

## Original Paper

# How Contextual Teaching and Learning (CTL) Correlates with Students' Learning Creativities

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### Abstract

*This research aimed to investigate whether or not there was an effect of Contextual Teaching and Learning (CTL) model towards the improvement of students' learning creativities. A total number of 40 students of 4<sup>th</sup> grade of Public Primary School Lengkong Karya, South Tangerang, Indonesia, participated in this study. This was a quantitative research with descriptive quantitative method. The hypothesis of the study stated that there was an influence of Contextual Teaching and Learning (CTL) model towards 4<sup>th</sup> grade students' learning creativities improvement. The results of the research revealed that there was a significant influence of CTL towards students' learning creativities in which in the significant level of 5%, there was a significant correlation between variable X and Y. Additionally, in the significant level of 1%,  $r_{table}$  was lower than  $r_{xy}$  ( $0.376 < 0.468$ ), hence, at this level, there was a significant correlation between variable X and Y. Based on the statistical test, it was concluded that learning model of Contextual Teaching and Learning (CTL) had significant influence towards the learning creativities of 4<sup>th</sup> graders of Public Primary School Lengkong Karya. South Tangerang. Indonesia.*

### Keywords

*Contextual Teaching and Learning (CTL) Model, Students Learning Creativity*

## 1. Introduction

Education process is one of the ways to advance a nation or a country. Through an education process, a nation will be able to develop all potentials and skills owned by its citizenship. The advancing of education will also be able to change the paradigm of a developed country. Thus, humans need education in their lives since it will open the mind-set from "do not know" to become "know" and also change one good condition to become much better. The development of learning in the Primary School

is varied with many problems starting from the smallest to the biggest ones. Therefore, all problems both at school and in the class, must be solved immediately, such as: a). Students' lack of focus to the materials discussed by the teacher; b). Time efficiency, c). Students' creativity of what tasks given by the teacher. Based on those three problems afore-mentioned, teachers should put more attention and focus to their pupils to anticipate one of the problems happens, so that the learning process can be received by the students well.

The successful of the achievement of a subject's competence depends on several aspects. One of the most influencing facets is the way the teacher runs a learning process. Nowadays, the learnings tend to be centralized to the teacher which applies a method of delivering talks or speech. The students are less actively involved in that kind of learning process. As the consequence, level of students' understanding to the learning material is still low. masih berpusat pada guru dengan bercerita atau berceramah. Besides, teaching media is rarely used, hence the learning becomes boring and less meaningful. There are many ways to make the students become active which is usually called as "the equipment of active learning", namely: classrooms settings, learning partnerships, doing analysis of students' needs, encouraging students' interests, understanding and involving students in the process of learning, creating study-groups, selecting appropriate tasks and strategies, facilitating a discussion, having experiment activities, applying role-playing, saving time and controlling any excessive students' activity.

In a process of learning, a teacher will choose good techniques in delivering the lessons in the class. Because, if a teacher is unable or is not ready for applying a technique in the class, the atmosphere of the class will be monotonous, hence, the students need to be given new condition so that they will not be bored in following the lessons. However, based on the results of initial observation of this research to the class teacher of 4<sup>th</sup> graders of Public Primary school Lengkong Karya, South Tangerang, Indonesia, level of these students' creativity is still low while in fact, creativity is a potential owned by every person. The causes why creativity cannot be developed optimally because the person is accustomed with an orderly thought limited by the possibilities to respond and solve a problem freely. As well as the students whose creativities do not develop since they are influenced by some teachers' paradigms in teaching in the class which argue that a learning process is only limited to learning, tending to lead their students to do something to learn on how to find that thing not teaching the basic concepts of the procedures, hence, at this stage, learning focuses on understanding the concepts of mastering procedures to build activities and creativities of the students.

The phenomenon presented, above are also experienced by the 4<sup>th</sup> graders of Public Primary school Lengkong Karya South Tangerang. Indonesia, with total number of 40 students. In the learning process, these students were only focusing on the materials without involving their creativities. One of the causes was lack of variation in the process of learning. Referring to this finding, this research is aimed to investigate students' learning process and creativities through a model of Contextual Teaching and Learning (CTL). Because this model will guide the students to be more active in learning and even

further, it will also influence the students' creativities of learning.

## 2. Formulation of the Problems

Based on the background above, the problems of this research are formulated as follows:

- 1) How did the implementation of Contextual Teaching and Learning (CTL) model to the 4<sup>th</sup> graders of Public Primary school Lengkong Karya South Tangerang, Indonesia?
- 2) How was the influence of this model towards those students' creativities?

## 3. The Objectives of the Research

- 1) To find out and analyze the way Contextual Teaching and Learning (CTL) model being implemented to the 4<sup>th</sup> graders of Public Primary school Lengkong Karya. South Tangerang. Indonesia.
- 2) To know and analyze the effects of this model toward those students' learning creativities.

