Education and Learning Services for Children with Learning Difficulties the Child with Special Needed

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Abstract

Various types of children with special needs, one of which is children with learning difficulties, namely individuals who experience disturbances in a basic psychological process, central nervous system dysfunction, or neurological disorders which are manifested in real failures in comprehension, impaired listening, speaking, reading, spelling, thinking, writing, arithmetic, or social skills. Learning difficulties can be experienced by anyone, from students with average intelligence to those with high intelligence. Learning difficulties can have a negative impact not only on the mastery of academic achievement but also on the development of one's personality. Neurological dysfunction often not only causes learning difficulties but can also lead to mental retardation and emotional disturbances. Of these, various causes can cause interference from a mild level to a severe level. A model is needed in the form of an early intervention program which is a combination of elements of kindergarten education and special education to encourage optimal and integrated growth and development of various potentials of children. This intervention program departs from the view that children are as a whole so that their development must cover all physical, emotional, language, social and cognitive aspects.

Key words: Children with Learning Difficulties, Neurological Disorders, Neurological Dysfunction, Early Intervention Programs.

Introduction

Humans as social beings who, of course, have various differences; this is what makes us unique and interesting human beings. Obvious differences, such as height, hair colour or nose size. Other characteristics are not so easy to see, such as someone's reading ability or other abilities. Differences in each child's development will vary; knowing and understanding the phases of a child's development can certainly help an educator in optimizing the learning that will be provided, especially if this learning is intended for children with special needs.

Quoting PP No. 17 of 2010, Article 129, paragraph (3) stipulates that children with disabilities consist of children: a. blind; b. deaf; c. speech impaired; d. mentally disabled; e. quadriplegic; f. tunable; g. learning difficulties; h. slow learner; i. autistic; j. become a victim of abuse of narcotics, illegal drugs, and other addictive substances; and K. have another disorder. Children with special needs generally have differences both physically, mentally and socially.
emotionally. They have special characteristics that have an impact on adjustments in various fields so that they still get the same rights as other children. These adjustments can be in the form of: a learning environment that can accommodate the needs of all children, adjustments to children's academic abilities, skills and knowledge of educators so they can understand children's conditions, adjustments to learning facilities and infrastructure, adjustments to peers and adjustments to the community environment. Adjustments made in learning are sought according to the needs and conditions of the child so as to create a learning situation that can foster a sense of comfort; along with habituation, children can learn to be responsible so that they become more open, confident, independent, responsive and interactive in learning activities.

Various types of children with special needs, one of which is children with learning difficulties, namely individuals who experience disturbances in a basic psychological process, central nervous system dysfunction, or neurological disorders which are manifested in real failures in comprehension, impaired listening, speaking, reading, spelling, thinking, writing, arithmetic, or social skills. These difficulties do not originate from causes of mental retardation, emotional disturbances, hearing impairments, visual impairments, or due to poverty, environment, culture, economy, or errors in the teaching methods carried out by the teacher. Learning difficulties can be experienced by anyone, from students with average intelligence to those with high intelligence. Learning difficulties can have a negative impact not only on the mastery of academic achievement but also on the development of one's personality.

Method

This research uses a descriptive qualitative method. In this study, it is explained and analyzed how learning is managed by early childhood institutions in classes that have a variety of student backgrounds, especially related to child development. In this study, the researcher acts as an instrument and plays an active role in exploring in-depth data information (in-depth interviews and probing questions). All the data obtained and relevant were analyzed as material for the richness of the research.

Results and Discussion

Definition of Children with Learning Difficulties

Literally, learning difficulties is a translation from English "Learning Disability", which means learning disability. The word disability is translated "difficulty" to give an optimistic impression that children are actually still able to learn. Another term for learning disabilities is learning difficulties and learning differences. These three terms have different nuances of meaning. On the one hand, the use of the term learning differences has a more positive tone, but on the other hand, the term learning disabilities better describes the actual conditions. To avoid bias and differences in reference, the term Learning Difficulty is used. Here are some definitions of learning difficulties.


NJCLD (National Joint Committee of Learning Disabilities) in Lerner, (2000) Learning difficulties is a general term for various types of difficulties in listening, speaking, reading, writing, and arithmetic. This condition is not due to physical or mental disabilities, nor is it due to the influence of environmental factors, but rather due to difficulties within the individual when perceiving and processing information on the object he senses.

