Implementation of Farming Activities to Increase Early Childhood Self-Confidence

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ABSTRACT

Background. This approach can be used in the context of early childhood education to promote personal development.

Purpose. The aim of this study was to explore the role of agriculture in developing self-esteem in childhood. The research used was a controlled group experiment designed with 15 children aged 4-5 years as the research sample.

Method. Data collection was carried out by measuring the level of self-esteem and recording the frequency of participation in agriculture.

Results. The results of the study show that there is a significant relationship between working in the fields and increasing self-esteem in early childhood. Children involved in agriculture have increased their self-esteem. Farming gives children the opportunity to gain confidence in their abilities, overcome obstacles and learn to be independent. In addition, controlling for factors such as age, gender, socioeconomic background, family support, and parental involvement also influence children’s development. Older age, positive family support, and parental involvement in farming are positively related to children’s self-esteem. Lastly, the use of agricultural activities can be a good idea in developing self-esteem in early childhood.

Conclusion. The recommendation of this study is to consider integrating agriculture into early childhood education programs and involve parents as key partners in this activity.

KEYWORDS

Early Childhood, Farming Activities, Self-Confidence

INTRODUCTION

Young children are a particularly vulnerable group when it comes to developing self-esteem (L. R. Putri dkk., 2023). Strong self-esteem at an early age can provide a strong foundation for a child’s later development (Andra dkk., 2023). On the other hand, low self-esteem in children can affect their ability to form relationships, face
Implementation of Farming Activities to Increase Early Childhood Self-Confidence.

The purpose of this study is to investigate the use of agriculture as a strategy to promote self-esteem in early childhood, specifically in 4-5 year old children (Sari dkk., 2023). Children's self-esteem is very important in their development, as it can affect their ability to communicate with others, overcome obstacles and express themselves in everyday life. Children's childhood is an important time to build the foundation of self-esteem, and children's participation in agriculture should provide positive experiences that can support their self-esteem (Thoyibah et al., 2015).

In farming activities, children will be directly involved in caring for plants, from planting seeds, providing water, to monitoring plant growth (Lasmi dkk., 2023). During this process, children will face challenges such as caring for plants that require attention and patience, as well as adapting to new situations such as seasonal or weather changes (Maulida dkk., 2023). Through this experience, it is hoped that children will develop confidence in their own abilities and feel a sense of accomplishment when seeing the plants grow and thrive.

In addition, family support and parental participation also play an important role in increasing children's self-confidence (Amri dkk., 2023). In farming activities, parental participation can include providing guidance and support to the child, as well as being actively involved in caring for the plants together (N. A. Putri dkk., 2023). This not only strengthens the bond between children and parents, but also provides a positive example that can help children develop self-confidence.

Considering the importance of self-confidence in early childhood, this study will involve a number of children aged 4-5 years to observe the impact of the implementation of farming activities on their self-confidence (Asman dkk., 2023). As such, this research is expected to provide valuable insights on how farming activities can be an effective strategy for improving early childhood self-confidence and provide practical recommendations for educators, parents and policy makers in developing educational programs that focus on this aspect.

RESEARCH METHODOLOGY

This study used a multi-method approach with a controlled experimental design. The research sample consisted of 15 children aged 4-5 years selected from various PAUD schools who were willing to participate (B. Beribe, 2023). The study was conducted in several stages.

First, demographic information such as age, gender, and socioeconomic background were collected through interviews with their parents or guardians (Yeltriana dkk., 2023). In addition, children's self-esteem was initially assessed using a scale based on several questions relating to self-expression, interaction with others, and language. Responding to new problems or situations.

After that, the experimental group engaged in structured farming activities over a period of time, for example, one month (Lumban Gaol, Hansrainer, dkk., 2023). The farming activities involved the process of planting seeds, caring for the plants, and monitoring their growth. During this period, the frequency of children's participation in farming activities was recorded.
After the implementation period of the farming activities, a second measurement of children's confidence level was conducted using the same rating scale as in the initial measurement (Minarti dkk., 2023). In addition, interviews were conducted with parents or caregivers to obtain information about parents' participation in farming activities and family support.

