

Special Education Teacher Education Learning Packages to Increase Knowledge for Sustainable Development

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Abstract: This research aims to develop an instructional package of Education for Sustainable Development to improve the knowledge of teachers of Special Education about Education for Sustainable Development. The implementation of research in special schools that provide education for mentally disabled students in the East Jakarta area. The research method uses R & D with the development model of Dick and Carey (2009). The sample of the research were teachers of special education who provided learning for mentally disabled students in the East Jakarta area totaling 70 teachers. The sampling technique uses random sampling techniques. Product output is a knowledge textbook of Education for Sustainable Development. The research results show that knowledge books of Education for Sustainable Development can improve teacher knowledge about Education for Sustainable Development.

Keywords: package learning; knowledge; education for development sustainable.

INTRODUCTION

Sustainable Development started from one of the problems discussed at the 1972 Stockholm Conference, which suggested that development be carried out due to environmental factors. Sustainable development comes from the word "sustain" to support, maintain, maintain; "Development" improves the welfare and quality of human life. UNESCO (2009) defines development as sustainable as development that meets the needs of the present without compromising the ability of future generations to come to fulfil their need alone. According to WCED (1987), development that meets need generation now without reducing ability next generation come for fulfil his need alone. However, it turns out that after 10 years of 'sustainable development' announced at the conference in Rio de Janeiro, the conference in Johannesburg noted that there are still many problems that occur in all aspects of sustainable development. In principle, there are three main dimensions of sustainable development, namely environmental, social, and economic.

Education can accelerate sustainable development, because, through this way, perceptions, attitudes, and behaviour will change. The Sustainable Development Education Concept appears as answer for reaching the development in question. Education for Sustainable Development (ESD) is a draft multidisciplinary view of draft development from social, economic, and environmental perspectives. In this study, the teachers studied were teachers from special education who provide service education to a student. Characteristics of students who have limitations cognitive cause developed teaching materials should be adapted to needs and abilities of students. Package instructional materials are beneficial for teachers in learning to students.

Until now, this is the difficulty faced by teacher for students with special needs because rare learning integrated material with values education for sustainable development that can make resource learning for study. Teacher knowledge in dominant draft education for development sustainable will be beneficial for teachers in integrating principles education for development sustainability in designing device learning. Special

education includes a broad meaning and learning, there are no restrictions in the implementation of education for students with special needs (Kurniati, Widyastono, 2020). Data obtained that special education teachers in East Jakarta in making learning kit already in accordance procedure however, not yet integrated with mark education for development sustainable as School Outside Normal Angkasa, Cultivation and Asih Budi, Twins Development Work II even teachers who do not make learning tools such as SLB Negeri 7, Twins Development Work II and Dian Kahuripan. Likewise, a teacher from a school outside common in the South Jakarta area makes learning tools but without integrating education for sustainable material development such as SLBN 2 Jagakarsa, South Jakarta. Special education teachers ideally have attitudes, knowledge, and skills that can develop the potential of children with special needs in school (Rahardja, 2017).

Based on the data above, some small teachers already got information about education for sustainable development but limited to environmental education. Based on here, frequent problems faced by the teacher in Learning Activities is choose, determine, and using proper teaching material for help student reach competence. This is because teaching materials are only written in outline in the curriculum or syllabus. The teacher's task is to describe the material so that it becomes a complete teaching material even though the learning objectives will be achieved if supported by learning tools. Thus, goal of this research is to develop learning package from education to development continues to improve teacher knowledge about special education about education for development sustainable. Interventions and the quality of education services provided for students with special needs determine a good future for them (Hussain & Maarof, 2017).

METHOD

This research was carried out in two stages: preliminary research and product development. Preliminary research stage carried out in several schools providing special education, namely: SLB N 7 Kebon Nanas, East Jakarta, SLB C Angkasa East Jakarta and SLB C Budi Daya Cijantung East Jakarta. The sample of the research were teachers of special education who provided learning for mentally disabled students in the East Jakarta area totaling 70 teachers. There are 2 (two) methods used in the implementation of R&D, namely descriptive research is a research method used to produce certain products and test the effectiveness of these methods.. Research and Development (R&D) is a research method in developing or validating products used in education and learning (Uin & Banten, 2017). The descriptive method is used to collect data about the objective conditions of the setting research, namely: the situation, location, environment, and conditions of teacher knowledge about ESD. Furthermore, to improve the existing conditions based on the results of previous studies. At this stage, the model is developed through evaluations (assessment, assessment, judgment). This research is specifically classified into the type of instructional program development research (developing). of instructional programs). In this context, research activities are carried out to increase teacher knowledge in ESD. Steps model development including Stage Planning, Stage Development, Trial Field, and stage Model Implementation.

