



# Gardening Learning Methods Increase Responsibility in Early Childhood

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## Abstrak

Kurangnya sikap tanggung jawab pada anak dapat dilihat dari hal-hal kecil. Maka dari itu, pentingnya menstimulus karakter tanggung jawab pada anak usia dini seawal mungkin sehingga anak memiliki sikap tanggung jawab yang baik. Penelitian ini memiliki tujuan untuk menganalisis metode pembelajaran berkebun terhadap sikap tanggung jawab anak di TK. Penelitian ini menggunakan metode kuasi eksperimen dengan desain nonequivalent control group design. Populasi penelitian ini berjumlah 43 anak usia dini. Teknik yang digunakan dalam mengumpulkan sampel yaitu purposive sampling sehingga sampel penelitian ini berjumlah 43 anak usia dini. Metode pengumpulan data menggunakan observasi dan dokumentasi. Instrumen pengumpulan data dalam penelitian ini menggunakan pedoman observasi. Teknik analisis data menggunakan analisis statistik inferensial dengan program SPSS 25. Hasil penelitian ini yaitu terdapat perbedaan yang signifikan antara kelas kontrol dan kelas eksperimen. Hasil analisis data menunjukkan terdapat pengaruh antara metode pembelajaran berkebun terhadap sikap tanggung jawab anak. Disimpulkan bahwa metode pembelajaran berkebun dapat meningkatkan sikap tanggung jawab pada siswa. Implikasi penelitian ini guru dapat menumbuhkan sikap tanggung jawab anak melalui penerapan metode pembelajaran berkebun.

**Kata Kunci:** Metode Pembelajaran Berkebun, Sikap Tanggung Jawab, Anak Usia Dini

## Abstract

Children's lack of responsibility can be seen in small things. Therefore, it is essential to stimulate the character of responsibility in early childhood as early as possible so that children have a good attitude of responsibility. This study aims to analyze the method of learning gardening and the attitude of responsibility of children in kindergarten. This study uses a quasi-experimental method with a nonequivalent control group design. The population of this study was 43 early childhood children. The technique used in collecting samples was purposive sampling, so the sample of this study was 43 early childhood children. The data collection method used observation and documentation. The data collection instrument in this study used observation guidelines. The data analysis technique used inferential statistical analysis with the SPSS 25 program. The results of this study showed a significant difference between the control class and the experimental class. The results of the data analysis showed that there was an influence between the method of learning gardening and the attitude of responsibility of children. It was concluded that the method of learning gardening can improve the attitude of responsibility in students. This study implies that teachers can foster children's attitude of responsibility through the application of the method of learning gardening.

**Keywords:** Gardening Learning Methods, Responsible Attitude, Early Childhood

## 1. INTRODUCTION

Education is an effort to develop human quality in all aspects; education is a deliberate activity to achieve specific goals and involves various interrelated factors, thus forming a system that influences each other (Heikka et al., 2021). Early Childhood Education is essential to help physical and spiritual growth and development so that children are ready to enter further education (Irawan et al., 2021; Lauricella et al., 2020). Early childhood or toddlers are a critical period of human development because this period is the foundation for further development (Romadhoni & Nugroho, 2023; Sinta et al., 2022). Aspects of early

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childhood development that need to be considered include physical, language, social, emotional, cognitive, and fine motor development. Early age is the golden age that occurs once in a human's life (Retnaningrum & Umam, 2021; Trenggonowati & Kulsum, 2018). This period is the right time to instil the basics of physical development, language, social, emotional, self-concept, art, morals, and religious values. One step that can be taken in developing abilities and shaping students' character is to build character education by instilling good character. Character in early childhood is not formed directly, but there is a process that must be gone through so that the process that has been passed can form character in each individual (Galuh et al., 2021; Irawati et al., 2022).

