

# Mobile Parenting Training Program Based on a Ubiquitous Learning Context to Improve Parenting Skill: The Moderating Role Parental Locus of Control

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**Abstract**—The lack of knowledge about parenting has led to several cases of violence against children. Providing training on parenting skills is a possible solution. This study was presented with the aim of knowing the effectiveness of a mobile parenting training program based on ubiquitous learning to improve parenting skills moderated by parental locus of control. This study used a quasi-experimental design with control and experimental groups. Sampling in this study used purposive sampling with the following criteria for parents: 1) Having children aged 3–6 years, 2) Parents experiencing parenting problems, 3) Children experiencing developmental delays, 4) Willing to participate in the training program to completion. The tests used in this study include testing the validity and reliability of the instrument, classical assumption test, homogeneity test, and hypothesis testing using Two Way Anova parametric statistics. The results of this study can be concluded that a mobile parenting training program based on ubiquitous learning moderated by a good parental locus of control can improve parenting skills in parents.

**Keywords**—mobile parenting training program, ubiquitous learning, parenting skills, parental locus of control

## 1 Introduction

Parenting is a factor that determines the quality of children development [1]. Lack of parental knowledge and skills regarding parenting or good parenting techniques is a phenomenon that is often encountered today [2]. This finding is reinforced by data from the PPA Symphony, on January 1–June 19, 2020. There have been 3,087 cases of violence against children, including 852 cases of physical violence, 768 cases of psychological, and 1,848 cases of sexual violence, in which this figure is quite high. As of June 15, 2020, 8,842 complaints have been submitted to this service. The problems found today are that many parents scold and beat their children in disciplining

their children [3]. Parents also do not have clear rules in compiling children's daily routines, resulting in negative boundaries for children [4].

According to the "Global Report: Ending Violence in Childhood", it is found that every year, 1.3 billion children in the world in the age of 1–14 years have experienced physical violence in the home environment. "The Global Report: Ending Violence in Childhood" also reports that 73.7% of Indonesian children have experienced violence in their own homes. The violence experienced is in the form of hitting and pinching which is commonly used by parents to their children. According to data from the Indonesian Child Protection Commission (KPAI), cases of physical violence against children amounted to 249; this number ranks second after cases of sexual violence [5]. Physical violence experienced by children is mostly caused by parents' faults in disciplining children who go beyond reasonable limits.

The low quality of parenting skills can have an impact on children's development [6]. If the interaction process that occurs in parenting is not harmonious, the child's development process will also be hampered, one of the impacts can be seen in the child's behavior patterns [7]. Often heard cases of deviations in children's behavior whether in childhood, adolescence or adulthood where is actually reflects the success or failure of the process of caring for his family [8]. Errors in parenting can also have an impact when they grow up [9]. Children will feel traumatized if parenting in his family is carried out in a coercive manner [10]. It is different if the child is always fulfilled his request by the parents. This pattern will make them spoiled [11]. Therefore, parents must be able to apply a flexible parenting pattern but still be able to instill positive values in children [12].

The application of the right parenting pattern is a parenting skill that must be known by parents. This demand will help parents to overcome problems that occur in the parenting process [13]. Parenting skills training is one of the techniques that can be used to provide knowledge and skills to parents on how to do proper parenting. The goal is to provide maximum developmental stimulation for children [14].

Discovering the great urgency of parenting training, the reality on the field shows that there is still a lack of this kind of training [15]. Parenting skill training services have not been carried out widely and equitably by both government agencies and private institutions. Whereas, parenting skill training is one solution in helping parents to educate their children well [16]. This parenting training program is held as a necessity to answer the concerns of parents who do not understand about the growth and development of children [17].

Seeing the urgency of parenting training, it is important that parenting training program to be implemented massively, continuously, and evenly. Parents need to receive training services on an ongoing basis with the aim of improving their parenting skill [18]. The implementation of optimal training does not mean without obstacles. The lack of provision of this service is also due to technical constraints related to costs, personnel, or human resources who provide training and also time. Providing training in a pandemic situation like the current situation can also pose a high health risk [19].

The solution to this obstacle can be done through the provision of virtual-based training using a mobile parenting training program. The strong reason this program is well implemented is because the current trend of development is dominated by technology. The provision of ubiquitous-based mobile training program provides benefits in the form of easy access to training resources anywhere and anytime and can be accessed through any electronic device. This flexibility can help parents to develop a training process that is limited to traditional face-to-face method [20].

