



# Development of Responsibility Attitudes of 5-6 Year Old Children Through Gardening Activities

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## ABSTRACT

Character education consists of various aspects, one of which is the formation of responsible behavior. This study aims to examine how gardening activities can be used as a means of fostering a sense of responsibility in 5-6 year old children at the Hidayatul Mubtadiin Islamic Kindergarten. The research used a descriptive qualitative approach with a phenomenological method. Data were collected through documentation, interviews, and observation, then analyzed through the stages of data reduction, data presentation, and conclusion drawing. The results showed that gardening had a positive effect on the development of children's responsible attitudes. In addition, this activity also supported the improvement of cognitive, verbal, social-emotional, fine and gross motor skills, as well as the strengthening of moral and religious values. Changes were seen in the children's attitudes in carrying out tasks responsibly, obeying the rules, being honest, and being able to do things independently without being asked. These changes were inseparable from the support of educators and parents. Overall, this study shows that gardening activities during childhood increase responsibility and have a positive impact on children's holistic development.

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## 1. INTRODUCTION

The golden age of children is between the ages of 0 and 6, a period when they are highly receptive or sensitive to various stimuli (Fadilah, 2025). This sensitive period is marked by the maturation of physical and psychological functions, enabling children to respond to stimuli from their surroundings. During this stage of growth and development, children need support, proper education, direction, and positive role models from their surrounding environment. This is very important because one of the main characteristics of children is the tendency to imitate what they see and hear. Therefore, instilling strong ethics in children should be done in the early days of their growth so that children have strong morals and are resistant to influences that are contrary to the ethics that have been embedded in them.

Early childhood education, the goal is to help children reach their maximum potential (Sukmawati et al., 2024). Early childhood education is essentially an educational process that aims to support the growth and development of children as a whole, with an emphasis on nurturing all aspects of their personality. The main focus of early childhood education is to lay the foundation for children's development, in terms of motor skills, emotional intelligence, multiple intelligences, and spiritual intelligence (Nurachadijat & Selvia, 2023). The surrounding environment is also a place of exploration that provides various learning experiences for children because children tend to quickly imitate what they see and hear, it is important for parents, educators, and surrounding adults to maintain their atmosphere, emotions, behavior, and speech (Cahya & Siregar, 2024). This is the primary reason for the necessity to start character education at a young age.

The character of Indonesian society, which was once known for being friendly, polite, helpful, cooperative, empathetic, honest, religious, tolerant, and hardworking, is now declining. In the modern era, technological advances that bring various conveniences have actually made the issue of national character even more complex. Moral degradation in both society and government is increasingly apparent in everyday life, reflecting a crisis of identity as well as a decline in national character. This phenomenon is also seen in the younger generation, for example, a decline in social responsibility due to a greater focus on personal interests, resulting in reduced concern for family, school, and society. A lack of discipline in studying and working, as well as dependence on gadgets that cause distraction, often leads to neglect of responsibilities. In addition, low awareness of hygiene, waste management, and environmental preservation, coupled with increasing intolerance, dishonesty, and the normalization of behavior that deviates from norms, indicate a shift in the value of responsibility. Therefore, this issue is an urgent matter that needs to be studied. The instillation of the value of responsibility must begin at an early age so that it can take root strongly in the younger generation.

This phenomenon is a problem for the Indonesian nation, because education should function as a way to shape and build a good national civilization. This is consistent with Article 3 of Law No. 20/2003 on the National Education System, which states that the goal of national education is to educate the nation's life by fostering the development of learners' skills and forming the character and culture of a respectable nation. Maximizing each learner's potential to develop into a person who is obedient and committed to God Almighty, possesses noble character, is physically and mentally healthy, knowledgeable, skilled, creative, independent, and matures into a democratic and responsible citizen is the primary goal of national education (Yuniarti et al., 2021). Therefore, the goal of education is to produce intelligent individuals and develop their character so that future generations can uphold the noble values

of the nation and religious teachings. Therefore, a comprehensive education system is needed in all channels and levels, with a special emphasis on strengthening character education.