The character formation process must be owned and instilled in a person as early as possible. Character values must be introduced and internalized into their behaviour, including an attitude of responsibility (Fitria & Juwita, 2018). Responsibility is an awareness that must be possessed in carrying out an obligation and task by predetermined regulations (Irawan et al., 2021; Widiyasanti & Ayriza, 2018). From this, instilling a character of responsibility in early childhood as early as possible is very important; this can be done without burdening the child because it will affect their interest in learning, so it can be done with simple things but can stimulate the child's abilities. Creating a child's character of responsibility is not easy because it requires a very long process so that the character can stick to the individual (Ningsih & Rasyid, 2023). When an attitude of responsibility has been instilled and can stick to the child so that later the child will implement it towards success, this responsibility is very much needed in a person. Responsibility is closely related to a person's character. Responsibility concerns tasks and obligations in daily life that must be carried out in the life of the individual concerned, such as students must study diligently to succeed. There are several levels of responsibility achievement for children aged 5-6 years, including knowing their rights, obeying class rules (activities, rules), managing themselves, and being responsible for their behaviour for their good.

The low level of children's responsibility is a problem that is often discussed among educators, parents and the community. The lack of children's responsibility is caused by evil and less educational shows that children imitate, so children easily imitate bad behaviour (Istova & Hartati, 2016). The lack of early childhood children knowing about responsibility is often seen through small things (Ningsih & Rasyid, 2023). Based on the results of observations, the attitude of responsibility of children in Widya Pasraman Gurukula Bangli Kindergarten is still lacking; for example, children do not complete assignments, put things in the wrong place, come late, cannot tidy up toys that have been used and cannot look after their belongings. In addition, PAUD's teaching and learning process still emphasizes cognitive aspects such as Calistung activities (Reading, Writing, Arithmetic). The imbalance in the development of aspects of early childhood is caused by education only emphasizing cognitive aspects of PAUD learning, especially in kindergarten. From that, many things can happen; for example, other aspects, such as religious and moral values and socio-emotional, cannot run well, especially in implementing learning-emphasized character education, and the learning process does not run well. Character education will form an attitude of responsibility, interpreted as an effort to bring out the potential that exists in each individual but has not been explored. This will hurt education if left unchecked.

The solution that can be offered to improve early childhood's attitude of responsibility is using the farming gardening project learning method. The teacher's efforts to create a conducive classroom atmosphere and the teacher's communication skills greatly determine the success of the learning process according to the goals set. One of them is the playing while learning method, which can be done through the Farming Gardening Project. This learning comes from John Dewey's idea of learning by doing. This learning model can stimulate children to develop this. The concept developed in this method is by the active

learning indicators, which include instilling and introducing environmental awareness from an early age, solving problems faced independently, gaining life experience, and applying knowledge, attitudes and skills in an integrated manner in everyday life (Nasution et al., 2021). Problem-solving is a complex intellectual ability related to understanding concepts, rules and problem analysis (Manurung et al., 2021; Yuliastuti et al., 2019). Therefore, the development of various learning methods that are by the nature of child development is something that must continue to be done

Previous research findings stated that the traditional game of anjang-anjangan affects the character of responsibility in early childhood (Kusmiati et al., 2019). Animated video media to improve attitudes toward responsibility in early childhood (Cahyati, 2018; Irawan et al., 2021; Widiyasanti & Ayriza, 2018). Technically, the method in several schools has been unable to apply this gardening learning method. This method is the first step in introducing the natural environment to early childhood. Gardening activities or gardening projects from an early age are an effective and fast way to educate children consciously to appreciate and love the environment. They can instil an attitude of responsibility in children. This study aims to analyze the gardening learning method and its effect on children's attitudes toward responsibility at Widya Pasraman Gurukula Bangli Kindergarten. Implementing this gardening learning method is hoped to realize appropriate learning and improve the character of an attitude of responsibility in early childhood.

