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The Impact of the Farming Gardening Project Method Through Moving Classes on the Social and Emotional Behaviour of Kindergarten Age Children

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ABSTRAK

Masalah penelitian ini berfokus pada rendahnya kemampuan anak usia TK B dalam aspek bekerja sama, tolong-menolong, disiplin, percaya diri, dan kontrol diri. Sehingga untuk mengatasi masalah ini, penelitian ini bertujuan untuk menganalisis dampak metode farming gardening project melalui moving class terhadap peningkatan perilaku sosial dan emosional anak usia TK B. Jenis penelitian ini adalah eksperimen dengan desain quasi-experimental. Subjek penelitian terdiri dari 40 anak usia TK B, yang dibagi menjadi dua kelompok: kelompok eksperimen yang terdiri dari 20 anak dan kelompok kontrol yang juga terdiri dari 20 anak. Metode pengumpulan data menggunakan observasi, wawancara, dan studi dokumentasi. Instrumen penelitian meliputi lembar observasi perilaku sosial dan emosional serta panduan wawancara. Data dianalisis menggunakan teknik statistik dengan bantuan program SPSS 12.0 for Windows. Hasil penelitian menunjukkan bahwa anak-anak dalam kelompok eksperimen yang menerapkan metode farming gardening project melalui moving class menunjukkan peningkatan yang signifikan dalam perilaku sosial dan emosional dibandingkan dengan kelompok kontrol yang menggunakan metode pembelajaran konvensional. Secara statistik, perbedaan perilaku sosial dan emosional anak-anak antara kelompok eksperimen dan kelompok kontrol adalah signifikan untuk perilaku sosial dan emosional. Kesimpulan dari penelitian ini menunjukkan bahwa metode farming gardening project melalui moving class efektif dalam meningkatkan perilaku sosial dan emosional anak usia TK B. Implikasi penelitian ini adalah pentingnya penerapan metode berbasis proyek dalam kegiatan pembelajaran untuk merangsang perkembangan sosial dan emosional anak secara lebih holistik.

ABSTRACT

This research problem focuses on the low ability of kindergarten B children in terms of cooperation, helping, discipline, self-confidence, and self-control. So, to overcome this problem, this study aims to analyze the impact of the farming gardening project method through moving classes on improving the social and emotional behavior of kindergarten B children. This type of research is an experiment with a quasi-experimental design. The research subjects comprised 40 kindergarten B children divided into two groups: an experimental group of 20 children and a control group of 20 children. Data collection methods used observation, interviews, and documentation studies. The research instruments included social and emotional behavior observation sheets and interview guides. Data were analyzed using statistical techniques with the help of the SPSS 12.0 for Windows program. The results showed that children in the experimental group who applied the farming gardening project method through moving class significantly improved social and emotional behavior compared to the control group who used conventional learning methods. Statistically, the difference in children's social and emotional behavior between the experimental and control groups was significant for social and emotional behavior. The conclusion of this study shows that the farming gardening project method through moving classes is efficacious in improving the social and emotional behavior of kindergarten B children. The implication of this study is the importance of applying project-based methods in learning activities to stimulate children's social and emotional development holistically.

1. INTRODUCTION

Facing the educational challenges of the 21st century, being able to compete and win the competition requires learning prerequisites. Only learning society will be the winner in the future because a person's success in his career and life is not only influenced by intelligence factors (Firmansyah & Susetyo, 2022; Handayani et al., 2023; M Fahri Nursalim et al., 2023), but also emotional intelligence factors. Therefore, it is very important to build the quality of Indonesian human resources who are whole and successful in the future. During the opening of the Central Conference of the Indonesian Kindergarten Teachers Association in 2003, it was stated that early childhood education (PAUD) as a human resource

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development strategy is seen as a central point, because the formation of national character and excellence in human resources is determined from an early age. The early age range is the right time to develop children's potential and intelligence, so this period is often referred to as the golden age. Structured development of children's potential in this age range will have a significant impact on the next stage of development. Optimisation of children's potential in early life can be achieved through fun learning methods that involve play activities. This method is in line with the characteristics of early childhood who tend to be active in the exploration of their environment. Therefore, play activities not only serve as an integral part of the learning process, but also contribute to the development of children's social and emotional abilities (Kurniati, 2024; Rohmatun et al., 2024; Sari & Zulfa, 2024; Sidarta et al., 2024).

