

# Innovation Strategy of Exploration in the Scientific Approached Study to Improve Expressive Language Skill in Early Childhood Education Labschool State University of Semarang

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**Abstract**—Learning in Early Childhood Education (ECE) should be oriented to the needs of children. Children need stimulation to help their physical growth and psychological development optimally. Scientific Learning provides an opportunity for children to be able to think logically, provide opportunities for children to find problem solving, provide opportunities for children to be able to communicate. Expressive Language Ability in students at Labschool Unnes Kindergarten especially B2 group is still lacking. The research used in this paper is Classroom Action Research. Expressive language skills in classroom action research focuses on the ability to express opinions, ideas, stories, communicate with friends and teachers with simple sentences. Strategic Innovation in Scientific Approach Learning is the strategy used in this Classroom Action Research. A new strategy in implementing scientific approach learning is able to provide opportunities for children to explore optimally. Strategies are implemented with a variety of activities which are not monotonous in class but utilizing open areas outside the classroom which can even be done outside the school. This provides an atmosphere of learning that encourages children to interact with teachers, friends and the environment. Thus it can provide a broad space for children to develop all aspects of child development including expressive language development. The data was collected through observation, documentation and direct interviews with children. While the data analysis used quantitative and qualitative methods. The quantitative data was analyzed by calculating the percentage value, while qualitative data analysis was carried out by describing the results and process data in action research. The results of this classroom action research shows that 86% of children have the ability to express opinions with simple sentences, the ability to express feelings with simple sentences, the ability to express ideas with simple sentences, 80% of children retell with simple sentences, 93% of children are able to communicate, communicate with friends and teachers with simple sentences, 80% of children are able to choose the right words to communicate.

**Keywords**—*scientific approached, exploration, expressive language skill*

## I. INTRODUCTION

Every child is a unique individual who comes to school with various degrees of knowledge about how the world around them. At least, children have similarities, so they will learn. Learning and exploration are closely connected, where children learn by exploring their environment, at home, at school, in parks, in all the places they go. A child who learns through exploration will have intelligence, social, emotional, and physical development.

Playing is the natural and the best way for children to learn when they investigate themselves and observe others during playing and working. Children explore their world by playing.

In every institution have a management based on the standard of management, in the standard educational process in Ministerial Regulation of Education and Culture No. 137 of 2014 related to National Standards of Early Childhood Education. The standard of Early Childhood Education aims to ensure the quality guarantees of the early childhood education in order to provide the foundation for conducting educational stimulant in helping the growth and physical and spiritual development in accordance with the achievement levels of child development, optimizing child development holistically and integratively, and preparing the formation of attitudes, knowledge, and skills of the child. The standard of Early Childhood Education must be evaluated and refined in well-planned, purposeful and sustainable based on the demands of the local, national, and global changing.

Based on the results of child development evaluation in Early Childhood Education Labschool State University of Semarang institution, there were 66% of children who had expressive language abilities. It showed that the achievement indicators of development based on Basic Competencies of 3.11 and Basic Competencies of 4.11 which reads "1. expressing desires, feelings, opinions by simple sentences in communicating with friends or adults, 2. expressing desires, feelings, opinions by appropriate word choices,

3. Retelling the story in simple content" were still lacking. The percentage of children who expressed their opinions as many as 9 children or 60%, children who expressed their feelings as many as 9 children or 60%, children who retold the events that had been experienced as many as 10 children or 66%, children who communicated with friends and teachers as many as 10 children or 66% and children who communicated with chosen words as many as 8 children or 53%. To help fulfill the achievement of development results, it needed to be made a classroom action.

Expressive language is the ability to use words, compose sentences, gesture and writing to explain the desire and meaning to other people. Expressive language abilities including the ability to name objects in an environment, describe activities and events, compose words in long sentences, and use the appropriate wording (SPOK), retell the story, answer the question and write the short story. Expressive language for children, it means not only produce the voice or the sound but also how children express their desires, needs, thoughts and feelings to others verbally (Anggalia, Asri; Karmila, n.d.).

Classroom management in terms of the standard process includes: planning of learning, implementation of learning, evaluation of learning, and supervision of learning. The planning of learning is carried out by approaches and learning models that are appropriate to the needs, characteristics of children, and the local culture that includes semester programs (Prosem), weekly learning implementation plan (RPPM), and daily learning implementation plan (RPPH). The planning of learning is prepared by educators in Early Childhood Education units or programs. The standard process that is expected to be managed in 2013 Curriculum is the management of scientific approach.

