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## DEVELOPMENT OF PHYSICAL EDUCATION TEXTBOOK BASED ON DIRECT INSTRUCTIONS FOR CHILDREN WITH SPECIAL NEEDS

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### Abstract

Special children who are called children with special needs (ABK), their privileges become the background of the problems in this study, where there is still a lack of variety in physical education learning for children with special needs, and there is no textbook that specifically presents physical education learning according to the characteristics of ABK. Based on the problems and needs analysis, the researchers developed textbooks as a solution to solving problems in the field. Physical education textbooks based on direct instruction for ABK, aim to facilitate teachers in providing physical education learning in accordance with the characteristics of ABK that are valid, practical and effective. This research was researched using the Research and Development (R&D) 4D model (Define, Design, Develop, Disseminate). The subjects of the research trial were students of SLBN 1 Pulau Punjung, SLB Koto Agung, and SLB Attallah Dharmasraya at the elementary school (SD) level. The data collection instruments used were validation sheets, practicalization sheets, effectiveness sheets from the test results for the characteristics of physical education subjects. Based on the research that has been carried out, the results of the validity test have an average value of 82.12% with a very valid category, for the practicality test an average of 80% is obtained with the practical category and the effectiveness test, an average of 75% with the medium category. Therefore, it can be concluded that direct instruction-based physical education textbooks for children with special needs can be used in physical education subjects with valid, practical and effective categories.

**Keywords:** Physical education textbooks, direct instruction, children with special needs (ABK).

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### INTRODUCTION

A special child created by Allah SWT for a pair of God's creatures, is a deposit like a gem in a pile of sand that must always be guarded, sharpened so that its pure light radiates. Special children who we can call as children with

special needs (ABK) have various different characters in which there are advantages. The differences of each student with special needs certainly require special abilities for teachers. One way to hone the abilities of ABK students is by learning physical education. Where this learning contains material that is quite complex, and has educational goals and functions, in which there are cognitive, affective, psychomotor, emotional and social aspects (Putri et al., 2021).

In special schools, textbooks are needed as a means of explaining the instructional goals to be achieved, motivating students to learn, overcoming student learning difficulties in the form of providing guidance for students to study the book, providing summaries, and generally being oriented to individual students. One of the things that must be considered in the development of textbooks is that the characteristics of the material developed must be <sup>2</sup> in accordance with the needs of students and refer to the relevant curriculum. Physical education textbooks for children with special needs must be made according to the needs of students so that they can understand more easily (Okilanda et al., 2018), so that direct instruction-based textbooks are made.

In accordance with what Arends conveyed in (Shoimin, 2014) that the direct instruction learning model is a learning model specifically designed to support student learning processes related to declarative knowledge and well-structured procedural knowledge that can be taught with a gradual pattern of activities, step by step. The steps taken in the learning process using this model include: (1) the orientation phase/delivering objectives, (2) the presentation/demonstration phase, (3) the guided practice phase, (4) the phase of checking understanding and providing feedback, (5) the independent practice phase, with these steps it makes it easier for teachers to understand this model so that it can be applied properly to students.

Physical education textbooks are presented in the form of a variety of games that are equipped with the characteristics of children with special needs, which



are explained with steps so that teachers can explain carefully to students (Arisman & Noviarini, 2021). Especially for elementary school level ABK students. Students need games in the learning process so that students can not only develop motor skills, it is an important factor in overall individual development. Basic movement development and refinement is important during childhood. In playing activities, all aspects of children's intelligence are provoked to develop, one of which is the child's kinesthetic intelligence (Alba et al., 2019). Developing a child's kinesthetic means developing the child's ability to move regularly and optimally, directly and indirectly, the development of kinesthetic ability will help the child physiologically and psychologically.

In developing children's kinetic intelligence (children's intelligence) they need to know more deeply what movements need to be developed, motion is divided into three types, namely locomotor motion, non-locomotor motion and manipulation.

## METHOD

Types of research

<sup>2</sup> This research is research and development Research and development R&D aims to produce a new product from the results of development. According to (Sugiyono, 2019) Research and development R&D is a research method used to produce. The model used is the 4D model, namely; Define (define), Design (design), Develop (develop), and Dessiminate (socialize). <sup>3</sup> According to (Ricky & Triana, 2019) which states that Research Development is research based on making effective products, starting with product needs analysis, product development, and testing. The output produced by using this method and model is in the form of a textbook containing variations of games that have been tested for feasibility, so that they can be implemented for children with special needs at the elementary school level (Putra et al., 2020).

Population



The population in this study was students from special schools in Kab. Dharmasraya. Research and development subjects consist of two. The first is an expert validator consisting of two physical education expert lecturers, one linguist lecturer, and one expert on the education of children with special needs. The subjects of the trial were students from special schools in Dharmasraya district at the elementary school level (SD) which featured 42 people with the characteristics of blind, mentally retarded, deaf, and autistic.

