sentences and write

them down in the worksheet provided.

- d. Given the opportunity to look at examples of illustrated stories about animal movement organs, students are able to analyze the elements of a picture story carefully and correctly.
- e. Given the opportunity to watch videos about animal movement organs, students are able to make picture stories according to the content of the video on a drawing paper.
- f. Given the opportunity to reflect together with the guidance of the teacher, students are able to formulate at least 2 good attitudes from the learning experience gained.

### **3. Select Method, Media, And Materials**

Methods, media and teaching materials used in online learning use 3CM learning principles. To foster creativity and good character, online learning activities are carried out in 4 activities, namely 1) time to play and challenge (cool), 2) time to criticize (critical), 3) time to be creative (creative), 4) time to reflect and take meaning (meaningful). Media and teaching materials are prepared in 3CM learning facilities and can be accessed at <https://daringparsial.3cm-center.com/>.

### **4. Utilize Media And Materials**

Before being used in real learning in the classroom, the results of developing innovative online learning based on 3CM learning were assessed by 45 elementary school teachers who had implemented online learning. The results of online learning design development based on 3CM learning from the aspect of easy access to learning obtained a score of 4.48 (very good), content aspect (content), media and teaching materials a score of 4.57 (very good) from the assessment of 45 elementary school teachers. Based on these results, online learning facilities can be used in real classes, namely in grade 5 elementary school.

### **5. Require Learner Participation**

After being assessed for teachers and suitable for use, this online learning design is used in real classes. The school used is SD Kristen 01 Sragen. All activities can be accessed at <https://daringparsial.3cm-center.com/>.

Communication to students is assisted by Whatsapp groups. Online learning activities are carried out in 4 activities, namely 1) time to play and challenge (cool), 2) time to criticize (critical), 3) time to be creative (creative), 4) time to reflect

and take meaning (meaningful). The following are examples of activities in Whatsapp groups and in innovative online classes based on 3CM learning.



Figure 2. Example 1 Communication in Whatsapp group



Figure 3. Example 2 Communication in Whatsapp group

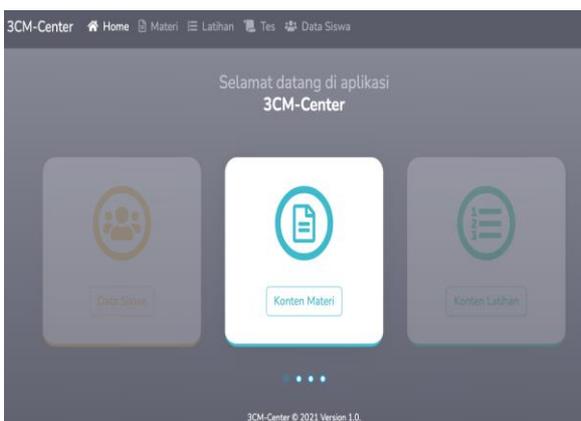


Figure 4. Homepage of 3CM Online Class

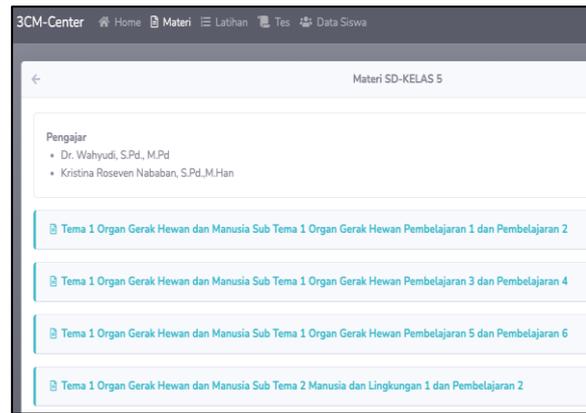


Figure 5. List of Learning Activities in 3CM Online Class

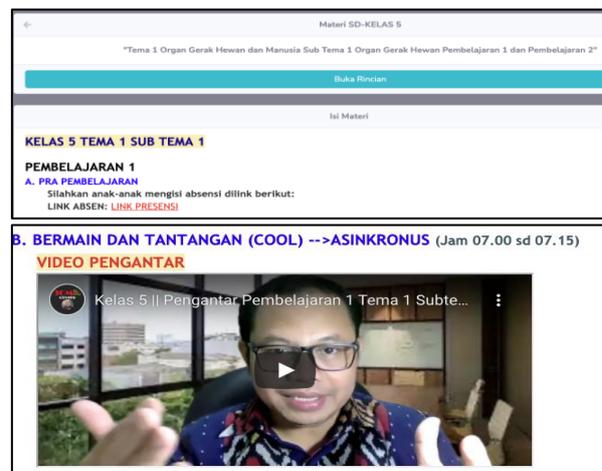


Figure 6. Early 3CM Online Learning Activities



Figure 7. Phase 1 Playing and Challenges



Figure 8. Phase 2 is the Time to Criticize

**MARI BELAJAR BERSAMA -->SINKRONUS** (Jam 09.00 sd 10.00)  
 Silahkan bergabung dalam ZOOM MEETING berikut: [LINK ZOOM](#)  
[PPT untuk Guru DOWNLOAD](#)