Scientific approach based classroom management is not a new thing in Early Childhood Education institutions. However, in Indonesia itself, the introduction of scientific approach has only been rolled out as long 2013 Curriculum was implemented. So there are still many teachers in Early Childhood Education institutions who are still unfamiliar with this term, has not even understand the stage in the classroom management through this approach. Learning with scientific approach is the learning process that is designed in such a way so learners actively construct the concept, laws or principles through the stage of observing (to identify or find problems), formulate the problem, propose or formulate hypotheses, collect data using various techniques, analyze data, draw conclusions and communicate the concept, laws or principles found (Sufairoh, 2016).

The implementation of learning is carried out by playing with interactive, inspiring, fun, contextual and child-centered to actively participate and provide flexibility for initiatives, creativity, and independence in accordance with the talent, interests, and physical and

psychological development of children. Interactive is a learning process that prioritizes the interaction between children and children, children and educators, as well as children and the environment. Inspiring is a learning process that encourages the development of children's imagination. Fun is a learning process that is conducted in an atmosphere of free and comfortable to achieve learning goals. Contextual is a learning process that is related to the demands of the natural and socio-cultural environment. Child-centered is a learning process that is conducted in accordance with the characteristics, interests, potential, development levels, and the needs of children.

The implementation of learning must be apply the sufficiency principle of the number and the variety types of teaching materials as well as educational game tools with students and the sufficiency of learning implementation time. The implementation of learning is carried out based on daily learning implementation plan. The implementation of learning activities include opening, core, and closing activities. The opening of learning activities is an effort to prepare students psychologically and physically to carry out various learning activities. The core activity is an effort of learning to play activities that provide learning experiences directly to children as the basis for the formation of attitudes, knowledge and skills acquisition. The closing activity is an effort to dig back the child's playing experience that has been done in one day, as well as encourage children to follow the next learning activities.

The scientific approach based classroom management is going to build a fun learning for early childhood who puts 5 things: observing, asking, gathering information, analyzing, and communicating. This process is still confusing for Early Childhood Education teachers and the limitation of teachers in managing diverse classes. Exploration of a mater basically support the scientific process can be run well. The ability of observing, asking, gathering information, analyzing and communicating will be revealed when in learning, teachers can explore the material to be delivered. Exploration activities can contain several kinds of activities, where children can discover and solve the problem. Exploration activities provide the opportunity to explore and experience a wide range of solutions in the real problem (Anggraini, 2016:4).

Program of Lecturer Placement for Schools (PDS) is one of the program which is intended for self development of lecturers, while provides learning innovations to teachers. The involvement of lecturers and teachers will provide the color in the learning innovation process. Early Childhood Education labschool is an institution that became a reference in developing this program. This PDS program will give an idea thoroughly exploration process in support of the scientific approach. This idea was promoted based on problems that have been expressed before, there are still

many teachers in Early Childhood Education institutions experience barriers/obstacles in applying the scientific approach. As for the purpose of this study is to describe the improvement of children's expressive language development through innovation strategy of exploration in the scientific approached study in Early Childhood Education Labschool State University of Semarang institution and to describe improvement in children's attitudes and knowledges through innovation strategy of exploration in the scientific approached study.

## II. METHODS

The form of this study is Classroom Action Research (PTK) which is reflective by perpetrators of the action taken to improve the rational stability of their actions in carrying out the task, deepening an understanding of the conditions in which learning practice is carried out. There are several forms or action research models proposed by the experts involved action research, including the model proposed by Kurt Lewin, Kemmis, Henry, Mc Taggart, John Elliot dan Hopkins. The expert who first created a model of action research is the Kurt Lewin, but until now the more known is Kemmis and McTaggart. In this study, the writer use model advanced by Kemmis and McTaggart which is the development of models by Kurt Lewin. Kurt Lewin in Arikunto (2009:92).

The subject of this study is Kindergarten Labschool State University of Semarang group B2 consisting of 15 children. Data collection by observation, interview and documentation. Data analysis was done with the quantitative and qualitative. The analysis of quantitative data by calculating the percentage value. Qualitative data analysis by describing the result and the data process in action research .

Indicator of success in this study when at least 80% of the number of students reached the completeness criteria determined by the writer. Children who gain value of (BSB) means that they are growing very well and children who are able to reach (BSH) means that children has developed appropriate expectations, while for children who gain value of (MB) means that children has begun to develop, then children who gain value of (W) means that children has not yet developed. Close to 80% of success, it was obtained by children who gain value of (BSH) and value of (BSB).

