The Effectiveness Of Connectivism Based Area Learning Models To Improve Creativity And Social Skills In Arts And Craft In Elementary School Students

Tri Linggo Wati[1], **Mustaji[2]**, **Andi Mariono[3]**

[1,2,3]*Teknologi Pendidikan, Universitas Negeri Surabaya, East Java, Indonesia*

Coresponding Author:

[1*]*Teknologi Pendidikan, Universitas Negeri Surabaya, East Java, Indonesia.*
  Email: tri.19002@mhs.unesa.ac.id
[2] *Teknologi Pendidikan, Universitas Negeri Surabaya, East Java, Indonesia*
  Email: mustaji@unesa.ac.id
[3] *Teknologi Pendidikan, Universitas Negeri Surabaya, East Java, Indonesia*
  Email: andimariono@unesa.ac.id

ABSTRACT

The problem faced by students in grade 2 elementary school is the provision of art and craft learning which is not yet effective, this is indicated by the way learning is implemented which only optimizes one competency, namely coloring or sometimes drawing only, teacher-centered learning, so that students become limited creativity, and problems with social skills. For this reason, it is necessary to provide solutions so that learning fine arts and crafts becomes learning that is able to increase creativity and social skills. To overcome these problems, an area-based learning model is applied, which includes drawing areas, craft areas, and shaping areas. This learning model is a learning model that provides an opportunity for each student to choose what learning area they are interested in. So that the competence of drawing, shaping and crafts can be optimally developed. This research is a quantitative experiment, the number of participants is 26 students. The research design used was one group pretest post test. Analysis of effectiveness data using the Ngain score, namely by comparing the score obtained from the pre-test with the score obtained from the post-test. The result obtained is an increase in creativity with a score of 70.35, which means it is effective. Whereas in the N Gain test related to social skills, a score of $g > 0.7023$ was included in the high category, in the categorization of the n gain score in the Connectivism-based Area learning model study, the results were included in the high category score because the mean score obtained was more than 0.7. While the mean score is 70.23 so that the categorization is included in the percentage of 56-75 which means that the application of the connectivity-based area model is quite effective in improving students' social skills.

Keyword: effectiveness, connectivism, based area learning models, creativity, social skills arts, craft

INTRODUCTION

Fine art and craft learning at the elementary school level has not been effectively carried out at the 2nd grade elementary school level. This is characterized by a way of implementing learning that only optimizes one competency, namely coloring or sometimes just drawing, teacher-centered learning, so that students become limited in their creativity, and have problems with their social skills. For this reason, it is necessary to provide solutions so that learning fine arts and crafts becomes learning that is able to increase creativity and social skills. To overcome these problems, an area-based learning model is applied, which includes drawing areas, craft areas, and shaping areas. This learning model is a learning model that provides an opportunity for each student to choose what learning area they are interested in. So that the competence of drawing, shaping and crafts can be optimally developed. Learning Fine Arts and crafts at the Elementary School level, especially in class II, the government has determined the basic competencies that are the goals of learning Fine Arts and Crafts, this is written in the Regulation of the Minister of Education and Culture PERMENDIKBUD RI no: 37 tahun 2018 (Permendikbud-2018-37-ki-kd-kurikulum-2013-dikdasmen)

Literature Review

Connectivism is the integration of explored principles that are dilatored by the presence of clutter, the bias of a network, and the complexity and self-organizing theories. Learning is a process that takes place in a nebulous environment of shifting core elements not fully under the individual's control. Learning (defined as actionable knowledge) can exist outside of ourselves (in organizations or databases), is focused on connecting specific sets of information, and the connections that enable us to learn more are more important than our current state of knowledge. The emergence of connectivism is based on the foundation of rapid changes in the world of education. So that the ability to recognize information can change a person's perspective based on the decisions he has made (Siemens: 2004).

