

# Problem-Based Learning on Parenting Programs at Early Childhood Education Institutions in Indonesia

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**Abstract:** In the last five years, parenting program is a program that must be implemented by early childhood education institutions. The aim of this program is improving the parent's competence in caregiving in the family. Currently, the parenting program model has been implemented variably in accordance with the capabilities of each early childhood education institutions, so there has not yet been found the most effective specific model to be applied in Indonesia that addresses issues and problems, socio-cultural, and parents conditions. Many models have been done, one of which is the problem-based learning model. This model raises the real problems faced by parents in carrying out parenting in the family to further serve as a subject matter in parenting program. This study was conducted in Bandung, West Java, with participants of early childhood education manager institutions and parents who participated in parenting program in early childhood education institutions selected using purposive sampling. The results show that parenting has benefits for parents in improving self-efficacy, building effective communication within the family, controlling emotions in parenting, and building family co-operation. This result implies that the problem-based learning model in the parenting program has been effective in improving the quality of family care.

## 1 INTRODUCTION

Problem-based learning (PBL) is a learning activity that has been done in many learning activities at all levels of education. Learning models place learners as learning centers and use problems as learning materials with emphasis on self-directed learning (SDL) (Carriger, 2015). This learning encourages learners to have the ability to apply learning activities independently and solve problems using high-level thinking (Hung, 2009). There have been many research studies that examine the effectiveness of problem based learning. Research conducted by Turan and friends about the effectiveness of tutors in learning, found that tutors have a very important role in problem-based learning, especially directing learners in solving problems that become topics of learning (Turan, Elçin, Odabaşı, Ward, and Sayek, 2009).

The effectiveness of problem-based learning on non-formal learning, encourage parenting program managers to make problem-based learning as a

learning approach. In the parenting program with the target of adult learners, then the problem based learning becomes one of the appropriate choice as an approach in adult learning (Merriam, 2010). This is based on the assumption that adults have different learning characteristics, namely; (a) As a person matures, his or her self-concept moves from that of a dependent personality toward one of a self-directing human being; (b) An adult accumulates a growing reservoir of experience, which is a rich resource for learning; (c) The readiness of an adult to learn is closely related to the developmental tasks of his or her social role; dan (d) There is a change in time perspective as people mature from future application of knowledge to immediacy of application. Thus, an adult is more problem centered than subject centered in learning.

The abilities of parents to do parenting in the family is a necessity. Many studies show that parental care in the family affects the child's growth and development (Respler-Herman, Mowder, Yasik, and Shamah, 2012). In the ecological system theory, parents and families are micro environments that have

the greatest impact on child behavior (Jeon, Buettner, and Hur, 2014). However, this condition is not fully realized by the parents, where there are still many parents who do not have the ability to educate their children well. Not infrequently parents do actions that are not appropriate, both in the form of verbal and nonverbal behavior. Some studies have found that the causes of parents for violence against children are insufficient knowledge about child care, from birth, breastfeeding, feeding, health care, and other aspects of development (Goldstein, 2013). Research conducted by Sumargi et al., found that the quality of care in the family is determined by the experience of the parents (Sumargi, Sofronoff, and Morawska, 2013).

Efforts to improve the quality of care in the family today are of concern to the ministries of education and culture. The main purpose of this program is to improve parenting skills in family care. This program is named as a parenting program implemented by ECE institutions or other credible institutions. Parenting programs are generally an integrated activity with early childhood education programs that place parents as intermediate goals of early childhood education programs. The activity is conducted through five main activities, namely; a) classes for parents, b) parents as companion teachers in joint activities at school, c) outside together activities, c) home visits, and d) parental consulting services. These five parenting activities are currently becoming the basis for the organization of parenting at early childhood education institutions in Indonesia.

Parenting programs are implemented with the aim of improving the quality of care that takes place within families characterized by; the ability to care for children, the ability to provide the right food, the ability to maintain the child's health, the ability to provide the right stimulation, the ability to communicate well, and so forth. In order to achieve the goal well, some providers of early childhood education programs develop the most appropriate models. One of the models conducted by ECE institute in Bandung City is parenting by using problem solving approach.