## III. RESULT AND DISCUSSION

The result of the study were obtained through interviews and observations of children during the action cycle I and cycle II. Interviews and observations conducted to determine the level of success in expressive language abilities, increased changes in attitude and knowledge of children through innovation strategy exploration of scientific approached study. The observed aspects include the ability of expressing opinions with a simple sentence, the ability of expressing feelings with a

simple sentence, the ability of expressing ideas with a simple sentence, retelling the story with a simple sentence, communicating with friends and teachers with a simple sentence, was able to choose the right words to communicate.

The result of this classroom action research, most of children had the ability of expressing opinions with a simple sentence, the ability of expressing feelings with a simple sentence, the ability of expressing ideas with simple sentence, retelling the story with a simple sentence, communicating with friends and teachers with a simple sentence, was able to choose the right words to communicate.

The next observation was performed by changing attitude and knowledge of children. Is there an increase in the changing attitude of children's curiosity? Is there an increase in the changing attitude of ethical behavior? Is there an increase in the changing attitude of listening behavior when someone else is talking? Is there changing attitude of the independent? Is there is changing attitude of ask actively? Is there changing attitude of communicate actively? Is there an increase in children's activities of FAQ? Is there an increase in children's knowledge about the concept of words that related to the theme? Whether children knows the meaning of the word? Is there changing of children's knowledge in selecting words?

The result showed that there was changing attitude and knowledge of children. The curiosity children were increased, increased of changing attitude in ethical behaviour, increased of changing attitude in listen behavior when someone else was talking, changing attitude in independent, changing attitude in asking actively, changing attitude in communicate actively, increased of children's activity in FAQ, increased of children's knowledge about the concept of words that related to the theme, increased of children who knew the meaning of words, changing in children's knowledge in selecting words.

### The Result of Cycle I

Increasing of Expressive Language ability in Kindergarten Labschool State University of Semarang students through Innovation Strategy of Exploration in the Scientific Approached Study on the table of cycle I below.

**Table. 1** Observation on Increasing of Expressive Language Ability in Kindergarten Labschool State University of Semarang Students through Innovation Strategy of Exploration in the Scientific Approached Study on the Cycle I

No	Observing Aspects	Increasing Values				The Number of Children who reached the expected indicators	% Reached
		Not Increased	Increased	Expecting Increased	Well Increased		
1.	Express opinions with simple sentences		5	4	6	10	66%
2.	Express feelings with simple sentences		5	4	6	10	66%
3.	Express ideas		5	4	6	10	66%
4.	Retell the story with simple sentences		4	5	6	11	73%
5.	Communicate with friends in simple sentences		4	5	6	11	73%
6.	Communicate with teachers in simple sentences		4	5	6	11	73%
7.	Choosing the right words to communicate		4	5	6	10	66%

Based on the table above, the activity of children in expressing expressive language on cycle I as follow. The percentage of children who express opinions as many as 10 children or 66%, children who express feelings as many as 10 or 66%, children can retell about the events that have been experienced as many as 11 or 73%, children who can communicate with friends and teachers as many as 11 or 73% and children who can choose words in communication as many as 10 or 66%. The result of the observation showed that there was an increase in expressive language abilities of Kindergarten Labschool State University of Semarang students than ever but had not yet reached the success of the expected indicators.

While the changing attitude and knowledge of Kindergarten Labschool State University of Semarang students through Innovation Strategy of Exploration in the Scientific Approached Study on the table 2 below.

**Table 2.** Observation on Changing Attitudes and Knowledges in Kindergarten Labschool State University of Semarang Students through Innovation Strategy of Exploration in the Scientific Approached Study on the Cycle I

No	Observing Aspects	Increasing Values				The Number of Children who reached the expected indicators	% Reached
		Not Increased	Increased	Expecting Increased	Well Increased		
1.	Curiosity		5	4	6	10	66%
2.	Ethical Behavior		5	4	6	10	66%
3.	Attitude to Listen Friends and Teachers		5	4	6	10	66%
4.	Independent Attitude		4	5	6	11	73%
5.	Active in Communication		4	5	6	11	73%
6.	Active in PAQ activity		4	5	6	10	66%
7.	Active in Storytelling		4	5	6	11	73%
8.	Understanding knowledge of word concepts related to the theme		4	5	6	11	73%
9.	Understanding of Choosing Words		4	5	6	11	73%
10.	Understanding of Meaning Words		4	5	6	11	73%

Based on the result of observation on Table 2. There are changing attitudes and knowledges of children can be seen on children's curiosity as many as 66%, habits of ethical behavior as many as 10 children or 66%, the attitude of listening when there are friends or teachers who conveys ideas, opinions or stories as many as 10 children or 66%; children who have an independent attitude as many as 11 children or 73%. While children who are active in asking as many as 73%. Increasing the number of children who communicate actively as many as 11 children or 73%, children who are active in retelling the story as many as 10 children or 66%, children who are active in questioning as many as 10 children or 66%. Increasing in children who have sufficient knowledge about the concept of words related to the theme is 73%. Children who know the meaning of the word there are 73%, increasing knowledge of selecting words as many as 73%. The result of observations showed that there had been an increased knowledge and improved attitudes change from earlier but had not reached the expected indicators of success. So it needs action in Cycle II.