## 2. METHOD

This study uses a quasi-experimental method with a nonequivalent control group design, where this study aims to determine the effect or effect of the application of gardening learning methods on the attitude of responsibility of class B2 children. The groups involved in this study were the experimental group, given the gardening learning method, and the control group, given conventional learning. This design compares the experimental and control groups, but the sample is not taken randomly. The two existing groups are given experimental actions, and the results are presented. The location of this study is TK Pratama Widya Pasraman Gurukula Bangli.

In this study, the population taken as the object of research was class students (B1 and B2), totalling 43 students. In this study, the sampling technique used was Purposive Sampling. Purposive sampling is the determination of samples based on the researcher's criteria. The determination was made according to considerations that were considered to be able to represent the population. As much as possible, both groups must have relatively the same homogeneity in terms of character and student learning outcomes to have a balanced comparability between the two classes. To find out, the researcher looked through initial observations as a benchmark for the initial state of students. If these two groups have the same value diversity or are statistically the same, they can be used as research samples. Furthermore, the number of samples represents the population; the data collection method uses observation. The data collection instrument in this study uses observation guidelines in the form of a questionnaire using a Likert scale. The instrument grid is presented in Table 1.

**Table 1. Research Assessment Grid**

No.	Research Variables	Indicator
1	Children's Responsible Attitude	<ol style="list-style-type: none"> <li>1. Know their rights</li> <li>2. Obey class rules</li> <li>3. Manage themselves</li> <li>4. Be responsible for their behavior</li> <li>5. Children can appreciate time</li> </ol>

No.	Research Variables	Indicator
2	Farming Gardening Project	<ol style="list-style-type: none"> <li>1. Showing pleasure</li> <li>2. Knowing the parts of plants</li> <li>3. Ability to care for plants</li> <li>4. Enjoying learning outside the classroom</li> <li>5. Being responsible for the tools used</li> </ol>

The research data analysis technique uses inferential analysis. The data prerequisite analysis technique in this study uses normality test and homogeneity test. This is done in order to find out whether the research hypothesis can be accepted or rejected and in addition to knowing whether there is a difference or not between the control group and the experimental group.

### 3. RESULT AND DISCUSSION

#### Result

Based on the research results, data was obtained from the influence of gardening learning methods on children's responsible attitudes, which can be seen in [Table 2](#).

**Table 2.** Description of Control Class Value Data

Interval	Predicate	Number of Students	Percentage (%)
90-100	Very Good	0	0
80-90	Good	0	0
70-80	Enough	3	0.14
<70	Poor	18	0.85
<b>Amount</b>		<b>21</b>	<b>100</b>

Based on [Table 1](#), in the control class using conventional learning methods, the results of the scores with a very good predicate have a presentation of 0%, students with a good predicate have a percentage of 0%, students with a sufficient predicate have a percentage of 14% and students with a less than adequate predicate have a percentage of 85%. While in the experimental class can be seen in [Table 3](#).

**Table 3.** Description of Experimental Class Value Data

Interval	Interval	Interval	Interval
90-100	Very Good	4	0,18
80-90	Good	9	0,40
70-80	Enough	8	0,36
<70	Poor	1	0,04
<b>Amount</b>		<b>22</b>	<b>100</b>

In the experimental class using the gardening learning method, the scores obtained by students who obtained very good predicates had a percentage of 18%, students with good predicates had a percentage of 40%, children with sufficient predicates had a percentage of 36% and students with poor predicates had a percentage of 4%. In addition, the collection of analysis data is presented using SPSS 25 in [Table 4](#).

**Table 4.** Results of Data Normality Test

	Class	Kolmogorov-Smirnov			Shapiro-Wilk			Distribusi
		Statistic	df	Sig.	Statistic	df	Sig.	
Experimental Value Results	Control Class	0.177	21	0.085	0.971	21	0.752	Normal
	Experimental Class	0.102	22	0.200	0.965	22	0.604	Normal

The significance value of the results in the control class is  $0.085 > 0.05$ , so the data distribution is normally distributed. The significance value of the results in the experimental class is  $0.200 > 0.05$ , so the data distribution is normally distributed. The results of the homogeneity test are presented in Table 5.