This study is intended to explore and analyze parenting program model models using problem-based learning approaches and their impact on parenting behaviors performed by parents at home.

## 2 LITERATURE REVIEW

### 2.1 Parenting and Parenting Program

The family is the first environment known to the child (Plomin and Daniels, 2011) or better known as a school/first school for children (Wahy, 2012). What happens to the family is the important stimulation in building child development. The child's age in this period is also called the golden age, which is a critical period that will determine the future of the child. Bloom states that the variability of intelligence by 50% is determined in children aged 0-4 years. Thus the importance of this age in determining the development of the next child then the good stimulation of the child becomes something very important to do.

The first parenting task is the parents and the environment of his little family. The family is a micro-environment that provides early stimulation of the child (Härkönen, 2007). In ecological system theory Bronfenbrenner, families need to be given early intervention so that parents have the competence to be able to provide appropriate care to the child (Denham, 2006). The micro-system is the closest circle to the child that includes activities and patterns of direct interaction of the child with his immediate environment such as interaction with parents, family members including brother and sister, school, peers, toys and relationships/interactions and roles in the family child (Bronfenbrenner and Morris, 2006).

The microenvironment is the first environment known to the child, the family and the closest peers. In this micro-environment adults and parents around children have a great influence on the growth and development of children. Moreover, children in the early years had rapid growth and development. Overall, greater parental knowledge has been associated with more positive child developmental outcomes and greater parenting competence. However, the knowledge measures used have largely assessed developmental milestone knowledge and alternate or more complex types of parental knowledge have not been examined (Morawska, Winter, and Sanders, 2009).

On the other hand, some research reviews have found that the quality of care in the family has an impact on children's creativity (Fearon, Copeland, and Saxon, 2013). This review high- lighted a variety of parenting factors, including parenting styles that influence creativity. Specifically the review pointed out that creative children have parents who treat them with respect, have confidence in their abilities, give

them responsibility with autonomy and freedom, and expect them to do well. However, that parenting confidence would be negatively correlated with dysfunctional parenting such that those parents with higher confidence levels would score lower on a measure of dysfunctional parenting than those with lower confidence levels (Fearon et al., 2013).

Taking note of some of the above, the parent's knowledge of parenting becomes the basis for parents to provide good parenting for children. Knowledge gained through direct learning experiences, both on their own and in the learning experience of others. Through parenting program is expected to improve the quality of parent knowledge in educating children.

## 2.2 Problem-Based Learning

There have been many studies on problem-based learning as an effective learning model used in various learning situations. From the results of meta-analysis to several studies found that PBL gives a positive effect on the ability (skill) learners (Dochy, Segers, Van den Bossche, and Gijbels, 2003). Research conducted by Wafaa and Nahed found that PBL as a method and philosophy is a widely adopted and effective approach to fostering deeper approach to learning, autonomy, critical thinking and self-directed learning among nursing student (Wafaa and Nahed, 2010). This is also in line with the results of research conducted by Yew, Chg, and Schmidt, was found that the learning in each phase of the PBL process is shown to be strongly influenced by the earlier phase, thus providing support for the PBL cycle of initial problem analysis, followed by self-directed learning, and a subsequent reporting phase as described by various authors (Yew, Chng, and Schmidt, 2011).

Problem-based learning is a learning approach that creates a real problem, in which the problem encourages learners to identify the underlying cause of the problem, develops alternatives to solve the problem, and encourages the involvement of all learners in solving the problem. A key element in problem-based learning is the contextualization of problems solved through the effort of collecting information done by learners, ranging from identifying the information needs that learners should know and identifying existing information gaps with the missing ones needed to solve the problem (Peterson, 2004).

