



**Project-based Approach in Immersed Model
to Improve Teachers' Competence
in Designing Learning**

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Abstrak

Penelitian ini bertujuan untuk meningkatkan kompetensi guru PAUD dalam memberikan pengajaran. Penelitian ini menggunakan model Penelitian Tindakan kelas dari Kemmis dan taggart. Subjek pada penelitian ini yaitu peserta yang terlibat dalam model immersed di kabupaten Situbondo, Jawa Timur. Model Immersed yaitu salah satu integrasi kurikulum yang dikembangkan oleh Fogarty berdasarkan pada bagaimana cara melibatkan kemampuan siswa dengan menggabungkan lebih dari satu aspek perkembangan untuk dapat melihat anak-anak dapat melakukan kegiatan mereka sendiri dengan cara yang menyenangkan dan membentuk kembali konsep-konsep baru dengan cara mereka sendiri. Kerangka kerja implementasi pada model ini adalah tema besar yang mencerminkan kemampuan siswa. Dalam penelitian ini, kerangka tema adalah tentang memperkenalkan pembelajaran anak usia dini yang berfokus pada membangun wawasan ke dalam cinta alam dan lingkungan untuk anak usia dini, salah satunya adalah memperkenalkan relawan dalam pencegahan banjir untuk anak usia dini.

Abstract

This research aimed to improve the competence of PAUD teachers in providing instruction. This research used Classroom Action Research model by Kemmis and Taggart. The subjects involved in this research were participants who were involved in the model research with immersed model in Situbondo Regency, East Java. The Immersed Model is one of integrated curriculums developed by Fogarty which is based on how to involve students' abilities by combining more than one developmental aspect to see children able to do their own activities with fun and reshape new concepts in their own way. Implementation framework of this immersed model is a large theme that reflects students' abilities. In this research, the theme framework is about introducing early childhood learning that focuses on constructing insights into natural and environmental love for early childhood, one of which is introducing the volunteer in flood prevention for early childhood.

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INTRODUCTION

Preparation of integrated curriculum and development involving children, according to Vygotsky (in Sujiono, 2007) is a way of implementing zone proximal development (ZPD) that can help children's progress in learning. Based on Piaget's opinion (Sujiono, 2007) about the process of learning for children with pre-operational stages, teachers create variations to help children learn about new concepts. If the child assimilates or accommodates new knowledge in the scheme, then there should be an opportunity provided so that the child can explore his experience of the information planted in his scheme. Therefore, the preparation of children's activities does not only consider how learning in the content area is carried out, but more importantly it must focus more on how the activity is designed so that each child's basic abilities get the opportunity to develop. The activities carried out will be able to accommodate the stage of child's development as an integral part of the learning design.

Integrated learning based on

children's needs and interests is developed through thematic concepts or topics which according to Dewey (Cremin 1961 in Wortham, 2006; 190) is used to be a direction for meaningful activities where children can be involved for a purpose. The activity was carried out with a project approach that was designed jointly by involving students. The project approach is a learning method in which there are several objectives that are meaningful for the child. First, the practical objectives, that is through activities, children can understand a complete connection between interdisciplinary relationships. Second, children can apply in the daily context because of the skills and attitudes that are instilled through these activities. Third, the project approach trains the development of children's thinking abilities because most activities are carried out with the aim of solving problems, (Wortham, 2006; 190-191; Helm & Katz, 2001; 4 -8; Hildebrand, 1981; 129-135), for example, for gardening activities, children are trained to make their own decisions on how to lay out the garden and what plants are needed

for the garden.

This research started from an initial study conducted by researchers for community service activities in Sumber Pinang Village, Mlandingan Sub-district, Situbondo District. This village is a flood-prone village every year. The geographical location of the village below the hill of the Mount Argopuro makes the threat of flash floods can occur during the rainy season, which usually reaches the peak in February. Flash floods can occur because the hills that should be rich in large and hard woods have turned into production forests. This is why in certain years the hill is bare because the large timber on it meets the harvest and must be cut down. When the rainy season reaches its peak, flash floods can occur at any time because there are no plants that break the power of water.