RESULT AND DISCUSSION

Result

First step displayed result observation field and information obtained in studies preliminary several teachers of SLB C in East Jakarta, namely for answer the needs of SLB C teachers in implementing integrated learning values education for development sustainable , teachers need dominate knowledge about draft education for development

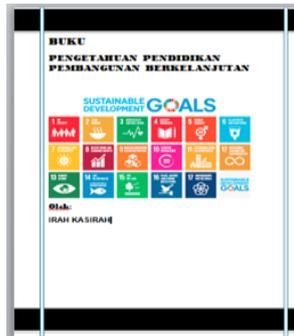
sustainable but it turns out that the teacher has minimal knowledge about draft education for development sustainable, teacher only understand knowledge about draft education for development sustainable as limited as related education with environment. By not understanding the concept of education for sustainable development, teachers do not integrate the concept of education for sustainable development in learning programs and apply sustainable learning to mentally retarded students even teachers who do not make device learning. A necessary solution is to give information about draft development sustainability in "book" form knowledge about education for development sustainable" so that teachers can create device integrated learning values education for sustainable development so that teachers can carry out learning sustainable.

The second step is planning. Based on the results study's introduction, the step beginning in developing package learning in the study is to formulate related destinations with education for sustainable development. The objective from package educational instructional for sustainable development for Upgrade teacher's knowledge of education for development sustainable. By detail Theory main developed _ in package educational learning for development sustainable, as following: The first material is to identify the definition, perspective, components and aspects of sustainable development education, The second material is to identify the dimensions of sustainable development education, namely the social, economic and environmental dimensions, Third material Identify educational goals for sustainable development. A schematic image of the flow of material analysis can be seen in the image below:

Analysis result material that has been done next used as a base for developing Theory package learning from education for sustainability development. Material development begins with formulating Core Competencies, Basic Competencies, and Indicators, which are then translated into several essential competencies and indicators of teacher learning achievement. The draft of competency standards, essential competencies, achievement of learning outcomes, and subject matter are outlined in the syllabus package. The syllabus can see in the table below this. by detail Theory developed lessons _ in package learning education for development sustainability is as following: Material first; Identify understanding, way views, components, and aspects education for development sustainable, material second; Identify dimensions education for sustainable development namely social, economic, and environmental, material third; Identify objective education for sustainable development.

The next step is complications and development product (theory package of learning) to design the resulting learning package. Development Theory is supported by several books' relevant sources _ as ingredients reference for explaining concepts related importance with education for sustainable development. Whereas phenomenon of the environment around teacher environment used as a source study for make it easy in Upgrade teacher activities about education for sustainable development in understanding the given concept. The principle of material preparation refers to learning packages designed for research purposes.

Development results product theoretical and empirical feasibility tests were carried out. The due diligence process was carried out by the promoter and the teacher respondent field test. After a series of due diligence processes, the development product is set in the shape "Books Educational Knowledge for Sustainable Development".



Picture 1. Knowledge book cover education for sustainable development

Development from book knowledge education for sustainability development to overcome the problems SLB C teachers face is problem knowledge about education to be sustainable d development. Through this educational knowledge book to be sustainable development, hope could Become alternative teacher reference to increase knowledge teacher about education for sustainability d development. Product content this including: Material first containing about understanding, perspective, components, and aspects of education for development education sustainable, the material second Dimension education for sustainable development, namely the social, economic, and environmental dimensions, material third Objective education for development sustainable.

Discussion

Ingredients teach education to be available sustainable development still minimal good from aspect quantity nor quality. The substance of the material discussed in the teaching materials presented is incomplete, which contains values that are integrated with environmental education objectives. This knowledge textbook Education for Sustainable Development contains information about teacher knowledge about education for sustainable development, which involves teachers actively learning in building knowledge through the principles and characteristics of problem-based learning. Material development does not only emphasize mastery of taste but changes the attitudes, mindset, and behaviour of teachers to be more concerned with sustainable development education and be able to apply the principles of environmental sustainability. In this case, teachers are directed to understand sustainable development education and its impact on the environment by introducing environmental conditions, observing environmental problems and problems, and the right to address existing and potential environmental problems.

