



Improving Interaction Caregiver of Children with Special Needs in Tooth Brushing Activity through Mediated Learning Experience (MLE) Program: A Qualitative Approach

Hermito Gidion¹

¹Universitas Indonesia, Depok, Indonesia
hermito.gidion@ui.ac.id

Abstract. This study aims to gain an in-depth understanding of the experiences and perceptions of caregivers and children in tooth brushing activities and the influence of the Mediated Learning Experience (MLE) program on their interactions. The research method used was a qualitative approach with a descriptive research design. The research participants consisted of four caregivers who have foster children aged 4-5 years old and live in the Greater Jakarta area. Data were collected through in-depth interviews with caregivers and participatory observation during tooth brushing activities. Data were collected through in-depth interviews with caregivers and participatory observation during tooth brushing activities. Data analysis was conducted using a thematic approach, where data were analyzed descriptively and patterns of interaction, changes in attitudes and behaviors, and the influence of the MLE program on the relationship between caregivers and children were identified. The results showed that the MLE program had a significant impact on caregiver-child interactions in tooth brushing activities. Caregivers reported positive changes in communication with children, increased involvement of children in the tooth brushing process, and improved emotional connection between them. Children also showed positive responses to the program, such as a greater willingness to participate and excitement in tooth brushing activities. These results provide a deeper understanding of caregivers' and children's experiences in tooth brushing activities and the positive implications of the MLE program. The study also identified contextual factors that influence the implementation of the MLE program, such as family support and home environment. The findings suggest that MLE programs can be an effective approach in improving caregiver-child interactions in daily activities, such as tooth brushing. Future studies could further explore the long-term impact of this program and involve more participants to broaden the understanding of caregiver-child experiences in a wider context.

Keywords: *Interaction, Caregiver, Special need, Tooth Brushing, Mediated Learning Experience (MLE)*

1 Introduction

Every parent has their own way and mindset in nurturing and guiding children. The parenting style will certainly differ from one family to another. According to Setyawati in Dauly (2020), parents are someone who is responsible and acts as a caregiver, caregiver, and educate children. In this parenting activity, parents will provide attention, rules, discipline, rewards and punishments as well as responses to the wishes of their children. Attitudes, behaviors, and habits of parents are always seen, judged and imitated by their children which will then be consciously or unconsciously infused and then become habits for their children. This will affect the development of children.

There are some families that have children who are born normally and can develop according to their abilities, but there are other families who have children with various developmental barriers. This can indirectly affect the form of parenting style for their children (Rini, 2006). Children with special needs can be defined as children whose growth and development significantly (meaningfully) experience abnormalities or deviations (physical, mental-intellectual, social, emotional) compared to other children their age so that they require special education services (Direktorat Luar Biasa, 2006).

Work ability in early childhood must be maximized by providing learning assistance by parents by paying attention to the quality of interaction between parents as mediators and children as learners. Tzuriel & Caspi (2017) also support this statement by suggesting that the development of learning methods, strategies, and reflective thinking in children is strongly influenced by the interaction between mediators and learners in the learning aid process. One approach that can be used is to provide training in learning assistance activities through the Mediated Learning Experience (MLE) approach developed by Feuerstein, et al. (Tzuriel, 2013). Keung et al. (2022) also suggested that mediated learning experience (MLE) effectively improves the cognitive function of children with developmental problems. This study discuss about Improving Interaction Caregiver of children with special need in Tooth Brushing Activity through Mediated Learning Experience (MLE) Program.

2 Theoretical Review

Lev Vygotsky in Santrock (2020) explains that children's social interaction with adults is important in improving children's cognitive development. This happens because children are rich in concepts but not systematic, random and spontaneous. Therefore, dialogue in interaction can be used so that the concepts owned by children become more systematic, logical and rational.

Feuerstein identified eleven criteria that make up the MLE picture. The first three criteria are criteria that need to exist in an interaction called MLE. While the other eight criteria are important and helpful, but do not need to be applied to all learning

processes that depend on the situation and culture where learning takes place (Feuerstein et al., 1998; William & Burden, 1999). This research uses the theoretical basis proposed by Klein (1996). Klein (1996), who is engaged in the intervention of the relationship between parents (adults) and children, suggests five key descriptions of the application of MLE, namely: (1) intentionality and reciprocity (directing to get the child's attention); (2) Mediation of meaning (naming and emphasizing meaning); (3) Transcendence (giving further explanation); (4) Mediating feelings of competence (giving children a feeling of ability); (5) Mediated Regulation of Behavior (planning and organizing actions). The underlying reason researchers use these five criteria is in accordance with Feuerstein et al., 1998 that these five criteria are most relevant for research on respondents of preschool-age children.

In early childhood, aspects of workability (namely cognitive and behavioural aspects) are not optimal yet. One treatment that can be given is training for caregivers regarding applying the Mediated Learning Experience (MLE) method in learning assistance activities.