Ubiquitous learning is a learning process that prioritizes the ease of learning from anywhere, anytime, and in any way. Therefore, each learner has unlimited learning resources either through individual exploration independently or social interaction either directly or indirectly [21]. Ubiquitous learning requires the support of computers and wireless networks that we often use in everyday life [22]. It means that ubiquitous learning in its application is very close to everyday life. The main goal is that the content support and interaction can be established anywhere [23].

In its application, ubiquitous learning is paired with a mobile learning application program. This collaboration is chosen because the majority of mothers in this era can already operate smart phones in their daily activities. The availability of information on smartphones will have greater access opportunities given the ease of use and flexibility offered [24]. However, this mobile learning-based training program will not be able to run optimally if parents do not have locus of control or self-awareness [25].

The role of this awareness is driving force for the implementation of ubiquitous learning-based mobile training programs. The novelty in this research is the presence of training for parents with the aim of improving parenting skills based on ubiquitous learning. Through ubiquitous-based training, parents will find it easier to get training materials without being limited by space and time. In this study, there are three hypotheses which are (1) the effect of ubiquitous learning-based mobile parenting training programs on parenting skills, (2) the effect of ubiquitous learning-based mobile parenting training programs moderated by parental locus of control on parenting skills, (3) there is an interaction between mobile parenting training programs based on ubiquitous learning and parental locus of control on parenting skills. Good self-awareness can spark curiosity and willingness to learn to develop [26]. Parents with a good locus of control will be eager to find information related to improving parenting that can be easily accessed through their electronic devices [27]. Departing from the problems that have been described, the purpose of this research is to develop and test the effectiveness of mobile parenting training programs based on in a ubiquitous learning context to support parenting skills moderating by locus of control.

## **2 Literature review**

### **2.1 Parenting skill**

Every parent has their own way in providing stimulation to their children [28]. This method is then called parenting skill. Parenting skill is the main pillar in parenting [29]. Parenting skill means a skill in parenting. Sanders et al. (2019) defines parenting

skill as parents' interest in raising children, which includes skill that handle, control, and sharpen sensitivity in parenting. Parenting skills are the interaction of children and parents in parenting activities.

This type of parenting involves parents raising, guiding, educating, and protecting their children from the influence of social norms [31]. Good parenting skills have a positive effect on a child's development and growth [32]. Parents certainly need adequate knowledge in order to provide proper care for their children [33].

Parenting skills possessed by parents can be seen in how parents support good behavior carried out by children. Through the support given by parents to children, they become more confident in doing good things previously done. Children will return to repeat their good behavior because of the provision of parental support. This is in accordance with the behavioristic theory proposed by Skinner and the conditioning theory by Pavlov.

Parenting skills can also be seen from the ability of parents to apply boundaries. Limitations here can also be interpreted as rules that must be obeyed by children and parents themselves. This limitation aims to clarify how family members should behave. It also minimizes the possibility of misunderstandings and builds open communication between parents and children.

In pro-active parenting skills, parents have a full role in deciding the way that is considered appropriate in conditioning the children. In proactive parenting, parents provide opportunities for children to explore as well as provide reasons if there are restrictions that must be obeyed by children. The description of the dimensions and indicators used in measuring parenting skills can be seen in Table 1.

The ability to know the stages in children and provide the right portion will support children's growth and development [34]. Parenting knowledge is deep and broad knowledge possessed by parents, starting from realizing aspects of development, stages, and norms that help keeping children healthy and developing optimally [35]. Parenting knowledge includes understanding how to raise children, how children develop, and the various roles that parents have in their children's lives [36]. However, knowledge about parenting is also not widely known by parents. This limitation appears because they are not taught in formal education [37]. They only gain through experiences from parents, the environment, and various media whose contents are not structured [38].

The differences between good and bad parenting skills can be exemplified as follows. If parents have good parenting skill in meeting the needs of eating and drinking, children can get nutritional intake that has an impact on children's health [39]. If their parenting skill is low, children also tend not to get stimulation according to their developmental stages [40]. If the children do not get the right stimulation, the possibility of the children experiencing developmental delays and growth can be greater.