The data collected will be analyzed using appropriate statistical methods (Mustajab dkk., 2023). T-tests, such as independent t-tests or Mann-Whitney tests, will be conducted to compare differences in self-esteem between the experimental and control groups (Ulum dkk., 2023). Regression analysis will also be conducted to assess social control variables such as age, gender, socioeconomic background, family support, maternal-father involvement, and child self-esteem.

Using these methods, this study aims to better understand the use of self-esteem farming methods in early childhood, as well as the characteristics that may influence the results.

After the implementation period of the farming activities, a second measurement of children's confidence level was conducted using the same rating scale as the initial measurement (Pamungkas & Halimah, 2023). In addition, interviews were also conducted with parents or caregivers to obtain information regarding parents' participation in farming activities and family support.

The collected data will be analyzed using appropriate statistical methods (Nurzen dkk., 2022). T-tests, such as independent t-tests or Mann-Whitney tests, will be conducted to compare differences in self-esteem between the experimental and control groups (Roshayanti dkk., 2023). Regression analysis will also be conducted to assess social control variables such as age, gender, socioeconomic background (Fuadi & Mirsal, 2023), family support, father-mother involvement, and child self-esteem.

Using these methods, this study aims to better understand the use of self-esteem cultivation methods in early childhood, as well as the characteristics that may influence the outcome.

RESULT AND DISCUSSION

The following is a data table with a total of 15 children aged 4-5 years for the variables of children's self-confidence and participation in farming activities:

Table 1. Variable Data of Family Support, Parent Participation, Self-Confidence and Activity Participation

<table>
<thead>
<tr>
<th>No.</th>
<th>Age</th>
<th>Gender</th>
<th>Socio-Economic Background</th>
<th>Family Support</th>
<th>Parent Participation</th>
<th>Child's Confidence</th>
<th>Self- esteem</th>
<th>Participation in Farm Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4</td>
<td>Male</td>
<td>High</td>
<td>High</td>
<td>High</td>
<td>3</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>5</td>
<td>Female</td>
<td>Medium</td>
<td>Low</td>
<td>Low</td>
<td>2</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
<td>Female</td>
<td>Low</td>
<td>Low</td>
<td>Low</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>Male</td>
<td>High</td>
<td>High</td>
<td>High</td>
<td>4</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>5</td>
<td>4</td>
<td>Male</td>
<td>Medium</td>
<td>High</td>
<td>Low</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>5</td>
<td>Female</td>
<td>Low</td>
<td>Low</td>
<td>Low</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>4</td>
<td>Female</td>
<td>High</td>
<td>Medium</td>
<td>Medium</td>
<td>3</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>8</td>
<td>5</td>
<td>Male</td>
<td>Medium</td>
<td>Low</td>
<td>Low</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>9</td>
<td>4</td>
<td>Male</td>
<td>High</td>
<td>Intermediate</td>
<td>High</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>10</td>
<td>5</td>
<td>Female</td>
<td>Medium</td>
<td>Medium</td>
<td>Medium</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>11</td>
<td>4</td>
<td>Male</td>
<td>Low</td>
<td>High</td>
<td>Low</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>12</td>
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<td>Female</td>
<td>Low</td>
<td>Low</td>
<td>Low</td>
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<td>0</td>
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<td>13</td>
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<td>4</td>
<td>4</td>
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<tr>
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<td>1</td>
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<tr>
<td>15</td>
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<td>High</td>
<td>Medium</td>
<td>High</td>
<td>4</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

Notes:
- Age: 4 or 5 years old.
- Gender: Male or Female.
- Socio-Economic Background: High, Middle, or Low.
- Family Support: High, Middle, or Low.
- Parental Participation: High, Medium, or Low.
- Child's Self-Confidence: Scale 1-5, with 1 = Very Low and 5 = Very High.
- Participation in Farming Activities: Frequency of participation in one week.

The data collected in this study included information on children's self-confidence and their participation in farming activities. The following is an explanation of the observed variables:

1. Children's Confidence: This variable was measured on a scale of 1 to 5, where 1 indicates low self-esteem, and 5 indicates high self-esteem (Suryaningsih, 2021). The scale consists of a series of questions designed to describe how the child expresses themselves in daily activities, how confident they are when interacting with others, and whether problems or new situations arise. Higher scores indicate higher self-esteem in the child.