The researcher thinks that it is important to improve teachers' competence in designing learning that focuses on constructing insight into natural and environmental love for early childhood.

LITERATURE REVIEW

One known model is the immersed model which according to Fogarty (1991) is developed so that students gain skills that are integrated (internalized) in total from the learning experience they have experienced. Fogarty likens the "immersed" skill like students filtering their own learning material content through a microscope lens that has four small lenses to see different samples. In other words, this model can integrate all data from a variety of learning sources and disciplines, by bringing out one main competence based on intense interest. In the advanced stage, students internalize and generate motivation in them (intrinsic) to be able to apply their understanding both with little help and without assistance at all (Fogarty, 1991).

Chaterwood (1999, 33) argues stimulation through a project approach is as an effort so that children have a network of understanding between attention, and applications derived from explicit activities they do. Involvement in deep experience in the learning process builds knowledge that

facilitates the connection between knowledge and verbal abilities.

The project approach began with activities related to the children's business to read the procedures for activities, read books related to things they want to know or make pamphlets and draw stories related to the topic.

In this research, by adopting flood disaster-based approach, the development of this immersed model rests on a number of activities carried out that are able to converge on one result of internalization in a child referred to as "The Volunteer". The Volunteer is not just a child who knows the natural surroundings with all its characteristics and uniqueness, it is expected that the child has the right attitude, knowledge and action skills when they meet flood disaster. Although, it must be realized that this immersed model may only be realized in some children. Logue and Soo (2007), Hooks and Duarte (2005), Rosenow (2008), and Owen (2007) in their researches both in the development of learning activities for early childhood and in prospective early childhood education (Pendidikan Anak Usia

Dini/herein after referred to as PAUD) teachers, prove that the project approach is able to improve children's understanding awareness of differences, and to reconstruct concepts about mathematics and the environment to be applied in everyday life.

METHOD

The type of research used in this research was action research. This approach to action research used Participatory Action Research (PAR) by adopting Kemmis and Taggart's Cycle Models. According to Kemmis and Taggart (2010; 464) the actions taken by the researcher as a participant in this activity were based on the idea that the researcher has really understood the structure and functions of the actions.

The subjects in this research were PAUD teachers both from TK, RA, and POS PAUD as 36 people from various sub-districts in Situbondo Regency. These teachers are joined as the PG PAUD Alumni Association of Universitas Muhammadiyah Jember .

The standard of success in this research used descriptive

statistics by comparing the percentage of participants' success through the pre-test and post-test scores. The action research cycle would stop when 90% of participants have the correct answer score above 65 at the time of the post test.

In this research, the level of validity was determined by a) content validity by comparing the contents of the instrument with the subject matter that has been taught that is adapted to the kindergarten curriculum on aspects of language development, b) validity of the construct to prove the measurement results obtained from test items that correlate with the theoretical construct underlying the preparation of the test. Cronbach and Meehl (Djaali and Pudji, 2008) say there are 3 steps to do construct validity: 1) articulating a series of theoretical concepts and their interrelationships; 2) developing ways to measure hypothetical constructs that are theorized; 3) empirically examining the hypothetical relationship between the construct and its visible manifestations; c) triangulation is carried out based on the validity used, extension of data collection in

the field, and consultation with experts.

Data will be analyzed descriptively with a qualitative approach supported by quantitative data from the results of simple statistics to show the initial differences before the action and after action. Qualitative analysis was presented in a narrative form to describe comprehensively the facts, events, which occur together to form a complete pattern of a linear coherent phenomenon to support the accuracy of the analysis.

RESULTS AND DISCUSSION

This activity introducing disaster content is not easy because the disaster can be seen as an event that brings traumatic experience not only to early childhood, even in adults. Therefore, the introduction of disasters for early childhood needs to be designed in the form of fun learning, but it has contextual facts with children's experience.

