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Abstract

This study aimed to describe the application of Area Instruction Model on one of the state kindergarten in Bandung city. The study used a qualitative approach with descriptive qualitative design. Data was obtained through interviews, observation, and documentation. The validity of the analysis was guaranteed through perseverance observation and triangulation. There are three conclusions as research results. Firstly, the application include: Planning, namely: semester program, daily plan, and weekly plan; Implementation consisting of: initial activities, core activities, and the final activities; Evaluation, namely: daily evaluation with rewards in the form of direct assessment, and a written assessment according to indicators of mathematical abilities and character development; weekly evaluations; the monthly progress reports of mathematical abilities, character, and theme; and semester progress reports. Secondly, students' mathematical abilities are at the level: classification, comparison, and counting has developed very well; prior understanding of number concept, the cardinal numbers, and ordinal number has developed according to expectations; while number conservation has developed with the teachers' guidance. Thirdly, the students' characters are at the level: gratitude and tolerance has developed very well; respective to the opinion of others and the discipline has evolved according to expectations; and confidence has developed with teachers' guidance.

Introduction

In contrast to the countryside parents, most of the parents in town have a high motivation to send their children to the school, the whole level from the lowest to the highest level. Nowadays, there are hardly any children who are not learnt at kindergarten school. Moreover before studying in kindergarten, children on average passed for two years, have to learn in the play group first. Some parents even send their children since they were 2 years old. The parents want to avoid difficulties when inserting their children to primary school.

The condition to enter the elementary school, according to Circular Letter of the Directorate General of Primary and Secondary Education, Number: 1839 / C.C2 / TU / 2009 dated 25 April 2009, the most important is the readiness of children to adapt in a new place and environment. Because age is regarded as the easiest indicator to determine the child's readiness for entry into primary school level, consequently many schools have set a benchmark of age; generally seven years, as a condition to enter elementary school. In physical terms the child can be said to be ready when he is able to follow the instructions to sit quietly and concentrate. Meanwhile, the child was mentally prepared when he is able to receive and express ideas using active language. The school has also set reading and writing skills as a standard, at least the child already has a basis in either case, such recognize letters and spell, although not fluently yet. The school also requires readiness in social terms. When students talk, then he or she was able to answer in context.

Elementary school entry requirements as outlined inevitably will be met by kindergarten. Simply, a graduate kindergarten prosecuted capable of reading, writing, and arithmetic; besides being able to socialize. The facts, until now there is still a polemic about the appropriateness of requiring kindergarten children can read, write, and count. The opinions of requiring a kindergarten child literacy and numeracy are usually motivated by hopes of entering elementary school with easy, because at the time of elementary school admission tests, many schools require prospective students to be literate. The opposite opinion argued, requires that kindergarten children can read and write mean forcing a child to have a new capability that should be taught in elementary school. This makes child's play activity that should be dominant for their age to be reduced or even abandoned, so it is feared would hinder the development of children's potential ability to optimally someday later.

Based on the background described, we are interested in studying mathematics in state kindergarten (managed by the government), by using one of the instruction model set by Ministry of National Education. The formulation of the research problem, in the case of mathematics instruction in one state kindergarten in this city: 1) How is the implementation of mathematics instruction by using area instruction model?, 2) how are students' mathematical abilities in the mathematics instruction by using area instruction model?, and 3) How does the character of children in the mathematics instruction by using area instruction model?

Method

The research method is qualitative, in accordance with the opinion of Strauss and Corbin (Golafshani, 2003: 600) about the limitations of qualitative research, namely "any kind of research that produces findings not arrived at by means of statistical procedures or other means of Quantification". Based on the objectives to be achieved, the researchers chose a descriptive qualitative design. This is consistent with the statement of Lambert and Lambert (2012: 1), "The goal of qualitative descriptive studies is a comprehensive, summarization, in everyday terms, of specific events experienced by individuals or groups of individuals".

Subject and Place of Research

The study was conducted in one state kindergarten in Bandung, the academic year 2015/2016. The subjects were all of the children of B class, four teachers who teach in the classroom, as well as the principal.