Therefore, the design of learning for early childhood must consider so that children do not feel pressured in fulfilling their developmental tasks. So, to create a learning atmosphere that does not burden and avoid boredom, the learning strategies or methods applied must pay attention to the principles of development and children's needs, including aspects of play, the creation of a supportive environment, and the development of life skills. Therefore, by knowing the principles in choosing learning methods, this can be used as a basis and reference for teachers in conducting challenging and fun learning, involving elements of playing, moving, singing and learning. The selection of learning methods is one of the important factors that will determine the success or failure of the learning process (Darmawan & Abdullah, 2023; Khairiah & Jumanti, 2022; Prihatin et al., 2024). One learning approach that can be effective in stimulating the development of children's social and emotional behaviour is the gardening project method, known as the farming gardening project. A farming gardening project is a learning method that combines learning activities with practical actions, giving children the opportunity to apply the material learnt in a real-life context (Kusumawardhany et al., 2023; Setyaningrum et al., 2023). Gardening activities that focus on direct interaction with the natural environment provide children with concrete experiences. By being directly involved in processes such as digging, watering and caring for plants until they grow and provide benefits to other living things, children will develop a sense of care and appreciation for the environment. In addition, involvement in these activities also promotes responsibility, co-operation, interdependence, and drive for action, which will ultimately foster awareness of protecting the environment from an early age.

Out-of-class gardening projects give children the opportunity to explore discovery methods and encourage their creativity in discussing their findings with peers (Limbong et al., 2024; Wulan Aulia Azizah, 2024).This approach increases children's engagement in their activities as well as motivation to complete tasks. The increased level of freedom given to children results in a change in the role of the teacher, who under these conditions no longer dominates teaching. Instead, the approach encourages children to take an active role from the start, developing independence and fostering interest and curiosity, while inspiring and providing aspirations for their lives. The farming gardening project is conducted in groups with the aim of stimulating children's social and emotional behaviour. The farming gardening project operational model is supported by the use of miniature neighbourhoods and practical materials commonly used by adults, making it a fun and play-based learning activity. For children, play is a highly engaging activity, especially for those who have difficulty sitting still for long periods of time or maintaining prolonged attention. Gardening projects are not only engaging, but also provide a number of benefits, such as: introducing and instilling environmental awareness from an early age, assisting children in solving everyday problems independently, and providing life experiences that integrate knowledge, attitudes and skills in the context of everyday life.

From a number of studies conducted by experts, it was found that farming gardening projects are effective in stimulating positive social and emotional behaviour (Fransiska et al., 2022; Kusumawardhany et al., 2023). If the farming gardening project method is then accompanied by moving activities, where opening and closing activities are carried out in certain areas so that children gain an understanding of the material before implementing the farming gardening project, then this method is assumed to make a greater contribution to social and emotional behaviour. However, the current reality, based on observations and supported by previous research, shows that early childhood education (ECE) in Indonesia is not fully optimal in developing children's social and emotional aspects. Nevertheless, gardening projects as an initial approach in introducing the natural environment through gardening activities at an early age is a fairly efficient method to educate children to consciously appreciate and love the environment. Gap analysis shows that there is a gap between the expectation to build superior quality of human resources from an early age and the reality of the lack of implementation of effective learning methods. As a solution, the development of learning methods such as farming gardening project through moving class can improve this situation by providing children with real and contextual learning experiences.

Previous research studies support that this approach is effective in stimulating children's social and emotional behaviour (Mu'awanah & Puspasari, 2023; Rahman et al., 2024). The novelty of this research lies in the integration of physical activity and environmental exploration in one learning method. The

urgency of the research lies in the need to create a learning environment that supports children's holistic development. Therefore, the purpose of this study is to analyse the impact of the farming gardening project method through moving class on improving the social and emotional behaviour of kindergarten B children, so that it can make a significant contribution to improving the quality of early childhood education in Indonesia. Thus, with this research, it is expected that teachers and educators at the kindergarten level can consider adopting this method in their daily activities. The use of this method not only increases student engagement, but also promotes holistic learning, which includes important aspects such as responsibility, co-operation, and care for the environment. In this context, schools need to develop training programmes and workshops for teachers to ensure that they have sufficient skills and knowledge in implementing this method effectively.

2. METHODS

In this research, the method used is quasi-experimental, because it is not possible to strictly control all variables that can influence the independent and dependent variables (Borg & Gall, 2023) emphasized that quasi-experimental research is "a type of experiment where research participants are not randomly assigned to the experimental and control groups". Individuals do not have the same chance of being randomly assigned to either the experimental group or the control group. The type of research design is in the form of a Nonequivalent (Pretest and Posttest) Control Group Design. In a research design with a quasi-experimental approach, group A is designated as the experimental group and group B as the control group based on certain criteria. The selection for both groups was randomised. Both groups were given a pretest and posttest, with the treatment only applied to the experimental group. The researcher then analyses the difference in mean scores between the control group and the treated group (Johariah et al., 2023; Putri et al., 2023).