Connectivism generates new ways of learning by leveraging technology so that there is an evolution in learning systems. Most of Siemens' papers address the limitations of previous learning theories which he sees as inadequate because they are based on learning that occurs within a person. when he argues that technology and data systems allow learning to occur outside the brain, in computers and databases. Connectivism utilizes networks as the basis for knowledge creation. Students obtain internal information into the learning environment and are connected to a wider and more diverse network, connectivism utilizes the network as the basis for knowledge creation, the large amount of information that students obtain is not just to memorize or even to understand something, but students are expected to find and apply the knowledge acquired when and wherever they are. The role of the teacher in connectivism theory suggests that competence comes from forming connections through networks, the teacher no longer has the

control or higher knowledge to tell students what to do however, the teacher functions as a peer, moderator, and facilitator, and not as a formal instructor. . Meanwhile, the role of students in connectivism is to contribute to their learning community by learning and connecting with their groups and sharing information (Siemens in Corbet, 2020).

connectivism, which is theorized by Siemens (Bruckner, 2015: 42-44) explains that learning is a binding process by forming a network externally, which can be in the form of people, organizations, libraries, Web sites, books, databases, or information sources. another, where we connect between sources of information and sources of knowledge. The learning that happens in our heads is an internal (neural) network. Leaning networks can then be thought of as the structures we create in order to stay current and continue to experience, create, and connect new (external) knowledge. Learning networks can be perceived as structures that exist in our minds (internal) in connecting and creating patterns of understanding.

Connectivism in formal education has three important roles in influencing and triggering change as well as the dissemination and delivery of information, which fundamentally changes views on the world of formal education, namely: a) The needs of millennial students are not adequately met by traditional teaching or training models, b) The growth of information requires new ways to provide and filter available information, c) advances in technology are increasingly enabling students to connect with each other on knowledge networks that they create themselves (Siemens in Kop: 2008).

Joice (2017: 23) explains that the learning model is a design that has been designed and used as a guide in planning a lesson in a class or it can also be called tutorial learning by using learning tools by utilizing a learning media. The learning model directs a learning designer to help optimize the competence of students according to the learning objectives in standard processes at the basic education level.

The area learning model is a learning model that provides opportunities for students to choose and carry out their own activities according to their interests. This model emphasizes the principles of: 1) providing a learning experience for each child, 2) helping children make choices and decisions through activities in prepared learning areas, and 3) family involvement in the learning process. Learning in this model consists of a minimum of 3 to 4 areas. In the existing area, props and facilities are prepared in accordance with the learning design that has been planned beforehand by the teacher. These areas include.

In this learning model, a constructivist learning approach is used, namely a learning concept based on learning theory, namely students will build their own knowledge. The constructivist approach provides a comprehensive education in early childhood. The concept of the creative play learning model consists of learning practices for children, content areas for children, a set of assessments to measure children's behavior and progress and a training model to assist adults in supporting student development.

Learning is structured based on the belief that students learn well when learning is carried out actively (active learning), as well as through direct experience, interaction with adults, events and ideas. Classrooms are designed with good classroom management in mind, class design can make student learning active and fun. The learning area is divided based on the area of specialization according to what students want, so it is necessary to make arrangements in determining interesting games, such as the library, block area, worship area, household area, natural materials area, art work area. Explanations for each of these areas are: 1) Block Area, in this area Building blocks is important for cognitive development (the ability to see things). As children experience the world around them, they form pictures in their minds from what they see. Playing with blocks gives them an opportunity to recreate these images in real life. This ability to create what represents their experiences is an important ability starting from the abstract mind. The competencies developed in this area are competencies for social-emotional development, competencies for cognitive development, competencies for physical development. 2) Art Work Area, which is a learning area in which there are activities of using paint, sticking, shaping and others. Working with art materials provides opportunities for students to explore colors, shapes, create designs, and recognize textures. Using art materials such as paintings, candles, markers, crayons, cornmeal starch, and arrangements of objects, paper cutouts, children express ideas and personal feelings. competencies developed in this area are competencies for social-

emotional development, competencies for cognitive development, competencies for physical development, 3) cooking area, cooking introduces children to experiences in the world of food for the first time. They not only study how food is prepared but also how it affects one's health and happiness. Cooking activities offer to children. The competencies developed in this area are competencies for social-emotional development, competencies for cognitive development, competencies for physical development (Ministry of Education and Culture and Director General of Teachers and Education Personnel: 2017).