**Cycle II**

Increasing of Expressive Language ability in Kindergarten Labschool State University of Semarang students through Innovation Strategy of Exploration in the Scientific Approached Study on the table of cycle II below.

**Table 3.** Observation on Changing Attitudes and Knowledges in Kindergarten Labschool State University of Semarang Students through Innovation Strategy of Exploration in the Scientific Approached Study on the Cycle II

No	Observing Aspects	Increasing Values				The Number of Children who reached the expected indicators	% Reached
		Not Increased	Increased	Expecting Increased	Well Increased		
1.	Express opinions with simple sentences		2	6	7	13	86%
2.	Express feelings with simple sentences		2	6	7	13	86%
3.	Express ideas		2	6	7	13	86%
4.	Retell the story with simple sentences		2	6	7	12	80%
5.	Communicate with friends in simple sentences		1	6	8	14	93%
5.	Communicate with teachers in simple sentences		1	6	8	14	93%
6.	Choosing the right words to communicate		3	3	7	12	80%

The activity of children in expressing expressive language in cycle I as follows. Percentage of children who express opinions as many as 13 children or 86%, children who express feelings as many as 13 children or 86%, children who can retell about the events that have been experienced as many as 13 children or 86%, children who can be communicate with friends and teachers as many as 14 children or 93% and children who can selecting words in communication as many as 10 children or 80%. The result of observations showed that there was an increased in Expressive language ability in Kindergarten Labschool State University of Semarang students reached the expected indicators of success.

Next about the result of Changing Attitudes and Knowledges in Kindergarten Labschool State University of Semarang students through Innovation Strategy of Exploration in the Scientific Approached Study on the table of cycle II on table 4.

**Table 4.** Observation on Changing Attitudes and Knowledges in Kindergarten Labschool State University of Semarang Students through Innovation Strategy of Exploration in the Scientific Approached Study on the Cycle II

No	Observing Aspects	Increasing Values				The Number of Children who reached the expected indicators	% Reached
		Not Increased	Increased	Expecting Increased	Well Increased		
1.	Curiosity		1	6	8	14	93%
2.	Ethical Behavior		3	6	6	12	80%
3.	Attitude to Listen Friends and Teachers		2	6	7	13	93%
4.	Independent Attitude		2	6	7	13	86%
5.	Active in Communication		2	6	7	13	86%
6.	Active in FAQ activity		2	5	7	12	80%
7.	Active in Storytelling		2	6	7	13	86%
8.	Understanding knowledge of word concepts related to the theme		2	6	7	13	86%
9.	Understanding of Choosing Words		2	3	7	12	80%
10.	Understanding of Meaning Words		2	3	7	12	80%

Based on the results of observation on changing attitudes and knowledges of children can be seen on children's curiosity as many as 14 children or 93%, habits of ethical behavior as many as 14 children or 80%, the attitude of listening when there are friends or teachers who conveys ideas, opinions or stories as many as 14 children or 93%; children who have an independent attitude as many as 13 children or 86%. While children who are active in asking as many as 86%. Increasing the number of children who communicate actively as many as 13 children or 80%, children who retell the story as many as 13 children or 86%, children who are active in questioning as many as 10 children or 86%. Increasing in children who have sufficient knowledge about the concept of words related to the theme is 86%. Children who know the meaning of the word there are 12 children or 80%, increasing knowledge of selecting words as many as 12 children or 80%. The result of observations showed that there had been an increased in changing attitudes and knowledges. There had been reached the expected indicators of success.

IV. DISCUSSION

The following discussion is the results of the study on product cycles I and II in the expressive language abilities in Kindergarten Labschool State University of Semarang through Innovation Strategy of Exploration in the Scientific Approached Study

**The Result of Expressive Language Abilities in Kindergarten Labschool State University of Semarang Students through Innovation Strategy of**

**Exploration in the Scientific Approached Study on the Cycle I and II.**

The Result of Expressive Language Abilities in Kindergarten Labschool State University of Semarang Students through through Innovation Strategy of Exploration in the Scientific Approached Study on the Cycle I and II on table 5.