After determining the research design, the researcher chose the location of the study which was conducted at KB-TK Ar-Rahman Islamic School Cinere Depok. All children in the Kindergarten B class were selected as the research population because it is the final class at the Kindergarten level. The selection of KB-TK Ar-Rahman Islamic School was not done randomly, but based on the consideration that this school provides adequate learning facilities, including an area that can be used for farming gardening project activities, and because these activities have never been implemented before at this school. After determining the research location, the next step was to select the research subjects. A total of 40 children were involved as research subjects, with an almost balanced gender composition of 19 boys (47.5%) and 21 girls (52.5%). In terms of treatment groups, the number of children in the experimental and control groups was also balanced, each consisting of 20 children. The experimental group (50%) used the farming gardening project method through the moving class method, while the control group (50%) followed conventional learning. The researcher developed a learning scenario, and in its implementation, the teacher implemented the experiment in accordance with the scenario that had been prepared. With a balanced distribution, it is expected that the research results can be more easily generalised. The steps of the quasi-experimental research in this thesis are briefly described in Figure 1.

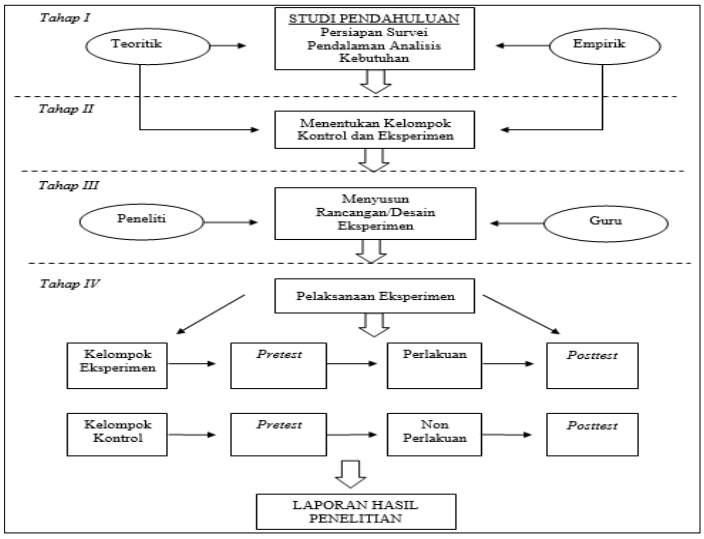

Figure 1. The Quasi-Experimental Research Steps

Research instruments are tools for measuring the value of the variables to be studied. An effective instrument must meet two main criteria, namely validity and reliability (Anggraini et al., 2022; Johariah et al., 2023; Ramadhan et al., 2024; Widiana et al., 2023). An instrument is said to be valid if it is able to measure what is desired and can reveal data from the variables studied accurately. In research, there are two types of validity for instruments: content validity, which is tested through logical analysis, and construct validity, which is tested through empirical analysis. Reliability refers to the extent to which an instrument can be relied upon as a data collection tool because the instrument meets good standards. A quality instrument will not be tendentious or influence respondents to choose certain answers (Ariyanto, 2020; Erlangga et al., 2023; Hansun et al., 2023).This research utilized three instruments developed independently by the researcher. These instruments include observation and interview guides, tables and pictures, each of which has a function as explained in the following Table 1: Before developing the instrument, previous researchers created an instrument grid as presented in Table 2.

Table 1. The Types and Functions of Instruments in Research

Instrument Type	Utility	Data Source
Observation Guidelines	Collecting data on children's social and emotional behavior	Child
Interview Guide	Collecting data on the implementation of the farming gardening project method through moving classes	Teacher
Tables, Pictures	Collecting data on farming gardening project activities through moving classes	RPPM, RPPH, photos, videos

Table 2. The Instrument Grille

Variable	Indicator	Technique	Respondent	Item Items
Behavior Social	a. Cooperation	Observation	Child	1, 2, 3, 5, 7, 8, 13, 15
	b. Mutual help			11, 12
	c. Empathy			10, 14
	d. Sympathy			6, 9
	e. Share			4
Emotional Behavior	a. Self-confident	Observation	Child	2, 4, 5, 6, 7
	b. Kocontrol yourself			1, 3, 8, 12, 13, 14, 15
	c. Independent			9, 10, 11, 16, 17, 18