In terms of the developmental aspect of elementary school students, it is said by (Slavin: 2012), that students at elementary school age are in a transitional period of rapid growth during early childhood towards the next stage of development. So that both physical and mental and social changes experience very significant developments and must be the focus of attention. School success certainly has a very important role in overseeing the development of students, especially in the development of creative aspects and social skills.

Creativity in a work creation is an expression of someone to make a new work based on input from oneself and the existing environment. The element is something that has existed before or is completely new. This can be obtained through previous experiences. Written by Torrance (1981) there are three aspects in analyzing creativity, namely: fluency, elaboration, and originality. 1) fluency, fluency is a potential to produce an idea and the ability to produce a work, which is different from previous works,

fluency, can also be said as an ability of a person who smoothly realizes ideas immediately (more emphasis on quantity) . 2) elaboration, namely the competence of a person to develop his ideas to be more unique and specific, the ability to make something more detailed, the ability to make judgments, in enriching a work he makes. Third, 3) originality, namely the competence of a person to make works from ideas that exist in himself.

In this study the activities carried out on the three aspects of creativity are in accordance with Torrance's theory (1981), namely, fluency, the activities carried out by students include: 1) The ability of students to express their work smoothly, 2) The ability to produce shapes in works smoothly, in the elaboration aspect, the activities carried out by students include: 1) Pouring out the ideas of the work that is made. In originality activities, the activities carried out by students include: 1) The ability to develop ideas without seeing or imitating anyone's work, so that in this case the works made by students are pure thoughts. The quest to understand the creative process is not new, even in education but it is very interesting to discuss. Since before John Dewey, but perhaps not as well as him, educators have tried to find better ways to bring not only creative action but creative thinking into educational work. Its agile nature and emergence/disappearance cycles have reached a crisis point in recent years with the creative industries redefining creativity in education and the workplace, and our need for it. In a capitalism that continues to accelerate which demands innovation, adaptation, and flexibility, in the shift of the global

economy to industrial production to circulation and curation of knowledge, creativity will inevitably shift from a pursuit to a way of thinking (Harris. 2016: 1). Creativity is an important aspect of teaching and learning that influences educational policy and teacher practice around the world, and shapes the possibilities of the 21st century learner. The way creativity is understood, nurtured, and linked to real-world problems for the new workforce is significantly changing the way today's contemporary scholars and educators approach creativity in schools. Discourses on creativity generally present for creative abilities, influence, and judgment along three broad themes: the physical environment, pedagogical practices and the nature of learners, and the role of partnerships inside and outside the school. This research review on creativity education explores recent research on the environments, practices, and organizational structures that facilitate and inhibit creativity. Reviewing global trends related to creativity research in the second decade of the 21st century, this article emphasizes the need for practicing and prospective teachers, schools, and policy makers to innovate educationally in the experiential dimensions, priorities, possibilities, and new types of partnerships in creativity. Education (Harris: 2018).

Social skill is an ability that allows someone to relate and communicate with other people. Every child will learn how to solve a social situation by predicting and understanding the behavior of the people around him. This is a way for humans to learn to be

involved in heterogeneous social networks, between themselves and their environment. Social skills have a major role to play in optimizing positive personal development, including self-acceptance with peers, academic achievement, and mental health. The ability of these social skills is also influenced by experiences in memory that develop through their nerve nodes. A broad group of abilities that arise from the proper execution of the process of social cognition. This adequate performance allows us to interact and communicate with others, by predicting and understanding the intentions, feelings, emotions and behavior of others (Icasa: 2015).