Low knowledge affects parents' poor decisions about the care and upbringing of their children in the age of 1–6 years which in turn affects the children's development [41]. Therefore, parents need to learn how to raise their children in a family, as well as how to raise and guide their children. That way, they can become quality employees in the future [36].

**Table 1.** Dimension and indicator of parenting skill

Dimension	Indicator
Supporting good behaviour [42]	Fun play, solving problem at hand, sharing fun activities, attention to children’s good behaviour, teaching new skills, involving in household chores, and rewarding children [43] [44].
Setting limits [42]	Follow the rules, speak calmly when angry, just explain what the child wants, tell them to stop doing something, tell the parents what they want, make rules, and make sure the child follows the rules [42]
Proactive parenting [42]	Make choices, warn children before making changes, plan ways to prevent interference, make requests, play games, break big tasks into small steps, and prepare children for difficult situations [42]

## 2.2 Locus of control

Locus of control is an indicator that is believed to lead to the success or failure of an individual [44]. Ahlin & Antunes (2015) reveal locus of control as a general expectation of a person’s ability to control the reinforcement received [45]. Locus of control shows an individual’s belief in their ability and effort to change their destiny or life circumstances [26]. There are two types of control centers: internal and external. The internal control space is a personal belief that success and failure are self-generated, while the external control concentration is a personal belief that success and failure are caused by external factors such as destiny and luck [25].

Locus of control can be known from the awareness that parents have in terms of parenting. Through awareness of parenting, parents can control their behavior towards their children. This awareness will also affect the wisdom of parents when there are problems with their children.

Locus of control in parents can also be assessed from the responsibilities given to child care. Parents who are responsible and able to face problems in parenting will provide a sense of security for children. Parents also feel responsible and try to correct if there is deviant children’s behavior.

The influence of control from children to parents also affects the locus of control of parents. The influence of control from children to parents must be reasonable. There should be no excessive control, thus, it affects how objective behavior should be carried out by parents in raising children.

Parents’ belief in destiny and opportunity is a dimension that can also be considered. This trust will provide a stimulus for parents to always give their best in order to encourage optimal growth and development of children as well. Gratitude and belief in destiny will encourage parents’ locus of control in providing care for their children.

The parenting dimension of parental control of children’s behavior can also be used to measure locus of control. It also relates to the feelings parents have in controlling their children. This feeling of control must also be balanced and not excessive while still giving children the freedom to take control of their own lives. The description of the dimensions and indicators used to measure locus of control can be seen in Table 2.

**Table 2.** Dimension and indicator of parental locus of control

<b>Dimension</b>	<b>Indicator</b>
Parental Efficacy [27]	Improving children’s behavior, there is little decision can be done to fix problem, addressing problems with children, some children give up in anger and never worry when they try to get up in the end, and they can’t predict their behavior, not to expect too much from children, dealing with them when they get angry, helping them to meet parents’ expectations.
Parental Responsibility [27]	No good or bad children but parents, they are responding parents’ efforts when well-behaved, parents can’t get along with their children when they do not listen, their behavior problems are parents’ fault, people who can’t be good parents can’t take advantage of it, parental mistakes cause behavioral problems, when a child seems helpless, parents don’t use the best parenting techniques, parents can’t be parents, parents can’t be parents. Behavior problems, better parenting skills, parents feel responsible for children’s behavior, the misfortunes and successes are the direct result of parents’ behavior.
Children Control of Parents’ Life [27]	Children do not control their parents’ lives, and children often influence their parents’ friends and what happens in their parents’ lives, avoiding and functioning independently of children’s attempts to have control over parents, able to correct if parents make a mistake with them, and not giving up if they frequently tantrum.
Parental Belief in Fate/ Chance [27]	Being a good parent means being lucky to have a good child, having a good parent, knowing what parenting is, having a good destiny after giving birth to a good child, and being successful with your child. Feel that they are more emotional than the children of the day, that neither the child nor the parent is responsible for higher behavior, and ensure the child’s feet in the parental planning work and understand their purpose. Changes in children are random and play an important role in determining a child’s behavior.
Parental Control of Child’s Behavior [27]	Feeling in control for their children, children behavior sometimes parents can’t handle, feeling children’s behavior is hopeless, letting children has hidher way than to put up with a tantrum, finding children can do things parents did not want to do, feeling children behave in a different manner from parents want them to behave, letting children to do things I normally don’t want, feeling not to have enough control over the direction children’s life decision, allowing children to get away with things, changing children’s mind about something.