2. Participation in Farming Activities (Mutalib & Dylan, 2021): This variable is measured by the frequency of children's participation in farming activities in one week (Afifah dkk., 2023). This data reflects how often children are involved in farming activities, such as planting seeds, giving water to plants, or doing other tasks related to caring for plants (Yennizar dkk., 2022). The higher the participation frequency value, the more actively children are involved in farming activities.

In addition to the main variables above, this study also included control factors as part of a more comprehensive analysis:

1. Demographic Variables (Amirudin dkk., 2022): Age, gender, and socio-economic background are control factors identified in this study. These demographic variables can affect children's self-confidence and their role in farming activities. Age and gender can influence children's maturity and developmental level, while socio-economic background can influence the context and resources available to children.

2. Environmental variables: family cooperation and parental involvement in agriculture were also found to be control variables. Family support such as the presence and encouragement of family members can influence the development of children's self-esteem. Parents' involvement in agriculture can be a good role model for children and also strengthen the relationship between children and parents in learning and caring for plants.

Table 2.

<table>
<thead>
<tr>
<th>Rasa Percaya Diri</th>
<th>Partisipasi</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>2,6</td>
</tr>
<tr>
<td>Variance</td>
<td>1,257142857</td>
</tr>
<tr>
<td>Observations</td>
<td>15</td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>0,880223488</td>
</tr>
<tr>
<td>Hypothesized Mean Difference</td>
<td>0</td>
</tr>
<tr>
<td>df</td>
<td>14</td>
</tr>
<tr>
<td>t Stat</td>
<td>5,1365957</td>
</tr>
<tr>
<td>P(T&lt;=t) one-tail</td>
<td>7,55846E-05</td>
</tr>
</tbody>
</table>
The data presented are the results of the t-Test: Paired Two Sample for Means between the variables "Self-Confidence" and "Participation" (Lumban Gaol, Morales, dkk., 2023). The following is the interpretation of the data provided:

1. Mean: The mean of "Confidence" is 2.6 and the mean of "Participation" is 1.6666666667.
2. Variance: The variance of "Self-Confidence" is 1.257142857 and the variance of "Participation" is 2.095238095.
3. Observations: There are 15 observations for both variables "Self-Confidence" and "Participation".
4. Pearson Correlation: The Pearson correlation between "Confidence" and "Participation" is 0.880223488. This value indicates a strong positive relationship between the two variables.
5. Hypothesized Mean Difference: The assumed mean difference is 0.
6. df (Degree of Freedom): The degree of freedom is 14.
7. t Stat: The calculated t statistic is 5.1365957 (Muhammadong dkk., 2023). This indicates the magnitude of the difference between the two groups taking into account variation and sample size.
8. One-tail P(T<=t): The one-tail p value is 7.55846E-05, which is smaller than the significance level of 0.05. This indicates that there is a significant difference between "Confidence" and "Participation".
9. t Critical one-tail value: The critical one-tail t value is 1.761310136. The calculated t statistic (5.1365957) exceeds this critical value, indicating a significant difference.
10. Two-tail p(T<=t): The two-tailed p value is 0.000151169, which is also smaller than the 0.05 significance level. This indicates that the difference between "Confidence" and "Participation" remains significant on a two-tailed test.
11. t Critical two-tail value (Pathurohman dkk., 2023): The two-tailed t critical value is 2.144786688. The calculated t statistic (5.1365957) exceeds this critical value, indicating a significant difference.

Thus, based on the results of this t-test, it can be concluded that there is a significant difference between "Confidence" and "Participation" in this study.

The data provided are the results of a t-test (Paired two samples for Interpretation) of the variables "Self-Esteem" and "Participation" in the context of this study which aims to explore agricultural activities. Trying to build self-esteem in early childhood.

Based on the results of data analysis, there are several conclusions that can be discussed:

1. Difference between averages: The mean of "Trust" (2.6) is higher than the mean of "Participation" (1.6666666667). This suggests that children have more self-esteem from participating in agriculture. However, it should be noted that this difference should be considered in the context of the instrument used.

2. Correlation between "self-esteem" and "participation": The Pearson correlation between the two variables is 0.880223488, indicating a positive relationship (Nida dkk., 2023). This means that the higher the participation of children in agriculture, the higher their self-esteem. This supports the finding that utilization of agricultural activities can benefit the development of self-esteem in early childhood.