## 4. Review of the Literature

A Learning Model of Contextual Teaching and Learning (CTL), The Explanation of Contextual Teaching and Learning (CTL) Model. The word contextual comes from the word "*context*" which means "relationship, contexts, condition and contextual condition". Thus, Contextual Teaching and Learning (CTL) can be defined as a learning related to a certain condition, in general, contextual contains the meaning of: regarding with, relevant, having direct relation or correlation, following contexts, which bring meaning and purposes. Contextual Teaching and Learning (CTL) is a concept which helps teachers to relate the content of a subject to the real world, and motivate students to build a relationship between knowledge and its application in their lives as members of families, citizens and workers. In 1916, Dewey proposed a curriculum and teaching methodology applying based on students' interests and experiences. Contextual learning was firstly applied to school students in America, proposed by John Dewey. Beside the definition mentioned above, there are several definitions of contextual learning given by several scholars, and some of them are as follows:

Johnson (2014, p. 14), Contextual Teaching and Learning (CTL), is a learning strategy focusing on the process of students' fully in order to find out the materials discussed and relate that subject with the situation of a real-life so that the students will be able to apply that in their lives. Further, according to Jonshon (2014, p. 65), CTL is a full system. CTL consists of interrelated parts, and if these parts are connected one to another, then it will give effects more than the spreading parts. In reaching this goal, the system should compose 8 components, namely: creating meaningful interrelationships, doing meaningful actions, thinking critically and creatively, helping individuals to grow and develop, hitting high standard, and using authentic evaluation.

It is quoted from US Department of Education Office of Vocational and Adult Education and the National School of Work Office, in Muslich (2009, p. 105), Contextual Teaching and Learning (CTL), is defined as a teaching and learning which assists teachers to relate learning materials with students'

real world, and encouraging students to form a relationship between knowledge that they own with its application in their real daily lives. Students' knowledge and skills got are gotten from their efforts to reconstruct new knowledge and skill while learning. According to Trianto (2010, p. 108), the term of learning model has wider meaning than strategy, method or procedure. Learning model covers an approach of a wide and total learning model. Learning model is based on the learning theories of constructivism, in which the learning is started by presenting real problems which require cooperation among students to solve the cases.

Contextual learning can be said as a learning approach which admits and shows scientific conditions of knowledge. Through the relationships inside and outside the class, a contextual learning will make experiences become more relevant and meaningful for students in building knowledge that they will apply in long-life learning. Thus, it is clear that the benefits of contextual learning will create classes where the students in those rooms will become active, not just passively observe and be responsible to their learnings. The process of contextual learning (Contextual Teaching and Learning (CTL), is a learning concept which will be able to help teachers correlate the subjects taught with the real-world situations of the students and support students build the relationship between the knowledge they have with its application in their lives as members of families and society. While Howey R, Keneth in Rusman (2010, p. 190), defined CTL as a learning which provides possibilities of learning process in which the students use their understandings and academic competence in various contexts both inside and outside the schools in order to solve problems either as simulation or real; as individuals or in groups.

According to Sanjaya (2006, p. 255), Contextual Teaching and Learning (CTL), is a learning strategy focusing on students' involvement process fully to find out the materials learned and relate them with the situation of real lives so that the students will be encouraged to apply them in their daily lives. A Model of Contextual Teaching and Learning (CTL), is a learning system based on the philosophy that the students are able to grasp the lessons if they catch the meanings contained in the school assignments as long as they can relate new information with the knowledge and skills they previously possessed. Based on those several discussions on Contextual Teaching and Learning (CTL) model, it can be concluded that dapat disimpulkan bahwa Contextual Teaching and Learning (CTL), is a learning emphasized on students' fully involvement process in important activities which helps them to relate the lessons with the real-life contexts they face.

The Purposes of Contextual Teaching and Learning (CTL) Model, there are several purposes stated on sites, i.e., a. CTL learning model, has the purpose to motivate the students to understand the meaning of the lessons learned by connecting those lessons with their daily life's contexts so that they will have knowledge or skills which can be applied reflectively from one problem to another; b. This learning model has the objective of not only inviting the students to memorize but also to understand; c. This model of learning is focusing on developing students' interests of experiences; d. This CTL model is aimed to train the students to think critically and skillful in processing knowledge in order to find out

and create something benefit for themselves and others; e. This CTL model has the goal to make the learnings become more productive and meaningful; f. This CTL model invites the students to relate academic materials with their daily lives; g. This CTL model has the purposes to make the students, individually, able to find and transfer complex information and they will use that information become their belongings.

The Strategy of Contextual Teaching and Learning (CTL) Model, based on the opinion of Trianto (2010, p. 109), Curriculum and instruction based on the strategy of Contextual Teaching and Learning (CTL) should be designed to stimulate 5 basic of learnings: a. Relating, is a learning in a context of life experience which is real or in the beginning before that knowledge gained by the students; b. Experiencing, at this stage, the students might have no experience directly related to that concept. However, at this part the teacher should be able to give hands-on activities to the students so that they will be able to build their knowledge; c. Applying, this strategy is learning by applying concepts when they are related to the activities of solving hands-on problems and projects; d. Cooperating, learning together in the contexts of sharing, responding, and communicating with other students is the main instructional strategy in the contextual teaching; e. Transferring, refers to teaching strategy defined as using knowledge in a new context or situation which is not solved or accomplished in the class.