Character education is a process that is planned and carried out consciously to instill and develop positive attitudes and behaviors, so that individuals can understand, appreciate, and practice them in their lives (Ramandhini et al., 2023). At an early age, character education acts as a coaching process that supports learners in understanding, internalizing, and familiarizing positive attitudes and behaviors so that these values are strongly embedded until they become adults. Character and behavior formation in early childhood encourages the creation of a healthy personality with inner strength and resilience (Tumbularani et al., 2025). Character education will have a significant influence on child development (Adawiyah et al., 2024). Character education in childhood has a broader purpose than moral education because character building involves developing positive habits in addition to knowledge about right and wrong. The aim is for young children to have awareness, proper understanding, a sense of caring, and a commitment to always do good in their daily lives (Millah et al., 2023). Early childhood character education focuses on helping kids reach their full potential so they can overcome obstacles in the future and adjust to changing circumstances by exhibiting admirable and positive attitudes and behaviors (Ubaidillah et al., 2023). Thus, they are not easily influenced by the social environment or negative issues in the media that can encourage acts of violence or bullying. In addition, according to Ade et al. (2021) emphasizes that character education is a key factor in creating superior human resources.

Character education must be structured and implemented deliberately so that the learning process accommodates the formation of positive attitudes and behaviors (Nurohmah et al., 2023). Character education development also involves providing stimulus related to morals in the education process. Therefore, in educational content, this is realized through a curriculum that includes various disciplines, ethics, and habituation activities (Purwati et al., 2023). One of the crucial character traits that needs to be instilled from a young age is responsibility. This value reflects an individual's awareness in carrying out obligations that are his or her responsibility and willingness to accept the consequences of actions taken, both towards oneself, God, others, and the surrounding environment (Ningsih & Rasyid, 2023). Early responsibility instillation is crucial for assisting kids in later life in acquiring better life skills (Dewi et al., 2021). Responsible behavior does not appear instantly, but requires a learning process and time until it is embedded in the child. One of the factors that drives one's success is responsibility, in addition to helping individuals be accepted in their social environment. In this situation, parents and teachers play a critical role in helping children develop and impart a sense of responsibility. Gradually, parents can train and guide children to develop responsible behavior. One effective way is to implement simple activities at home that can stimulate a sense of responsibility, such as being a role model for children, giving concrete examples of how to behave responsibly, introducing applicable rules, and slowly teaching children about their obligations, for example cleaning up toys after use. These efforts can help children understand and develop responsibility naturally.

Stimulation is necessary to help children develop an attitude of responsibility. Gardening activities are one way for educators and parents to instill a sense of responsibility. Gardening is a simple form of activity that may be done by adults but rarely by children. Gardening involves the emotional, cognitive, and social aspects of children. Gardening activities also have other advantages in supporting children's motor and cognitive development (Lentoor, 2024). This activity involves physical movements that can develop fine and gross motor skills, and stimulate cognitive development through observing plant growth and introducing basic

science concepts. In addition, gardening can also foster an attitude of cooperation and social interaction when children do this activity in groups.

Gardening activities also have many benefits for children in fostering and instilling an attitude of responsibility for the living things they care for. Hidayatul Mubtadiin Islamic Kindergarten, one of the kindergarten institutions that implements gardening as a form of compulsory activity in the learning plan. Where this gardening activity is applied to instill a child's attitude of responsibility for the plants planted which can later be seen in real terms from the size and results of these plants. Various studies have examined the attitude of responsibility as a form of character education. Gardening activities for early childhood have generally focused more on developing cognitive and motor skills, while character building, particularly responsibility, has not received much attention. For example, research by Salwa & Mahyuddin (2025) shows that gardening activities in kindergarten can improve children's simple science skills. Similarly, Nasution et al. (2021) found that planting activities in early childhood education play an important role in training children's fine and gross motor coordination. Meanwhile, Nurjannah et al. (2022) emphasize that gardening activities can foster a sense of caring for the environment from an early age. However, most of these studies have not specifically examined how gardening activities can be used as a means to instill a sense of responsibility in children, whether in terms of behavior, emotions, or social skills. In addition, most previous studies used a quantitative approach with a focus on cognitive learning outcomes, rather than on character building, which requires in-depth observation of children's processes and interactions during the activities.