Problem-based learning emphasizes the readiness of learners in learning. Learners in this case need to elaborate first problem to be solved. Furthermore, through small and large groups, learners analyze the

problem through discussion. In the process each learner performs activities of mutual learning through the process of knowledge transformation between them (De Grave, Schmidt, and Boshuizen, 2001). Problem-based learning also combines theory and practice, and applies knowledge and ability to develop various ways of solving problems already formulated (Savery, 2006). This condition encourages learners to learn more independently, critically, and understand the relevant concepts and theories to solve the problems discussed in the learning activities. Therefore PBL is also called as a contextual learning, because it solves a contextual problem (Marra, Jonassen, and Palmer, 2014).

In another view, problem-based learning is categorized as a constructivist model of learning, in which learners build their knowledge on the basis of experience that has been received (Leddington Wright, Duncan, and Savin-Baden, 2015). The knowledge gained is the result of the marriage between the experiences possessed by the strengthening done by the instructor in the training activities. This learning develops social interactions that can enrich the participants' learning experience, through the process of discussion, reflection, criticism, and the delivery of ideas from each participant (Yusof, Hassan, Jamaludin, and Harun, 2012).

Silver (2004) consider that the problem-based learning includes of self-directed learning (SDL). Following SDL, students apply their new knowledge and evaluate their hypotheses in light of what they have learned. At the completion of each problem, students reflect on the abstract knowledge gained. The teacher helps students learn the cognitive skills needed for problem solving and collaboration. Because students are self-directed, managing their learning goals and strategies to solve PBL's ill-structured problems (those without a single correct solution), they also acquire the skills needed for lifelong learning (Hmelo-Silver, 2004).

In Problem-based learning, learning cycle done through 6 stages; 1) problem scenario, 2) identify fact, 3) generate hypothesis, 4) ID knowledge deficiencies (self-directed learning), 5) apply new knowledge, and abstraction. Visually the cycle can be seen in figure 1.

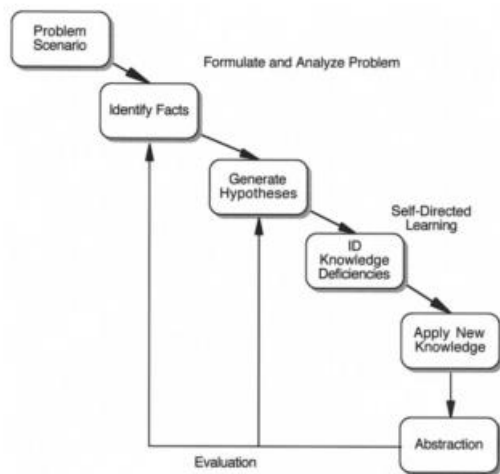


Figure 1: The Problem-based learning cycle.  
Source: (Hmelo-Silver, 2004)

### 3 RESEARCH METHODOLOGY

#### 3.1 Participants

This research is conducted at ECE institution as parenting program organizer with participant is institute manager and parents who follow program. Because this study is intended to explore the various phenomena found during learners (parents) following a parenting program, the qualitative approach is the approach chosen in this study. Participants involved were 10 students (parents) selected purposively, i.e. those who have been actively involved in the parenting program.

#### 3.2 Procedures

This research is conducted by collecting information from each stage of PBL implementation (Wood, 2003):

- Clarify terms and concepts not readily comprehensible
- Define the problem
- Analyse the problem
- Draw a systematic inventory of the explanation inferred from step 3
- Formulate learning objectives
- Collect additional information outside the group
- Synthesise and test the newly acquired information

From all these stages, the next researcher conducted an in-depth analysis based on data obtained through interviews to parenting program participants. Interviews were conducted with

reference to the opinion of Savin-Baden and Major (2003) who suggested that research to test PBL is done by asking several questions, namely:

- What is concern?
- What does are involved concerned?
- How might the situation be mapped and understood
- What can be done?
- What should be done?
- How will data be collected?
- How may conclusions be checked to ensure that they are reasonably fair?
- How will the significance of the action be presented and explained?
- How has change taken place?
- What practice still need to be examined and possibly change? (Leddington Wright et al., 2015)

#### 3.3 Method

The method used in this research is the project with the main data collector through focus group discussion, observation, and interview. Data collected during the parenting program was conducted on three groups of parenting program participants. Observations are conducted to illustrate the participant's participation during the process of the activity, which is seen from; participant responses in answering instructor questions, conformity of answers with questions asked, and courage participants in expressing their opinions.