The Components of Contextual Teaching and Learning (CTL) Model, According to Trianto (2013, p. 145), Contextual Teaching and Learning (CTL), is a learning model which has 7 components used as the basis for running the process of learning. Those 7 components are explained as follows: a. Constructivism, is a process of building or arranging new knowledge in the structures of students' cognitive based on experiences, in the application of this component through CTL, the students are encouraged to be able to reconstruct their own knowledge through real experiences; b. Inquiry, refers to a learning process based on searching and finding through systemic thoughts process. Knowledge is not a number of facts resulted from memorizing it is a process of finding. Through a systemic thoughts process, the students are expected to have the characteristics of scientific, rationale, and logic, in which all of them are needed as the basic for building creativities; c. Questioning, asking questions can be seen as the reflection of each individual's eagerness; while answering questions reflects the ability of someone in thinking. In a productive learning, the activity of addressing questions will be very important to: Digging information of students' abilities in mastering the subjects learned; Raising students' motivation; Stimulating the eagerness of students towards something; Focusing on certain students; Guiding students to find or conclude something. In each learning stage and process, the activity of questioning is almost always be used. Therefore, the ability of teachers to increase various techniques of questioning is definitely important.

Learning Community, the concept of learning community in CTL, suggest that the results of learnings are obtained through the cooperation with others. That cooperation can be carried out in various types both in a formal study group and in a scientific environment. The results of learnings are gained from sharing with other people, friends, or groups in which those who have known will tell the ones who do

not know before, those who are experienced will share their experiences to the ones who do not have any experience. These are the basic concept of learning community, the community that shares to each other. Modeling, is a process of learning by showing an example to be imitated by other students. For instance, teacher gives the example on how to draw a correct rectangle. Modeling is also important in the learning of CTL model since through modeling the students will be avoided from any abstract lesson. Reflection, is a process of keeping any lessons learned by listing back the learning events or experiences that they have followed. Through reflection process, those learning experiences will be entered into students' cognitive structure in which in the end, those experiences will become parts of the knowledge the students own. It might also happen that the students will renew the knowledge they have created, or add the insights of their knowledge. Assessment, refers to the process taken by the teachers to collect information about students' learning progress. This assessment is needed to find out whether or not the students really study; and whether the learning experiences the students had, gave positive impacts to the development of both their intellectual and mental. This assessment is carried out continuously along the learning process. Thus, the focus is on the process of learning not the output of learning.

The Elements of Contextual Teaching and Learning (CTL), Trianto (2013, p. 144), Contextual Teaching and Learning (CTL) has five elements which are constructivist, namely: activating, acquiring, understanding, applying, reflecting knowledge to the development strategy of that knowledge. The Characteristics of Contextual Teaching and Learning (CTL), According to Sanjaya (2006, p. 225), there are 5 most important characters in the learning process applied the approach of CTL, namely: In CTL, learning is a process of activating the existed knowledge, hence, it means that what will be learned will not be separated from the knowledge learned, therefore the knowledge gained by the students is something total having correlation one to another. The Learning of CTL is studying in order to obtain and add new knowledge. New knowledge is obtained deductively, it means that the learning is started from discussing whole aspects, and then analyzing the details. The understanding of achieved knowledge is not to be memorized but to be understood and believed, for example the way of asking others' respond about the knowledge someone has and based on that response, the knowledge is being developed. Applying knowledge and experiences. Both knowledge and experiences have to be applied into students' lives, so that the changing of students' behaviors will be seen. Doing reflection is a strategy of developing knowledge. It is done as the feed-back to the process of improving the strategy. Further, Sofyan and Amiruddin (2007, p. 16), explain that the characters of are: Cooperating, supporting each other, Fun learning not boring, Learning and full of spirit, Reintegrated learning, using various sources, Active learners, sharing with friends, and critical and creative learners. The characters of CTL approach, Based on the opinions given by the scholars described above, it can be concluded that: learning is a process of activating knowledge, acquiring knowledge, understanding knowledge, critical and creative thinking, authentic assessment, applying knowledge, i.e., the knowledge the learners have must be able to be applied in students' lives, and reflecting knowledge to the strategy of

developing that knowledge. The Application of Contextual Teaching and Learning (CTL) Approach in the Class, Trianto (2013, p. 144), broadly said that the steps of applying CTL in the classroom are as follows: Developing the thoughts that the students' learning will be more meaningful by having independent working, having self-finding, and reconstructing new knowledge and skills by themselves; Doing any furthest inquiry activity for all topics; Developing students' eagerness through questioning; Creating learning community (learning in groups); Presenting model as a sample of learning; Doing reflection in the end of the learning session; Administering authentic assessment with various ways. .

The merits and demerits of Contextual Teaching and Learning (CTL), Sanjaya (2006, p. 260), the advantages Contextual Teaching and Learning (CTL) model are: Placing students as the subjects of learning which means that the students are the ones who take active roles in each process of learning by finding and digging the lessons by themselves, The students learn through study-groups, discussing, receiving and giving to each other, connecting the lessons with real lives, basing the competence on experiences, getting self-satisfaction at the end of the lesson. The actions and attitudes are built based on self-awareness, the knowledge owned by each individual is always developed due to the experiences the students have, the students are responsible in monitoring and developing their own lessons, the learnings happen in any place under different contexts and settings referring to the needs, the successful of learning is measured in numerous ways, such as through evaluation process, students' creations, performances, recordings, observations, interviews, and so on.

Besides the strengths discussed above, Contextual Teaching and Learning (CTL), model also has disadvantages that must be considered as follows: In a contextual learning, students are seen as developing individuals, each student tends to learn new things and full of challenges, Learning for students is a process of finding correlation and relationship between new things to the existed ones, Learning for students is a process of completing existed schemes or creating the new ones. Based on both merits and demerits of Contextual Teaching and Learning (CTL) explained above, it can be assumed that CTL has many strengths in which through direct experiences the students will gain more knowledge, so that the development of the students will be integrated not only in the aspect of cognitive but also in affective and motoric facets. Besides those advantages, CTL also has drawbacks in which the teachers are required to be able to understand this type of learning model deeply unless the lessons will not be successful.