The research gap lies in the limited number of studies that focus on gardening as a strategy for developing a sense of responsibility in children aged 5-6 years, the lack of use of a phenomenological qualitative approach to explore children's real experiences in gardening activities, and the lack of research examining the instilling of a sense of responsibility through gardening activities in early childhood education settings. Meanwhile, the novelty of this study lies in its focus on developing children's attitudes of responsibility, rather than merely cognitive abilities or motor skills. This study positions gardening as a means of shaping the character of early childhood by using a phenomenological qualitative approach to deeply understand the experiences of children and teachers during the gardening process. In addition, this study also integrates character values into real activities outside the classroom. Thus, gardening activities are used as a means of contextual and sustainable character education.

This study proposes a new approach that uses gardening as an educational tool to foster a sense of responsibility in young children. Sustainable gardening activities teach children about the importance of responsibility and provide direct character education. This study makes a new contribution because it focuses on changing children's behavior and shaping their sense of responsibility, rather than simply increasing their knowledge or gardening skills. The results of this study are expected to produce practical guidelines that teachers can apply in extracurricular activities or daily learning to instill responsibility in children through real activities. The purpose of this study is to thoroughly investigate how gardening activities are implemented at Hidayatul Mubtadiin Islamic Kindergarten as a means of fostering greater responsibility in children between the ages of five and six. Using a qualitative approach, this study will analyze children's attitudes before participating in gardening activities, describe the process of implementing these activities, and monitor changes in responsibility behavior after the activities are carried out. The findings of this study are intended to serve as a guide for other educational institutions that wish to use gardening activities as a way to develop

children's character and to aid in the development of efficient teaching strategies to inculcate the value of responsibility in young children.

## 2. METHODS

This research applies a descriptive qualitative method. Qualitative research is a method used to describe and analyze phenomena, events, social dynamics, attitudes, beliefs, and perceptions of individuals or groups toward a particular issue (Fiantika et al., 2022). According to Fadli (2021), qualitative research is a type of research that aims to explore and describe activities narratively, while also revealing the impact of those activities on the lives of the individuals involved. In accordance with the circumstances at the time of the research, the descriptive approach is employed to factually characterize the state of the research object.

This study used a phenomenological approach and was conducted at Hidayatul Muftadiin Islamic Kindergarten located in Tambakharjo, West Semarang District, Semarang City, from November 2024 to January 2025. The research subjects consisted of 20 children from class B. The main objectives of this study were to evaluate children's responsibility attitudes before participating in gardening activities, describe the process of implementing gardening activities at the kindergarten, and identify changes in children's responsibility attitudes after participating in these activities. Techniques for documentation, interviews, and observation were used to gather data for this study. The children's activities while engaging in gardening activities were directly observed via observation. The principal and the class instructor were interviewed in order to gather more detailed information. Meanwhile, documentation was utilized as support in the research process. The steps of data collecting, data reduction, data presentation, and conclusion drawing were all used in the data analysis process.

## 3. RESULTS

Character education is a form of education that instills moral values in a person. Its application can be seen through actions, such as behaving well, showing responsibility, being honest, and respecting others (Muhammad et al., 2022). According to Camalia et al. (2025), character education in early childhood is an effort to guide students so that they can develop their full potential. Meanwhile, according to Harahap (2021), character education's primary goal is to cultivate and mold kids' attitudes and behaviors so they grow up to be people of good character.

Character education encompasses knowledge, emotional aspects, and behaviors that reflect positive values. Thus, children can understand moral values and are able to feel and accustom themselves to behaving in accordance with these values. According to Utama et al. (2022), religion, honesty, tolerance, discipline, hard work, creativity, independence, democracy, curiosity, nationalism, love for the country, appreciation of accomplishment, communicativeness, peace-loving, love of reading, care for the environment, social care, and responsibility are among the 18 core character values developed by the Curriculum Center's Research and Development Agency.

Responsibility is a trait that should be instilled from a young age. This character has an important role as a basis in forming knowledgeable individuals who have the awareness to be responsible in social life. According to Winarsih & Wahyuningsih (2024), Responsible behavior is an attitude in which a person completes tasks in accordance with prevailing values and is willing to accept the risks of their actions. Children's attitude of responsibility can be categorized as a positive habit that needs to be developed. These habits do not come naturally, but must be taught, instilled and nurtured so that they continue to develop.

Therefore, every individual, including early childhood, must learn to take responsibility for their actions (Salsabila & Tarigan, 2021). The attitude of responsibility is also reflected in the behavior of completing and completing the assigned tasks (Sari & Bermuli, 2021).