## RESULT AND DISCUSSION

This research is a research and development research and development R&D aimed at producing a new product from the development. According to (Sugiyono, 2019) **Research and development R&D is a research method used to produce certain products.**

The model used is the 4D model, namely; Define (define), Design (design), Develop (develop), and Dessiminate (socialize). **According to (Ricky & Triana, 2019) which states that Research Development is research based on making effective products, starting with product needs analysis, product development, and testing. The output produced by using this method and model is in the form of a textbook containing variations of games that have been tested for feasibility, so that they can be implemented for children with special needs at the elementary school level.**

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The procedure for developing physical education textbooks starts from the

define stage, analyzing the curriculum for physical education subjects for children with special needs at the elementary level, analyzing material for children with special needs. In the design stage, the design of physical education textbooks based on direct instruction is illustrated and colored to make it more attractive for children with special needs, in the develop stage, the development of textbooks is carried out, and in the disseminate stage, the distribution of physical education textbooks based on direct instruction for children with special needs is described as shown below:

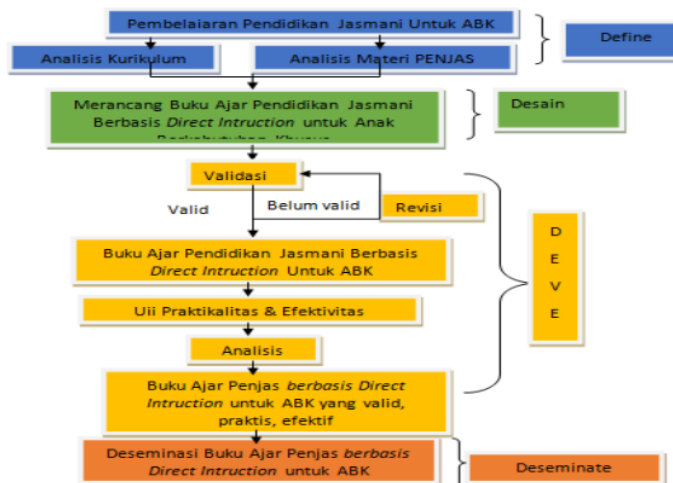


Figure 1. The steps of the 4D Development model, (trianto. 2009).

This research was conducted in a special school in Dharmasraya Regency. The instruments in this study are: equipment such as validation sheets, questionnaires, and test sheets for the characteristics of Physical Education and Sports Health subjects which are infrastructure facilities, tests, which are used by researchers in taking field data effectively and efficiently in order to make it easier for researchers to do work so well done.

### Data collection technique

Research instruments are tools or facilities used by researchers in



collecting data so that their work is easier and the results are better, in the sense of being more accurate, complete and systematic so that they are easier to process (Okilanda et al., 2021). The instrument used is a PJOK subject characteristics test sheet.

<sup>6</sup> Data Analysis Techniques is a method or way to process data into information so that the characteristics of the data become easy to understand and also useful for finding solutions to problems, which are mainly problems related to research. Data analysis can also be interpreted as an activity carried out to change the data resulting from a study into information that can later be used to draw a conclusion. The data analysis technique used in this research is quantitative and qualitative descriptive data analysis. The quantitative descriptive data analysis technique was carried out on: (a) the results of the validation assessment with the material expert value scale on the draft textbook before the trial; (b) data on the assessment of the results of the validation with a material expert value scale; (c) assessment data from the validation of the teacher participation questionnaire for 2PJOK teachers; and (d) PJOK learning ability results. <sup>4</sup> The range of scores on the validation questionnaire, teacher participation questionnaire, model implementation observation guidelines and test sheet characteristics of PJOK subjects are: (1) score 1 for inappropriate assessment, (2) score 2 for inappropriate assessment, (3) score 3 for assessment appropriate, (4) a score of 4 for the assessment is very suitable for Mardapi (2012).

The validation sheet was assessed by 4 validators, including material experts by Mr. Zuharicky, M.Pd who assessed the results with 88.5% in the <sup>3</sup> very valid category, the second validator, Mr. Maldin Ahmad Burhan, M.Pd with a value of 80% valid category, a linguist by Mrs. Rusyda Ulfa, MA, 76% valid category, and construction expert Mr. Yusron, M.Kom 80% with valid category, so the total average of expert validation results is 82.12%.

Furthermore, the practicality test, this test was carried out aimed at seeing

how practical the product was in the form of a direct intraducion-based PENJAS textbook for ABK, so that it could be used in the learning process. The assessment was carried out using a practicality questionnaire sheet for the teacher's response to the textbooks used. Practitioners 2 PJOK subject teachers, Mr. Muhammad Wahyu

Saputra, S.Pd with 83% results in the very practical category, and Mr. Abdi Hamdani, S.Pd with 77% results in the valid category.

At the effectiveness stage, an evaluation is carried out to determine whether the ABK physical education textbooks are effectively used to achieve effective goals. The results of the effectiveness sheet validation design (PJOK learning ability test) with 80% results were categorized as moderate, and all participants experienced an increase in the implementation of PJOK learning.