Social skills are encouragement to individuals in their social life to be able to interact in mutually beneficial ways. Social skills can be used as a barometer for someone related to their ability to interact with the surrounding community. Skills in communication, including the ability to solve every problem they face, as well as the ability to restrain their emotions, all of these things are part of a person's ability in social skills (Interpersonal Skills). disturbing the beliefs of others. With good social skills, it can make someone skilled in communication. The person will be effective in listening and talking to the other person. Having good social skills will be beneficial in controlling anger, helping to achieve goals and can improve the ability to solve life problems. High emotional intelligence is a result of social skills in self-management, social awareness (empathy), and relationships (Ensari, 2017: 211).

METHOD

Research Design
The research objectives of the first, second, and third researchers used a quantitative research method pre-experimental one shoot case study, by providing a treatment of a connectivism-based area learning model, on social skills, metacognitive, and creativity. As for the data used to determine the effect, it is obtained from the data before being given treatment and after being given treatment. The class that is used is only one class that is used as the experimental class.

Participants
The participants in this study were grade 2 students, totaling 26 students. The step used in data collection in this study was to apply a connectivism-based area learning model to all students, namely students carrying out learning activities in the drawing, shaping, and craft areas by selecting themselves through Google forms obtained from laptops or cellular phones.

Intervention
The application of the treatment in this study was initiated by taking students' drawings before being given treatment to 26 students. After that, students are given treatment with a connectivism-based area learning model. In this model students choose their own learning area on the Google form that has been provided, the form also includes material for each learning area that they will study later, namely: drawing area, craft area, shaping area. After the stages of selecting learning areas that can be carried out at home can be assisted by parents or

teachers if at school, the next day it is continued with learning by applying a connectivism-based learning model. This learning model is a learning model that applies 3 learning areas, namely: the drawing area, in this area the activities of students are drawing, coloring and if applying coloring activities, the coloring can be natural dyes or synthetic dyes. Meanwhile, in the shaping area, students carry out twisting, printing, shaping materials that can be shaped, for example plasticine, playdough, printing pulp from newspaper material into masks, or natural materials that can be shaped. Whereas in the craft area the learning activities of students are making crafts with cutting, sticking, folding techniques using both natural and synthetic materials, works in the craft area can be works that function as ornamental values. In terms of the developmental aspect of elementary school students, it is said by (Slavin: 2012), that students at elementary school age are in a transitional period of rapid growth during early childhood towards the next stage of development. So that both physical and mental and social changes experience very significant developments and must be the focus of attention. School success certainly has a very important role in overseeing the development of students, especially in the development of creative aspects and social skills. The learning implementation design carried out during data collection is as follows:

