

Research Article

DIAGNOSTIC ASSESSMENT OF STUDENTS WITH SPECIAL NEEDS IN INCLUSIVE SCHOOL

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Abstract.

The 2021 data from Director General PMPK (Community Education and Special Education) Kemdikbud Ristekdikti shows that the number of Children with Special Needs (CWSN) students undergoing education in SLB/inclusive schools is 269,398, and the number of schools is 38,038. Meanwhile, out of the 34 provinces in Indonesia, only 23 provinces or 64 districts/cities have issued Regional Regulations for the inclusive education system. CWSN problems in inclusive schools consist of; (1) rejection in the school environment, (2) the limited number of competent teachers handling CWSN, (3) lack of support systems such as an accurate data of CWSN, (4) lack of affirmative policies in some regions. Oftentimes, CWSN students are unattended in class and are not taught properly. Therefore, this research proposal is designed to develop a diagnostic assessment prototype for inclusive students in Mathematics, Science, Indonesian, and Social Studies subjects. The purpose of this module is to find effective solutions to discover weaknesses and potentials that CWSN students have in the classroom. The instrument was made with experts' justification and a test design that will be tested on 60 deaf and disabled students of inclusion junior high school. There are also complains of violence against CWSN students, inadequate accessibility, and poor service in inclusive schools. Therefore, a questionnaire was also designed to document the administration of education in six districts/cities involving approximately 64 samples of teachers and principals. The test of the instrument and the screening questionnaire will be carried out at the same time.

Keywords: *inclusion, diagnostic assessment, regulation, test, disability*

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1. INTRODUCTION

Special Education is education for students who have difficulty participating in the learning process due to physical, emotional, mental, social, and/or potential intelligence and special talents. In the regulation of the Minister of National Education of the Republic of Indonesia No. 70 of 2009 Article 3 Students with disabilities as referred to in paragraph (1) consists of: a. blind; b. deaf; c. speech impaired; d. mentally disabled; e. quadriplegic; f. learning difficulties; g. slow learner; h. autism; i. have motor impairments;

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j. become a victim of drug abuse, illegal drugs, and other addictive substances; l. have other disorders; m. double disability.

Persons with disabilities have the same rights in obtaining a quality education, in education units in all types, pathways, and levels of inclusive and special education (SLB). Also, have the opportunity to get proper accommodation as a student. Regulation of the Minister of National Education no. 7 of 2009 that every Child with Special Needs (CWSN) has the right to take part in inclusive education in certain education units according to their needs and abilities. So that special needs students have the right to attend public schools, not just special schools. This shows that CWSN have equal opportunities in obtaining education according to the needs and abilities of each child, without any discriminatory treatment, as well as a means for all children to adapt and socialize with diversity.

This inclusive education can also provide understanding to children without special needs so that they can accept, and understand the differences between one another. In other words, these students are taught how to be tolerant and accept the diversity that exists. So that they can coexist well without any discrimination (discrimination). Thus, educational institutions must always evaluate the system that has been implemented to suit the needs of students and must provide facilities and infrastructure that can support the development of CWSN so that these children can still learn optimally.

Based on 2021 data from the Ministry of Education, Director General of PMPK (Community Education and Special Education) that the number of CWSN students undergoing education in SLB/inclusive schools consists of 269,398, and the number of schools is 38,038. Meanwhile, out of the 34 provinces in Indonesia, only 23 provinces or 64 districts/cities have issued Regional Regulations for the inclusive education system. Problems that occur in CWSN in inclusive schools consist of; (1) the school environment still has rejection, sexual harassment, and the exclusion of CWSN in teaching and learning activities, and (2) teachers who are competent in handling CWSN are limited so they are less able to adapt curriculum and learning, as well as providing accessible media for special needs students, (3) support systems such as special needs education data accuracy, service centers that have not been optimized, and there is no regional disability unit service, and (4) affirmative policies, not all regions prioritize education programs or support for inclusive special needs education student services.

One of the rejections in the school environment is that special needs education students are not involved in learning activities. This results in students with special needs being neglected in class, the possibility of lost learning (loss of knowledge and skills and even decline), and also not meeting the original goals of the inclusive school

itself. Therefore, before starting teaching and learning activities in class, teachers need to conduct a diagnostic assessment so that special needs education students who enter inclusive classes can know their initial potential, both academic competence and also deficiencies in motor, physical, and socialization that special needs students experience, so that the results of the diagnostic assessment become the basis for determining curriculum adaptation and the implementation of effective teaching and learning activities for special needs education students in inclusive classes.