From the definition above, it can be concluded that learning difficulties are various disturbances in listening, speaking, reading, writing, and arithmetic due to the individual's own internal factors, namely minimal brain dysfunction. Learning difficulties are not caused by external factors in the form of environmental, social, cultural, learning facilities, and others.

Causes of Learning Difficulties

Learning achievement is influenced by two factors, internal and external. The main causes of learning disabilities are internal factors, namely the possibility of neurological dysfunction, while the main causes of learning problems (learning problems) are external factors, namely among others in the form of wrong learning strategies, management of learning activities that do not arouse children's learning motivation, and inappropriate reinforcement. Neurological dysfunction often not only causes learning difficulties but can also lead to mental retardation and emotional disturbances. Various factors that can cause neurological dysfunction, which in turn can cause learning difficulties include (1) genetic factors, (2) brain injury due to physical trauma or due to lack of oxygen, and (3) missing biochemicals (e.g. biochemicals required for the proper functioning of the brain). central nervous system),
biochemistry that can damage the brain (e.g. colouring agents in food), environmental pollution (e.g. lead pollution), inadequate nutrition, and psychological and social effects detrimental to child development (environmental deprivation). Of these, various causes can cause interference from a mild level to a severe level.

Classification of Learning Difficulties

Broadly speaking, learning difficulties can be classified into two groups, (1) learning difficulties related to development (developmental learning disabilities) and (2) academic learning disabilities (academic learning disabilities). Learning difficulties related to development include motor and perceptual disorders, language and communication learning difficulties, and learning difficulties in social behavior adjustment. Academic learning difficulties refer to failures in achieving academic achievement in accordance with the expected capacity. These failures involve mastery of skills in reading, writing, or mathematics.

Academic learning difficulties can be recognized by teachers or parents when a child fails to display one or several academic abilities. On the other hand, developmental learning difficulties are generally difficult for both parents and teachers to know because there are no systematic measurements, as is the case in the academic field. Learning difficulties related to development often appear as learning difficulties caused by not mastering prerequisite skills, namely skills that must be mastered first in order to be able to master the next form of skill.

One of the basic abilities that is generally seen as the most important in learning activities is the ability to focus attention, or what is often called selective attention. Selective attention is the ability to choose one of a number of stimuli, such as auditory, tactile, visual and kinesthetic stimuli, that affect humans at any time. As explained by Ross (1976: 60), selective attention helps humans limit the number of stimuli that need to be processed at a certain time. If a child pays attention and reacts to many stimuli, then such a child is seen as a child who is distracted. According to Ross, many learning difficulties are caused by developmental delays in the use and maintenance of selective attention.

Characteristics of Learning Difficulties

Difficulty Learning to Read

Difficulty learning to read is often called dyslexia. The term dyslexia is widely used in the medical world to be associated with impaired neurophysiological function. Briyan and Brian, as quoted by Mercer, define dyslexia as a syndrome of difficulty in learning the components of words and sentences, integrating the components of words and sentences, and learning everything related to time, direction and time.

Hornsby defines dyslexia as not only difficulty learning to read but also to write. Hornsby’s definition can be understood because there is a close connection between reading and writing. Difficulties in learning to read and write cannot be separated from language difficulties because all are components of an integrated communication system.

According to Mercer, there are four groups of characteristics of learning difficulties in reading, namely with regard to (1) reading habits, (2) mistakes in knowing words, (3) mistakes in understanding (4) various symptoms.

Children with learning difficulties often notice abnormal reading habits. They often exhibit tense movements, frowning, fidgeting, vocal accompaniment, or lip biting. They also often show a feeling of insecurity which is marked by the behaviour of refusing to read, crying or fighting the teacher. They also often show head movements laterally, to the left or right, sometimes placing their head on a book.

Vernon suggests that the behaviour of children with learning difficulties is as follows:

a. Has a deficiency in visual discrimination
b. Unable to analyze words into letters
c. Have a deficiency in visual memory
d. Having deficiencies in conducting auditory discrimination
e. Unable to understand sound symbols
f. Less able to integrate sight with hearing
g. Difficulties in learning the association of irregular symbols (especially in English)
h. Difficulty in ordering words and letters
i. Read word by word
j. Lack of ability in conceptual thinking