#### 3.4 Data Analysis

As a qualitative research, this study more describes the incident during the study took place. The data presented hereinafter interpreted using thematic approach. Thematic approach is a fundamental process of analysis that includes a theme or several themes that are considered to give meaning to what is done (Leddington Wright et al., 2015). The use of the theme analysis follows the flow of thought developed by Braun and Clarke (2006) which illustrates the thematic analysis as follows:

- Familiarise yourself with your data
- Generate initial codes
- Search for themes
- Review themes
- Define and name themes
- Produce the report (Leddington Wright et al., 2015)

## 4 RESULTS AND DISCUSSION

Results from the Focus Group Discussions were carried out by thematic analysis as described above. Themes in the analysis ranging from the suitability of the material discussed, the process of implementation of learning, the timing of learning, media used, and the results achieved from the learning program.

### 4.1 Identify Problem and Response Participants

Parenting programs raise issues faced by parents in parenting in the family. The problem generally involves three main points, namely; care and health care, feeding, and stimulation of child development, including interaction and educational communication. So far, parents do not have enough ability to do good parenting in the family, so it is not uncommon to find parents who make mistakes in caring, nurturing, and stimulate the child.

The use of problem-based learning model in parenting program responded positively by the program participants. Generally, program participants think that parenting programs should solve parenting problems that are felt by parents at home. Below are the results of discussions obtained from instructors and parenting program participants. The left column contains the expression of the top ten expectations of the parent to the child, while the right hand column contains about the ten highest behaviors that keep parents' expectations alive. This table 1 is filled through a brainstorming process guided by the instructor.

Table 1: Identify of parenting problems.

| Parents' Expectation on Children | Parental behavior that keeps away from expectations |
|----------------------------------|---|
| Sholeh (be a good moslem)        | Scold   |
| Smart                            | Leaving alone                                       |
| Dutiful to parents               | Blame   |
| Fond of helping others           | Pinch   |
| Discipline                       | Slap  |
| Independent                      | Give a bad example                                  |
| Be noble                         | Pamper  |
| Diligently helping the elderly   | Telling   |
| Creative                         | Setting / not giving freedom                        |

This pattern of identification of learning materials is seen as providing a valuable learning experience

for learners. Here are two participants from two different groups who expressed their opinions:

*"...for me this way of learning is different from other ways of learning. Usually we are given material that sometimes does not match what we experience..."*

The other participants expressed their opinion:

*"...I realized that what I had done so far did not match expectations, so this model of learning has built my awareness of the mistakes I've been making..."*

### 4.2 Learning Activities

In the learning activities, it appears that all parenting participants are invited to express their experiences and opinions. Some participants seemed hesitant in expressing their opinions, especially on participants over the age of 40. Nevertheless, all program participants convey experience that can be used as training materials by the instructor. At this stage the participants brainstormed on what should be done to achieve predetermined expectations (see in Table 2).

Table 2: Parents Effort to Achieve Expectations.

| Parents' Expectation on Children | Parent's Behavior to Achieve Expectation  |
|----------------------------------|---|
| Sholeh (be a good moslem)        | Involve children to worship together      |
| Smart                            | Guide in home study                       |
| Dutiful to parents               | Treat children well                       |
| Fond of helping others           | Invite the child to get used to sharing   |
| Discipline                       | Giving responsibilities                   |
| Independent                      | Giving responsibilities                   |
| Be noble                         | Provide good examples                     |
| Diligently helping the elderly   | Invite to cooperate                       |
| Creative                         | Provide facilitation in play and learning |

From the lessons learned, we got some opinions from the Participants, among others:

A young woman in her 20s expressed her opinion about this learning process:

*"...many of the behaviors that I have been doing are contrary to what is expected. It takes patience and perseverance in educating children, so that children understand exactly what we mean..."*

A 40-year-old woman added:

*"...learning from what we experience is much more meaningful than learning from the experiences of others. I am increasingly aware that the mistakes I make can be a valuable experience to educate children for the better..."*

The learning process has also provided an experiential learning-based learning model, so that the experience possessed by learners becomes more comprehensive.