Why diagnostic assessment is only for the deaf and visually impaired. Blind people according to Somantri (2006) are individuals whose sense of sight does not function as a channel for receiving information in daily activities as well as sighted people. According to Somantri (2006), the deaf is children who experience partial or complete hearing loss which causes their hearing to have no function in their daily lives. Both of these impairments academically have the same abilities as children in general. But in following the assessment for blind children, there are several points that need special specifications in the question items such as pictures, symbols, and various diagrams that need to be narrated. Meanwhile, special needs students who are deaf because of hearing limitations need standard and simple language so that they can be understood by them.

Based on the background of research on the problem of refusal of special needs education students in inclusive classes which causes learning to be not involved in class, several problems are formulated as follows:

1. What is a diagnostic assessment?
2. What is a diagnostic assessment for special needs education students?
3. How to develop special needs education diagnostics?

Based on the formulation of the problem, an appropriate diagnostic assessment can be designed for special needs education students with special needs for the blind and deaf. So that the prototype of the appropriate diagnostic assessment for the special needs education is produced, in order to help the effective learning process in the inclusive class.

2. STATE OF THE ARTS

The preparation of a diagnostic assessment for formal education will only be carried out in the 2022/2023 school year, along with the determination of a prototype curriculum

that will soon be implemented. So that include CWSN also have the same right to get a diagnostic assessment, the aim is to get the same learning opportunities in undergoing the learning process in their class. Especially in this research for students with special needs education inclusion at the junior high school level for students who are blind, and deaf.

3. LITERATURE REVIEW

3.1. Definition of Diagnostic Assessment

Understanding the diagnostic assessment according to Sudijono (2009) is a learning test but every aspect that will be diagnosed is highlighted sharply to find out weaknesses or "diseases" that cause students have troubles in learning or cause students regress in their achievements. Diagnostic tests are also to improve learning problems experienced by students.

Meanwhile, according to Ahiri (2008), it is stated that the diagnostic assessment is carried out before learning and while learning is in progress. Diagnostic implementation focuses on certain abilities that are a condition for ongoing learning. The implementation of diagnostics before learning aims to anticipate negative conditions that affect learning and the implementation of diagnostics at the time of learning is to find out the factors that cause students' failures to fail in certain materials.

According to Stanley and Syamsudin (cited in Darmayati, 2007), the steps for diagnosing learning difficulties are as follows: (1) case identification, (2) localization of the type and nature of difficulties, (3) finding internal and external causal factors, (4) prognosis, namely to estimate, estimating whether these difficulties can be helped or not, (5) therapy, steps to find various alternative possible ways that can be taken in the context of healing difficulties include remedial, transfer or referral.

3.2. Definition of Visual and Hearing Impairment

Why diagnostic assessment is only for the deaf and visually impaired. Visual impairment people according to Somantri (2006) are individuals whose sense of sight does not function as a channel for receiving information in daily activities as well as sighted people. According to Somantri (2006), the deaf is children who experience partial or complete hearing loss which causes their hearing to have no function in their daily lives. Both of these specialties academically have the same abilities as children in

general. But in following the assessment for blind children, several points need special specifications in the question items such as pictures, symbols, and various diagrams that need to be narrated. Meanwhile, special needs who are deaf, due to hearing limitations, need simple language, question models, and unique language narration according to the character of the special needs education.

3.3. Subject Assessment Model

The meaning of mathematics comes from the Latin word *mathematic* which was originally taken from the Greek word *mathematika* which means to study. The word has its origin in the word *mathema* which means knowledge or science. The word *mathematics* is also related to other words that are almost the same, namely *mathemata* which means learning (thinking). So, based on the origin of the word, the word *mathematics* means knowledge gained by thinking (reasoning). Mathematics emphasizes activities in the world of ratios (reasoning), not emphasizing experimental results or mathematical observations formed by human thoughts, which are related to ideas, processes, and reasoning (Russeffendi, 1988). According to mathematics education experts, mathematics is a science that discusses patterns or regularities (patterns) and levels (orders). Once again this shows that mathematics teachers must facilitate their students to learn to think through existing patterns (Shadiq). Meanwhile, Siswono (2012) also notes a collection of mathematical meanings made by experts in the 1940s to 1970s. The definition of mathematics is grouped: 1) mathematics as the science of numbers and space, (2) mathematics as the science of quantity, (3) mathematics as the science of numbers, space, magnitude, and extent, and (4) mathematics as the science of relationships (relation), (5) mathematics as a science of abstract form, and (6) mathematics as a deductive science.

According to Gunawan (2020), the most effective means of conveying what our intentions and desires are, as well as a tool used to communicate with our interlocutors is language. Language consists of two forms, namely spoken language, and written language. All of them are composed of a series of letters that then become words, a series of words that then become sentences, a series of sentences that become paragraphs and a series of paragraphs that become discourse, and so on.

Understanding Natural Science subject matter is a translation of English words, namely natural science, meaning natural science. So science or science can be referred to as the science of nature or the science that studies events that occur in nature.