3. Statistical significance: p values (P(T<=t) one-tail = 7.55846E-05; P(T<=t) two-tail = 0.000151169) that are smaller than the significance level (usually 0.05). That the difference

\[ t \text{ Critical one-tail} = 1.761310136 \]
\[ P(T<=t) \text{ two-tail} = 0.000151169 \]
\[ t \text{ Critical two-tail} = 2.144786688 \]
between "trust" and "participation" is important. In other words, these results suggest that the observed differences are not random and may represent real differences in the population.

The results of this study provide a better understanding of the function of agriculture as a means of building self-esteem in childhood. Below is a discussion of the relevant research findings:

1. The effect of farming on children's self-esteem The results of the literature review show that farm work has a positive effect on the development of a confident identity in early childhood. Children who are regularly involved in farming have seen growth in themselves (Zarnuji, 2023). This can be shown by the large changes in individual scores after a period of participation in the farm. In this context, farming helps children to trust their abilities, overcome challenges and learn to be confident.

2. The Moderating Role of Confidence in Self-Esteem (Farid, 2023): Research papers have also shown that moderating factors such as age, gender, economic background, family dynamics and parental involvement affect children's initial self-esteem (Teguh dkk., 2023). The age and gender of the child can affect the level of self-esteem, as can self-esteem in older children. In addition, social, economic and family support can also play an important role in shaping children's emotions and self-esteem. Parental involvement in farming also improves children's self-esteem, due to positive role models and parental support.

3. Application and Education: The findings of this study have implications for teachers, parents and policy makers in the context of early childhood education. The results suggest that farming can be a good strategy to improve children's self-esteem. Therefore, educators may consider incorporating farming into the early childhood education curriculum or program to improve children's self-esteem. In this case, teachers can create developmentally appropriate farming activities, provide good support and guidance, and let children take responsibility for caring for the plants.

In addition, the role of parents is also very important in developing self-esteem in childhood. Parents can help and involve themselves in farming with their children at home. This creates an environment that boosts children's self-esteem and fosters family unity through teamwork.

At the policy level, the findings of this study can support recommendations to consider integrating agriculture into early childhood education programs. Education policies can help promote the development and promotion of agriculture in schools and early childhood institutions, as well as encourage parental participation in these activities.

However, this study still has some limitations that should be noted. For example, this study was conducted with a small sample and was limited to 4-5 years. Therefore, generalization of the results of this study should be done with caution. Follow-up studies with larger sample sizes and wider age ranges may provide a better understanding of the relationship between acculturation and early childhood self-esteem.

**CONCLUSION**

The purpose of this study was to explore the role of farming in developing self-esteem in childhood. The results showed that there is a positive relationship between farming and improving children's self-esteem.

In this study, 4-5 year old children who participated in regular farming activities showed an increase in their self-esteem. Farming helps children gain confidence in their abilities, overcome obstacles and teaches them to be independent. This suggests that farming can be a good idea for building self-esteem in early childhood.
In addition, controlling factors such as age, gender, socioeconomic background, family support and parental involvement also play a role in improving children's self-esteem. Older age, positive family support and participation in children's self-esteem.

Finally, farm work can have a positive effect on early childhood self-esteem. This approach may be a good idea in the context of early childhood education. By considering management decisions and involving parents as key partners, farming can be used to strengthen children's self-esteem.

However, it should be noted that this study has some limitations, including a small sample size and an age range of 4-5 years. Therefore, generalization of the results of this study should be done with caution. Follow-up studies with larger sample sizes and wider age ranges may provide a better understanding of the relationship between acculturation and early childhood self-esteem.

Therefore, this study provides good insights and recommendations for teachers, parents and policy makers to consider the inclusion of agriculture into the curriculum.

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AUTHORS’ CONTRIBUTION

Author 1: Conceptualization; Project administration; Validation; Writing - review and editing.
Author 2: Conceptualization; Data curation; Investigation.
Author 3: Data curation; Investigation.
Author 4: Formal analysis; Methodology; Writing - original draft.
Author 5: Supervision; Validation.
Author 6: Other contribution; Resources; Visualization; Writing - original draft.
Author 7: Writing - original draft
REFERENCES


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