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WORKSHOP ON THE DEVELOPMENT OF PLAY ACTIVITIES FOR CHILDREN WITH ADHD AND AUTISM THROUGH EDUCATIONAL TOYS FROM USED GOODS

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This Community Service (PKM) has a mission in the form of the development of science, technology and art which is conveyed through educational materials and good practices to the community about the benefits of playing activities for children with ADHD and Autism through Educational Game Equipment (APE) using used goods. This activity aims to provide creativity stimulation and learning strategies for Raudhatul Athfal (RA) teachers in North Jakarta to be skilled in utilizing used items from the surrounding environment as a learning medium for children's play activities. The implementation of PKM research uses a descriptive qualitative method with observation and interview techniques focused on the target of the findings of problems in the RA institution in the North Jakarta area. The workshop activities were designed using participatory strategies and group discussions on how to identify and develop strategies for children with ADHD and Autism in carrying out play activities using APE from used items. The output product of PKM that has been implemented is in the form of a pocket book from a North Jakarta RA teacher who has succeeded in modifying the APE design from used goods. It is hoped that this activity can provide benefits to stimulate teachers' creativity and improve the quality of education for early childhood in accordance with the conditions of children's growth and development.

1. Introduction

Community Service activities carried out by universities of the Early Childhood Education study program are an effort to implement the Tri Dharma for National Level Universities. According to (Adawiyah et al., 2023), learning studies using easy-to-find media from the surrounding environment can stimulate early childhood literacy and numeracy skills as the basis of knowledge and skills needed to learn at a higher level. An analysis of the influence of BIMTEK GPK training for children with special needs on teacher performance in Inclusion Kindergarten institutions is also very necessary (Kurnianingrum & Darsinah, 2023). Thus, it can be concluded that this PKM activity is important to be carried out by Postgraduate students, especially for teachers and the community in carrying out the mission of science, technology and art in the form of delivering material and good practices regarding the development of play activities by prioritizing the special characteristics of the implementation of PKM language materials only for children with ADHD and Autism.

The purpose of community service is to stimulate creativity and learning strategies for Raudhatul Athfal (RA) teachers in North Jakarta. According to (Hayati & Amilia, 2020), conducting Community Service education development training can improve the skills of PAUD teachers in making Educational Game Tools (APE) using used goods. The same thing was done (Irawan et al., 2022), stating that in introducing the SDA-03 application in Community Service activities, it can be useful to find out the characteristics of children who experience autism symptoms as early as possible. Based on these references, PKM activities were carried out with the main theme of using materials from used items that are easy to find in the surrounding environment to be used by RA teachers as a learning medium in the development of play activities for children with ADHD and Autism. Based on the findings of problems in the RA institution in the North Jakarta area, it proves that there is still a need to stimulate the development of play activities by utilizing Educational Game Equipment (APE) which can be designed through used goods. Supporting reference data in our findings from previous research reveals the existence of a systematic review of several article literature that raises the problem of low social interaction of early childhood with special needs in schools and their environment (Yunitasari et al., 2023). There is also the development of the quality of human resources from RA teachers is very necessary because of the lack of indoor learning facilities so that the manufacture of Educational Game Equipment (APE) from used goods can be beneficial for student activities (Fitriya, 2022). The same research study also investigated the performance of early childhood education teachers in detecting the early detection of hyperactive behavior disorder accompanied by focus range inhibition in ADHD children (Adiputra et al., 2021). Research from (Barus et al., 2023), states that to see changes in the interaction of autistic children can be through experiments with direct play activities. The

research study also revealed the phenomenon of events obtained from the interaction of special assistant teachers in dealing with children with special needs while in the classroom (Barlian et al., 2023). And the last is a study on the analysis of the influence of the arrangement of the play environment and learning resources for early childhood numeracy literacy skills (Wartani et al., 2023). Furthermore, we immediately collected data using a *google form* filled out by a North Jakarta RA teacher with questions related to children's behavior problems when playing in class. Community Service is carried out in the administrative city area of North Jakarta which consists of Cilincing, Koja, Tanjung Priok, Pademangan and Penjarangan Districts with the center of government in the Tanjung Priok area. Community Service was carried out in collaboration with the Regional Executive of the North Jakarta Raudhatul Athfal Teachers Association (PD IGRA) which has a secretariat on Jalan Melur Tugu VI Number 6 RT. 01/RW. 07 Tugu Utara, Koja District, North Jakarta. The Regional Leadership of the North Jakarta Raudhatul Athfal Teachers Association is divided into five Branch Leaders (PC), namely PC IGRA Cilincing, PC IGRA Koja, PC IGRA Tanjung Priok, PC IGRA Pademangan, and PC IGRA Penjarangan with a total number of RA institutions in North Jakarta as many as 156 institutions, 6,511 students, 676 teachers consisting of 118 State Civil Apparatus, 434 honorary teachers and 55 *inpassing* (the process of equalizing positions, ranks, and groups for non-ASN teachers by using the rank, class, or position of ASN teachers).