Children who have difficulty learning to read at the beginning experience various errors in reading, as follows:

a. Omission of words or letters

Elimination of letters or words is often done by children who have difficulty learning to read because there is a deficiency in recognizing letters, speech sounds (phonics), and sentence forms. The omission of letters usually occurs in the middle or end of words or sentences. Another reason for the omission is because the child thinks the
omitted letter or word is unnecessary. An example omission of letters or words is "The child's shirt is red" read "The shirt is red". Or "You buy bread" read "You buy bread".

b. Unable to analyze words into letters
Insertion of words occurs because children do not know letters, read too quickly, or because their speech exceeds their reading speed. An example of this error is, for example, when a child should read "Mama's clothes are in the cupboard", it reads "Mama's clothes are in the cupboard".

c. Have a deficiency in visual memory
Substitution of words is a mistake that often occurs. This may be because the child does not understand the word, so he is just guessing. An example of replacing words that do not change the meaning is "Father's bag in the car" read "Father's bag in the car".

d. Wrong pronunciation of words
Incorrect pronunciation of words consists of three types (1) incorrect pronunciation of different meanings, (2) incorrect pronunciation of words with the same meaning, and (3) incorrect pronunciation of meaningless words. This kind of situation can occur because the child does not know the letters, so he is guessing, maybe because he reads too fast, because he feels pressured or afraid of the teacher, or because of differences in dialect with children with standard Indonesian. An example of mispronunciation with a different meaning is "Auntie's clothes are new" and reads blue Aunt's clothes. The wrong pronunciation with legal meaning is "Sister goes to school" reads "Sister pigi went to school", while cintih mispronounced has no meaning is "Father buy durian" reads "Mr. buy buren".

** Difficulty Learning to Write **

As already stated, that writing lessons include handwriting or initial writing, spelling and expressive writing.

**Writing by Hand or Beginning Writing.** From the beginning of entering school, children must learn to handwrite because this ability is a prerequisite for learning efforts in various other fields of study. Difficulty writing by hand creates problems not only for children but also for teachers. Writing that is not clear, for example, neither the child nor the teacher can read the writing.

According to Lerner (1985: 402), there are several factors that influence a child’s ability to write, (1) motor skills, (2) behaviour, (3) perception, (4) memory, (5) the ability to carry out cross models, (6) use of hands the domain, (7) the ability to understand instructions. Children whose motor development is immature or impaired will experience difficulties in writing; the writing is unclear, dashed or does not follow the lines. Children who are hyperactive or whose attention is easily distracted can hinder their work, including writing. Children whose perceptions are disturbed can cause difficulties in writing. If visual perception is disturbed, the child may find it difficult to distinguish letter shapes that are almost the same as d with b, p with q, h with n, or m with w. If the auditory perception is disturbed, maybe the child will have difficulty writing the words spoken by the teacher.

Difficulty learning to write is often called dysgraphia. Severe difficulty learning to write is also called Agrafia. Dysgraphia refers to the inability to remember how to make letters or mathematical symbols. Dysgraphia is often associated with difficulty learning to read or dyslexia because the two types of difficulties are actually interrelated.

Difficulties in learning to write are often related to the way children hold pencils. There are four kinds of ways children hold a pencil which can be used as an indication that a child has difficulty learning to write, namely: (1) the angle of the pencil is too large, (2) the angle of the pencil is too small, (3) holding the pencil (like wanting to punch), and (4) hooking a pencil in hand or dragging a pencil (typical for left-handed children). Prior to 1974, when the first reading and writing method was known as the SAS method, teachers in Indonesia generally taught printed letters to children first, then learned cursive letters. Since the introduction of the SAS method, teachers have generally switched to teaching cursive letters directly, while printed letters are not directly taught to children.

Experts suggest that children be taught to write in cursive first, starting from three reasons. These three reasons:

a. Connective writing makes it easier for children to recognize words as a whole
b. Do not allow children to write backwards
c. Writing in cursive letters is faster because there is no pencil movement that stops for each letter

**Math Learning Difficulties.** Difficulty learning mathematics is also called dyscalculia. The term dyscalculia has a medical connotation which sees a connection with central nervous system disorders. Kirk's severe math learning difficulties are called acalculia.

According to Lerner, there are several characteristics of children with learning difficulties in mathematics, namely: (1) the presence of disturbances in spatial relations, (2) abnormalities in visual perception, (3) visual–motor associations, (4) persistence, (5) difficulty recognizing and understanding symbols, (6) cognitive impairment, (7) language and reading difficulties, and (8) IQ score much lower than verbal IQ score.