### 2.3 Parenting training program

Parenting training program is the interventions designed to enhance the role of parents in child care through training, support, or education with their main objective being to improve the welfare of the children [46]. Parenting training program, according to Prata & Lawson (2018), is the specific interventions designed to improve the overall quality of parents that aim to help mothers and fathers relate to their children [47]. Parent training is any training, program, or activity that helps parents acquire the

knowledge and skills to build a child, improve communication skills, reduce the risk of child abuse, or reduce behaviors that interfere with the child [48].

Training is a method of teaching and learning that transfers knowledge from one person to another according to predetermined standards. In order to achieve the desired goal, the learning process must include the basic elements of the curriculum, teaching methods, technology, teachers, and appropriate equipment/infrastructure [49]. To achieve good training results, training programs need to be designed as effectively as possible [50]. According Loper & Tuerk (2016), the characteristics of an effective training program include: (1) having clear goals, the results are as benchmarks, (2) provided by teachers who are able to convey their knowledge and are able to motivate participants, (3) the content is not to become rote material but can change attitudes and improve work performance, (4) following the technical background, problems, and responsiveness of participants, (5) using appropriate methods, (6) increasing active involvement of participants, thus, they do not just listen or take notes, and (7) accompanied by research design, the extent to which the program objectives are achieved for the achievement and productivity of the company/organization. When observed from the characteristics of the training design above, according to Loper & Tuerk (2016), This includes (1) analyzing the training needs of the organization, called needs analysis or evaluation, (2) defining the goals and materials of the training plan, and (3) defining and learning the training methodology also principles used, (4) evaluate the training plan [51].

The implementation of the parenting program is divided into three stages, namely the preparation, evaluation, and monitoring stages.

- 1) The first stage, namely the preparation stage, includes the formation of a structured committee with the aim of preparing the facilities and infrastructure needed for program implementation in accordance with the types of parenting programs to be implemented. At this stage, identification of information needs for parents is also carried out, schedule preparation, and selection of resource persons who can understand the application and also understand the material.
- 2) The second stage is the implementation stage which is the core stage by referring to the plans that have been prepared previously. The material presented will be related to mobile learning-based parenting. This implementation will be carried out in the offline and online stages.

The third stage is evaluation and monitoring where the aim is to avoid deviations and errors in program implementation. At this stage, it can be done by paying attention to the supporting factors as well as the inhibiting factors. Evaluation and monitoring can be carried out starting from the preparation stage until the program is completed.

## **2.4 Mobile ubiquitous learning**

U-Learning is a continuous learning paradigm that allows individuals to learn the right things in the right place and in the right way, and can be done anywhere [52]. Learning everywhere is a new learning paradigm. It is an extension of the previous

learning paradigm. It is a transition from traditional learning to e-learning, from e-learning to mobile learning, and then to u-learning [24]. Ubiquitous Learning envisions an environment where the integration of physical and digital devices is seamless, access to applications and data can be done anywhere in the environment, and applications are not tied to a single device and can be migrated [53].

Many researchers in mobile learning have noticed that the rapid development of mobile and wireless communication technologies has a direct impact on learning. These advances have created new challenges for u-learning and m-learning, and these challenges are now being explored in more depth [54]. U-learning and mobile learning have many similarities in terms of consistency, accessibility, timeliness, and interactivity [21]. However, several important features of u-learning distinguish it from m-learning. For example, u-learning includes continuous learning, contextual computation, and adaptation services. In an ideal u-learning environment, computer communication and sensory devices can be integrated into everyday realities so that individuals can fully participate in a variety of learning situations [55]. Based on the above concepts, Xiamen Yang will propose a u-learning environment in 2021 and use contextual technology that colleagues can understand in selecting training resources that are appropriate to the situation and location [56].

The preparation of Mobile Ubiquitous learning goes through 4 stages, such as (1) defining content or compiling materials related to improving parenting skills, (2) making instructional designs which include how users start registering, logging in, getting the order of material according to their parenting needs, and giving access to be able to consult with experts, (3) compiling all materials into formats that can be in the form of document formats, images, etc., and 4) merging all content formats into an application by coding.