The definition of creativity, the term of creativity contains numerous meanings, depending on someone's view to analyze it. Each interpretation about creativity is adjusted with the background of the analysis, since there is no one general definition represents the whole meanings. In the beginning, in the research about creativity, this term is usually connected to creative behaviors. There are also many definitions stated on the literature, however there is no specific definition given by each version. Shaleh (2008, p. 271), argues that creativity is an ability to overcome problem which make the person solves the real ideas or creates something adaptive (functional) which is fully developed, while according to J.P. Guilford cited by Shaleh (2008, p. 271), creativity is said as divergent thoughts, i.e.,

genuine mental activity, pure and new, different from daily patterns and it creates more than one solution.

The Definition of Creativity based on James J. Gallagher, it is stated on Rahmawati and Kurniati (2010, p. 13), that creativity is a mental process of individuals in the form of ideas or new products, or combining those two which will be stuck on those persons. Further, Supriadi in Rahmawati and Kurniati (2010, p. 13), creativity refers to the ability of a person to create new thing, it is either in the form of ideas or creations which relatively different from existed one. While according to Semiawan in Rahmawati and Kurniati (2010, p. 14), creativity is the ability to give new ideas and apply them in solving problems. Chaplin also cited by Rahmawati and Kurniati (2010, p. 14), defines creativity as the ability to produce new things in arts, or in machinery, or in solving problems through new methods.

Rhodes explains in Munandar (2012, p. 20), that creativity can be formulated in the terms of person, process and product. Creativity can also be reviewed from personal's condition and "pressing" environment. Rhodes mentioned four types of creativity's definitions as four P's of creativity: person, process, press, and product. These 4 Ps are interrelated in which creative persons who involve themselves in creative process with the supports and pressures from environment, and resulting creative products. That definition is in line with the one argued by the Ministry of National Education, Research and Development Centre Board for Curriculum Development (2010, p. 10), which stated that creative is a process of thought and doing something to produce new ways or results from something that has already possessed.

Munandar (2014, p. 45), gives his opinion that creativity is the expression of individual's uniqueness in the interaction with the environment. Creative expression is the reflection of that individual's originality. From this unique expression, the new ideas and innovative products are expected. According Utami Munandar in Idris (2015, p. 144), creativity is a process reflected in smooth, flexible, and original thoughts. While Hurlock in Idris (2015, p. 144), said that creativity is a process which resulting something new, either ideas or objects in new forms or arrangements, that creativity is the ability of someone in creating something new based on experiences, insights, or his/her relationships with other people and environment.

Further, Jonshon (2012, p. 213), explained that creativity is human's basic characters, a natural process flowers that bloom at the end of green stalks. Creativity is like blood. Blood is human's spiritual facts without having to seek for it. Additionally, Cameron in Jonshon (2012, p. 213), described that creativity is a natural creation of life. Humans themselves are creations. And in turns, humans are destined to continue their creativities by making themselves be creative. In its process, the results of creativities according to Torrance, covers original ideas, different views, solving problems, combining ideas back or looking at new relationships in those ideas. Torrance described further that there are four components of creativity that can be accessed, namely: fluency, which means the ability to deliver ideas, flexibility, refers to the ability of resulting various ideas, elaboration, as the ability to develop or express an idea, originality, which is defined as the ability to create uncommon ideas.



Seifert (2012, p. 156), explained the view of creativity as branching thoughts, the ability of resulting a variation consists of various solutions which are strange and not common, to a problem, however, in facts, some situations and problems need those types of thoughts to reach best ways-out. This opinion is supported by Yurisaldi (2010, p. 2), who argued that creativity can create something new so that it will have more values than before. Branching thoughts have four important features, namely: Proficiency which refers to the ability to create various responses without any external interruption toward a problem-matter from various views without focusing on one certain angle, Originality, is the ability to create a unique or an uncommon response, wide, as the ability to enrich or add various details towards a response. Besides, creativity is also defined as the results of learnings which are verbally expressed and the practice of creative thinking ability can be referred to the levels of students' ability to think in finding most, the ones which are relevant, answers or problems that are flexible, original, and detailed based on provided data and information. Creative behavior covers eagerness, imaginative, risk-taker, and respect.

Based on the opinions of the scholars above, it can be concluded that creativity is the result of learning expressed both verbally and practically due to the ability of thinking creatively and creative behaviors are formed from whole ability of a person reflecting fluency, flexibility, ability to elaborate, original, the ability of evaluation, eagerness, feeling challenged by pluralism, brave in taking risks, and respective in which its process is effected by the supports of the environment.

#### *4.1 The Pillar of Creativity to Children*

According to Al-Khalili (2005, p. 50), there are several pillars of creativity and also the factors influenced the personality of a child, his environment, life and way of growing. These all are built through several pillars, including: several ways taken by children to express their various thoughts, enjoying experiences, and those different activities are important things and big pillars in building creativities in children, the beginning of creativity is signed by obtaining several things and producing new forms, and also the ability to solve parts of the problems or games in the middle of activities; playing is the basic important pillar for creative thinking. In childhood stage, a child is able to speak, play, ask questions, imitate, adopt, follow, lie, joke, joy, sing, invent, create something, imagine, paint, and read. These all facets represent children's creativities. Therefore, creativities are many in number, including: environment, society, schools, families, the children themselves, its growing and caring methods.