Data Collecting and Data Analyzing

Data were collected through observation, interviews, and documentation. Observations conducted to determine the implementation process of learning, both of which took place in the classroom and outside the classroom. Observation focused on the activities of teachers, as well as the activity and the reaction of the children when learning took place. Interviews were conducted with resource persons who involved in the application of Area instruction models in kindergarten where the research took place, namely headmasters and the teachers of Apple class of group B. Meanwhile, the documentation was done to provide a concrete description of the activities of children during the instruction process, as well as to strengthen the obtained data. Various information obtained subsequently analyzed using an interactive model, with measures as proposed by Cresswell and Clark (2014), namely: Collects the data, prepares the data for analysis, reads through the data, codes the data (codes the text for description to be used in the research report, codes the text for themes to be used in the research report).

The Guarantee of the validity of data collection and analysis pursued through more careful and continuous observation. Triangulation carried out to ensure the credibility of the data, is done by checking the data which have been obtained through a variety of sources; while triangulation method is done by comparing the information or data in a different manner. "Triangulation is the process of corroborating evidence from different individuals (a principal and a student), types of the data (observational field notes and interviews), or methods of the data collection (documents and interviews) in descriptions and themes in qualitative research" (Cresswell, 2012: 259).

Results and Discussion

Based on research data that has been doing research, it is found that the application of Area instruction model in the kindergarten where the research took place is divided into three phases: planning for learning, learning implementation, and evaluation.

Lesson Plan

Lesson plan include: semesters program, weekly activities planning, and daily activities planning. Indicators of mathematical abilities that exist in daily activities plan, weekly activities plan, and semesters program are related to each other. It happened because of the daily activitis plan are based on weekly activites plan, while weekly activities plan organized by semesters program. The selection of the theme of the lesson plan refers to

the themes that defined the education office. This is in accordance with the Education Minister Regulation No. 58 Year 2009 on standard processes which states that the development of lesson plans embodied in the planning of the semesters program, weekly activities plan, and daily activities plan.

In more detail, the daily activities plan prepared by the teacher contain: the developmental aspects based on cognitive, affective, and psychomotor; indicators, materials or concepts, learning activities, tools or materials, and development assessment. This is in accordance with the Education Minister Regulation No. 58 Year 2009 concerning the standards process that the organization of learning include: 1) the selection of appropriate and vary methods, 2) the selection of play equipment and learning resources that exist in the environment, and 3) the selection of techniques and assessment tools that appropriate/in accordance with the activities carried out.
Meanwhile, the indicator column is filled with indicators of mathematical abilities and character that will be developed according to weekly activities plan and the semester's program. Material or concept column contains concepts that will be mastered by children when they perform these activities. The instruction activity contains activities to be conducted, ranging from outdoor activities, the initial activities, the core activities, until the end of activities. Tool or instructional materials column contains media and tools used in the learning activities, while assessment columns contain vote's valuation techniques and the results of the overall assessment.

Learning Implementation

Implementation of learning in the kindergarten where the research took place include: outdoor activities, the initial activities, the core activity, rest, and the final activity.

Outdoors

Outdoor activities conducted in two places: the school playground and terrace. On the playground there are tools that can be used outdoor games students before class or at rest, namely: swings, slides, seesaws, rainbow bridges, globes and cubes stairs. On the terrace of the school all students attend a morning exercise along with all the teachers, under the instruction of two or three teachers. Such activities aim to develop kinesthetic intelligence or motion, also the ability to hear and understand commands that are expected honed as children listening to the rules given by the teachers. After participated in gymnastic children put their shoes on the racks which located outside the classroom, enter the classroom, and greet the teacher.

Initial Activities

Before doing activities in the classroom, the children store the bag in the box with their own name, which is located in the classroom. Activity habituation behave orderly and neat like to put on shoes and handbags, made everyday and be done continuously. This is in accordance with the principles with the principles of learning, which are listed in the rule of Education Minister number 58 of 2009 which states that the learning activities be gradual, continuous, and is habituation.

The results showed that the initial activity in the kindergarten where the study include: 1). Read the short letters of Qur'an for Muslim children, 2) pray according religions respectively, 3) singing cheerful songs, 4) greet, say hello, and tell each other about what happened yesterday, and 5) apperception adjusted with subthemes that day.

