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THE USAGE OF DENVER DEVELOPMENT SCREENING TEST II FOR IDENTIFYING CHILDREN WITH SPECIAL NEED IN INCLUSIVE KINDERGARTEN

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ABSTRACT

Early identification of special need children must be done by teacher in inclusive school to arrange the suitable intervention to stimulate their development and prevent the more effect of the disabilities. Strategy that can be used to find the disabilities is screening the child development that consist of physical, psychological, and social development using Denver Development Screening Test II. DDST II has become the best known and most widely used developmental screening test many years. The test items are arranged in categories of gross motor, language, fine motor-adaptive and personal-social development.

Keywords: *denver development screening test, early identification, special need children*

A. BACKGROUND

Children with special needs are necessarily to be known and identified form the common children because they need special education as well as the children in public school. As teachers know the characteristics of children with special need, they can serve help which is required. This help can be medical care, therapeutic training, and special education programs which can reduce children's disabilities in their social life.

Early identification of children with special needs can be performed intensively the children growth which includes physical, psychological, and social control which is conducted regularly and continuously. Early age, 0 to 6 year, is often called as "Golden Age" phase, it is the important time to notice children growth carefully in order to identify whether they are children with special needs or not. Early treatment for children with special need in golden age can

minimize the obstacles which occur and it can help the children by giving early intervention which is required.

Identifying children with special need can be done to find the kind of deviation occurs in children, it includes: physical disorder, intellectual mental, social, and emotional. Beyond of these types of disorders have a child who has the intellectual potential and special talents or often referred to as a child who has the extraordinary intellectual and talent. Each has its own characteristics and special signs or characteristics that can be used by teachers to identify children with special educational needs. This paper describes one method of monitoring child development that can be used to identify children with special needs, namely Denver Development Screening Test II.

B. DENVER DEVELOPMENT SCREENING TEST II

DDST (Denver Development Screening Test) II is one of the instruments used internationally to assess the child's development. Tool developed by Dr. Frankenburg is used to find early issues of child

development deviations age 0 up to less than 6 years. This instrument is a revision of the DDST that was first published in 1967 for the same purpose. (www.aapnews.aapublications.org).

The resulting examination of DDST II is not a substitute for diagnostic evaluation, but more towards comparing the ability of the development of a child with other children in the same age. DDST II is used to assess the level of the child's development according to age in children who have signs of developmental delay as well as healthy children. DDST II is not an IQ test and is not a predictor of intellectual abilities of children in the future. This test is not designed to produce a diagnosis, but more in the direction to compare the ability of a child's development with the ability of other children the same age (Soetjiningsih, 1995).

Frankenburg et al et al (1981) in Soetjiningsih (1995) through the DDST (Denver Development Screening Test) revealed four growth parameters used in assessing the development of children under five, namely personal

social, fine motor, language and gross motor skills.

1. Personal Social (personality / social behavior) is an aspect of self-assessment of the development of skills, socialize and interact with their environment.
2. Fine motor adaptive (fine motor movements) is aspect related to children's ability to observe something, doing movements that involve certain body parts only and do small muscles, but it requires careful coordination. For example, the ability to draw, holding an object, etc.
3. Language (language) is an assessment of her ability to respond to sound, follow orders and speak spontaneously.
4. Gross motor (gross motor development) is the aspect related to movement and posture.

The tools required in the implementation of DDST II test is a red wool yarn with a diameter of 10 cm, the beads can be replaced with raisins, rattle with the handle of a small, color cube size of 2.5 x 2, 5 cm, small glass

bottles, bells small, tennis ball, red pencils, small stuffed with milk bottles, plastic cups with handles, and blank paper.

According to the Denver II Development Monitoring Guidelines (Subdivision Growth of Child Health, RS Sardjito, 2004), test form DDST II contains 125 items which consists of 4 sectors, namely: social personal sector, fine motor-adaptive sectors, language sector, and gross motor sector. Social personal sector is a component of valuation adjustments related to the ability of the child in the community and ability to meet the individual needs of children. Fine motor-adaptive sector is an assessment of the ability of children in terms of eye-hand coordination, play and use small objects and solving problems. Language sector includes the ability to hear, understand and use language. Meanwhile, gross motor sector consists of an assessment capability to sit, walk, and general movements of the muscles. In addition to the four sectors, the child's behavior was also considered in general to obtain rough estimates of how a child uses his ability.

Picture 1. Test Form Denver Development Screening Test II

Denver II

FORMULIR :
 NOMBOR :
 NAMA :
 TANGGAL LAHIR :
 NO. CMI :
 Diadaptasikan oleh :
 Rly. Supriyatni Djuni Mulya
 RSUD DR Sardjito Yogyakarta

BULAN 1 2 3 4 5 6 7 8 9 10 11 12 TAHUN 1 2 3 4 5 6

PERSONAL SOSIAL

ADAPTIF - MOTORIK HALUS

BAHASA

MOTORIK KASAR

TES PERILAKU

(Perhatikan kotak cek. tes 1, 2 atau 3)

Khusn	1	2	3
Ya			
Tidak			
Petuh	1	2	3
Selalu petuh			
Biasanya petuh			
Kadang-kadang petuh			
Tertarik seimbang	1	2	3
Tanggapi			
Agar tidak tertarik			
Sangat tidak tertarik			
Ketatalenan	1	2	3
Tidak			
Agak			
Sangat			
Lama perhatian	1	2	3
Cukup			
Agak terganggu			
Sangat terganggu			

