

Optimizing early childhood executive function through Mbojo culture-based guidance and counseling services

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Abstract: This study aims to optimize the executive function of early childhood through Mbojo culture-based guidance and counseling services in Bima City. The research method used a mixed-method with a sequential exploratory design. Qualitative data were obtained through interviews and observations, while quantitative data were collected using an executive function questionnaire covering aspects of attention regulation, self-control, planning, and emotional regulation. The instrument reliability test showed a Cronbach's Alpha value of 0.856; thus, the instrument was declared reliable. The results showed that before the service was implemented, 41% of children still had executive functions that needed to be improved. After the implementation of Mbojo culture-based services, there was an increase in children's abilities in regulating attention, controlling impulses, making simple plans, and managing emotions. Thus, Mbojo culture-based guidance and counseling services are proven effective in improving the executive function of early childhood. The outputs of this study include service implementation guidelines and recommendations for early childhood education institutions.

Keywords: *Executive Function, Early Childhood, Guidance and Counseling Services, Mbojo Culture, Child Development.*

1. Introduction

Executive function is a cognitive ability that plays a crucial role in child development, especially in early childhood. This function includes the ability to plan, monitor, control attention, and regulate behavior. Strong executive function in early childhood not only influences children's academic development but also their social and emotional abilities. Research shows that children who develop optimal executive function at an early age tend to have better academic achievement, better social skills, and are better able to cope with stress and life's challenges [1]. Considering that children's executive function is very important to pay attention to, because with optimal executive function development, children will certainly have excellent academic, social, and personal abilities. The importance of appropriate intervention and stimulation at an early age is key to supporting the development of children's executive function [2-5]. This can be done through games that support cognitive skills, learning that involves decision-making, and emotional and stress management strategies taught from an early age [6-10]. However, in many areas, including Bima City in West Nusa Tenggara, the development of children's executive functions in early childhood education (PAUD) is still relatively low.

Based on observations and previous research, it has been shown that many children in the region have difficulty concentrating, regulating impulses, and planning tasks and activities given by their teachers. Cultural and social factors that are less supportive of this development are one of the main causes of the low executive function of children in Bima. Bima City is a region rich in local wisdom, especially Mbojo culture, which has various values that can be used to enrich children's learning

processes. Mbojo culture, which includes traditional games, folklore, and life values such as cooperation and self-control, has great potential to be used as a foundation for guidance and counseling services aimed at improving children's executive functions [1, 11]. Integrating local wisdom into early childhood education can be a more relevant and effective approach to improving their executive functioning abilities.

Mbojo's culture-based guidance and counseling services offer solutions to optimize the development of early childhood executive functions in a way that is more connected to their social and cultural environment. By incorporating local cultural elements, such as traditional rituals, traditional games, and folklore into the guidance and counseling program, children can learn to manage their attention, control their impulses, and plan their tasks in a more enjoyable and meaningful way [12-14]. This study aims to develop and evaluate the effectiveness of Mbojo culture-based guidance and counseling services in improving the executive function of early childhood in Bima City.

2. Methodology

2.1. Research Design

This research employs a mixed-method research design with a sequential exploratory approach [15]. This approach comprises two stages: a qualitative stage involving interviews and observations, and a quantitative stage measuring service effectiveness through questionnaires.

2.2. Qualitative Stage

In the initial phase, this study collected qualitative data through in-depth interviews with parents, teachers, and community leaders to understand the state of children's executive function and the influence of Mbojo culture on this development. Observations were conducted at several early childhood education centers (PAUDs) to observe classroom activities and how cultural values were applied in children's learning.

After obtaining qualitative data, the next stage involved collecting quantitative data through a questionnaire that measures various aspects of executive function, such as attention regulation, self-control, and planning ability. This questionnaire was administered to teachers, parents, and children involved in Mbojo culture-based guidance and counseling services. The data obtained were subjected to reliability testing to determine the internal consistency of the research instrument. Reliability was assessed using the Cronbach's Alpha technique through the SPSS program. An instrument is considered reliable if the Cronbach's Alpha value exceeds 0.70 [15].