The development of the above instrument was carried out in steps, including: writing observation items, testing items, analyzing the validity and reliability of items, revising items with invalid items, preparing and duplicating items for use in research. This research has several data collection methods. First, observation. Observation is the act of observing directly the research object to see closely the activities carried out (Mugiyatmi, 2023; Pujiyanto, 2021). The object of this research is the child's behavior or actions in dealing with other people and the emotions shown in participating in learning activities. The concept used to measure the validity of observations is construct validity and the method used is to correlate the items with the total number of measuring instruments. The correlation used is the Product Moment (Pearson) correlation which is implemented using the SPSS Version 12.0 computer program. for Windows. Observation reliability is measured using the concept of internal consistency. In this concept, a measuring instrument is said to be reliable, if the test results on people who have the same or almost the same abilities give the same or almost the same results. The reliability estimate for measuring this concept is Cronbach's alpha coefficient. The larger the coefficient means the higher the level of constancy of the measuring instrument.

Second, interview. It should be noted that, to measure the validity of interviews, the concept of construct validity is used. Interviews were conducted with teachers using a structured interview format, both written and verbal, to collect feedback regarding the implementation of the farming gardening project method through moving classes in stimulating children's social and emotional behavior. The data obtained from this interview aims to strengthen the findings from observations. The teachers interviewed included the deputy principal and two teachers from Kindergarten B class. Finally, a documentation study. Documentation studies are used to strengthen the results of interviews and observations. The documents used are Weekly Learning Implementation Plans (RPPM), Daily Learning Implementation Plans (RPPH), photos and videos. The data results are used to complement the data obtained from interviews and observations. After the data was collected, the data was analyzed using statistical techniques via the SPSS version 12.0 for Windows program. The statistical technique used is the t-test to test the difference between

two averages. Testing was carried out at a significance level of 5%. The null hypothesis will be rejected if the statistical test significance value exceeds 0.05. Conversely, if the significance value is less than 0.05, then the proposed research hypothesis is accepted.

3. RESULT AND DISCUSSION

Results

This research is an experimental study with a Nonequivalent (Pretest and Posttest) Control Group Design. KB-TK Ar-Rahman Islamic School Cinere Depok was the research site for the experimental group and control group. Based on the results of data collection through observation of children, it can be seen the impact of the farming gardening project method through moving classes on children's social and emotional behavior.The social behavior of Kindergarten B children before the treatment was given to both the experimental group and the control group shows the calculation of the average difference in children's social behavior between the experimental group and the control group before the experimental treatment was given. The average social behavior of children in the experimental group was 49.10 with a standard deviation of 11.805, while the control group had an average of 50.30 and a standard deviation of 7.895. The t-test carried out produced a t value of 0.433 with a significance level (p) of 0.670, which is greater than 0.05. These results indicate that there were no significant differences in social behavior between the two groups before the experiment was conducted. In other words, the level of social behavior of children in both groups was similar at the start of the study. These findings indicate that both groups, experimental and control, are in a balanced initial condition, so that both can be considered worthy of further research. Furthermore, there is a calculation of the average social behavior of children in the experimental group which is 49.10, while in the control group it is 50.30. The t-test results show a value of 0.433 with a significance level greater than 0.05 (p=0.670). These findings indicate that there were no significant differences in children's social behavior between the experimental group and the control group before the experiment was carried out. Statistically, no significant differences were found in the initial conditions before the experiment was carried out. It can be concluded that the conditions of the research subjects in the experimental group and the control group were similar or almost similar. Therefore, these two groups were considered suitable to be research subjects. In particular, the initial state of the child's social behavior is presented in Table 3.

Table 3. The Social Behavior of Experimental Group Children Before and After Treatment

No.	Aspects that are Measured	Experimental Group	
a	**Cooperation**	**Before**	**After**
1.	Visit the activity area with the group	85%	100%
2.	Orderly entry into the activity area	0%	100%
3.	Pair up with a friend to go out in public	0%	100%
4.	Work together when appearing in public	35%	90%
5.	Hang out with all friends without favoritism	60%	100%
6.	Play together	40%	100%
7.	Return equipment to its place	30%	100%
8.	Communicate unpreparedness to move areas when work is not finished	0%	100%
b	**Mutual Help**		
9.	Help each other tidy up the chairs after use	30%	100%
10.	Help each other tidy up toys after use	30%	100%
c	**Empathy**		
11.	Help friends who need help	5%	85%
12.	Listen to the teacher speak	75%	100%
d	**Sympathy**		
13.	Talk to friends while playing	100%	100%
14.	Praising a friend who appears in public	85%	100%
e	**Share (Sharing)**		
15.	Sharing tasks for appearing in public	100%	100%