Pict:1.1 Learning before

Pict: 1.2 Learning during
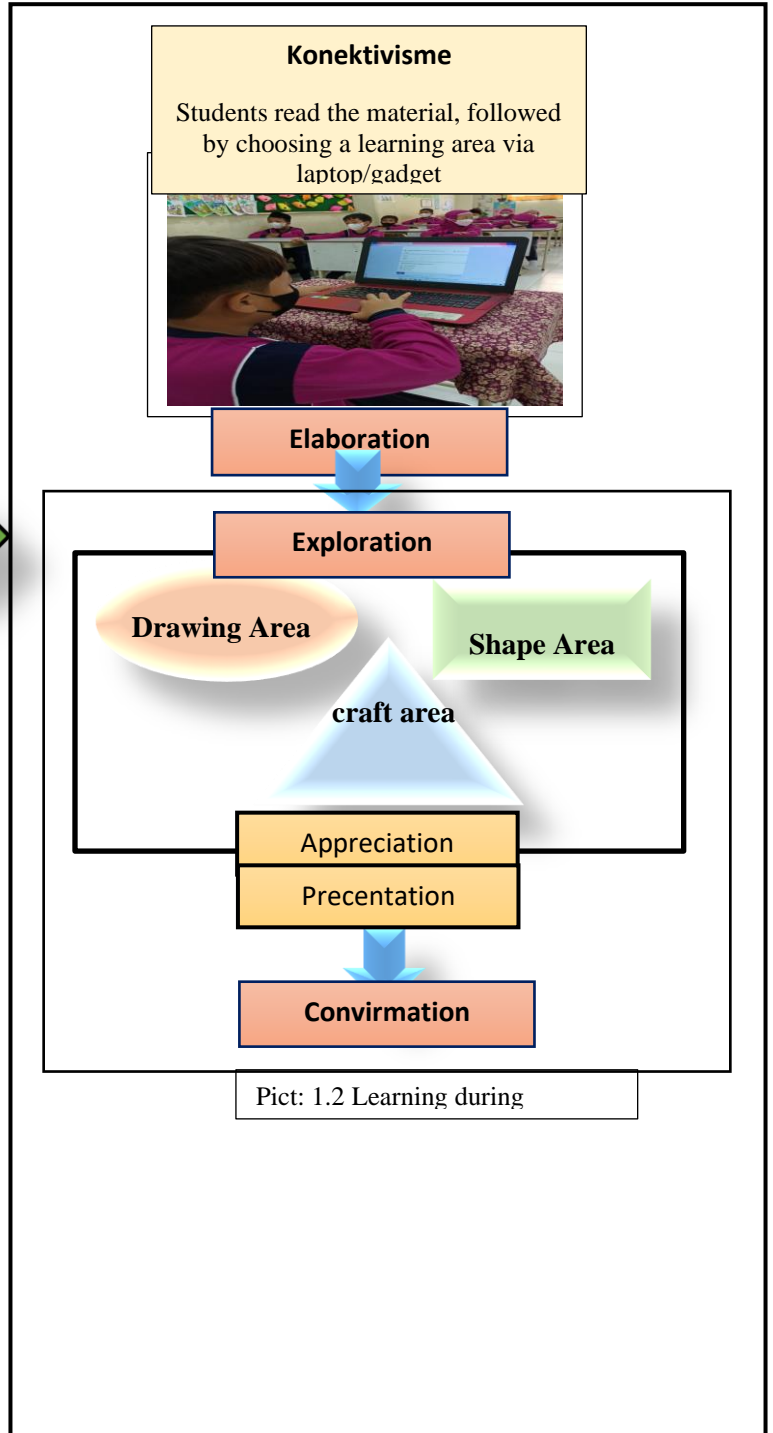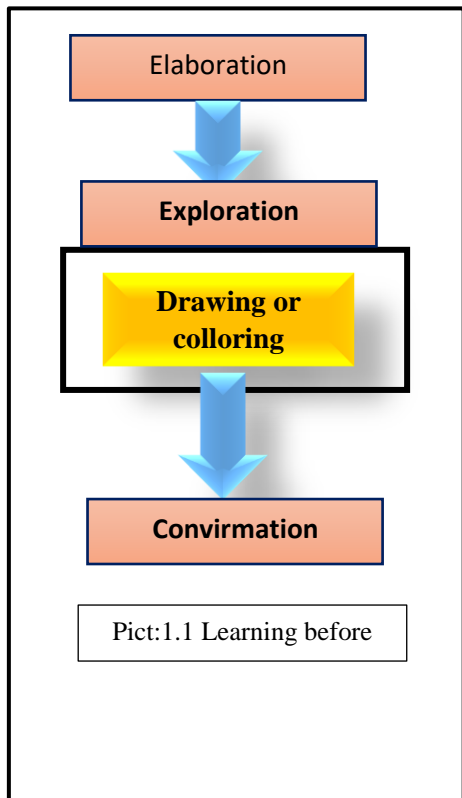
Instruments

The instruments used in carrying out calculations in this study are: the social skills instrument has 5 indicators which include; peer relations, self management, academic ability, compliance, assertion, while metacognitive instruments (Slavin: 2012), include; planning, monitoring, evaluating. Creativity indicators include: Fluency, originality, elaboration. To

collect data on social skills, it is done by observing and kroschek on students through interviews, while for metacognitive it is done by analyzing the work of students and doing koroscheck on the students themselves, while to get creativity data it is done by analyzing the work made by students.