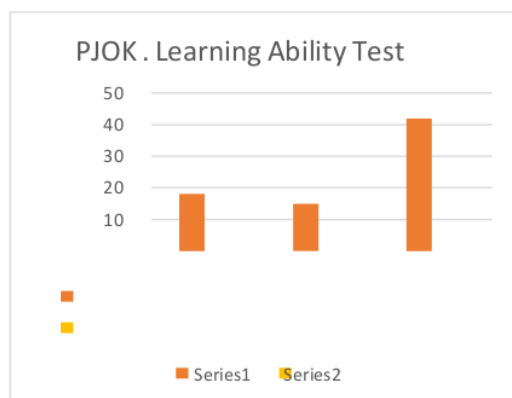


Figure 2. Learning Ability Test

The data analysis technique used in this research is quantitative and qualitative descriptive data analysis. The quantitative descriptive data analysis technique was carried out on: (a) the results of the validation assessment with the material expert value scale on the draft textbook before the trial; (b) data on the assessment of the results of the validation with a material expert score scale; (c) assessment data on the validation results of the teacher participation questionnaire





of 2 PJOK teachers; and (d) the results of the PJOK learning ability test. The range of scores on the validation questionnaire, teacher participation questionnaire, and model implementation observation guidelines are: (1) score 1 for inappropriate assessment, (2) score 2 for inappropriate assessment, (3) score 3 for appropriate assessment, (4) score 4 for the assessment is very suitable Mardapi (2012). Textbooks compiled are considered feasible to be tested on a small or large scale if quantitatively the score is calculated to reach the minimum standard of eligibility.

After receiving assessments and input from both experts and PJOK teachers as those who tested the model, revision processes were carried out on the draft learning model so that finally a direct instruction-based physical education textbook for children with special needs was carried out which contained a learning model through games made step by step according to the learning material. The achievement of this result stage is carried out through instrument stages, where research instruments are tools or facilities used by researchers in collecting data so that their work is easier and the results are better, in the sense that they are more accurate, complete and systematic so that they are easier to process. Physical education textbooks for ABK are as follows:

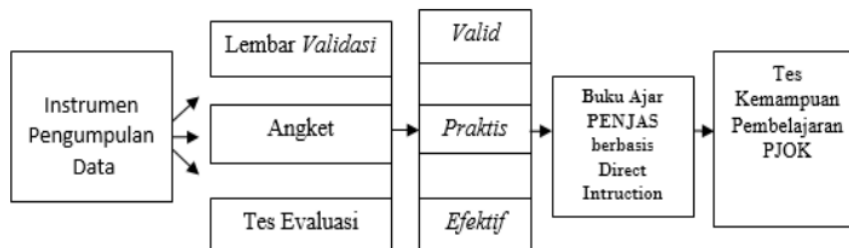


Figure 3. Feasibility Flow of ABK Physical Education Textbook Assessment.

The resulting direct instruction-based physical education textbook for children with special needs contains learning models through games that are made step by step according to the learning material. The achievement of this result



stage is carried out through instrument stages, where research instruments are tools or facilities used by researchers in collecting data so that their work is easier and the results are better, in the sense of being more accurate, complete and systematic so that they are easier to process.

The following is the correct flow of PENJAS Teaching for ABK as follows: Valuevalidation sheet by 4 validators including material experts by Mr. Zuharicky, M.Pd who assesses the results with 88.5% in the very valid category, the second validator is Mr. Maldin ahmad Burhan, M.Pd with a valid category value of 80%, a linguist by Mrs. Rusyda Ulfa, MA, a valid category 76%, and a construction expert Mr. Yusron, M.Kom 80% with a valid category, then the total average of expert validation results is 82, 12% .

Furthermore, the practicality test, this test is carried out aiming to see how practical the product is in the form of a direct intraducion-based physical education textbook for children with special needs, so that it can be used in the learning process. The assessment was carried out using a practicality questionnaire sheet for the teacher's response to the textbooks used. Practitioners 2 PJOK subject teachers, Mr. Muhammad Wahyu Saputra, S.Pd with 83% results in the very practical category, and Mr. Abdi Hamdani, S.Pd with 77% results in the practical category. The effectiveness stage, an evaluation is carried out to determine whether physical education textbooks for children with special needs are effectively used to achieve effective goals.

## CONCLUSION

The results of the validation of the development of physical education textbooks for children with special needs that have been assessed by the four validators (expert teams) with an average of 82.12%. categorized as very valid. For the practical results of physical education textbooks for children with special needs assessed by expert practitioners 2 physical education subject teachers with the results of 83% very practical category, and 77% practical category. The results



of the effectiveness of physical education textbooks for children with special needs were carried out to students and assessed using the PJOK learning ability test, the percentage results were 80% effective category.

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**SINTA 3**



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