**PEMBELAJARAN 2**

**D. SAATNYA BERKREASI (CREATIVE) -->SINKRONUS** (Jam 08.00 sd 08.30)  
**LANGKAH BELAJAR**  
 1. Silahkan bergabung dalam ZOOM MEETING berikut: [LINK ZOOM](#)  
[PPT untuk Guru DOWNLOAD](#)

2. Contoh Cerita Bergambar (Tersedia 2 bentuk yaitu PDF dan Video, pilih sesuai yang disukai)  
 a. Cerita Bergambar dalam bentuk PDF [DOWNLOAD](#)  
 b. Cerita Bergambar dalam bentuk VIDEO [DOWNLOAD](#)

3. Kegiatan berikutnya adalah PROYEK mandiri selama 1 Jam (Jam 08.30 sd 09.30 WIB)  
**KETENTUAN PROYEK**  
 a. Silahkan tonton kembali [Video 2 "Belajar dari Hewan yang Hebat"](#) di atas  
 b. Buat [Cerita Bergambar](#) sesuai dengan isi cerita dalam video dalam **1 lembar kertas**  
 c. Foto hasil karya Anda tersebut lalu kirim pada fasilitas yang tersedia di bawah  
 4. Hasil proyek dapat dikirim melaui [LINK KIRIM PROYEK](#)

**Figure 9.** Phase 3 is the Time to be Creative

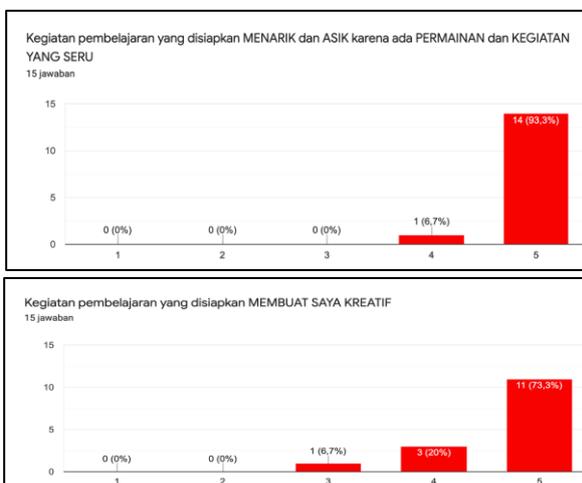
**E. SAATNYA MEREFLIKSI DAN MENGAMBIL MAKNA (MEANINGFUL) -->SINKRONUS** (Jam 09.30 sd 10.00)  
 Sebagai Refleksi dan Mengambil makna silahkan gabung link berikut: [LINK ZOOM](#)

**F. SAATNYA MENGGUKUR KEMAMPUAN -->ASINKRONUS** (Jam 10.00 sd 10.30)  
 Sebagai EVALUASI silahkan KLIK berikut:  
 1. **TES KEMAMPUAN 1**  
 2. **TES KEMAMPUAN 2**

**BERSAMA KITA BISA "PANDEMI COVID-19 BUKAN PENGHALANG UNTUK TETAP KREATIF DAN BERKARYA"**

**Figure 10.** Phase 4 is the Time to Reflect and Take Meaning

Based on the results of the questionnaire given to students, a positive response was obtained. Student assessment for the aspect of ease of access to learning scored 4.72 (very good), content aspect (content), media and teaching materials scored 4.72 (very good). In addition to the assessment of the two aspects, students are given the opportunity to provide an assessment of learning activities in the categories of INTERESTING and FRIENDLY and GIVING CREATIVE OPPORTUNITIES. The results obtained by 14 people (93.3%) stated that learning was interesting and fun, 11 people (73.3%) stated that learning provided opportunities for creativity.