From the data above it can be seen that, before treatment, the majority of children had not demonstrated adequate abilities in working together. Data shows that 100% of children are not orderly when entering activity areas, are ahead of each other's friends, and are reluctant to be paired up to appear

in public. Apart from that, 70% of children have not been disciplined in returning equipment, and only 35% of children are able to work together in teams when appearing at the Assembly. However, 60% of children can mix without favoritism and 85% of children can go to the activity area with their group. These findings emphasize the need for a farming gardening project method through moving classes to increase cooperation among children. After treatment, the results showed a significant increase in children's cooperative attitudes. Now, 100% of children orderly enter the activity area, wait their turn properly, and return equipment to its place. They are also willing to be paired and communicate their unreadiness clearly. The ability to work together in a team when appearing at Assembly increased, with 90% of children showing good cooperation. Children also no longer choose playmates based on gender and play together without favoritism, showing the effectiveness of the farming gardening project method in increasing cooperation.

The attitude of helping children has also increased. Now, 100% of children help each other put chairs and toys away after use, showing responsibility for themselves and concern for others. Children's empathy also increased, with 100% of children willing to listen to teachers and 85% willing to help friends who needed help. Children begin to show affection by providing help without being asked. Children's sympathetic attitudes remain good, as can be seen from 100% of children talking to friends while playing and praising their friends in public. Apart from that, all children showed an attitude of being willing to share by accepting the assignment of appearing in public. The results of this research confirm that farming gardening project activities through moving classes are effective in increasing children's attitudes of cooperation, mutual assistance, empathy and sympathy, as well as growing their ability to interact positively. The social behavior of children in the control class group before and after being given treatment is presented in Table 4.

Table 4. The Social Behavior of Control Class Group Children Before and After Treatment

No.	Aspects that are Measured	Control Group	
a	**Cooperation**	**Before**	**After**
1.	Visit the activity area with the group	100%	100%
2.	Orderly entry into the activity area	0%	0%
3.	Pair up with a friend to go out in public	0%	50%
4.	Work together when appearing in public	20%	25%
5.	Hang out with all friends without favoritism	85%	85%
6.	Play together	75%	100%
7.	Return equipment to its place	40%	20%
8.	Communicate unpreparedness to move areas when work is not finished	0%	40%
b	**Mutual Help**		
9.	Help each other tidy up the chairs after use	40%	20%
10.	Help each other tidy up toys after use	40%	20%
c	**Empathy**		
11.	Help friends who need help	0%	0%
12.	Hearing the teacher speak	75%	50%
d	**Sympathy**		
13.	Talk to friends while playing	100%	100%
14.	Praising a friend who appears in public	50%	50%
e	**Share (Sharing)**		
15.	Sharing tasks for appearing in public	100%	100%

From the data above it can be said that the majority of children still show deficiencies in working together. This can be seen from their non-compliance with the rules, such as entering activity areas in an orderly manner and being reluctant to be paired with friends to appear in public. Research found that 100% of children have not shown good disciplinary attitudes, with 60% not being able to put equipment back in its place. The ability to work together in a team is only seen in 20% of children, and they often have difficulty following teacher instructions, for example when performing a dance or playing angklung. Even though 100% of children want to go to the activity area together, only 85% can socialize with all their friends without favoritism and 75% want to play together. After applying conventional methods, there was no significant improvement in children's cooperative attitudes. Problems such as non-compliance in entering activity areas, unwillingness to cooperate with friends, and difficulty following teacher instructions are still visible. The ability to return equipment also decreased, with only 20% of children willing to take

responsibility. However, 100% of children still want to go to the activity area together, 85% are able to socialize without favoritism, and 75% want to play together.

A decline in attitudes of helping and empathy was also seen, with 80% of children not helping to tidy up equipment and 100% of children not wanting to help friends who needed help. Children's empathetic attitudes are decreasing, as can be seen from 50% of children who do not listen to teachers well and 100% of children who do not want to help their friends. Despite this, attitudes of sympathy remain stable with 100% of children talking to friends while playing and 50% willing to praise friends who appear in public. The attitude of sharing with friends also remains high, with 100% of children accepting the distribution of tasks within the group. These results show that the farming gardening project method through moving classes is needed to increase children's attitudes of cooperation, mutual assistance and empathy. The calculated data regarding the average difference in children's emotional behavior between the experimental group and the control group before treatment is presented in Table 5.