#### *4.2 The Characteristics of Creativity*

Rahmawati and Kurniati (2010, p. 15), explained that one of the necessary aspects in creativity is understanding its characters. There 24 characters of personalities found in various studies, as follows: Open to new experiences, flexible in thinking and giving responses, free in stating opinions and expressing feelings, respecting fantasy, interested in any creative activity, having self-opinion without being effected by others, having big eagerness, tolerant to different opinions and uncertain situations, having bravery to take risks, self-confident and independent, owning responsibilities and commitments

to tasks, diligent and not easy to get bored, finding ways to overcome problems, rich of initiative, sensitive to surroundings, oriented more on today and future than past, having self-esteem and stable emotion, interested in abstract things, complex, holistic, containing puzzles, having original ideas, having broad interests, using spare-time for benefitted activities and constructive for self-development, critical to others' opinions, preferring to address good questions, having awareness of moral-ethics and high-aesthetics.

With those characteristics, it can be seen that the personality of creative person is very varied and fluctuating. For this reason, the presence of teachers as advisors are very important to help students to balance the development of their personalities, so that creative children can be developed optimum, not only on their intelligence but also on their social and emotional. The characteristics of creative persons according to Al-Khalili (2005, p. 53), there are several characteristics of creative persons, namely: a. Their sensitivities to various problems are very big. By possessing humble character, creative persons can become very sensitive toward various big problems, and active in solving those matters by finding out new styles and steps; b. Creative persons are able to broaden their networks of thoughts, from something usual to be extra-ordinary, and having big ability in giving different responses in facing numerous situations, thoughts, and problems; c. Sensitive to beauty. This beauty is formed from great variety of privileges and benefits. This sensitivity is able to move hearts which might create big strengths from those hearts to think better and be productive.

#### *4.3 The Important Values in Creativity*

According to Treffinger in Reni Akbar Hawadi, et al. (2001, p. 13), in life, creativity is very important, since it is a meaningful ability in human's life and none of the people who does not have any creativity. There several important values of creativities in real-life as follows: The ability to produce something as ideas or real creations in handling the problems in life. A creative person will be able to apply various and numerous approaches to encounter a problem. The potential of creativity, someone will show the results of his/her actions, performance/creations, through meaningful and qualified ideas. The levels of quality and performance, creations, ideas and actions of humans can be measured from how high the levels, obviously, a creative creation resulted from someone's creativity will create valuable personal's satisfaction. Creativity is important in developing his/her life, by creativity owned, someone will reach his/her optimum self-development and he/she will use their ideas to make new creations for running his/her life. Creativity is necessary to be understood by the educators (teachers) especially in regards with their responsibilities as teachers in guiding and "escorting" the learners to optimum growth and development. The improvement of human resources in this globalization and reformation era shows how important the creativity is to be optimally managed and developed. This is a challenge for serious caring of related parties in developing human resources, especially in the education field. It will be more meaningful if the students, in their responsibilities as learners, to manage, develop, and improve both of their academic and non-academic creativities. Therefore, the potentialities of students' creativities will be expressed and actualized optimally. Creativities are also important in the process of

teaching and learning, especially for teachers. Teachers are required to be able to create fun and conducive learning atmosphere so that the students will be stimulated to be keen on the materials taught, joyful, and confident to express opinions, and also to do any trial which requires new experiences. This thing is important for teachers in the process of teaching and learning in order to give chances to students to reach the highest achievement. Creative as the operations of creativity concepts have significant values in individual's life. Conny in Reni Akbar Hawadi, et al. (2001, p. 15), stated that there four important reasons why someone needs to study creatively, including: Creative learning helps students to be successful even when the parents/teachers are not around, Creative learning creates the possibilities to solve problems in the future, which are unpredictable before, Creative learning will create big impacts to someone's life which will influence and change their personal careers which will support their body and souls' health, Creative learning will make big self-satisfaction and happiness. In a wider sense, creative learning will create new ideas and creations.

#### *4.4 The Benefits of Creativities to Children*

According to Albert Einstein, creativity gives great benefits to both individuals and bigger society. The benefits of creativity are: Making life becomes more beautiful, creativity will make a happier life since the living will be surrounded by varied things and not monotonous. Running routine activities will make people bored sooner, not excited, and passive. Doing creative varied things will give something new and fresh. Besides schooling, the learners should try various new positive things. Increasing appreciation to other people's ideas. Creative persons will absolutely accept and appreciate the opinions of others, whoever those persons are. Improving motivation and life spirit. Creativities will improve people's spirit and motivation in life. Creative persons will not be afraid of losing opportunities since they are able to create their own. Creative people will never be afraid of facing problems since they are able to solve any matter with their creativities.

As one of the factors of business' succeed, day by day, creativities are needed more in business world. In business, creativities become one of the factors for its successfulness. All sectors of business need creativities, starting from creating goods and services, producing techniques, marketing strategy, payment method, and keeping the loyalty of buyers to continuously use the products. With the growing of business competition, creativities are obviously needed for an entrepreneur to win the competition. Creativities become the beginning of innovation and changings. Innovation is the results of empowering certain creativities to become a way, process, product, or new sources, different from the previous ones. Improving human's quality and level of life, Creativities play big roles to improve human's welfare and life quality. One of the characters of crative creation is giving social benefits since if it does not have any benefit then it will be meaningless.