In the immersed model, a child is expected to be able to reflect both the input and output of the activities that he/she has done explicitly and/or implicitly have connections. This immersed model is

based on a number of activities carried out to be conical in one result of internalization in a child referred to as "The Volunteer", what is called the volunteer is not just a child who knows the natural surroundings with all its characteristics and uniqueness, it is expected that the child has an attitude, knowledge and appropriate action skills in when flash floods disaster occurs. Disaster content is developed in the three main thematic ones that already exist, but for the need to develop the immersed model, the theme entitled "I am the Volunteer of disaster". This is because in that area it must be realized that it is a disaster-prone area. Basically, the content about disaster can be integrated in each theme. The basic competencies that are expected from immersed content are that the child has an alert attitude, strong knowledge and skills in the period of mitigation and prevention, during emergency response and during post-disaster.

The development of a list of planned anticipation activities to deepen the study is compiled with a web model by integrating conceptual ideas in the sub-themes under study.

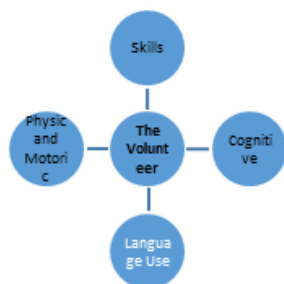
This sub-theme is a new sub-theme resulting from the development of sub-themes that already exist in the theme of natural and weather symptoms. As with the steps in the project approach, this second phase is the phase when the teacher and students plan the implementation of the activity. To facilitate what activities need to be done, the teacher develops the web model that is used to plan the above activities. One example of activities in the sub-theme of flash floods disaster is to invite Regional Board for Disaster Management (*Badan Penanggulangan Bencana Daerah/BPBD*) team and members of the TNI/POLRI who usually act as volunteer coordinators.

In this phase, the teacher begins to inform parents of the activities to be carried out. Parental involvement is not only when activities are carried out. Parents can start to be involved from the beginning, for example by suggesting experts who can help sustain the activity.

In this third phase, the culmination occurs when students are able to use their new knowledge

on playing activities or other activities. The culmination point in this topic can be the whole form of skills that are built together with the attitude of the conceptual basis that the child gets from the learning experience both when they make a visit for investigation or from experience directly when they meet people who are experts and able to provide answers to questions that the children want to know.

The culmination activity gives children the opportunity to show the fusion between multidisciplinary integration in the development of basic abilities and these attitudes and skills that arise in the "immersed" process of children with activities at the culmination point. The immersed model of "The Volunteer" can be illustrated.



It is important to have a project approach as a bridge to immerse a child having adequate attitudes, knowledge, and skills that can be linked to existing major

themes. The researcher used a large frame of annual themes used by each education unit. Thus, it is easier to direct participants' understanding to the meaning of immersed.

In the training, the theme framework was education on disaster anticipation, flash floods disaster was chosen as a phenomenon in Situbondo District which is well known by adults and children. To bridge the teacher's knowledge about education in anticipating flash floods disaster, the researcher previously held a pre-test to measure teachers' knowledge about disaster risk reduction.

In the second training, most teachers had basic knowledge about the anticipation of the flash floods disaster. Some participants added comments to each other that all this time they have been teaching about floods only as a water hazard or flooding occurs due to garbage that clogs the flow of water in the waterways and rivers. Or some other participants explained that floods are caused by deforested forests. Yet, they did not understand that there are stages in anticipating disasters, especially flash floods. They were

used to face flooding, but they were less aware that flash floods occurring almost every year in their area has the potential for loss and loss of life.

Participants also had knowledge about what a project approach is and how to design simple, integrative projects in daily but holistic activities (covering every child's development). At least, they understand the first step of how to immerse a child in a container that contains attitudes, knowledge, and skills to anticipate flash flood disaster. By using the basis of the material that has been given previously, participants could develop phases in the project approach and integrate in the immersed model approach, that is, participants were divided into three major groups to develop each of the basic competences in the anticipation model of flash floods disaster. Teachers can design integrated activities for children with a variety of strategies that provide opportunities for them to do themselves and provide opportunities for teachers to develop creativity and innovation that is fun for their students.

When the second training would end, a post test was held with the same material as the pre test. The results of the post test revealed that all participants received scores above the graduation standard of 65.

Based on the standard of success as a criterion of whether the cycle would be recommended or the cycle would be stopped, and therefore the classroom action research stopped in only 1 (one) cycle. The criterion for success applied was 90% of participants obtained > 65.