Early childhood in the North Jakarta administrative city area has a majority of diverse cultural and socio-economic backgrounds. Early childhood families who attend the North Jakarta RA institution partly come from port laborers and other jobs. RA institutions in the North Jakarta area have not implemented inclusive education, but most RA institutions still accept children with special needs. The reason why the RA institution accepts children with special needs even though it is not an inclusion school is due to several considerations, including:

1. Realize that all children deserve the same services
2. Not knowing that the child is a type of child with special needs
3. Meet the demands of parents to accept children with special needs so that they can attend school at the RA institution
4. Aware of government regulations to accept children with special needs
5. There are no inclusion schools in the neighborhood where children live
6. There is no curriculum or learning outcomes for children with special needs.

Some RA teachers in the North Jakarta area do not understand how to stimulate and develop play activities for children with special needs. The obstacles faced by RA teachers in providing services include:

1. Lack of teachers' understanding of children with special needs
2. Inadequate facilities

3. Lack of APE to suit the needs of children
4. Teachers have difficulty dealing with children's behavior during tantrums
5. Educator resources that are not yet in accordance with their field for the service of children with special needs
6. Lack of teachers who have competence in handling children with special needs.

The obstacles faced by teachers of RA institutions in the North Jakarta area affect the development of the behavior of children with special needs when carrying out play activities. The limitation of problems in PKM activities is focused on the lack of APE facilities and the lack of understanding of teachers in developing children's games. According to (Harjana, 2020), this study conducted a systematic review of the literature review of the problems of children with ADHD with concentration disorders and hyperactivity as well as their negative behaviors while playing. So it can be concluded that through play activities, children feel that they have a deep meaning in the growth process to be able to understand and adapt to the situation of the surrounding environment. To realize this, it is necessary to develop APE in accordance with the needs of children.

The implementation of this PKM research using a descriptive qualitative method with observation and interview techniques conducted by postgraduate students of the Early Childhood Education (PAUD) study program on March 13, 2024 shows that most North Jakarta RA institutions have students for children with special needs who have not received optimal stimulation due to the lack of APE which is expensive and unaffordable. According to (Isnaini et al., 2023), the analysis of the realization of John B. Watson's theory of behaviorism can stimulate, respond and modify children's learning behavior. Based on this theory, our problem is limited only to the play behavior of children with special needs with ADHD and Autism symptoms. The problem hypothesis is focused through the development of teachers' creativity in designing APE using used items as an effort to modify new children's behaviors. Educational Game Equipment (APE) from used goods in this PKM activity is an innovation in the development of easy and fun playing activities. Based on previous research (Ismail & Suparno, 2023), the creation of a guidebook product for special guidance teachers for children with special needs based on assessments in kindergarten. This is sought by students to be able to solve the problem of scientific phenomena in the learning of children with special needs with ADHD and Autism tendencies. In previous research, a systematic review of the testing of learning model applications for children with special needs has also been carried out based on children's interests which can be considered for kindergarten teachers in teaching (Putra, 2022). Therefore, this activity aimed at RA teachers is expected to stimulate children's development through play activities that are in accordance with the stage of children's growth and development by producing outputs that can be used as a joint reference material for the

creativity of RA teachers. Designing and developing a variety of APEs through second-hand items will be able to arouse children's interest in playing for a longer period of time, both individually and in groups.

The PKM target is again focused on the performance of RA teachers in Koja District, North Jakarta with a total of 112 RA teachers. PKM targets include teachers from the Penjaringan, Cilincing, Koja, Pademangan, and Tanjung Priok areas. PKM activities were carried out through workshops with the presentation method of postgraduate students as resource persons, discussions, questions and answers and practical activities to make APE using used goods carried out in groups. According to (Zulkifli, 2020), analysis of the influence of constructive play can develop children's *spatial visual intelligence* through three stages, namely planning, implementation, and evaluation of learning. Thus, the PKM activity techniques for the participants are guided to be able to share experiences and creative ideas in developing APE using used goods that are tailored to the needs of children's play by making a plan in the form of selecting equipment from used goods to be used, planning for modification of the APE design to be made and evaluating the results of the latest APE design will be used by participants in the classroom in ADHD and Autism children's play activities. The implementation of PKM will be carried out for one month from March 15, 2024 to April 15, 2024. PKM activities are a momentum for students to answer problems in the community around early childhood education. The peak of the activity was carried out through a workshop on March 26, 2024 with the theme "Development of Play Activities for Children with ADHD and Autism through Educational Game Tools from Used Goods." The workshop was carried out by postgraduate students of Panca Sakti University Bekasi in collaboration with the Regional Executive of the Raudhatul Atfhal Teachers Association (PD IGRA) North Jakarta and sponsored by the National Amil Zakat Agency (BAZNAS) and the Erlangga book publisher. The highlight of the event was held in the form of a PKM workshop which took place at the North Jakarta Library and Archives Hall building on Tuesday, March 26, 2024 with a time that lasted for five hours starting at 08.00 WIB and ending at 13.00 WIB.