## 6. Evaluated And Revise

Based on the results of the 45 teacher assessors, the results were very good and suitable for use. The results of online learning design development based on 3CM learning from the aspect of easy access to learning obtained a score of 4.48 (very good), content aspect (content), media and teaching materials a score of 4.57 (very good) from the assessment of 45 elementary school teachers. In addition to the results of the closed assessment, an open questionnaire was also given. Some of the assessments given are shown in the data below.

Learning from one lesson to another is well done.

3 cm online learning is very good, hopefully later it can be accessed by all relevant parties, especially in remote areas.

Very good and innovative, where learning during a pandemic like this really requires learning that is cool-critical-creative-meaningful, hopefully it can be further developed.

The material and learning are very interesting and meaningful (cool, critical, creative, meaningful). My input, for the time in each activity, please add it so that learning is more relaxed.

Partial online learning based on 3CM Learning is good and creative. Hopefully in the future it will be even better.

Learning is very good and makes it easier for distance learning activities

Partial online learning based on 3CM Learning is very feasible to be applied in times of pandemic like this.

Partial online learning based on 3CM Learning is very good, thank you for adding to my experience

Partial online learning based on 3CM learning is very good and suitable for elementary school children.

Some inputs for improvement include all LKPD must include the basic competencies of each content being taught. This is a very good input, so that all LKPDs can clearly see the competencies to be achieved.

In accordance with the results obtained in this study, it shows that teachers do not yet have the correct perception of what, why and how online

learning. This causes the process of planning and implementing online learning cannot be implemented properly. This is not in line with the supposed concept of online learning (Chaeruman, Wibawa, & Syahrial, 2018; Watson, 2008; Bonk & Graham, 2006). The development of innovative online learning based on 3CM learning provides a new learning experience for students. Online learning activities are carried out in 4 activities, namely 1) time to play and challenge (cool), 2) time to criticize (critical), 3) time to be creative (creative), 4) time to reflect and take meaning (meaningful). This learning activity provides opportunities for students to learn happily, fun and challenging, but also provides opportunities for critical thinking and creativity. The activity of reflecting and taking meaning provides opportunities for students to take meaning and good attitudes from the learning experience gained.

The learning process that is fun and brings contextual events will give students easy opportunities to relate everyday experiences to new concepts to be learned. This is what causes the process of adaptation to new information through assimilation and accommodation to occur properly so that the brain process of passing information from short term memory to long term memory occurs (John-Steiner, & Mahn, 1996; Kay, & Kibble, 2016).

This process causes the process of forming new knowledge that is interconnected in the form of conceptual schemes to occur properly. This is in accordance with schema theory, where the schemata formed will show knowledge that has been arranged in an interrelated pattern in one's mind that is built from all previous experiences (Longo, & Perret, 2018; Rumelhart 2017; Cook, 1989). Critical activities from each lesson and activities that require each student to produce creative products in accordance with the concept of thinking Best & Thomas (2007); Torrance (2000); McGregor (2007) and Brownell (1942) that to produce something creative as a result of creative thinking requires a critical thinking process from the contextual problems encountered. The last step (Meaningful) of 3CM learning is to take meaning from learning in the activity of reflecting and taking meaning. With this learning pattern, students can learn from the realities of their lives, activities that are close to them and take advantage of them for their lives. This is in accordance with Brownell's (1935) learning concept, namely Meaning Theory; Brownell (1942) about the involvement of

students in a pleasant environment to solve problems and David Ausubel that learning will be more meaningful if it is associated with the contextual problems of students' lives.

This very positive learning environment triggers students and their teams to continuously improve their creative work. A positive learning environment is also provided by the teacher using animated media, pictures and even videos of the reality of life that is close to students so that it is easy to understand. This is in accordance with the results of research by Brownell (1942), Tsai & Chung, (2015), and Fan (2019) that a positive and fun learning environment will make students motivated and creative to produce something useful and able to solve problems well. so that they get interesting experiences that form good attitudes that become the good character of students.

## CONCLUSION

The results obtained are 89.7% of the 271 teachers that use WhatsApp in the learning process. This causes boredom in learning process so that 72.12% of 271 teachers want to go back to school. The scores result of development of online learning design based on 3CM learning from the aspect of easy access to learning is 4.48 (very good). The content aspect, media and teaching materials is 4.57 (very good) from the assessment of 45 elementary school teachers. The score of student responses to the aspect of easy access to learning is 4.72 (very good). The score of the aspect of content (content), media and teaching materials is 4.72 (very good). To foster creativity and good character, online learning activities are carried out in 4 activities, namely 1) time to play and try challenges (cool), 2) time to criticize (critical), 3) time to be creative (creative), 4) time to reflect and find the meaning (meaningful).

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