Read the short letters of Qur'an for Muslim children, and pray for the purpose of developing the spiritual character of the child, as well as tolerance to differences in belief between them. In particular, habituation reading and listening to short letters of Qur'an indirectly introduce the Arabic language to children. At the same time linguistic intelligence of children joined develops, they will learn new vocabulary and practice as well as to interpret directly.

After the children had finished praying, the activities continued with greeting each other. The teacher asked the children to pair 2-2, the first child is paired with a teacher, with the rule when a pair of communicants is being spoken or tell stories, others listened well. The teacher gave examples of the procedure: greet, ask, answer, tell a story, and listen. Every time a student finished, his or her partner was asked to inquire about the incident that has been described. In addition to teach children how to express opinions confidently, teachers asked the

children to be patient to listen to the conversations of their friend. Not only that, they also instill enthusiasm when listening to other people, and the importance of eye contact when communicating. Teachers embed it by saying, "Honey, gaze at my eyes"; or "gaze at your friend's eyes, Rani ". Michigan State University (2012: 1) states, "Eye contact during a conversation is vital. It shows attentiveness and interest in what is being said. Eye contact is similar to a conversation; it goes back and forth between Reviews those individuals who are engaged in a discussion, dialogue, or chat ".

The very pleasant atmosphere occurs when children and teachers sang together. Chant chanted sometimes use routine lyrics , sometimes the lyrics adapted to the theme of the day. Singing can be done while sitting, standing, walking on the spot, often hopping. The singing, routine songs or songs on a theme can develop children's intelligence or musical intuition. As well as greeting and sharing stories, singing can also develop linguistic intelligence and intrapersonal intelligence.

When children are being greet or storytelling, or afterward, the teacher did not waste the opportunity to teach math concepts. As an example, we will illustrate a conversation that occurred between teachers and students; names written is a pseudonym.

Tommy: "yesterday I walk to the mall with my mother and my sister".
Rani: "You walk into the which mall? buy what?" .....

After Tommy and Rani completed exchanged greetings and telling each other, the teacher asked everyone's attention, then join in dialogue with Rani and Tommy.

Teacher: "Rani, ask Tommy if his father and his brother go with him!"
Rani: "Tommy, do you and your mother, engage your father and brother go for a walk?"
Tommy: "No"
Teacher: "Tommy, how many people walk around yesterday?"
Tommy replied, counting on his fingers:"Me, my mother, my sister. Three, teacher!"
Teacher: "How many people if your brother and your father gone with you?"
Tommy (again using his fingers): "Me, my mother, my brother, my sister, and my father. Five, teacher!"
Furthermore, the teacher continued the dialogue with the other children.
Teacher: "Anis, could you count the number of children in this room?"
Anis: "Tommy, Rani, Mega, Caca, Nindy, Bondan, ... 15, Teacher!"
Teacher: "Why Anis did not count?"
Anis: "Oh yes, 16"
Teacher: "Now I would talk to Mega. Mega, how many children in this class?"
Mega: "16, Teacher!"
Teacher: "How many teacher?"
Mega: "Mrs. Heni, Mrs. Diana, Mrs. Tari, Mrs. Poppy .... four people"
Teacher: "Which is more, the children or the teacher?"
Mega: "Children"
Teacher: "If children and teachers are added, how many are they? Who can answer?"
Arif raised his hand: "me, teacher!"
Teacher: "How many Arif?"
Arif: "18, Teacher!"
Teacher: "Try again Arif, 16, in the mouth, and four in fingers"
Arif: "16, (then continues to count by using his four fingers) 17, 18, 19, 20. 20, Teacher!"

In addition to teaching counting numbers 1-20, the concept of larger-smaller, and the operations of addition; teachers also teach the concept of area by asking children to compare between the area of the following pairs zone: their class with school, bathroom with playing field, and so on. Finally that learning has entered the apperception phase. Nobody, except the teachers, realized. Time flies, the learning occurred naturally as without a plan.