Table 5. The Differences in Average Children's Emotional Behavior between the Experimental Group and the Control Group before Treatment

Group	Average	Elementary School	t	P
Experiment	52.75	11.769	0.346	0.733
Control	53.85	7.379		

In this table, the average emotional behavior of children in the experimental group was recorded at 52.75, while in the control group it was 53.85. The t-test statistical value obtained was 0.346 with a significance level greater than 0.05 (p=0.733). These findings indicate that there were no significant differences in children's emotional behavior between the experimental group and the control group before carrying out the experiment. Because statistically there were no significant differences in the initial conditions before the experiment was carried out, it can be concluded that the conditions of the research subjects between the experimental group and the control group were similar or almost similar. Therefore, these two groups were considered suitable to be subjects in this research. The calculated data regarding the emotional behavior of experimental group children before and after treatment is presented in Table 6.

Table 6. The Emotional Behavior of Experimental Group Children Before and After Treatment

No.	Aspects that are Measured	Experimental Group	
a	**Self-Confident**	**Before**	**After**
1.	Dare to appear in public	95%	100%
2.	Dare to propose a theme	0%	75%
3.	Dare to ask questions	0%	75%
4.	Dare to answer the teacher's questions	5%	75%
5.	Dare to exchange opinions	0%	75%
b	**Self Control**		
6.	Patiently waiting for your turn to appear in public	65%	100%
7.	Feel happy when appearing in public	5%	35%
8.	Accept friends' ideas	0%	100%
9.	Encourage friends when moving	5%	0%
10.	Hitting friends while moving	0%	0%
11.	Pinching friends when moving	0%	0%
12.	Want to apologize if you make a mistake	65%	100%
c	**Independent**		
13.	Carrying out teacher duties without assistance from others	100%	100%
14.	Doing your own work	100%	100%
15.	Complete the task yourself	100%	100%
16.	Can eat alone	100%	100%
17.	Clean up food equipment after use	100%	100%
18.	Putting on your own shoes	95%	100%

The initial findings of this study suggest that children do not yet demonstrate adequate levels of self-confidence. All children did not dare to propose themes, ask questions, or exchange opinions, and only 5% dared to answer the teacher's questions. This is caused by the unpreparedness of some children to participate in learning and speaking. On the other hand, 95% of children dare to appear in public, while 5%

feel embarrassed. Therefore, activities that can increase the courage to ask questions, discuss and provide ideas are very necessary. The question and answer method and farming gardening projects through moving classes can provide opportunities for children to experience more varied learning and boost their self-confidence. So, in terms of self-control, 100% of children did not show aggressive behavior such as hitting or pinching when changing areas, even though 5% pushed their friends. Most children (65%) showed patience in waiting their turn and were willing to apologize if they made a mistake. However, 100% of children do not want to accept friends' ideas in planning activities, and 95% do not show a smile when appearing in public. These results show that attitudes of giving, receiving, and affection for plants can be developed to stimulate children's feelings both verbally and nonverbally.

In general, children show an independent attitude with 100% ability to carry out, carry out and complete their own tasks, including eating and putting away food utensils. However, 5% of children still need teacher assistance to put on shoes. These data suggest that children tend to enjoy their personal responsibilities. Therefore, assigning individuals to farming gardening project activities through moving classes can be an effective means of stimulating an attitude of independence in children. After the treatment, all children showed better self-confidence, with 100% daring to appear in public and 75% daring to propose themes, ask questions and discuss. This shows that activities that stimulate courage to take initiative are very important in the learning process. Apart from that, the farming gardening project method through moving classes provides varied learning experiences, supports increasing attitudes of independence, and develops attitudes of self-control and positive social interactions among children.The calculated data regarding the emotional behavior of control group children before treatment is presented in Table 7.

Table 7. The Emotional Behavior of Control Group Children Before and After Treatment

No.	Aspects that are Measured	Control Group	
a	**Self-Confident**	**Before**	**After**
1.	Dare to appear in public	100%	100%
2.	Dare to propose a theme	0%	5%
3.	Dare to ask questions	0%	5%
4.	Dare to answer the teacher's questions	35%	55%
5.	Dare to exchange opinions	0%	5%
b	**Self Control**		
6.	Patiently waiting for your turn to appear in public	60%	15%
7.	Feel happy when appearing in public	0%	0%
8.	Accept friends' ideas	0%	5%
9.	Encourage friends when moving	0%	10%
10.	Hitting friends while moving	5%	10%
11.	Pinching friends when moving	0%	0%
12.	Want to apologize if you make a mistake	45%	45%
c	**Independent**		
13.	Carrying out teacher duties without assistance from others	100%	100%
14.	Doing your own work	100%	100%
15.	Complete the task yourself	100%	100%
16.	Can eat alone	100%	100%
17.	Clean up food equipment after use	100%	100%
18.	Putting on your own shoes	100%	100%