#### *4.5 Driving and Inhibiting Factors of Creativity*

The ability of students' creativities can be developed and affected by both driving and inhibiting factors. Contextual Teaching and Learning (CTL) Model is a process of learning emphasized on the involvement of students fully in crucial activities which help them to relate the learning materials with

real-life contexts they face. Contextual Teaching and Learning (CTL) Model will open opportunity to dig students' potentials and stimulate their imagination, creativities, and independency in following the lessons which will improve their creativities. Student's creativity is a result of learnings expressed both verbally and practically in his/her creative thinking and behavior. The ability of creativity as a whole covers the abilities reflecting fluency, flexibility thoughts, ability to elaborate, original, the ability to evaluate, eagerness, imaginative, feeling challenged by pluralism, brave in taking risks and respective in which its process influenced by the supports of environment. Creativity can be seen from the ability and activity of the students during the learning sessions.

## 5. Findings of the Research

This research was conducted at Public Primary School Lengkong Karya South Tangerang, Indonesia. The study involved two variables; independent and dependent. Independent variable is Contextual Teaching and Learning (CTL) while the dependent variable is students' learning creativities. This research was carried out by distributing questionnaire to 40 students of grade 4. The researchers did the research in this class because previously an observation had been taken in order to find out whether or not this class has applied Contextual Teaching and Learning (CTL) model. Before doing the observation at this school, the researchers found out that this grade 4 class is accustomed with the implementation of Contextual Teaching and Learning (CTL) model compared to other classes. The questionnaire that the researchers delivered to these students consisted of 41 items in which 21 statements were related to Contextual Teaching and Learning (CTL) model and another 20 ones were required the responses about students' learning creativities. These all items were firstly tried-out to the higher grade, namely students of grade 5.

Variable X (Model of Contextual Teaching and Learning-CTL), in order to find out the effects, the researchers distributed questionnaire to those 40 students, as the respondents covering 21 statements with the results presented in the following graph 1: The distribution of questionnaire to the respondents is as described below:

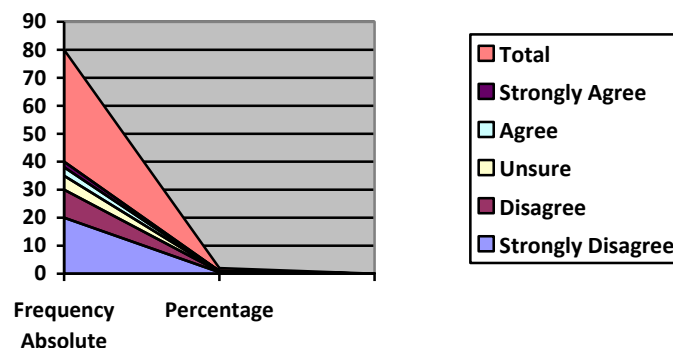
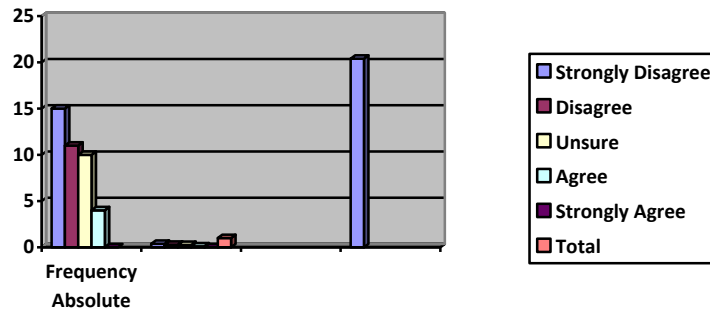


Figure 1. Distribution of Questionnaire to the Respondents

Based on the graph above, there were 20 students who strongly agreed or 50%, 10 students who chose “agree” or 25%, 5 students were “unsure” or 12.5%, 3 students who disagreed or 7.5% and the other 2 students responded strongly disagreed or 5%. These results showed that most of the students strongly agreed with the learning connected with their environment since through this type of learning, the lessons were easier to be understood by them.



**Figure 2. I Learn by Connecting the Real-World**

It can be clearly seen from Figure 2 above that there were 15 students who answered “strongly agree” or 37.5%, 11 students were in option of “agree” or 27.5%, 10 students answered “unsure” or 25%, 4 students disagreed or 10% and none of the student gave response to “strongly disagree”. The data revealed that most students strongly agreed with learning by relating real-world since through this way, the students were not difficult in connecting the lessons to their world so that they would be challenged to add new knowledge to their real-world.

## 6. The Results of Data Analysis

Validity Test, both validity and reliability tests of the questionnaire in this research were analyzed through an application named Statistical Package for the Social Sciences (SPSS) version 16.00. The validity test of the items in the instrument resulted both valid and invalid items in which the validity criterion of  $>0.291$  is called valid and the scale of  $\alpha_{cronbach} > 0.5$  to be decided as reliable. The following is the list of both valid and invalid items based on the tried-out of the instrument.