2.3. Population and Sample

The population in this study consisted of early childhood education (PAUD) students in Bima City. The sample was purposively selected based on the characteristics of children aged 4-6 years old enrolled in PAUDs that provide Mbojo culture-based guidance and counseling services.

2.4. Data Collection Instruments

The instruments used in this study were interview guidelines, observation sheets for qualitative data, and questionnaires for quantitative data. The questionnaires employed a rating scale to measure the level of executive function in children based on indicators of attention, self-control, and planning.

2.5. Research Procedures

The research procedure began with a literature review on the concepts of guidance and counseling, as well as Mbojo cultural values. Interviews were then conducted with parents, teachers, and local cultural experts. After collecting qualitative data, a questionnaire was distributed to gather quantitative data. The data collection process was complemented by observations of activities involving children and the application of Mbojo cultural values within the context of guidance and counseling.

3. Findings/Results

3.1. Instrument Reliability Test

The results of the reliability analysis showed that the 14-item research instrument had a Cronbach's Alpha value of 0.856. This value is greater than 0.70, thus concluding that the research instrument has excellent internal consistency and is reliable for use in data collection.

Table 1.
Results of Instrument Reliability Test.

Instrument	Number of Items	Cronbach's Alpha	Information
Executive Functions	14	0.856	Reliable

3.2. Condition of Executive Function of Early Childhood in Bima City

Based on the results of questionnaires distributed to teachers, parents, and children, a picture was obtained regarding the condition of executive function in early childhood in Bima City. The analysis results showed that the majority of children have executive function in the good category, especially in the aspects of attention regulation and planning ability. However, there are still some children ($\pm 41\%$) whose executive function is in the category that needs improvement, especially in aspects of self-control and emotional regulation. This is in line with the characteristics of the socio-cultural environment in Bima City, which emphasizes democratic parenting, where communication between parents and children is relatively open and warm. This parenting style contributes positively to the development of executive function, although environmental factors, access to early childhood education, and the family's socio-economic background still influence developmental variations between children.

Table 2.
Condition of Executive Function of Early Childhood in Bima City.

Aspects of Executive Function	Good Category	Needs Improvement
Attention setting	Majority	Minority
Self-control	Pretty much	Relatively high
Planning skills	Majority	Minority
Emotional regulation	Currently	Relatively high

Based on the table above, it is revealed that nearly half of the children studied had not yet achieved optimal abilities in managing attention, controlling themselves, planning, and completing tasks independently. The quantitative data from the overall instrument are as follows:

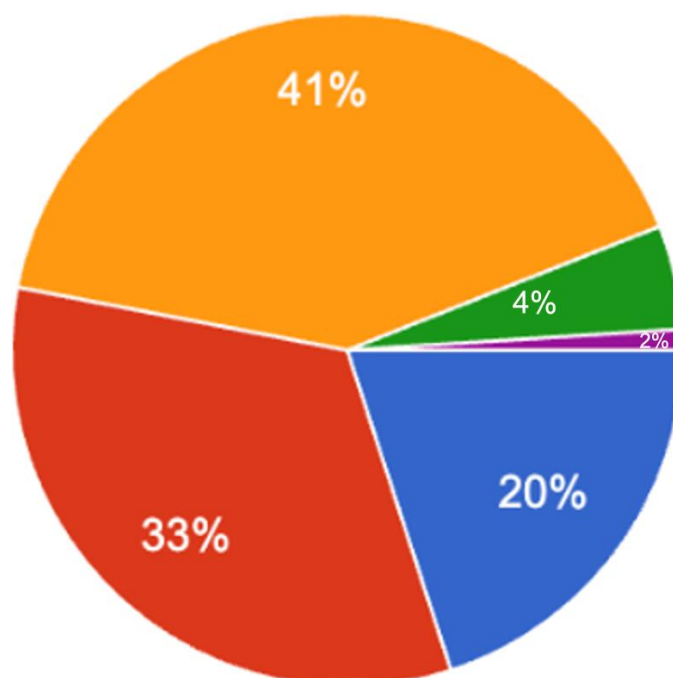


Figure 1.
The percentage in the pie chart of the children's executive function instrument.