### **3 Research method**

This study uses an experimental quantitative approach. The design of this study used a quasi-experimental by involving the control group and the experimental group. Participants in the control group are 30 people with conventional parenting training program in 8 time face-to-face meetings. In addition, the participants in the experimental group are 30 people by implementing the mobile parenting training program in 8 time face-to-face meetings. Sampling in this study used non-probability sampling where the control group used purposive sampling and in the experimental group used the criteria of: (1) having children in the age of 3–6 years old, 2) parents experiencing parenting problems, 3) children experiencing developmental delays, and 4) willing to follow the training program to completion. Collecting data related to parenting skill uses observation or parenting skill assessment sheets, while collecting data relating to locus of control uses questionnaires. Data analysis in this study includes instrument validity, instrument reliability, normality test, homogeneity, while the effect of moderation is measured using two-way ANOVA.

### 3.1 Instrument validity testing result

**Table 3.** Normality test result based on training method factor

Variable	Dimension	r-count	r-table	Information
Parenting Skill	Supporting good behaviour	0.634–0.853	0.300	Valid
	Setting limits	0.643–0.845	0.300	Valid
	Proactive parenting	0.753–0.945	0.300	Valid
Parental Locus of Control	Parental Efficacy	0.645–0.865	0.300	Valid
	Parental Responsibility	0.546–0.753	0.300	Valid
	Children Control of Parents' Life	0.743–0.822	0.300	Valid
	Parental Belief in Fate/Chance	0.744–0.986	0.300	Valid
	Parental Control of Children's Behavior	0.621–0.856	0.300	Valid

The results of the instrument validity tests shown in Table 3 show that the value of all instruments is valid and usable, since it is known that the r-count value of all items is greater than the r-table. From the table above, it can be seen that all the parameters used to measure the variables in this study have a correlation coefficient greater than r-table = 0.361 (r-table). value of n = 30. The value of r-table is used to compare the value of r-count with r-table with the provision of degree of freedom (df) = n – 2, in this case, n is the number of samples. In this study, the number of samples (n) = 30 and the amount of df can be calculated as 30 – 2 = 28. With df 28 and alpha of 0.05, the r-table = 0.361, thus, all indicators in this study can be said to be valid.

### 3.2 Reliability test

**Table 4.** Reliability test result

Variable	Cronbach Alpha	Standard	Information
Parenting Skills	0.897	0.600	Reliable
Parental Locus of Control	0.965	0.600	Reliable

The calculation of the instrument reliability test according to Table 4 shows that the Cronbach alpha score of each variable is >0.6. Therefore, it can be concluded that all tools are at an appropriate level of reliability.

## 4 Research result

### 4.1 Analysis prerequisite test

**Table 5.** Normality test results based on training method factors

Normality Test			
	Training Method	Kolmogorov-Smirnov	
		Statistic	Sig.
Parenting Skill	Control (Conventional Parenting Training Program)	0.645	0.896
	Experiment (Mobile parenting training program)	0.463	0.345

The result of the normality assumption test for the parenting skill variable based on the training method factor can be seen in the Table 5. The result that obtains a significance value greater than 0.05 ( $p > 0.05$ ), thus, it is normally distributed.

**Table 6.** Normality test result based on parental locus of control factors

Parental Locus of Control		Kolmogorof-Smirnov	
		Statistic	Sig.
Parenting Skill	High	0.564	0.609
	Low	0.979	0.789

The result of the normality assumption test for the parenting skill variable based on the locus of control factor can be seen in the Table 6. The result that obtained a significance value greater than 0.05 ( $p > 0.05$ ), thus, it is normally distributed.

**Table 7.** Homogeneity of variety test result

	F	df1	df2	Sig.
Parenting Skill	2.645	2	59	0.345

The result of the homogeneity assumption test for the parenting skill variable based on the training method Factor can be seen in the Table 7. The result that obtains a significance value greater than 0.05 ( $p > 0.05$ ), thus, the variance between groups is homogeneous.

#### 4.2 Hypothesis test result

The following presents the results of a two-way ANOVA on Parenting Skill variables based on Training Method Factors (mobile training and conventional training) and Parental Locus of Control factors (high Parental Locus of Control and low Parental Locus of Control).