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Mediation teaching method can be described as the interaction of an individual with his/her environment through a mediator, aiming improving the cognitive and emotional functions of individual (Feuerstein & Feuerstein, 1991). Through this method, the mediation receiver acquires a variety of tactics to organize and links the vast amounts of information he receives from his environment and later converts to knowledges. Mediator are essential and their role is very important. They are information they receive (Klaudatos, 1999).

Special needs is a term used to describe exceptional or disabled children in an educational context. Special needs look more at the needs of children to achieve achievements and develop their abilities optimally (Ministry of Education, 2007). Fikri (2017) suggests that children with special needs is a new term to refer to children with a state of deficiency or excess in various physical problems, intellectual problems, and emotional problems.

3 Methods

The type of research used is qualitative-phenomenological research to see the Mediated Learning Wxperience (MLE) method can improve the interaction of caregivers of children with special needs in brushing teeth activities in children aged

4-5 years. Phenomenological research is research that describes the meaning of the experience of a phenomenon (topic or concept) in several individuals (Creswell, 1998). This study uses phenomenological methods with the consideration that to find out Mediated Learning Experience (MLE) can improve the interaction of caregivers of children with special needs in brushing teeth activities in children aged 4-5 years. The subjects in this study were four caregivers of children with special needs in Jakarta, Bekasi, Depok, Tangerang. Data collection in this study was by conducting interviews. According to Nazir (2009), interview is the process of obtaining information for research purposes with questions and answers, while meeting face to face between the questioner or interviewer and the answerer or respondent using a tool called an *interview guide* (interview guide) that has been adjusted to the purpose of research, namely to see the *mediated learning experience* method. Can improve the interaction of caregivers of children with special needs in carrying out dental activities in children aged 4-5 years.

4 Analysis and Discussion

Based on interventions made to four child caregiver respondents. There are five criteria of *mediated learning experience* (MLE) that consist of improving caregiver interaction with children with special needs. (1). *Intentionality and reciprocity*: In general, the four participants have been able to direct children with special needs to be interested in interacting when brushing their teeth and direct them to take an interest in the object of the activity carried out. *Intentionality and reciprocity* behavior is described as an attempt by caregivers to attract children to focus on what they are learning and this must be followed by attention from them, not only when children respond verbally or nonverbally, but when they see adult behavior. The presence of verbal and nonverbal language such as eye contact and two-way communication is part of the characteristics of positive interaction between caregiver and child; (2). *Mediation of meaning*: in general, the four participants have been able to carry out the criteria of *Mediation of meaning by giving* meaning to the things felt and done by children when brushing their teeth. Participants' behavior in appreciating objects, concepts, and verbal expressions or labeling, facial expressions (e.g. by widening the mouth and opening the mouth), or by sounds. In this way, children will get to know more objects or things in the environment around children so as to enrich their experience; (3). *Transcendence*: In general, the four participants have been able to carry out the *transcendence* criteria. Participants invite children to interact to learn about the causal relationship of brushing teeth, introduce generally accepted rules related to objects introduced to children when interacting when brushing their teeth; (4). *Mediated feeling of competence*: in general, the four participants have been able to carry out the criteria of mediated feeling of competence. Participants provide positive encouragement, motivation or encouragement to children when interacting when brushing their teeth. Participants gave praise or appreciation for the expected behavior of children when interacting; (5). *Mediated Regulation of Behavior*: In general, the four participants have been able to carry out the criteria for *mediated regulation of behavior*, Participants do *modeling both verbally and non-verbally* related to the behavior

expected in children. Participants help children plan an activity and give tasks according to the abilities of children. In this fifth criterion, participants became models or examples for children, demonstrating verbally or *non-verbally* about interaction behavior when brushing teeth.

Based on the intervention process, it is shown that MLE can significantly change respondents' behavior to improve interaction skills. Theoretically this condition is in accordance with the opinion of William and Burden (1997). The mediation process in *mediated learning experience* activities makes it easier to interact with children. The mediation process is related to empowerment or *empowering*, so that with the process of brushing teeth, caregivers can help children achieve the knowledge, skills and ways needed to achieve progress in learning, especially in cognitive development. This finding is in line with a study conducted by Permatahati (2019). The study showed a significant difference in the quality of interaction between mothers and children during feeding activities before and after training using the *Mediated Learning Experience* (MLE) method.

5 Conclusion

This study showed similar results in the context of brushing teeth performed by gidion (2021). In the study, there were differences in the quality of interaction between caregivers and children with special needs after being given MLE training. Based on the results of the study, all respondents have carried out five criteria in MLE. This study concluded that the four participants were able to do the *mediated learning experience* (MLE) method to improve interaction with children with special needs. Qualitatively, respondents experienced increased interaction through the implementation of *mediated learning experience* (MLE) programs and provided significant results in increasing caregiver interaction with children in brushing teeth.

The need for monitoring in the implementation of the MLE program so that increased interaction between caregivers of children with special needs can continue to be consistent in daily life, especially brushing teeth.

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