Data Analysis
To calculate the influence of social skill abilities, on meta-contive whereas on

indicators of student creativity quantitatively statistical calculations are carried out, while to complete the data so that it is more valid, fill in a questionnaire that refers to indicators (creativity, social skills)

RESULTS

Area-based Connectivism Learning Model for Creativity

Tabel: 1.1 Descriptive Statistics The effectiveness of the model on creativity

	N	Minimum	Maximum	Mean	Std. Deviation
Ngain_Score	26	.39	.85	.7036	.10857
Ngain_Persen	26	39.39	84.85	70.3553	10.85747
Valid N (listwise)	26				

The category in the distribution table of N Gain Score g > 0.7 is included in the High category, in the categorization of n gain scores in the Connectivism-based Area learning model research results obtained in the high score category because the mean score obtained is more than 0.7. While the mean score is 70.35 so that the categorization is included in the percentage of 56-75 which means that the application of the connectivity-based area model is quite effective in increasing student creativity. the three indicators of creativity used in this study used Torrance's theory (1981), namely,

fluency, the indicators of fluency referred to in this study are activities carried out by students, including: 1) The ability of students to express their work fluently, 2) The ability to produce the form of the work smoothly, in the aspect of elaboration, the activities carried out by students include: 1) Pouring out the idea of the work that is made. In originality activities, the activities carried out by students include: 1) The ability to develop ideas without seeing or imitating anyone's work, so that in this case the works made by students are pure thoughts.

Area-based Connectivism Learning Model for Creativity

Table: 1.2 Descriptive Statistics The effectiveness of the model on Social Skills

	N	Minimum	Maximum	Mean	Std. Deviation
Ngain_Score	26	.37	.89	.7023	.12862
Ngain_Persen	26	37.14	88.89	70.2331	12.86228
Valid N (listwise)	26				

The distribution category of N Gain Score g > 0.7023 High, in the categorization of the value of n gain score in the Connectivism-based learning model research results are included in the high category score because the mean score obtained is more than 0.7. Meanwhile, the mean score is 70.23 so that the categorization is included in the percentage of 56-75 which means that the application of the connectivity-based area model is quite effective in improving students' social skills. In collecting data related to the connectivity-based area learning model on students' social skills, data is obtained from several existing indicators (peer relations, self-management, academic ability, compliance, assertion) they are active in carrying out peer relations activities, namely they are able to communicate with friends in the area or with friends in other areas through the activity of conveying the concept of their work and providing input on the work of their friends, in self-management data is obtained that participants are able to manage themselves without interfering with each other during the work process, on the academic ability indicator shows that participants have knowledge related to works made by adjusting to the area they choose, as well as the themes that appear in the works they make, on the compliance indicator students

are able to complete works according to the themes of existing sub-themes, and they are able to complete works according to n the time allotted. In the assertion indicator, data is obtained that students are able to use existing materials in their learning area, and they work according to the learning area they choose (in the drawing area they carry out drawing activities, in the shaping area they form existing materials in that area they make shapes according to the specified theme, and in the craft area they make crafts according to the existing theme)

Conclusion,   Recomendation,   And Implication

The findings that became the main key in this study were the effectiveness of the area-based connectivism learning model (drawing, shaping, and craft areas) to increase creativity, social skills, in creating fine arts at the 2nd grade elementary school level. From the activities carried out in the learning area with The basic competence of fine arts is then analyzed on the creativity and social skills of the students.

The research method used in this study is a one group pretest posttest designed quantitative study, by providing a treatment of an area learning model based

on connectivism, creativity, social skills, with a total of 26 students as respondents. The results obtained from the Ngain test for the distribution category N Gain Score $g > 0.7$ High, in the categorization of the value of the n gain score in the Connectivism-based Area learning model research, the results are included in the high category score because the mean score obtained is more than 0.7. Whereas in terms of effectiveness, the mean score is 70.35 so that the categorization is included in the percentage of 56-75, which means that the application of the connectivity-based area model is quite effective in increasing the creativity of students.