**Table 1. The Results of Validity Test of Contextual Teaching and Learning (CTL) Model towards Students' Learning Creativities**

No.	Aspects	Items	
		Valid	Drop
1.	<i>Model Contextual</i>	1,2,3,4,5,6,7,9,10,11,12,14,	8,13,15,19,22,24
	<i>Teaching and</i>	16,17,18,20,21,23,27,28,30	25,26,29
	<i>Learning (CTL)</i>		
2.	Students' Learning	2,3,4,6,8,11,12,13,14,15,17,	1,5,7,9,10,16,19,2
	Creativities	18,21,23,24,26,27,28,29,30	0, 22,25

The table above presents the results of validity test which was tried-out to 48 respondents. The items covered 30 statements for variable X (CTL) and another 30 for variable Y (students' learning creativities). A total number of 19 items were invalid and dropped, hence, the rests of 41 statements were valid.

#### Reliability Test

Reliability test is level of trust obtained from the results of the questionnaire as the instruments in collecting the data, in which the criterion of 0.6 for both variable X and Y to be decided as reliable. Based on the calculation by using the formula of *alpha cronbach*, the scale of *Contextual Teaching and Learning (CTL)* hit the degree of reliability of 0.789 with 21 valid items.

#### Reliability Statistics

Cronbach's Alpha	N of Items
.789	21

And students' learning creativities obtained the degree of reliability of 0.755 with 20 valid items. These findings showed the instrument used by the researchers in the data collection was reliable to be used.

## Instrument Prerequisite Test

### a. Normality Test

One-Sample Kolmogorov-Smirnov Test

	Unstandardized Residual
N	40
Normal Parameters <sup>a</sup> Mean	.0000000
Std. Deviation	5.62976478
Most Extreme Absolute	.113
Differences Positive	.076
Negative	-.113
Kolmogorov-Smirnov Z	.714
Asymp. Sig. (2-tailed)	.688

a. Test distribution is Normal.

Based on data analyzed by using the software of SPSS above, if  $\text{Sig} > 0.05$  then the data distributed normally, while if  $\text{Sig} < 0.05$ , then the data did not distribute normally. The value of Sig data (2-tailed) = 0.688 or bigger than 0.05, hence it could be concluded that those data distributed normally.

### Distribution of Data Frequency

This research used questionnaire as the instrument in collecting the data. In taking the data, the researchers were firstly distributed the questionnaire contained the statements of both *Contextual Teaching and Learning* (CTL) Model and Students' Learning Creativities. After the data being tabulated to be calculated into percentages, the next step taken was analyzing and interpreting the data to find out the effects of variable X on variable Y. The data of *Contextual Teaching and Learning* (CTL) as variable X and students' learning creativities as variable Y were obtained through the distribution of questionnaire to 40 students of Public Primary school Lengkong Karya 1, South Tangerang, Indonesia.

### Simple Correlation

Further, the correlational number between variable X, i.e., *Contextual Teaching and Learning* (CTL) model and variable Y, i.e., Students' learning creativities was measured through the assisting of SPSS version 16.00 for windows.

**Correlations**

		CTL	CREATIVITY
CTL	Pearson Correlation	1	.468**
	Sig. (2-tailed)		.002
	N	40	40
CREATIVITY	Pearson Correlation	.468**	1
	Sig. (2-tailed)	.002	
	N	40	40

*\*\*correlation is significant at the level of 0.01 (2-tailed)*

The interpretation towards rxy in the above calculation showed that the correlation between variable X and variable Y was not negative which meant that both variables had positive correlation (linear correlation). By looking at the value of rxy (0.468) which was in the range between 0.40-0.599, this number confirmed that the correlation between variable X and Y was medium or adequate.

### Coefficient Determination Test

In order to measure the percentages of independent variable and dependent variable in which  $r=0.212$ , then the value of determination was found by using the following formula:

$$KD = r^2 \times 100\%$$

$$KD = 0.212^2 \times 100\%$$

$$KD = 0.449 \times 100\%$$

$$KD = 44.9$$



The calculation was also applied SPSS for Windows

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.212 <sup>a</sup>	.045	.020	6.308

a. Predictors: (Constant), Creativity

Based on the calculation above, adjusted r square reached the value of 0.020 which could be interpreted that the model of Contextual Teaching and Learning (CTL) contributed in the amount of 0.020% to 4<sup>th</sup> graders' learning creativities.

#### Simultaneous Significant Test (F test)

**ANOVA<sup>b</sup>**

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	71.310	1	71.310	1.792	.189 <sup>a</sup>
Residual	1512.290	38	39.797		
Total	1583.600	39			

a. Predictors: (Constant), Creativity

b. Dependent Variable: CTL

Based on the results of F test, it can be seen that the value of  $F_{cal}$  was 1.792 with the significant level of 5%, df (40-2=38) and  $F_{table}$  was 4.10, therefore, if those two values were compared, then  $F_{cal} > F_{table}$  or  $1.792 > 4.10$ , thus, in the significant level of 5%, it was confirmed that  $H_a$  was accepted and  $H_o$  was rejected. This calculation hence, assumed that *Contextual Teaching and Learning* (CTL) model had significant influence to the learning creativities of 4<sup>th</sup> graders, public Primary School Lengkonng Karya, South Tangerang, Indonesia.

#### Individual Parameter Significance Test (t-test)

**Coefficients<sup>a</sup>**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	68.678	7.849		8.750	.000
Creativity	.113	.084	.212	1.339	.189

a. Dependent Variable: CTL

The results of the research above revealed that sig. reached the value of 0.189 which was  $>0.05$ , therefore  $H_a$  was accepted. This also showed that partially, there was no significant effect of Contextual Teaching and Learning (CTL) on learning creativities of 4<sup>th</sup> grade students of Public Primary school Lengkong Karya, South Tangerang, Indonesia.