**Table 5.** The Result of Expressive Language Abilities in Kindergarten Labschool State University of Semarang Students through through Innovation Strategy of Exploration in the Scientific Approached Study on the Cycle I and II.

No	Observing Aspects	Observing Results	
		Cycle I	Cycle II
1.	Express opinions with simple sentences	66%	86%
2.	Express feelings with simple sentences	66%	86%
3.	Express ideas	66%	86%
4.	Retell the story with simple sentences	73%	80%
5.	Communicate with friends in simple sentences	73%	93%
6.	Communicate with teachers in simple sentences	73%	93%
7.	Choosing the right words to communicate	66%	80%

Based on table 5 above. The result of Expressive Language Abilities in Kindergarten Labschool State University of Semarang Students through through Innovation Strategy of Exploration in the Scientific Approached Study on the Cycle I and II there is an increase in children's ability to express opinions from 66% to 86%. There is an increase in children's ability to express feelings with simple sentences from 66% to 86%, an increase in children's ability to express ideas from 66% to 86%, an increase in children's ability to retell with simple sentences from 73% to 80%. While children's ability to communicate with friends and teachers has increased from 73% to 93%. In terms of the ability to choose the right words to communicate, it has increased from 66% to 80%.

**The Result of Changing Attitudes and Knowledges in Kindergarten Labschool State University of Semarang Students through Innovation Strategy of Exploration in the Scientific Approached Study on the Cycle I and II.**

The Result of Changing Attitudes and Knowledges in Kindergarten Labschool State University of Semarang Students through Innovation Strategy of Exploration in the Scientific Approached Study on the Cycle I and II on table 6.

**Table 6.** The Result of Changing Attitudes and Knowledges in Kindergarten Labschool State University of Semarang Students through through Innovation

**Strategy of Exploration in the Scientific Approached Study on the Cycle I and II**

No	Observing Aspects	The Result of Cycle I and II	
		Cycle I	Cycle II
1.	Curiosity	66%	93%
2.	Ethical Behavior	66%	80%
3.	Attitude to Listen Friends and Teachers	66%	93%
4.	Independent Attitude	73%	86%
5.	Active in Communication	73%	86%
6.	Active in FAQ activity	66%	80%
7.	Active in Storytelling	73%	86%
8.	Understanding knowledge of word concepts related to the theme	73%	86%
9.	Understanding of Choosing Words	73%	80%
10.	Understanding of Meaning Words	73%	80%

Based on table 6, the increase in changing attitudes and knowledges of children can be seen in children's curiosity from 66% to 93%, an increase in changing habits of ethical behavior from 66% to 80%, an increase in changing attitude of listening when their friends or teachers who convey ideas, opinions or stories from 66% to 93%; an increase in changing children's attitude of independent from 73% to 86%. While an increase in changing children's attitude who are active in asking from 73% to 86%, an increase in active communication of children from 73% to 80%, an increase in changing children to telling stories actively from 73% to 86%, an increase in changing children to active in question and answer activities from 73 to 86%. Increasing children who have knowledge of word concepts related to the theme from 73 to 86%. Increasing children who know the meaning of words from 73 to 80%, increasing children's knowledge in choosing words from 73% to 80%. The results of the observation showed that there was an increase in changing attitudes and knowledges. There had been an increase in the indicators of success.

**V. CONCLUSION**

Classroom Action Research through Innovation Strategy of Exploration in the Scientific Approached Study could be increased in expressive language abilities and increased in changing attitudes and knowledges of children from Cycle I to Cycle II.

The increase of expressive language abilities could be seen on the ability to express opinions, feelings, ideas, storytelling with simple sentences, communicate actively when studying both with friends and teachers, and also how children choosing the right words to communicate. Similarly, with an increased changing attitudes and knowledges of children.

The increase of changing attitudes and knowledges could be seen in children's curiosity from 66% to 93%, an increase in changing habits of ethical behavior from 66% to 80%, an increase in changing attitude of listening when their friends or teachers who convey ideas, opinions or stories from 66% to 93%; an increase in changing children's attitude of independent from 73% to 86%. While an increase in changing children's attitude who are active in asking from 73% to

86%, an increase in active communication of children from 73% to 80%, an increase in changing children to telling stories actively from 73% to 86%, an increase in changing children to active in question and answer activities from 73 to 86%. Increasing children who have knowledge of word concepts related to the theme from 73 to 86%. Increasing children who knew the meaning of words from 73 to 80%, increasing children's knowledge in choosing words from 73% to 80%. The results of the observation showed that there was an increase in changing attitudes and knowledges. There had been an increase in the indicators of success.

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