Preliminary results of this study reveal that children generally do not demonstrate adequate levels of self-confidence. Most children (100%) did not dare to propose themes, ask questions, or exchange opinions, while only 35% dared to answer questions from the teacher. On the contrary, all children show courage to appear in public. These findings indicate the need for activities that can motivate children to more actively participate in discussions and ask questions. The question and answer method and the application of the farming gardening project method through moving classes can be a solution to provide variety in learning and increase social interaction. In general, children's self-control was quite good, with 100% of children not pushing or pinching when changing areas, although there were 5% who hit their friends when moving from the preparation area to the assembly activity. However, 60% of children showed patience waiting for their turn to appear, and 45% did not want to apologize if they made a mistake. All children have not shown an attitude of accepting friends' ideas or smiling when appearing in public. This shows that developing attitudes of giving, receiving and affection through activities such as farming gardening projects can stimulate children's social and emotional aspects.

Children's independent attitudes remain stable, with 100% of children able to complete their personal tasks, such as putting on shoes, eating, and putting away food utensils. This data shows that children tend to enjoy the tasks for which they are responsible. Therefore, giving individual assignments in the context of a farming gardening project through moving classes can strengthen children's independent attitudes. After treatment with conventional methods, there were no significant changes in the child's behavior. Children's emotional behavior remains fluctuating, with 95% not daring to propose a theme or exchange opinions, and only 55% enthusiastically answering the teacher's questions. Even though 100% of children dare to appear in public, there needs to be activities that encourage children to be active in discussions and questions. Implementation of the farming gardening project method through moving classes offers a teaching approach that can increase the diversity of children's learning experiences, including in terms of social and emotional behavior.

As described in the research methods section, data analysis in this study used the t-test. Testing is carried out with a decision error limit of 5%. The null hypothesis will be rejected if the statistical calculation results show a possible error rate higher than 5%. Conversely, if the chance of error is smaller than 5%, the null hypothesis will be accepted. The calculated data regarding the average difference in children's social behavior between the experimental group and the control group is presented in Table 8.

Table 8. The Differences in Average Social Behavior between the Experimental Group and the Control Group After Treatment

Group	Average	Elementary School	t	P
Experiment	59.40	1.569	12.058	0.000
Control	41.85	5.631		

In the table above, it can be seen that the average social behavior of children in the experimental group was 59.40, while in the control group it was 41.85. The t-test statistic obtained was 12.058, with a significance value of less than 0.05 (p = 0.000). These findings indicate that there are significant differences in children's social behavior between the experimental group and the control group after implementing the experiment. Therefore, to see the impact of the farming gardening project method through moving classes on children's social behavior, a gain score is used, namely the difference between the posttest and pretest results. The score obtained in the gained score reflects the impact of the treatment. A gain score equal to zero means there is no treatment effect. The greater the gain score means the greater the impact caused by the treatment. A summary of the results of the t-test statistical calculation of the difference in average gain scores between the experimental group and the control group is presented in Table 9.

Table 9. The Differences in Social Behavior Gain Score between the Experimental Group and the Control Group

Group	Average	Elementary School	t	P
Experiment	10.30	11.974	7.071	0.000
Control	-8.45	5.216		

Table 9 shows that the average gain score in the experimental group was 10.30, which was higher than the control group which had a value of -8.45. The t-test statistical value obtained was 7.071, with a significance level of less than 0.05 (with an actual value of 0.000). These results indicate that there is a significant difference in the average gain score between the experimental group and the control group, with the experimental group showing a higher score. These findings also indicate that the hypothesis which states: "There is a significant influence of the farming gardening project method through moving classes on social behavior", is supported by the data. This means that the farming gardening project method through moving classes has an impact on children so that children's social behavior is better.Furthermore, the calculated data regarding the average difference in children's emotional behavior between the experimental group and the control group after treatment is presented in Table 10.

Table 10. The Differences in Average Emotional Behavior between the Experimental Group and the Control Group After Treatment

Group	Average	Elementary School	t	P
Experiment	57.80	6.534	9.904	0.000
Control	40,40	4.477		

In the table, it can be seen that the average social behavior of children in the experimental group is 57.80, while in the control group it is 40.40. The t-test results show a statistical value of 9.904 with an error rate of less than 0.05 (p = 0.000). These findings indicate that there are significant differences in children's social behavior between the experimental group and the control group after carrying out the experiment. Meanwhile, the emotional behavior gain score between the experimental group and the control group is presented in Table 11.