**Table 5.** Results of Data Homogeneity Test

Test of Homogeneity of Variance		
	F	Sig.
Experimental Result Value	0.663	0.420

Based on the SPSS output data, a decision can be made on the significance value at equal variances assumed  $0.420 > 0.05$ , so the collected test data related to the experimental results in the control class and the experimental class are declared homogeneous.

**Table 6.** Results of the Analysis of the Independent Sample t Test for the Farming Gardening Project

		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	T	df	Sig.(2-tailed)
Student Score Results	Equal Variances Assumed	0.663	0.420	-9.323	41	0.000
	Equal Variances not Assumed			-9.356	40.591	0.000

Based on the t-test analysis of the results of the values in the control class and the experimental class, the significance value (2-tailed) was 0.000 by comparing the significance level of 0.05. So the results of the t-test with a significance (2-tailed) of  $0.000 < 0.05$ . So it can be decided that  $H_0$  is rejected and  $H_1$  is accepted which states that there is a significant difference between the control class and the experimental class.

## Discussion

This research was conducted at TK Pratama Widya Pasraman Gurukula Bangli in class BI and B2. In the control class (BI), conventional learning is presented with a conventional approach and learning that uses writing paper, markers and theme books as teaching resources. The learning is carried out in a teacher centre, where students receive the learning materials presented. Students follow the learning smoothly but do not have the enthusiasm for learning, lack responsibility, such as littering, and do not follow learning with

discipline. The experimental class of this research is class B2, using the gardening learning method; this child's environment supports this gardening method, both the school environment and the home environment. In addition to the environment, the materials used in gardening activities are practical materials used daily by parents at home. Hence, learning activities become fun because they are done while playing (Jais et al., 2023). For mentally disabled children, playing is inspiring, because they are unable to sit quietly for hours and focus their attention for a long time (Fadiana & Rosalina, 2020; M Haris Satria, 2020; Martinus & Kesumawati, 2020).

The study results showed that children's responsible attitudes can be seen when inviting students to conduct experimental gardening learning outside the classroom and getting satisfactory results. Judging from the comparison of the averages in the control and experimental classes, it can be stated that there is a significant influence between the control and experimental classes. Gardening is a learning activity, as well as acting, where children are allowed to experience the application of the topics and content of the material studied in real-life situations (Jais et al., 2023). Gardening is oriented towards achieving abilities that emphasize the interaction between humans and the surrounding environment through the closest topics and provide many benefits in children's lives (Sriyanti & Zanki, 2021). Learning gardening methods naturally encourages interaction between children and adults. With this interaction, the ability to cooperate and help each other, as well as empathy, sympathy, and sharing, is developed. In addition, the changing conditions between indoors and outdoors follow learning. This gardening learning method is close to Erik Erikson's theory, which is called psychosocial theory—every individual struggles to find their identity at every stage (Marino et al., 2020).

This finding is reinforced by previous research findings stating that through gardening, children understand directly that life is about patience, hard work and balance (Siregar, 2024). From gardening, children can learn about science, economics, social skills, ethics, and behaviour and train to interact with people (Oktavia et al., 2022). Responsibility is part of self-identity in life. Therefore, every individual tries their best to get self-identity (Irawan et al., 2021; Ningsih & Rasyid, 2023). This study implies that teachers who teach in PAUD can improve children's sense of responsibility. One way to improve children's sense of responsibility is through gardening activities.

#### 4. CONCLUSIONS AND SUGGESTIONS

The results of the study indicate that the gardening learning method influences the attitude of children responsible for gardening in tk pratama widya pasraman gurukula bangli. It is recommended that schools be able to provide training so that teachers are more skilled and creative in carrying out various activities and providing optimal services that can support all activities carried out. Through gardening activities, not only the attitude of responsibility, but gardening activities also the potential to improve physical, motoric, social, emotional, cognitive, language and other aspects.

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