Disruption of spatial relations. The concepts of spatial relations, such as top–down, top–bottom, far–close, high–low, front–back, and beginning–end, are generally mastered by children when they are not yet in elementary school.
Children gain an understanding of various spatial relationship concepts from their experiences in communicating with their social environment or through various games. Children with learning difficulties often experience difficulties in communicating, and the social environment also often does not support the implementation of a situation and is conducive to the establishment of communication between them. Presence of intrinsic conditions presumed to be due to brain dysfunction and conditions.

Visual perception abnormalities. Children with learning difficulties in mathematics often have difficulty seeing various objects in relation to groups. Children who have visual perception abnormalities are also often unable to distinguish geometric shapes. A square shape may be seen by a child as four unconnected lines, perhaps as a hexagon, and may even appear as a circle. The existence of such visual perception abnormalities can certainly cause difficulties in learning mathematics, especially in understanding various symbols.

Visual motor association. Children with learning disabilities in mathematics often cannot count objects in sequence while saying the numbers "one, two, three, four, five". The child may have just held the third object but has said "five", or conversely, has touched the fifth object but has just said "three". Such children may give the impression that they are just memorizing numbers without understanding their meaning.

Difficulty recognizing and understanding symbols. Children with learning difficulties in mathematics often have difficulty recognizing and using mathematical symbols such as +, -, =, >, <, and so on. This kind of difficulty can be caused by a memory disorder but can also be caused by a memory disorder but can also be caused by a visual perception disorder.

Disorders of body awareness. Children find it difficult to understand the relationship between the parts of their own body. If a child is asked to draw a person's body, for example, they will draw with incomplete body parts or place body parts in the wrong position. For example, the neck is not visible; the hands are placed on the head, and so on.

Difficulties in language and reading. Language difficulties can affect children's abilities in mathematics. Math problems in the form of stories require reading skills to solve them. Therefore, children who have difficulty reading will also experience difficulties in solving math problems in the form of written stories.

The IQ score is much lower than the verbal IQ score. The results of an intelligence test using the WISC (Wechsler Intelligence Scale for Children) show that children with learning difficulties in mathematics have a much lower PIQ (Performance Intelligence Quotient) than VIQ (Verbal Intelligence Quotient). The verbal subtest includes information, equations, arithmetic, vocabulary, and comprehension. The performance sub–test includes: completing pictures, compiling pictures, arranging blocks, compiling objects, and coding.

**Educational Interventions and Programs for Children with Learning Difficulties**

The early intervention program model is a combination of elements of kindergarten education and special education to encourage optimal and integrated growth and development of various potentials of children. According to Lenner (1988: 240), there are four models of early intervention programs, (1) enrichment programs, (2) direct teaching programs, (3) programs that emphasize cognitive, and (4) combination programs.

The enrichment program departs from the view that the child is a complete whole. Therefore, his development must cover all physical, emotional, language, social and cognitive aspects. The role of the teacher is to enhance this natural process of growth and development through providing learning opportunities in an environment that provides enrichment, encouragement and nurturing.

Programs that emphasize cognitive are based on Piaget's theory of cognitive development. The main concern of this program is developing a variety of cognitive abilities, including remembering, discriminating, problem–solving, concept formation, verbal learning, and listening skills. One thing that must be understood from Piaget's theory is that children use different ways of thinking than adults. This type of program seeks to encourage experiences and actions that help build thinking skills.

Early intervention programs for preschoolers who are at risk of learning difficulties require a comprehensive program that provides stimulation and training in various fields. Many program components are developmental or pre–academic areas of study. The following presents a variety of early intervention activities:

a. **Self–Help Skills Activity and Self Concept**
   Children must learn to take care of themselves through activities such as dressing, eating and cleaning. Learning self–help skills can increase a positive self–concept and develop independence.

b. **Gross Motor Activity**
   Gross motor includes the various muscles used to move the arms, legs, trunk, hands and soles of the feet. To develop gross motor skills can be done through various activities such as walking, rolling, climbing, jumping, throwing, and running.

c. **Fine Motor Activity**
   Fine motor includes the various muscles used to move the fingers, wrists, eye–hand coordination, and two–handed coordination. Various activities to develop fine motor skills include playing puzzles, finger games, cutting, cutting, drawing, inserting buttons, and so on.
d. Communication Activity

The ability to use language to communicate thoughts and feelings is essential for learning. These skills include the ability to listen and speak.