Responsible is a valuable character trait that should be established from a young age because positive character development begins in childhood. Responsibility is an important aspect that children must have in order to grow into responsible individuals. One method of fostering and developing an attitude of responsibility in children is through gardening activities. This activity allows children to explore and observe the surrounding environment, while stimulating their imagination, so that the learning process becomes more fun through play. Therefore, gardening activities were chosen by Hidayatul Mubtadiin Islamic Kindergarten as a way to foster a sense of responsibility in the children's. The beginning of the gardening program at Hidayatul Mubtadiin Islamic Kindergarten was based on the results of discussions between teachers and principals, which was motivated by the idea of one of the teachers for activities that strengthen character in children, namely responsibility. Therefore, gardening activities were chosen with the main objective of developing and instilling a sense of responsibility in learners aged 5-6 years, given that this activity also has additional benefits for child development. The following is the implementation of gardening activities and changes in children's attitudes after participating in these activities in order to strengthen a sense of responsibility in children aged 5-6 years.

The gardening program at Hidayatul Mubtadiin Islamic Kindergarten involves grade B students aged 5-6 years. This activity is carried out in a lesson on the topic of vegetable plants. Before the gardening activity is carried out, the teacher communicates with parents or guardians to ask them to provide pots from used items available at home, as a container for planting, and prepare appropriate clothing for this activity (in this case sportswear). The notice was given three days before the activity took place, so that parents had enough time to prepare the pots that the children would use when planting.

The activity begins with students lining up while singing and doing a few morning exercises to stretch the students' muscles. Next, the children were directed into the classroom to start the learning activities, which began with praying together, singing songs, talking about their conditions, and discussing the topics and activities to be carried out, including the use of used containers brought from home as planting media. Next, the teacher distributes student name tags for students to attach to the used containers that each has brought. Then the learners are divided into four groups, with five people in each. The teacher distributes the tools needed for gardening activities. After this initial activity is complete, students and teachers can proceed to the core activities.

Core activities are implemented outside of the classroom, specifically in the schoolyard. The teacher explains the rules of the activity before starting and assigns tasks to each group according to the division that has been done before. After that, the teacher invites learners to the school yard and gives directions on the steps that need to be done together. Group 1 was tasked with taking and spreading the sacks to be used as a base for mixing the planting media. Next, group 2 together with the teacher took and poured the soil on the sack together. Group 3 then added fertilizer on top of the soil with the help of the teacher. Meanwhile, group 4 poured the husk on top of the soil and compost, with the ratio of the three: soil, compost, and husk 1:1. After that, all students mix all the planting media materials that have been poured using an old plastic spoon, so as not to endanger the children.

The ready planting media is then put into the used containers that have been brought by each student in turn, starting from group 1 to group 4. After all containers have been filled with planting media, students are asked to water the planting media with water so that it

becomes moist. Then students are asked to pour the liquid organic fertilizer that has been prepared on their respective planting media, with the ratio of fertilizer and water 2:1. The next stage is the provision of seeds, the seeds used are water spinach seeds because the topics used for gardening activities are vegetable plants. Each learner is asked to divide into 2 parts of the planting media that is already in the container, then put the water spinach vegetable seeds after covering the seeds with the planting media above. The stages of the gardening activity are over, the teacher reminds learners to take care of their plants by regularly looking, watering, and keeping the water spinach seeds growing well. Afterwards, the children were given the task of collecting gardening tools, tidying up the remaining unused planting media, and cleaning themselves by washing their hands and feet. After all gardening activities are completed, students return to the classroom to rest. The image in **Figure 1** shows children filling their respective containers with planting media.



**Figure 1.** Learners put planting media into containers during gardening activities.

At the end of the activity, children are invited to sing nursery rhymes, recite short surahs, and discuss the experiences and learning they have gained throughout the day, including their feelings after participating in the gardening activity. Before going home, the teacher reminded the children to take care of their own plants until they grow big and fertile so that they can be harvested together. Then the event ended with prayers and greetings. Children who participated in schoolyard gardening activities were found to benefit in a number of ways, including social and emotional development, cognitive, physical motor, religious and moral values, and language. They also learned to take care of their plants responsibly.