## 7. Interpretation of Research Findings

Contextual Teaching and Learning (CTL) Model (Variable X). Validity test of the questionnaire as the instrument to collect the data of CTL distributed to 48 respondents revealed that out of totally 30 items, only 21 items were valid, while the other 9 were invalid since their criterion was below 0.291. Therefore, only 21 statements presented by the researchers in the research. Sehingga hanya 21 item angket yang digunakan oleh peneliti dalam penelitian. The results of reliability test of variable X Contextual Teaching and Learning (CTL) model were based on statistical analysis of *Croanbach's Alpha* 789.

Students' Learning Creativities (Variable Y). In validity test of the students' learning creativities data, the questionnaire was tried-out to 48 respondents in which out of totally 30 statements, only 20 items were valid, while the rests of 10 statements were invalid since their criterion was lower than 0.291. The results of variable Y (creativity) were referred to statistical calculation of *Cronbach's Alpha* 755. Based on the results, the value of  $r_{xy}$  gave the interpretation to correlation index "Y" *Product Moment*, namely: simply, the interpretation of the correlation between variable X and variable Y did not show any negative symbol. This could be assumed that both variables were positively correlated (linear correlation). By reaching the number of  $r_{xy}$  (0.468), in which it was in the range between 0.40-0.599, it showed that the correlation between variable X and variable Y was in the level of "medium or adequate".

The interpretation by using scoring table of "*Product Moment*". In the beginning, the hypothesis proposed by the researchers were as follows:

$H_a$ : There was an effect of Contextual Teaching and Learning (CTL) model to learning creativities of 4<sup>th</sup> graders of Public Primary school Lengkong Karya. South Tangerang. Indonesia.

$H_o$ : There was no effect of Contextual Teaching and Learning (CTL) model to learning creativities of 4<sup>th</sup> graders of Public Primary school Lengkong Karya. South Tangerang. Indonesia.

The criterion used as the basis for those two hypotheses were, if,  $r_{table} < r_{cal}$  then  $H_a$  was accepted and  $H_o$  was rejected. Vice versa, if  $r_{table} > r_{cal}$ , then  $H_a$  was rejected and  $H_o$  was accepted. After this, the researchers found out the degree of freedom (df) through the following formula:

$$Df = N - nr$$

$$Df = 48 - 2$$

$$= 46$$

Referring to the number of 46 for df, then it was found that product moment with df 46 in the significant level of 5% of obtained  $r_{table}$  of 0.291, while in the significant level of 1%,  $r_{table}$  was 0.376. Since  $r_{table}$  in the significant level of 5% was lower than  $r_{xy}$  ( $0.291 < 0.468$ ), therefore  $H_a$  was accepted while  $H_o$  was rejected. This also meant that in the 5% significant level, the correlation between variable X and variable Y was significant. Additionally, in the level of 1% significance,  $r_{table}$  was lower than  $r_{xy}$  ( $0.376 < 0.468$ ), thus, it was confirmed that in the significant level of 1%, there was a significant correlation between variable X and variable Y. Based on the description above, it can be concluded that a Contextual Teaching and Learning (CTL) model had significant effect on learning creativities of 4 grade students of Public Primary school Lengkong Karya, South Tangerang. Indonesia.

## 8. Conclusion

Based on the description of the data, data analysis and data interpretation of the research findings about Contextual Teaching and Learning (CTL) (X) with students' learning creativities (Y), the results of this research concluded the following:

- 1) The results of the research about the implementation of Contextual Teaching and Learning (CTL) model on students' learning creativities, showed the statistical test results which were calculated by using the formula of *Product Moment* obtained  $R_{cal}=0.468$ , with the interpretation of medium or adequate. While  $R_{table}$  in the significance level of 5% gained 0.320. These findings confirmed that there was an effect of Contextual Teaching and Learning (CTL) model on students' learning creativities, or the learning was better through the application of Contextual Teaching and Learning (CTL)) towards learning creativities of students of Public Primary school Lengkong Karya South Tangerang, Indonesia.
- 2) Based on statistical test, the results of the study showed the results of coefficient determination hit 0.449 or 44.9%. This also confirmed that Contextual Teaching and Learning (CTL) had 44.9% influences on students' learning creativities. Based on the hypothesis test, it was found that  $t_{cal}=0.189$ , with the significance level of  $\alpha=5\%$  and degree of freedom (df) of 38 (40-2). Thus, the hypothesis stated that Contextual Teaching and Learning (CTL) positively influenced students' learning activities was accepted.

## 9. Suggestions

Referring to the accomplished research study described above, there are several suggestions that the researchers would like to propose including:

- 1) For the school, the school should keep exploring to find out better new ideas in improving the quality of the school, in which it will also give positive impact to the quality of the students, especially to students' learning creativities at school, and for the teachers, teachers as the central role in using Contextual Teaching and Learning (CTL) model should make the students become more active in learnings. While for students, the students should be more active in addressing questions when they do not understand the materials delivered by the teacher and in answering questions asked by the teachers

while following the lessons in the class so that they will get good grades and achievements.

2) For further research, it is suggested that the results of this research will give descriptions to other researchers who are interested in CTL topic to develop the findings further with different approaches and variables.

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