### 4.3 Result of Learning

Learning outcomes achieved from parenting programs that use PBL can be seen from several things, namely; the cognitive aspects, which include the participants' understanding of the material discussed, the affective aspects; courage to express opinions, participation during the learning process, tendency to change attitude, respect others opinion, and openness to accept criticism submitted by others, while psychomotoric aspects include skills to stimulate the development according to the material discussed in the training.

Changes in the cognitive aspects can be seen from the participants' understanding of the material discussed. Results of interviews with respondents aged 30 annual obtained results as follows:

*"...the lesson being discussed is actually very simple but for me it is enough to give an important meaning, because all this time what I think is true is not true..."*

Other participants of the same age added:

*"...initially I thought would get the material that is out of habit every day, it turns out the material discussed is very relevant to what happens in the family. Right now I am getting better at how to treat children well..."*

There are also parenting program participants who deliver like this:

*"...experience is a valuable teacher. What I get right now really gives meaning to the parenting I'm going to do in the family..."*

The results achieved on the affective aspect indicate the tendency that the learning environment using PBL builds a more positive social attitude. This can be seen from several trends of behavior change in participants obtained through observation, for example; 1) the participants respond each given an opportunity to speak by the instructor; 2) the participants convey the experience openly; 3) accept criticism and suggestions submitted by others; 4) showing good cooperation with fellow participants and, 5) showing willingness to mutual learning.

In the skills aspect, changes that occur to the trainees can be seen from the changes in; 1) make good communication with children; 2) choose the right word for the child; 3) provide good examples in behaving, and 4) helping children in solving problems.

### 4.4 Discussion

First, from the data presented previously known that problem-based learning is a learning activity that is considered new in the implementation of parenting programs in ECE institutions. Although new, problem-based approaches have given meaning in parent learning more concretely to the various problems at hand. Learning-based problem solving in this case encourages students' learning readiness reveals the problems encountered and shared experience in solving the problem (De Grave et al., 2001). As a consequence of the approach, the participants need the ability to think critically of the problems faced by themselves or other participants (Wafaa and Nahed, 2010).

The problem-based learning approach has at least built a positive image of parenting programs at ECE institutions. A good perception of the parenting program can also be assumed that the parenting program as a new program, where parents in Indonesia do not have enough good information about parenting before the program is implemented, so the program becomes a bridge for parents to improve their competence as parents.

Second, Problem-based learning has increased participants' participation in the learning process. The various experiences faced by the participants show a positive self-image of the learners. This model is more constructive, in which the participants build knowledge based on their experience, either directly or indirectly (Leddington Wright et al., 2015). It is expected to substantially build the quality of parenting in the family for the better. Parenting quality is done by parents, especially on the ability to communicate with early childhood, although not found significant differences seen from various categories proposed by researchers. Parenting communication patterns with children indicate a change to a better direction. Good communication with children will certainly manifest a good relationship between parent and child. In addition, good communication between parents and children can prevent unkind behavior in children.

Third, as well as the purpose of the parenting program is to improve the quality of care, parenting programs conducted by early childhood education institutions have a significant effect on the quality of care that takes place within the family. This can be seen from the change of knowledge and skills of the participants after attending parenting program. It is expected to establish a good pattern of parenting behavior, so that as a micro environment, the family becomes an institution that gives good effect on children at early ages (Bronfenbrenner and Morris, 2006).

## 5 CONCLUSIONS

The study concludes that: 1) Problem-based learning has been effectively used to identify parental needs, problems and expectations when parenting in the family; 2) Problem-based learning has been effectively increased the participation of parenting participants in adult learning, especially in setting learning goals, analyzing problems faced by parents in care, expectations and conditions that can be done in solving problems, and evaluating the outcomes achieved from family care processes; and 2) Problem-based learning has been effectively used to improve the skills of program participants, especially soft skills related to solving problems faced in the family.

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