The results of initial observations when conducting gardening activities, students were enthusiastic and interested in the gardening activities to be carried out. When after doing gardening activities, students are even more enthusiastic to wait for the results of what they have planted. As the following month went on, the five to six-year-old students in class B of Hidayatul Mubtadiin Islamic Kindergarten started to exhibit signs of developing a responsible attitude. Teachers observe these changes through their attitudes and behaviors, both at school and at home. An example of behavior that arises when at school is that students without being asked have a sense of awareness to water their plants by name. This reflects the development of a responsible attitude towards their plants. Other examples include cleaning up playground equipment after use without being asked by the teacher, cleaning up lunch when it is finished, if drinking water is spilled, students already have the responsibility

to clean it up themselves without being asked by the teacher, completing tasks given by the teacher, and consciously admitting mistakes and apologizing to friends when making mistakes. These changes indicate that the attitude of responsibility of children aged 5-6 years has developed gradually and is maturing.

The success of the gardening method in fostering an attitude of responsibility in children aged 5-6 years is not solely seen from their behavior in the school environment. One of the early indicators that showed the development of learners' responsibility was the number of plants that grew compared to the number of learners who participated. Of the 20 children who participated in the gardening activity, there were 14 plants that managed to thrive, 4 plants that grew smaller, and 2 plants that did not grow. This means that more than half of the learners have shown progress in their responsibility. These indicators reinforce that gardening activities can be used as a method to instill an attitude of responsibility in children aged 5-6 years. The image in **Figure 2** shows the results of water spinach plants grown by students over a period of one month.



**Figure 2.** Results of water spinach plants grown by students.

Hidayatul Muhtadiin Islamic Kindergarten uses other indicators to track changes in student's attitudes of responsibility to ensure that this development extends beyond the classroom and into the family environment. This is one sign of success in instilling an attitude of responsibility through gardening activities. To find out how the attitude and behavior of students at home, the teacher prepares an assessment in the form of a checklist that is filled in by parents/guardians of students who accompany children every day. This checklist assessment is given every 2 weeks for 1 month, after 1 month of gardening activities, the checklist assessment carried out by parents/guardians of students is carried out once a month. This is routinely done to find out changes in children's attitudes of responsibility at home intensely in addition to assessments from teachers at school. The results of this

checklist show that more than half of the learners made gradual progress in responsibility. Examples of emerging behaviors include: children independently cleaning the house, feeding pets, watering plants, washing dishes after meals, throwing garbage in its place, making beds, and obeying the orders of people around them.

Checklist and anecdotal conducted by teachers and parents/guardians intensively show changes in children's attitudes of responsibility after doing this gardening activity. However, this attitude of responsibility needs to be continuously developed, both at school and at home, so that it is increasingly embedded in children. This development can be observed through the learners' behavior and the results of the plants they care for. Although it took a while to achieve, the attitude changes previously outlined show that the introduction of gardening activities at Hidayatul Muhtadiin Islamic Kindergarten has been successful in forming a responsible attitude in children ages 5 to 6. Gardening activities can foster a sense of responsibility in children, as well as support their social-emotional, cognitive, physical-motor, and language development. Therefore, this activity will continue to be a learning program at Hidayatul Muhtadiin Islamic Kindergarten because it has many positive benefits for children. The findings suggest that gardening can be an effective means of play, as well as improving naturalistic intelligence, fostering a sense of responsibility, and practicing patience.

Based on observations, interviews, and documentation at Hidayatul Muhtadiin Islamic Kindergarten, gardening activities have proven to be effective in fostering a sense of responsibility in children aged 5–6 years. The children showed positive development in various indicators of responsibility, such as caring for the plants they planted themselves by watering them regularly without having to be reminded by the teacher, completing all stages of gardening activities from preparing pots, planting seeds, to cleaning the area after the activity, and showing a sense of ownership of the plants through pride and attention when the plants grew well. In addition, children also learn to acknowledge their mistakes and correct them, for example by replacing plants that have been damaged due to their own negligence. This behavioral change occurs gradually through consistent and enjoyable activities. Children begin to understand that every action has consequences, as well as the importance of caring for and protecting the living things around them.