Whereas on the effectiveness of social skills obtained data N Gain Score $g > 0.7023$ High, in the categorization of the value of n gain score in the Connectivism-based Area learning model study the results were included in the high category score because the mean score obtained was more than 0.7. While the mean score is 70.23 so that the categorization is included in the percentage of 56-75 which means that the application of the connectivity-based area model is quite effective in improving students' social skills

From the data obtained statistically it shows that the connectivism-based area learning model has an influence on the creativity and social skills of students in the subject of class 2 elementary school at SDN Al Chusnaini Sidoarjo. From the results of experiments that have been carried out in a study entitled Connectivism-Based Area Learning Models Its Influence on Creativity and Social Skills in Creating Fine Art in Elementary School Level Students, the results show that, connectivism-based area learning models are effective for increasing students' creativity and social

skills. Because in this learning model, students are given the flexibility to choose a learning area that is their interest in learning, so that their competence can develop properly.

ACKNOWLEDGEMENT

REFERENCES
Arends, Richards I. 2012. Learning to teach, Ninth Edition. The McGraw-Hill Companies. https://hasanahummi.files.wordpress.com/2017/04/connect-learn-succeed-richard-arends-learning-to-teach-mcgraw-hill-2012.pdf

Bruckner, Michael. 2015.Educational Technology. Research Gate: Naresuan University, Phitsanulok, Thailand

Corbett, Frederique and Spinello, Elio. 2020. Connectivism and leadership: harnessing a learning theory for the digital age to redefine leadership in the twenty-firstcentury.Heliyon:CellPress.

Ensari, Pelin.2017. How to Improve Emotional Intelligence and Social Skills among Adolescents: The Development and Test of a New Microexpressions Training. Journal of Behavioral and Brain Science, 7, 211-225.

Harris. Anne. 2016. Creativity, Educationa and the Arts. Monash University. Mealborn: Austria. DOI 10.1057/978-1-137-57224-0

Harris. Anne, Bruin Leon De. 2018. Creativity in Education. Oxford Research Encyclopedias

HKSARG. 2017. Kindegarten Education Curriculum Guide Joyful Learning Through Play Balanced Development All the Way. Hongkong.

https://buku.yunandracenter.com/produk/permendikbud-2018-37-ki-kd-kurikulum-2013-dikdasmen/)

Icaza-Soto, Patricia. Aboitiz , Francisco. Billeke , Pablo. 2015. Development of social skills inchildren: neural and behavioralevidence for the elaboration ofcognitive models. Jurnal Frontiers in Neoroscaince. Joyce, Bruce. Weil, Marsha. 2017. Models of Teaching. Prentice. HaII of India:New DeIhi.

Kementerian Pendidikan Dan Kebudayaan Direktorat Jenderal Guru Dan Tenaga Kependidikan. 2017. Sumber Belajar Plpg 2017 Materi Pedagogik Guru Kelas Paud/Tk Bab . V Desain Dan Perencanaan Pembelajaran Di Paud.

Kop, Rita. 2008. Connectivism: Learning Theory of the Future or Vestige of the Past?. International Review of Research in Open and Distance LearningVolume9,Number3.

Mutiah, Diana. 2015. Psikologi Bermain Anak Usia Dini. Kencana: Jakarta.

Patston, Timothy J. 2021. Whats Is Creativity Education? A Qualitative Study of International Curricula.Journalof Advanced Academics 2021, Vol. 32(2) 207–230.

Pamadhi, Hadjar. 2016. Pendidikan Seni Di SD. Universitas Terbuka: Banten.

Siemens, George. 2004. A Learning Theory for the Digital Age. PressBooks:PB.

Slavin, Robert E. 2012. Psikologi Pendidikan. Indeks: Jakarta.

Torrance, E. P. 1981. Predicting the creativity of elementary school children And the teacher who ''made a difference.''Gifted Child Quarterly, 25, 55–62.

Widiyasanti, M., & Ayriza, Y. (2018). Pengembangan Media Video Animasi untuk Meningkatkan Motivasi Belajar dan Karakter Tanggung Jawab Siswa Kelas V. Jurnal Pendidikan Karakter, 8(1), 1–16. https://doi.org/10.21831/jpk.v8i1.21489.