DISCUSSION

With the immersed model, the learning plan is not just prepared to know each aspect to be achieved. The project approach helps children connect and associate shared attitudes, knowledge, and skills. Through the activities designed and prepared by teachers to improve children's skills, children will be able to build new knowledge.

The project approach can be designed with a variety of strategies that aim for children to get as much opportunity as possible to develop attitudes, knowledge, and skills.

These activities can be designed for individuals, small groups, or large groups.

The difference with the learning design which is not implementing the project approach, the activity tends to be developed by the teacher in the context of independent activities. If it is designed to have connections with other learning, then the connectivity is only in the daily schedule.

The immersed model with the project approach provides guidance for teachers to develop and design learning activities within the framework of a broader mindset. Immersed is based on the existence of a connection of basic skills that is expected to be achieved by children so that the children will get a complete picture of attitudes, knowledge, and skills that can be developed into new knowledge or at least having skills to act in accordance with the real conditions experienced. For example, within the framework of the theme of The Volunteer, it is expected that the child will bring up an attitude of being alert, discipline, responsibility, and independence both in the pre-

disaster phase, during a disaster, and post-flash flood disaster. For example, to develop basic skills in Mathematics and Science with Social Emotional, there is an indicator of self-confidence with verbal information skills, namely that children can retell natural symptoms that have the potential to cause flash floods. After obtaining content of concept, attitudes, and skills that are expected to emerge from the project activities, the teacher compiles a list of questions in anticipation of the inability of the child to know what he wants to learn more deeply. The group was then divided into three by developing 3 (three) basic competences, namely basic competence of pre-disaster or mitigation and prevention, basic competence of emergency response and basic competence of post-disaster. Mitigation and prevention groups produced the intersection of the concept of verbal information skills with knowledge of the symptoms of flash floods. The emergency response group produced a crossing of knowledge about early warning with follow-up skills during evacuation. Post-disaster groups

produced their own health and safety guarding attitudes with knowledge of things that must and must not be done when the flood has not subsided.

In this training, the theme framework was education on disaster anticipation. Flash floods disaster was chosen as a phenomenon in Situbondo Regency which is well known by adults and children. Previously, the researcher conducted a pre-test to measure teachers' knowledge about disaster risk reduction.

In the second training, most teachers had basic knowledge about anticipating flash floods disaster. They were used to face flooding, but they were less aware that flash floods that occur almost every year in their area have the potential for loss and loss of life.

Participants had knowledge of the project approach and how to design simple, integrative projects in daily but holistic activities (covering every child's development). At least, they have understood the first step of how to immerse a child in a place that contains attitudes, knowledge, and skills to anticipate flash flood

disaster. Participants were divided into three major groups to develop each of the basic competences in the model of anticipating flash flood disaster. Difficulties experienced by participants have been minimized by the existence of a teacher manual. The questions that lead to the immersed model relate to the big themes that the teacher can design.

This attitude is formed because the basic knowledge is associated with attitude. Knowledge about preserving the environment, knowledge of symptoms that have potential flash floods and knowledge of early warning will stimulate an attitude of alertness and responsibility. Knowledge of evacuation procedures and preparing needs in emergency bags prior to a disaster will build a disciplined and independent attitude. Overall, this attitude and knowledge will bring up children's action skills. This training is expected to be able to provide a model for designing learning objectives in PAUD according to the characteristics of the environment and students, both in terms of development, culture, and creativity of children.

With the immersed model, the learning plan is not just prepared to know each aspect to be achieved. The immersed model provides teachers with knowledge to develop a holistic framework together.

CONCLUSIONS

There are several conclusions that can be drawn from this class action research:

1. The immersed model provides a new form of development model of learning activities in PAUD that gives teachers the opportunity to develop creativity and innovation that is fun for their students.
2. The project approach helps the children to fully understand the attitudes, concepts/ knowledge, and skills needed by the children.
3. The project approach provides an opportunity for teachers to design integrated activities for children with a variety of strategies that give children the opportunity to do it themselves.

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