Science discusses natural phenomena that are arranged systematically based on the results of experiments and observations made by humans (Samatowa, 2006), and it literally can also be referred to as the science of nature or the study of events that occur in nature (Bundu, 2006).

The definition of social studies refers to studies that focus on the activities of human life (Supriyatna, 2009). Human activity is seen from the time dimension which includes the past, present, and future. Social activities Human activities related to their relationships and interactions with spatial aspects or geographic. Humans in meeting all the needs of their lives in the dimensions of the flow of production, distribution, and consumption. Human activities in forming a set of social rules in maintaining patterns of social interaction between humans and how humans obtain and maintain power. The focus of social studies is various human activities in various dimensions of social life in accordance with human characteristics as social beings (*homo socius*).

These four subjects are the choice of assessment model designed for this assessment proposal. Because these subjects are core subjects that are in the Education unit. The characters of the four subjects also differ from one another. So that CWSN require a unique and different assessment from children in general. For example, for blind mathematicians, for tables and symbols, equations cannot be written with pictures but with narratives. Likewise for mathematics for the deaf, there is no need for a long narration but enough with clear visual images. In addition, several test models selected for the two disabilities also need consideration. So that in the end, with this research design in the form of a diagnostic assessment prototype, a good test model will be obtained, effective special needs education writing rules, and examples of useful test instruments for special needs education in inclusive schools. Lost learning caused by a lack of involvement in classroom learning can be helped by diagnostic assessments.

4. METHOD

Literature study research methodology with qualitative descriptive in the form of a prototype model of the form of questions for CWSN with subjects with answer about 1) What is a diagnostic assessment?, 2) What is the diagnostic assessment for special needs education students?, and 3) How to develop special needs education diagnostics?

5. RESULTS

5.1. Diagnostic Assessment

A diagnostic assessment is an assessment that is carried out specifically to identify the competencies, strengths, and weaknesses of students so that learning can be designed according to the competencies and conditions of students. There are several objectives of a diagnostic assessment held, namely:

1. To quickly map students' abilities in class.
2. Identify students who already understand, half understand, and do not understand the lesson being taught.

There are two types of diagnostic assessments or diagnostic assessments that are often carried out, namely non-cognitive assessments and cognitive assessments. These two types of diagnostic assessments have different assessment objectives. The non-cognitive assessment aims to determine and understand the psychological and social-emotional well-being of students, student activities while studying at home, student learning styles, student associations, and also student family conditions. While the cognitive assessment has the aim of identifying the achievement of student competencies, adjusting classroom learning to the average competence of students, and providing remedial classes or additional lessons to students whose scores are below average. Indeed, diagnostic assessments must be carried out by all subject teachers as well. The principal as a command in the school has the responsibility to ensure this assessment is carried out in all classes in the first week and periodically at the beginning of learning.

5.2. Diagnostic Assessment for Special Needs Students

Diagnostic assessments for CWSN include:

1. IQ test
2. Academic Test
3. Doctor's Test
4. Expert tests like physiotherapy, speech therapy, etc

All of this is to find out in detail how the school knows the physical condition and academic abilities of students. Especially for diagnostic assessments related to

academics, it is necessary to have special writing rules for tests made in all subjects so that they are dug out properly. While other tests already have standards from the expert team by default.

5.3. The Develop Assessment Diagnostics to Academic Test

This research was limited to students with special needs visual impairment and hearing loss. While the focus of the research is the writing rules for the two students. Tests for students with hearing and vision impairments require different types of tests compared to students without disabilities. Common subjects that are necessary for diagnostic tests include mathematics, social studies, science, and also language. The most important rules for writing tests are as follows:

Tests for Students with Hearing Impairments

1. Character tests required for children with hearing loss are in simple language and standard language
2. The length of words or sentences needs to be considered, the most important thing is the substance of the material set at the school grade according to the curriculum that has been set by the school.
3. Illustrations are also needed to make it easier for students to understand the readings presented.
4. Schools should have special assistant teachers to serve sign language or how student communication can be handled during the test.

Tests for Students with Visual Impairments

1. Character test required for children with visual impairment is a clear written description.
2. Picture illustrations are not needed because students with visual impairments do not need a visual test.
3. Schools should have a special assistant teacher to serve communication with students, if the test is braille then it needs a teacher who can read it and if the test is with a computer application that is already with voice, the school provides the application, and if there is no one then only needs to read the questions existing test.

6. CONCLUSION AND RECOMMENDATION

There are many findings that state that students who attend public or inclusive schools experience obstacles, especially in academics, one of which is the lack of initial assessments that really must be considered by schools that are already able to accept these inclusive students. Diagnostic assessments for inclusive students are a fairly effective means of solving their academic problems. In this research, several rules of writing test questions were presented for students with these barriers. In this way, it is hoped that students with special needs will be more accepted in inclusive schools.

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