Core Activities

Almost everything in core activities is done in the area of mathematics. Mathematics is one of 10 areas in kindergarten where the research took place, in addition to areas: religion, beam, science, music, language, reading and writing, drama, sand, art, and motor. The area instruction model aimed at helping children make

choices and decisions through activities in prepared areas. In the area of mathematics there are: the epitome of numbers, pieces of geometry, number cards, coins board, numbers serial card, numbers mapping, numbers dice , numbers confidential box, numbers mats, cup for lottery numbers.

Numbers symbols (digits) with striking colors written large on white cards, used as a medium to recognize numbers and understand the concept of numbers. Other media used to teach the operations of addition, subtraction, and multiplication. Such media appearance combined with pictures of animals or favorite fruits. This is done to attract the interest of children, in accordance with the opinion of Blumenthal (2012: 10), "Kids─ at a very young age─ love learning about quantity, and they love seeing equations as long as both of Reviews These concepts are presented in a fun, happy way. If you use your toddler's favorite animal or cartoon character for your Little Math lessons, it will not take long for your child to start asking to see them on a regular basis - Often probably more than you had planned to show them! ".

Break Time Activities

Break time activity filled with free play and eat together. Playing can be done in the classroom, for example went on game math or science, according to the theme of the day. Free play activities can develop a variety of intelligence, such as: kinesthetic intelligence (if children play with moving), interpersonal intelligence and linguistic intelligence (if the child is playing with friends), visual-spatial intelligence and mathematical logic (if children play geometric puzzle or another various mathematical games), and intrapersonal intelligence (if required children are responsible for the toys they use).

As for the food, in the form of a complete lunch menu, prepared in turn by the parents. The lunch menu is selected so that children do not buy snacks are not necessarily healthy, and so they can immediately take a nap when they got home. Provision of meals in rotation by the parents intended to familiarize students share with others. At meals together there are a variety of habituation as: washing hands, taking cutlery each of the wardrobe that is in one corner of the classroom, to pray before and after meals, and would clean cutlery and tidy up the room.

Eat together activity customized with one of the points on *Permendiknas* (the rule of Education Minister) No. 58 of 2009, that one of the principles of learning that integrates health, nutrition, education, care, and protection. This caused the menu served in the dining together have also been set by the school, namely: rice, vegetables, side dishes, and fruits. When eating together is finished, teachers are also invited children to talk about: the food they eat, the reason why they need to eat vegetables and nutritious foods, and invitations grateful to be given a good luck in the form of food and health. In this activity the teacher managed to seize the moment meal to instill the values of social and spiritual.

Final of Activities

Final activities conducted by teachers and their students might be: the implementation of the initial activity that has not been done, reflection activities during the day, the delivery of messages daily, pray together, and say good-bye. On reflection activities teachers provoke or stimulate children to recall what they have done during the school day, from coming to going home. Kids express opinions directly at the time and teachers provide feedback as well as a strengthening of the answers children. One of the messages that almost never missed delivered by teachers is warning that children waiting for the pickup in the school environment and only go home with people you know. Prior to outside the classroom, the children greet the teachers and kiss their hands, while greeting.

Instruction Evaluation

Evaluation of learning includes daily and weekly evaluations. Daily evaluation is a direct assessment, given in the form of rewards such as stickers or drawings. Weekly assessments done in writing with the assessment format in the form of symbols (●,✓, ⦿, dan ○). These symbols have meaning: ● means that the child has developed very well; ✓ means that children have grown as expected, ⦿ means that child has develop but with teacher guidance, and ○ means that children undeveloped.

The valuation technique used is observation, conversation, discussion, work, assignments, and performance. Selection of assessment techniques in accordance with standard ratings Early Childhood Education by Ministerial Regulation No. 58 of 2009, the valuation techniques take the form of observations, assignments, performance, recording anecdotes, conversation / dialogue, parent report, and documentation of children's work (portfolio), as well as a description of the child's profile.

Weekly assessment in the form of a written assessment in the form of symbols (●,✓, ⦿, dan ○), is a recapitulation of the vote daily for one week. Meanwhile, monthly progress reports, in the form of description of the development of various aspects of intelligence and character, tailored to the theme of the month. Progress reports term, in the form of a description of the development of the five aspects of development (religious and moral values, cognitive, language, physical motor, and emotional social) that have reached by the child. These two progress report was addressed to the parents.