**Table 8.** Two-way ANOVA test result on parenting skill

Factor		M	SD	F	Sig.	Information
Training Method	Mobile Training	65.71	6.21	18.432	0.000	Significant
	Conventional	49.11	5.65			
Parental Locus of Control	High	63.21	6.63	13.233	0.000	Significant
	Low	52.23	6.42			
Interaction	High Mobile Training Parental Locus of Control	71.32	7.21	11.343	0.000	Significant
	Low Mobile Training Parental Locus of Control	60.22	5.34			
	High Conventional Parental Locus of Control	61.23	7.32			
	Low Conventional Parental Locus of Control	37.34	6.33			

From the first hypothesis in Table 8, it is known that the result of the two-way ANOVA test based on the training method factor on parenting skills of parents obtains an F-value of 18,432 with a significance of 0.000. This result shows a significant difference (0.05) between the mobile learning group and the traditional parenting skills training group.

The second hypothesis is that the F test of the parental competency control factor has a value of 13,233 and a significance of 0,000. This result indicates a high degree of parental control in the parental control group and a slight difference in parental skills ( $p < 0.05$ ).

The third hypothesis is that the F test has a value of 11,343 and a significance of 0,000. This is due to the interaction between the teaching method factor and the parental ability control factor. The results showed a significant difference ( $p < 0.05$ ) based on the interaction of teaching method factors and parental ability control factors.

## **5 Discussion**

### **5.1 The effect of mobile parenting program training based on ubiquitous learning on parenting skill**

Hypothesis testing has shown that the use of ubiquitous learning-based mobile parenting trainings differs significantly in terms of the growth value of learning outcomes using traditional learning. It can be concluded that there is a big difference between traditional parenting skills training and ubiquitous mobile education. This is in accordance with the findings of Pimmer et al. (2016) which resulted in the finding that knowledge gained from mobile and ubiquitous learning design can encourage students to be more enthusiastic and gain more knowledge.

Ubiquitous learning (U-Learning) is a learning method that is currently developing. U-learning provides active and adaptive support to learners in real learning and training [21]. U-learning works on the principle of making it easy for learners to carry out innovative learning activities from anywhere, anytime, and in any way [57]. Training with a ubiquitous learning system allows learners to learn without the boundaries of space and time [58]. To realize ubiquitous learning, it is necessary to have components, thus, ubiquitous learning really becomes learning anytime and anywhere [59]. Kang & Kim (2015) mention four components of ubiquitous learning, namely context-awareness, global positioning system (GPS), sensors, wireless technology, and mobile technology [60].

### **5.2 The effect of mobile parenting program training based on ubiquitous learning moderated by parental locus of control on parenting skill**

Based on the hypothesis test, we found significant differences in the value of parenting training effectiveness using mobile parenting training coordinated by the parental control center. It can be concluded that there is a significant difference between parental control skills, high parental control, and ubiquitous learning-based mobile learning.

Control space is a theory of psychological training that expresses a person's personal level of control over his or her own life and environment. [61]. Some observers believe that the results can be determined [26]. Locus of control refers to the individual's ability to control themselves over the events they experience. Learners who are able to control themselves, the better the results they seek [62]. According to Ajzen (2002), communication is very important to be understood and implemented, especially by parents to children coupled with the right locus of control, it will be able to place the feelings of parents as individuals that they are able to make decisions and take effective action to get good results desired and avoid undesired results [63]. Parenting training with locus of control will help parents to increase efficacy or self-confidence.

### **5.3 Interaction between the effect of mobile parenting program training based on ubiquitous learning and parental locus of control on parents' parenting skill**

Based on the results of the calculations using the Anova test, a correlation was found between the ubiquitous learning-based mobile parenting training and parenting skill control. Parenting training using mobile technology with ubiquitous-based learning provides flexibility for learners to learn things easily and can be accessed anytime and anywhere [23]. Given the lack of knowledge of parenting skill in parents, the use of ubiquitous learning-based mobile parenting allows parents to learn something at the right time in the right way [64]. According to [65] the interaction of technology in learning can improve the learning experience. Parents' experience in mobile parenting training program can help them improving their parenting skill [30]. Parents who have the knowledge and skills of parenting in children can provide appropriate care for their children [66].

## **6 Conclusion**

Based on the results of the study, it is known that a mobile parenting training program based on ubiquitous learning moderated by a good parental locus of control can improve parenting skill in parents. Mobile parenting training based on ubiquitous learning needs to be carried out continuously in order to improve parenting skill of parents. Therefore, it would be better if the training using mobile parenting based on ubiquitous learning moderated by parental locus of learning is carried out periodically to maximize parenting skill of parents.

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