Learning Media Suitable for Children with Learning Difficulties

Seeing the very complexity of the problems of children with learning difficulties, the required learning media must be adapted to their characteristics. Although learning media for children with learning difficulties are required to be more specific and more varied, when classified, they are basically the same as learning media for children in general, namely:

a. Human-based media

Human-based media in learning children with learning difficulties include class teachers, subject teachers, special supervising teachers, and group members/peers. The presence of the teacher in the learning process and learning of children with learning difficulties is something that is very important.

To support the effectiveness of human-based media for children with learning difficulties, teachers should have adequate knowledge and understanding of educational media in its various forms and types, both non-material and material media. The media functions as communication to streamline the educational interaction process.

Likewise, friends in one class or one group are a medium in an effort to overcome the learning problems of children with learning difficulties. For example, with a cooperative approach, the teacher applies learning strategies with peer tutors.

One important factor in learning with human-based media is an interactive learning design. With humans as the main actors in the learning process, the opportunities for interaction are wide open. Well-structured interactive lessons are not only more interesting but also provide opportunities for mental experimentation and creative problem solving.

Some ways that can be used to attract the attention of children with learning difficulties are:

1. Begin learning by focusing on the application of content to issues relevant to students – how students will use or apply this new information.
2. Inform students what they are expected to do.
3. Begin by asking questions or posing problems that focus attention on information that students must learn.

b. Print-based media

Print-based media for learning children with learning difficulties is no different from print media for children in general. The most commonly known are textbooks, manuals, journals, magazines, and loose sheets. The print-based text requires six elements that need to be considered when designing, namely consistency, format, organization, attractiveness, font size, and use of blank spaces. Arsyad (2006:91) argues that the methods used to attract attention to text-based media are colours, letters and boxes. Colour is used to guide and draw attention to important information. Furthermore, bold or italicized letters emphasize keywords or titles. Important information can also be emphasized using boxes.

c. Visual based media

Some of the children with learning difficulties experience perceptual disorders. One is impaired visual perception (vision). Children with learning difficulties really need visual-based media to strengthen weak modalities. Then this media can also be used to practice increasing concentration and attention in children with learning difficulties. Examples of visual-based media for learning children with learning difficulties such as; geometric media shapes (flat shapes and geometric shapes), picture media, media in the form of cards, media in the form of letters and numbers, puzzle media, word boards, pegboards, shape boards, miniatures, models, blackboards, overhead projectors, etc.

d. Audio-visual based media

There are children with learning difficulties experiencing 'multi-channel', meaning that the child needs sensory input from more than one source or modality so that the process of arriving at information can be received accurately. For children with learning difficulties who have these characteristics, audio-visual media is needed, namely media that is able to provide visual and sound stimuli simultaneously, which will help form an accurate understanding in children.

e. Media based on real objects

Real object-based media consists of real objects. Media in the form of real objects is usually used to develop the concept of knowledge about objects that can be brought into class and are not dangerous, as well as media that can be recognized and learned by children in their original places. This media is needed because it will help smooth the learning process and help form concrete understanding concepts for children with learning difficulties. The
mindset of children with learning difficulties, in general, is a concrete mindset. So that the learning tools must also be concrete.

f. Environment/computer based media
Computers can also be used as learning media for children with learning difficulties. Especially children with learning difficulties who experience cognitive impairment. One presentation format that can be used for learning children with learning difficulties is simulation. Computer simulations provide opportunities for children with learning difficulties to learn dynamically, interactively and individually. With simulation, complex work environments can be styled to resemble the real world.
Likewise, children who have difficulty learning to read can also be taught via computer because with a computer, text can be modified in such a way, be it font size, colour, typeface, or other appearance patterns such as animation. This condition will attract and motivate children with learning difficulties.

Conclusion
Learning difficulties are various disturbances in listening, speaking, reading, writing, and arithmetic due to the individual’s own internal factors, namely minimal brain dysfunction. The main causes of learning disabilities are internal factors, namely the possibility of neurological dysfunction, while the main causes of learning problems (learning problems) are external factors, namely among others in the form of wrong learning strategies, management of learning activities that do not arouse children’s learning motivation, and giving inappropriate reinforcement. The teacher’s role in direct teaching programs is to carefully design and structure learning experiences to build pre-academic and academic skills. Especially for children with learning difficulties. Teachers must be more creative so that children are able to understand what the teacher conveys.

References