Table 11. The Differences in Emotional Behavior Gain Score between the Experimental Group and the Control Group

Group	Average	Elementary School	t	P
Experiment	5.05	12.103	5.789	0.000
Control	-13.45	7.543		

On Table 11, it can be seen that the average gain score for the experimental group is 5.05, which is higher than the control group which had a value of -13.45. The t-test results show a statistical value of 5.789 with an error rate of less than 0.05 (with the actual p value being 0.000), which indicates that the calculation results are significant. This shows that there is a significant difference in the average gain score between the experimental group and the control group, with the experimental group showing a higher score. These findings also support the hypothesis which states that: "There is a significant influence of the farming gardening project method through moving classes on emotional behavior", supported by data. This means that the farming gardening project method through moving classes has an impact on children so that children's emotional behavior is better.

Discussion

This research reveals that the farming gardening project method through moving classes has a significant positive impact on the social and emotional behavior of kindergarten-aged children. These findings show that this method not only improves children's social skills, such as the ability to collaborate, work together, and build moral values, but also supports their emotional development. This method integrates activities that require social interaction in the project context, allowing children to learn from direct experience and interact with their peers more effectively. The results of this study are consistent with the theoretical framework that supports the use of project-based methods for children's social and emotional development. Other researchers state that group project activities can stimulate various aspects of children's social potential, including social skills and cooperation. Other researchers also support these findings by citing the benefits of group activities, such as the development of social interactions, leadership, and group norms (Asrofi & Masnawati, 2024; Widjayatri et al., 2023). Furthermore, other research reveals that moving classes contribute to the development of self-discipline, leadership, and cooperation. Thus, the results of this research strengthen the theory that project-based methods and moving classes have a positive influence on children's social and emotional behavior (Hasibuan et al., 2024; Prof. Dr. HE Mulyasa, 2022).

One of the strengths of this research is the application of an innovative and contextual method, namely the farming gardening project through moving classes, which provides a practical approach to improving children's social and emotional skills. This research also succeeded in integrating activities that are appropriate to the characteristics of early childhood, namely the need to interact and work in groups. This method allows researchers to explore the direct influence of gardening activities on children's social and emotional development in a natural and enjoyable context. The results of this study make a significant contribution to early childhood education practice by demonstrating the effectiveness of project-based methods in improving social and emotional behavior. This research can be used as a reference for educators and policy makers in designing a curriculum that is more comprehensive and oriented towards children's social and emotional development. In addition, this study opens opportunities for further research regarding the implementation of this method in different contexts and in wider age groups.

This research has several research implications. First, the implications for learning practice. The results of this research show that the application of the farming gardening project method through moving classes has a positive impact on the social and emotional development of kindergarten-aged children. Therefore, teachers and educators at the kindergarten level can consider adopting this method in their daily activities. The use of this method not only increases student engagement, but also promotes holistic learning, which includes important aspects such as responsibility, cooperation, and concern for the environment. In this context, schools need to develop training programs and workshops for teachers to ensure that they have sufficient skills and knowledge to apply this method effectively. Second, the

implications for education policy. The findings of this research can be a basis for policy makers in designing a more integrative and contextual curriculum, especially for early childhood education. Policies that support the implementation of project-based learning methods such as farming gardening projects will encourage curriculum development that not only focuses on cognitive aspects, but also integrates social and emotional aspects that are important for children's development. Therefore, policies that emphasize the importance of play activities outside the classroom and environmental exploration as part of the curriculum can be prioritized.

However, this study has several limitations. First, this study may not be completely representative because it was only conducted in one location or with a limited sample size. Second, not all factors that influence children's social and emotional behavior can be completely controlled, such as family environmental factors and individual motivation. Therefore, future researchers are advised to conduct studies with larger and more diverse samples and consider external factors that may influence the results. Further research could also explore the long-term effects of this method and examine how it can be adapted for children with special needs or in different educational contexts.

4. CONCLUSION

This research confirms that the farming gardening project method through moving classes can conceptually significantly improve the social and emotional behaviour of kindergarten age children. This method has proven effective in building children's social and emotional skills by providing an interactive and collaborative learning experience. Implementation of these activities, which include structured preparation, implementation and evaluation, creates a learning environment that supports the development of positive social behaviour, such as cooperation and responsibility. In addition, this approach also contributes to improving children's emotional well-being, by reducing stress and increasing self-confidence through fun and rewarding gardening activities. These findings suggest that project-based methods involving physical and social activities such as gardening can be a valuable alternative to conventional learning, enriching the learning experience and supporting children's holistic growth.

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