The percentages in the pie chart above demonstrate a situation that serves as an important indicator that interventions or programs for developing executive functions are still highly needed, particularly in the areas of emotional regulation, impulse control, and flexible thinking skills. Addressing this situation, of course, requires alternative solutions.

3.3. Implementation of Guidance and Counseling Services Based on Mbojo Culture

After implementing Mbojo culture-based guidance and counseling services, there was a significant improvement in various aspects of children's executive function. Children became more capable of focusing on learning activities and demonstrated better self-control. Mbojo culture-based activities, such as traditional games and folklore, provided children with opportunities to learn about self-regulation, cooperation, and responsibility. The implementation of Mbojo culture-based guidance and counseling services was carried out through several structured stages:

3.3.1. Preparation Stage

- 1) Counselors and teachers coordinate to identify children's needs based on the results of executive function instruments.
- 2) Selection of Mbojo cultural values that are relevant to executive function indicators, such as traditional games (gasing, juku), folk tales (Mpama Pehe), and social practices that emphasize discipline and responsibility.
- 3) Preparation of guidance service activity plans that are integrated with the PAUD curriculum.

3.3.2. Implementation Stage

- 4) Traditional game activities: Children are involved in games that teach concentration, cooperation, and patience. For example, spinning tops trains focus and coordination, while juku emphasizes cooperation and self-control.

- 5) Folklore listening activity: Teachers or counselors read Mbojo folk tales filled with moral values, such as courage, emotional control, and responsibility. Children are then encouraged to reflect on the story's message.
- 6) Self-regulation exercises: Children are guided to manage their play and study time, wait their turn, and complete tasks independently.
- 7) Group activities: Children are invited to discuss and work together in small groups to practice social skills, communication, and joint planning.

3.3.3. Evaluation and Reflection Stage

- 8) After the activity, teachers and counselors provide feedback to children about the positive behavior demonstrated.
- 9) Parents are involved in implementing Mbojo cultural values at home so that learning consistency is maintained.
- 10) Evaluation is carried out by observing the child's development and filling out the executive function instrument after the service.

4. Discussion

4.1. The Influence of Mbojo Cultural Integration in Guidance and Counseling Services

The integration of Mbojo culture into guidance and counseling services to improve executive function in early childhood has had a significant impact on the cognitive and social development of children in Bima City. Mbojo culture, with its rich local wisdom embedded in traditional games, folklore, and rituals, provides a more in-depth approach to supporting the development of children's executive function. These cultural values teach self-control, cooperation, and responsibility, all of which contribute to strengthening fundamental aspects of executive function, such as planning, attention regulation, and impulse control.

Based on observations during the program, children involved in Mbojo culture-based guidance and counseling services showed significant changes in their ability to regulate attention. One important aspect of executive function is attention regulation, which is fundamental to the development of children's academic and social skills. In Mbojo culture, values such as "Tunu Mpango" (valuing time and opportunity), embodied in folklore and traditional play activities, teach children to focus on the task at hand. These activities provide structure that helps children concentrate on one thing and avoid distractions. As these cultural values are implemented, children show significant improvements in their ability to follow instructions in a timely manner and complete tasks in a more organized manner.

4.2. The Role of Traditional Games in the Development of Executive Functions

Traditional games, an integral part of Mbojo culture, also play a vital role in the development of executive function. Activities such as "Gasing," which requires intense concentration and careful planning, and "Juku," which involves cooperation between participants, provide opportunities for children to practice skills related to impulse control and planning [16, 17]. These games teach children to be patient, wait their turn, and plan their moves carefully.

During observations, it was found that children participating in this program not only focused better on their academic assignments but also worked better in groups and learned to control their impulses. In this context, traditional games serve a dual purpose: in addition to providing entertainment, they also shape children's character, improve their social skills, and hone critical and creative thinking skills, which are crucial for developing executive function.