Gardening activities play a role in fostering a sense of responsibility, empathy for living things, and habits of caring for and completing tasks. This is in line with Lickona's view that character building encompasses three main dimensions, namely moral knowledge, moral feelings, and moral actions (Jayadiningrat et al., 2024). Through gardening activities, children gain an understanding of the meaning of responsibility, develop a sense of care for plants, and put this into practice through concrete actions in caring for the plants. Children can gain firsthand experience of the cause-and-effect relationship of their actions through activities such as gardening, where plants wilt if they are not watered, thereby instilling a sense of responsibility through real-life experiences. Piaget's theory of moral development is also relevant, as early childhood is characterized by the heteronomous moral stage, where children learn to understand rules through concrete experiences (Agustina et al., 2023). In line with Erikson's view, children aged 5-6 years are in the initiative vs guilt stage, where they begin to take initiative and responsibility for their own actions (Emiliana & Apriyanti, 2025). Gardening activities provide opportunities for children to take the initiative in choosing plants, determining how to care for them, and taking responsibility for the results achieved.

The results of this study are also consistent with the findings of Salwa & Mahyuddin (2025), which show that gardening activities in kindergarten can improve science process skills while fostering environmental awareness. Although the focus of the study was more on cognitive aspects, it shows the great potential of gardening as a means of teaching values. Another

study by Nurjannah et al. (2022) also confirms that nature-based activities, such as gardening, can strengthen character values because children are trained to care for plants on a regular basis. Furthermore, Nurohmah et al. (2023) stated that early childhood character education would be more effective if it was carried out through direct experiences and meaningful play activities, rather than just through lectures or advice, which is in line with the principle of learning by doing in gardening activities. These findings are also supported by research by Winarsih & Wahyuningsih (2024), which states that children's involvement in outdoor activities can improve their social and emotional responsibility, as they learn to understand the consequences of their actions on the living things around them. From these findings, it can be concluded that gardening is a means of character building that is real and contextual, not just a physical or exploratory activity. Through the process of caring for plants, children learn to manage their time, develop commitment by watering every day, take responsibility for the results of their work, and develop empathy for living things. Thus, gardening becomes a holistic learning medium because it integrates cognitive, affective, and psychomotor aspects into one meaningful activity. This experience helps children understand the value of responsibility as real behavior in everyday life and as knowledge.

#### 4. CONCLUSION

According to the findings of a study conducted at Hidayatul Mubtadiin Islamic Kindergarten, gardening exercises are one way to help kids between the ages of five and six develop a sense of responsibility. In addition, this activity also plays a role in improving cognitive development, motor skills, language skills, social-emotional aspects and training children's patience. After a series of gardening activities, changes in the attitude of responsibility in children when at school such as independently taking care of plants by routinely watering them every day, tidying up playing tools after completion, cleaning up lunch after completion, and cleaning up spilled drinking water without the need to be directed by the teacher. In addition, children also show responsibility in completing assigned tasks and being honest by admitting mistakes and apologizing when making mistakes when playing with friends. This change in attitude occurs at school and continues at home. The child begins to perform household tasks independently, such as cleaning the house, feeding pets, watering plants, washing dishes after meals, throwing garbage in its place, making the bed, and obeying the orders of parents and other family members.

According to this study, the farming activities conducted at Hidayatul Mubtadiin Islamic Kindergarten have been successful in raising the level of responsibility among the five to six-year-olds. The significance of this research lies in its contribution to the method of implementing character education that fosters a sense of responsibility in early childhood, which offers a method for other institutions or parents to follow. This study has a number of limitations that need to be considered. The study was only conducted in one institution, namely the Hidayatul Mubtadiin Islamic Kindergarten, so the results obtained may not necessarily reflect the conditions in other institutions with different characteristics. In addition, time constraints meant that the process of observing the development of children's attitudes of responsibility could not be carried out continuously.

The implementation of gardening activities was also highly dependent on external factors, especially weather conditions, which could affect the smooth running of the activities. Differences in the characters, interests, and developmental stages of each child also influenced their varied responses to the activities provided. The development of a sense of responsibility in children is not only influenced by gardening activities themselves, the role of teachers and the level of support provided by parents at home also have an impact. In

addition, limited resources and facilities available at the institution are a separate obstacle in optimizing the implementation of gardening activities. Future research can explore other methods in character education learning to foster an attitude of responsibility in early childhood or compare other methods to analyze efficient methods that can be applied in fostering an attitude of responsibility in early childhood.

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## 6. AUTHORS' NOTE

The authors stress that the content of this work is free of plagiarism and declare that there is no conflict of interest in its publishing.

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