The first stage of PKM implementation began by identifying and analyzing the needs needed by North Jakarta RA teachers related to the development of play activities for children with needs with ADHD and autism tendencies. In the second stage, PKM students carried out workshops using participatory strategies and group discussions. RA teachers were given an exposure to ABK concept material, how to identify and strategies for developing play activities for children with ADHD and Autism. Stimulation is given to RA teachers to actively collaborate to form discussion groups in pouring ideas and APE designs on worksheets. RA teachers modified the design to produce APE products from used goods that had been provided by the committee. The third stage is an evaluation of the implementation of PKM activities which

includes the successes, shortcomings, and obstacles faced to be able to ensure that PKM activities have an impact on improving the quality of learning in RA institutions.

The PKM outputs that have been implemented by postgraduate students are published through the manuscript of an accredited Journal of Community Service and provide a pocket book of direct practice results from the development of APE. This Community Service is expected to provide benefits to stimulate the creativity of RA teachers in North Jakarta and improve the quality of education and learning to prepare for the future generation.

2. Method

Implementation Method

The PKM program for groups of four batches of four semesters and three Postgraduate students of the Early Childhood Education Study Program at Panca Sakti University Bekasi was carried out for one month from March 15, 2024 to April 15, 2024. PKM activities were carried out in collaboration with PD IGRA North Jakarta in the form of a series of workshop activities entitled "Development of Play Activities for Children with ADHD and Autism through Educational Game Tools from Used Goods". The workshop was carried out to improve the quality of North Jakarta RA teachers. The peak of the PKM activity was held on March 26, 2024 at the North Jakarta Library and Archives Hall building by presenting Postgraduate students of Panca Sakti University Bekasi as resource persons in accordance with the theme that has been raised as a solution to the problem.

1. Identification of Community Problems

Problem identification was carried out through a survey by distributing a google form to the principal of RA North Jakarta and conducting observations and direct interviews with RA teacher representatives. Data collection tools are made based on the results of interviews, observations, and documentation.

2. Community Service Data PKM

Data is taken from problems observed and collected based on field facts. The problem is limited only to the behavioral tendencies of children with special needs with ADHD and Autism symptoms. The hypothesis of this problem is that play activities for children with ADHD and Autism can be developed through APE from used goods. The use of APE from used goods can modify new behaviors in children.

3. Planning Service Activities

The planning of PKM activities is prepared based on the problems found with the aim of providing solutions through the development of APE from used goods according to the needs of children with ADHD and Autism. The planning is prepared in detail, including the

determination of the objectives of the workshop, the time and place of the implementation of the activity, and the necessary resources.

4. Collaborate with Related Parties

Cooperation with related parties such as partner organizations and influential agencies. The parties involved are the Library and Archives Service and the North Jakarta IGRA PD. Related parties who also play a role as sponsors in this activity are BAZNAS and Erlangga book publisher. The collaboration began with the signing of a Memorandum of Understanding (MoU) and Implementation Agreement (IA) between the Master of Education of Panca Sakti University Bekasi and PD IGRA North Jakarta.

5. Implementation of Service Activities

The peak implementation of PKM activities was held in the form of a workshop on Tuesday, March 26, 2024 at the North Jakarta Library and Archives Hall building which lasted for five hours starting at 08.00 WIB and ending at 13.00 WIB. The workshop was attended by 112 North Jakarta RA teachers who are representatives from the Penjaringan, Cilincing, Koja, Pademangan, and Tanjung Priok areas. The implementation of the activity was carried out through a blended learning method with a participatory approach model of participants, cooperation and group discussions that resulted in APE products. The workshop resource person provided a presentation of material on how to identify children with special needs ADHD and Autism as well as the development of play activities in children. Participants were divided into several discussion groups to compile worksheets and modify APE designs. The creative work of RA teachers is manifested in the form of APE through the use of used goods taken from the surrounding environment.