4.3. Folk Tales and Children's Character Building

Folktales, an integral part of Mbojo culture, also play a central role in shaping children's character. Stories like "Mpama Pehe" teach profound moral and ethical values, including the importance of self-control, responsibility, and courage in facing challenges. In this guidance and counseling program,

folktales are used to teach children about the consequences of their actions and the importance of sound decision-making.

Through this story, children not only gain moral insight but also develop their ability to think long-term, consider options, and control impulsive behavior. This aligns with one of the key components of executive function: the ability to plan and regulate behavior.

4.4. The Influence of Mbojo Culture on Children's Self-Control

One of the key aspects of executive function is self-control. Self-control, the ability to resist impulses or desires that are inconsistent with long-term goals, is crucial for a child's academic and social development. In Mbojo culture, self-control is learned through various social and customary practices that emphasize the importance of maintaining honor, controlling emotions, and acting in accordance with societal norms.

One ritual that influences children in this regard is a traditional ceremony that teaches the importance of discipline and social responsibility. During the ceremony, children are expected to follow strict procedures and maintain their attitudes and behavior. This process, while seemingly simple, provides important lessons in self-control that are reflected in the children's daily lives.

4.5. The Role of Parents and Teachers in Developing Children's Executive Functions

In addition to cultural integration, the success of this Mbojo culture-based guidance and counseling service also depends on the involvement of parents and teachers. As those closest to children, parents and teachers play a crucial role in supporting the development of their executive functions. Parents who actively participate in this program demonstrate a better understanding of the importance of supporting their children's development in managing attention, controlling impulses, and planning their tasks. The program teaches parents to create a home environment that is more conducive to the development of their children's executive functions, such as establishing clear routines, providing opportunities for independent work, and offering praise or rewards when children successfully manage themselves. Parents are also encouraged to integrate Mbojo cultural values into daily activities at home, such as teaching children to value time and opportunities, and providing them with space to learn self-control through enjoyable cultural activities [11, 18].

Teachers also play a key role in creating a learning environment that supports the development of children's executive functions [19-21]. They receive specialized training on how to integrate Mbojo cultural elements into learning activities, as well as how to manage classrooms in ways that enable children to develop their attention regulation and impulse control skills. Teachers involved in the program model discipline, self-control, and social skills that support executive function development.

4.6. Program Sustainability and Challenges in Implementation

Although research results indicate a positive impact from implementing Mbojo culture-based guidance and counseling services, several challenges remain. One of the biggest challenges is limited resources, both in terms of facilities and training for teachers and counselors. Many teachers do not yet fully understand how to integrate local culture into more formal learning activities, requiring further training to better understand how to utilize Mbojo culture to support children's executive development. Furthermore, while the program has proven effective, there is a need to raise awareness among the community and educational institutions regarding the importance of culture in supporting early childhood development. Therefore, support from the government and relevant institutions is needed to expand the program's implementation to other early childhood education centers (PAUD) in Bima City and other areas with similar cultural characteristics.

5. Conclusion

Mbojo culture-based guidance and counseling services have proven effective in improving executive function in early childhood in Bima City. This program not only optimizes children's cognitive skills but

also introduces local cultural values relevant to child development. This success demonstrates the importance of integrating a culture-based approach into early childhood education, especially in a culturally rich region like Bima.

6. Recommendations

Efforts are needed to expand the implementation of Mbojo culture-based guidance and counseling services to other PAUDs in Indonesia, as well as to improve training for teachers and parents in supporting the development of children's executive functions through a local cultural approach.

7. Limitations

Several limitations of this study should be noted. This research was conducted only in Bima City, so the results may not be fully generalizable to other regions with different cultural characteristics. Furthermore, although the results showed significant improvements in executive function in children, longer, longitudinal studies are needed to measure the long-term impact of this program on children's academic and social development.

Transparency:

The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

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