Book knowledge from education to development sustainability is designed in a package model goal-based learning education environment and takes advantage of environment biophysics and social culture as source study. The instructional pack education design for sustainable development describes something activity learning based on understanding, types, and education source development. This helps teachers get understanding and knowledge about education for the development of sustainable learning for then used in solve problem education for sustainable development.

Finding study this contains framework work for package instructional education for development sustainability that describes approach discoveries that lead teachers to do activity exploration of phenomena problem ecosystem in the environment so that they could find concepts important based on his findings. By results study, Balim (2009) proved that the discovery approach could improve academic ability, form scientific attitudes, and increase retention of cognitive and affective levels. So that, the knowledge gained through the learning process with the discovery method will last a long time and have a better

transfer effect. However, studies, Suduc (2014) identified teachers' opinions about education for sustainable development in the current Romanian education system, and to evaluate teacher needs, two methods were used: 1) semi-structured interviews and 2) questionnaires.

According to the results study by Rhedana (2012), a learning model based on a problem can encourage critical and creative thinking in solving the problems they face. Opinion this is in line with the results study by Suhirman (2012), which states that learning problems can improve the ability to solve environmental problems. The problem-solving process carried out can develop individual abilities and provide freedom in the learning process, thus providing sufficient opportunities for teachers to develop their talents and abilities. According to Arends (2004), the principles study knowledge about education for development sustainable in line with view constructivism, which explains that : (1) knowledge built by self alone good by personal nor social, (2) knowledge no transferred, except only with activity student that alone for reasoning, (3) Someone active construct by Keep going continuously, so that get understanding something concept, (4) Mentor only as a facilitator who helps the teacher so that the process of forming knowledge could occur with easy. Whereas study Kankovskaya (2016) analyzed standard state education and university education programs and identified problems in applying the concept of sustainable development in Russian higher education and formulate the principles of a national innovation system based on sustainability.

With book knowledge, this is education for the development of sustainable teacher not only reading, taking notes, and repeating what they have _ learned, but pushing something activities and thought processes. Referring to research results, package educational learning for development education sustainable has motivated teachers to active study with build understanding by exploring the phenomenon environment and collecting information forgot answers to solve problem presented environment. According to Mauffette (2017), gives experience study through Problem-based learning can foster interest in the material being studied. More carry on, Muffett explain that actuality and contextual problems presented can encourage one's interest in an eye lesson (subject matter). Package research results learning this is education for sustainable development that teachers can use familiarize the teacher to study independently so that could add teacher knowledge. The habit of reading textbooks can be transmitted to students through making interesting teaching materials so that they can make changes to students because teachers are agents of change. Study development package instructional of education for development sustainable for me increase knowledge about special things teacher education about education for development sustainable is research that has not once done by researcher another.

Kitamura (2014) developing education in mode safety new, a initiative that represents one effort important in designing mobility for the future of Japan. Danielane (2014) explains that content education consumers new, and appropriate with principles development sustainable since education base; Nasibulina (2015) concludes role positive ethics environment in the creation and development of education for development sustainable in the Bikal, Region Russia; Suryawanshia (2015) researched obstacles application of Green ICT in institutions education Indian height because lack of motivation and implementation rational from executor policy green in between executor; Phan Hoang (2016) improves students' knowledge about workshop management rubbish through education environment for students school base in Da Nang city , Vietnam; Meilinda (2017) concludes that literacy environment students at the Green School Adiwiyata Surakarta including category low ; Alexander (2014) concludes that education environment

for development sustainable more effective through approach study active teaching; Yaki (2016) investigates Package Technology Instructional (TIP) can be Upgrade performance student school intermediate in Minna Nigeria; Abidoye (2015) researched package multimedia learning that can Upgrade performance student in eye lesson Geography for student school medium common in Oyo State Nigeria and Omiola (2012) researched performance student in eye lesson Physics using package video learning no far more good than taught students without use package.

CONCLUSION

The knowledge book of education for sustainable development is designed based on the instructional model design, which is based on the material substance containing the values integrated with education for sustainable development. The instructional package of education for sustainable development can improve the knowledge of special education teachers about education for sustainable development. With improving in teacher knowledge, it is expected to improve the quality of Special Education. This research can also add references and advance population and environmental education study programs.

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