Assessments by teachers in accordance with the principles for assessing kindergarten children according to Scott-Little, and Niemeyer (2001: 11), "Kindergarten assessments should: 1) Be used consistently with the purpose for the which the instrument was designed, 2) Be age Appropriate 3) Collect information on a range of indicators of a child's development, 4) Be naturalistic or authentic, 5) Be culturally and linguistically sensitive, 6) Accommodate children with disabilities, 7) Collect information from more than one source, 8) Provide information that schools can be confident about, 9) Have a process of data collection that is realistic for schools and school systems.

Students' Mathematical Abilities and Character

Students' Mathematical Abilities

According to the analysis of three classroom meetings' observation results, interviews with principal and teachers, and documentation studies, the students' mathematical abilities are described in the following table.

Table1. Students' mathematical abilities

Mathematical Abilities	Most of Students' Abilities Development Level
Classification	Very good
Comparison	Very good
Number Conservation	Have Developed with Teacher's Guidance
Counting	Very good
Prior Understanding of Number Concept	As the expectation
Cardinal and Ordinal Number	As the expectation

The achievement of such encouraging mathematical competence, which has developed very well, on three indicators, can be explained by the following facts. Children are accustomed to classify, for example, separate groups of boys and girls in the classroom. Children are also have the comparing ability, as they can answer the question: who has the longest nickname? Who has the shortest nickname? As for the count: the kids have memorized the names of numbers, used to do: pointing, counting on, counting back, skip counting; so slowly they begin to master rational counting. Number conservation is the only indicator of mathematical ability achievements at the level of developing but with the teacher guidance, in other words, has the lowest performance. This is because the majority of students do not really understand that numbers can vary in value depending on the location of its composition or configuration.

The achievement of prior understanding of number concept level has progressed according to expectations. Numbers five and ten (numbers that indicate the amount of fingers of one and two hands), are the two milestones numbers were very well known to the children, because the two numbers it is the internalization of various concrete experience accumulated in several years. Nevertheless, the achievements in these abilities are not maximized, because children cannot distinguish the numbers and figures. "How many female students in this class? ", " In which next line does Udin sit? " are implementations of the Cardinal and Ordinal Numbers, that already understood by the students. Achievement on this ability is not maximized, because the students are not too familiar with the different functions of the two types of numbers.

Students' Character

The development of students' character during the study, are presented in the following table.

Table2. Students' character

Character that Developed	Most of Students' Character Development Level
Gratitude	Very good
Tolerance	Very good
Confident	Have Developed with Teacher's Guidance
Respective to the opinion of others	Very good
Discipline	As the expectation

Students' confident at the level of developing but with the help of teachers, because students still need to be assisted and motivated when it comes to expressing their opinions or tell a story. Students' discipline has progressed according to expectation. This is the result of various habituation that undertaken in earnest by the teacher. Gratitude and tolerance that were obtained as the highest students' development, is the testament of teachers' earnestly to develop students' character.

Conclusion

The application of learning models include: planning, ie preparation: semester program, daily plan and weekly plan; Implementation consisting of: initial activity, core activities, and the final activity; Evaluation, namely: daily evaluation with rewards in the form of direct assessment, and a written assessment according to indicators of intelligence and character development; weekly evaluations; the monthly progress reports of intelligence, character, and theme; and progress reports semester.

Students' mathematical ability is at the level: the ability to classify, compare, and counting has developed very well; prior understanding of number concept and the cardinal numbers and ordinal number has progressed according to expectations; while number conservation has grown with teacher's guidance.

Students' character is at the level: gratitude and tolerance has developed very well; respective to the opinion of others and the discipline has evolved according to expectations; and confidence has developed with teacher's guidance.

Recommendation

The area instruction model can be used as an alternative model for improving the mathematical ability of kindergarten children, and internalization of cultural values or character through the mathematics instruction. In accordance with the age of kindergarten children, it would be more appropriate if the teacher chooses contextual teaching and learning when he or she teaches mathematics.

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