6. Evaluation of Service Activities

The evaluation was carried out as a follow-up to the stages of implementing PKM activities for one month. The evaluation includes a discussion related to the successes, shortcomings, and obstacles faced during the planning and implementation of PKM activities.

7. Making Reports and Outputs of Service Activities

The PKM report contains information on the entire series of activities equipped with photos and videos to be published either through social media or scientific publications. This is a renewal of knowledge in solving problems in society.

Activity Implementation Time

1. Conduct observations and interviews as the first step in identifying problems that often occur in the target area.
2. Compiling data collection of problems in the field through google form
3. Distribute the google form link to the head of the North Jakarta RA

4. Analyze the phenomenon of problems obtained through google form data collection
5. Conduct group discussions to decide on solutions to be given related to the problems found.
6. Group assistance from the supervisor is as follows:
 - a. Administration of PKM implementation
 - b. Participants and invited guests for the implementation of PKM
 - c. Decide on the method to be used in the implementation of PKM
 - d. Output of APE products, pocket books and journal publications with ISSN
2. PKM Preparation
 - a. Prepare the PKM budget
 - b. Dividing duties to PKM members
 - c. Preparing papers and administration of PKM
 - d. Preparing material presentations
 - e. Create an e-flyer to upload on social media
 - f. Distribute e-flyers on social media
3. Implementation of PKM
 - a. Meeting with IGRA North Jakarta Regional Leaders
 - b. Workshop implementation
 - c. Evaluation of the implementation of PKM
 - d. Publication of PKM activities on social media
 - e. Assistance in the implementation of the use of APE in RA institutions
 - f. Preparation of APE pocket book products from used goods

3. Result and Discussion

At a workshop held in North Jakarta, RA teachers were excited to participate in training to develop play activities for children with ADHD and Autism using Educational Play Equipment (APE) from used items. They learn how to identify children with these special needs as well as how to modify learning materials to suit their needs.

These teachers not only improve their knowledge of ADHD and Autism concepts, but also hone the skills to integrate creative play activities into the daily curriculum. They learned new strategies to create a supportive learning environment, both for children with ADHD who need a clear structure and for children with autism who prefer to have a wider range of options.

The results of this workshop are very real. Teachers have successfully developed a variety of APEs from used items, such as toys specifically designed to aid the cognitive and social development of children with predispositions to ADHD and Autism. They not only make the

APE, but also publish a pocket book containing the APE designs, so that it can be used as a guide in daily play activities.

Their hard work is not in vain; The products produced are not only a learning tool, but also a symbol of collaboration between RA teachers and students with the same goal: to improve the quality of education for children with special needs in North Jakarta.

4. Conclusion

Based on the results of the PKM that has been carried out, it can be concluded that play activities for children with ADHD and Autism can be developed through APE from used goods. Community Service is useful for improving the quality and creativity of RA teachers in designing APE. Educational Games from used goods are used by RA teachers as a learning medium to modify the behavior of children with special needs with ADHD and Autism tendencies. RA teachers are stimulated to understand the concept of ABK and how to identify children with ADHD and Autism. The preparation of APE booklets from used goods is a product resulting from PKM activities. APE from used goods is an innovation in the development of play activities that are in accordance with the stage of children's growth and development. This is an effort by students to be able to answer scientific phenomena in the learning of children with special needs with ADHD and Autism tendencies.

Based on the results of the Community Service report, some of the suggestions put forward to improve educational services for children with special needs, such as ADHD and Autism, are very valuable. First, it is recommended that educational institutions take concrete steps by implementing assessments when admitting new students. The goal is to detect the existence of children with these special needs early so that they can provide appropriate attention and assistance. Second, the importance of having a companion teacher to support ADHD and Autism students during classroom learning activities with their friends. This aims to create an inclusive and supportive learning environment for all students. Third, it is necessary to hold parenting activities for parents or guardians of students to provide a deeper understanding of children with special needs. This includes socialization, knowledge of child development, as well as how to anticipate the challenges of the classroom environment. Open communication between teachers and parents is considered important to support children's success in learning. Fourth, to improve communication between schools and parents, it is proposed to use student liaison books. This book will record the child's development as well as other important information that is relevant to parents. Fifth, to strengthen teachers' understanding of the basic concepts of early childhood education as a whole, it is recommended that

assistance and direction be carried out by skilled and up-to-date school staff in the latest issues surrounding early childhood education. These suggestions are expected to be the foundation for improving the quality of inclusive education services for children with special needs in the school environment.

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