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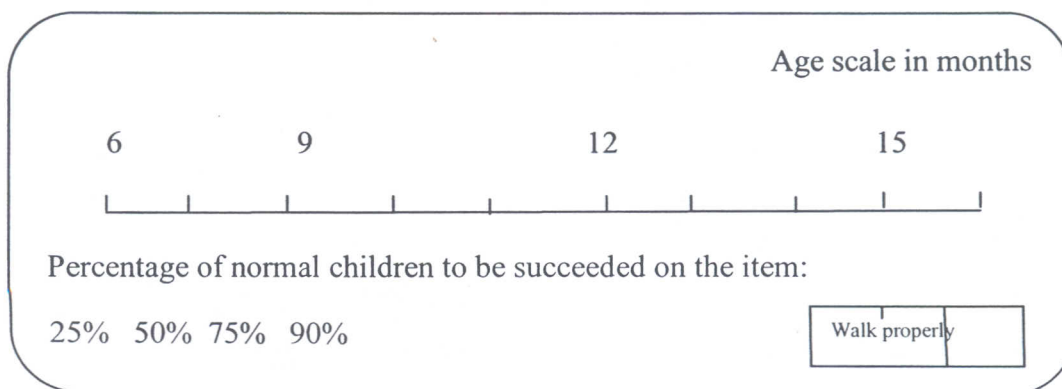
Further in the book also describes the steps involved in using the form DDST II tests are:

1. On the top line and bottom sheets of the scale there is a test form which describes the age in the months and years from birth - 6

years. Each distance between 2 marks (small vertical lines) show 1 month - 24 months, then every distance indicates a distance of 3 months thereafter.

2. In the front there are 125 items depicted in the form of boxes / bars that are placed in a balance of age where 25%, 50%, 75%, 90% of the sample standard normal children can perform these skills.

Example:



Examples of items "going well" shows on the left shows the box as much as 25% of the sample of children can walk well under 11 months, the line indicating 50% showed children aged 12-13 months to do well, to the left of the black show-olds 13 to 13.5 month to walk well, and the line right on the edge of the box shows as much as 90% of the sample of children can walk well under the age of 5 months.

3. In some boxes there are tests foot note / footnote numbers which

show that how to execute /interpret the items can be seen behind a sheet form with the same number.

4. The letter L on the edge of the box the item indicates that the item be passed / passing through the report the mother / nanny. Only the test item with the letter L in the box that allows to passed through the report.

5. How to calculate the age of the child to be tested is done by subtracting the test date to the date of birth of children.

Example 1:

Test dates : 2009 – 11 – 14

Date of birth : 2008 – 8 – 27

Age : 1 2 17

So the child's age in example 1 is 1 year 2 months 17 days.

If the child is born prematurely and aged less than 2 years, it is necessary to be an adjustment in the child's age by subtracting with the week pregnancy advanced.

Example 2:

4 weeks premature

Test dates : 2009 - 11-14

Date of birth : 2008 - 8-27

Age : 1 2 17

4 weeks of premature

Age adjustment of 1 1 17

So the child's age on the example 2 is 1 year 1 month 17 days.

In the calculations used in the benchmark 1-year age equal to 12 months, 1 month equal to 30 days, 1 week equal to 7 days. After getting the child's age, then the line of child's age is depicted.

Results obtained from tests DDST II can be interpreted in 3 categories, namely normal, suspected, and can not be tested. Children included in the normal category are

children who have the same development with other children the same age that can be interpreted that the child has normal development.

Whereas if the child's test results into the category of suspected, child suspected to have significant delays in the development of which requires a further examination to ensure the problems which cause the delay. In this second category can be presumed that the child into the category of children with special needs. If the examination results obtained with suspected tests need to be examined again two weeks later. Examination results can not be tested showed that when the child refused to perform tests on items that test should be performed by children. Similarly, the category of suspected, children included in this category must undergo the test again two weeks later.

C. DDST II USES FOR IDENTIFICATION OF EARLY AGE CHILDREN WITH SPECIAL NEEDS.

The development is one important aspect in the early identification of children with special needs. Assessment of child

development needs to be done early to *assess whether or not the child's* development in accordance with existing assessment standards. Assessment of early age is also useful as screening for disruption or delay the development which is an early sign of children with special needs, so that if the disturbances early on has been known then the appropriate treatment can be given.

Currently, early detection methods to identify children with special needs have been made. Similarly, the screening method of identifying potential causes that may leads to resistance in children. Assessment of progress is not only done early, but also is regular, periodic, and systematic. If these things can be done, the optimal child's development can be achieved as expected.

Screening of problems in child development does not mean that a definite diagnosis of these disorders can be determined. Screening is simply a routine procedure in the assessment of day-to-day child development that can be used as a guide if found abnormalities in the development of children.

According Soetjningsih (1995) *the purposes of assessment of child* development are:

1. Knowing disorders of child development and other matters which are the risk of disorder development.
2. Knowing a variety of developmental problems that require genetic treatment or counseling.
3. Knowing the time if a child should be referred to a specialist or medical center.

DDST II as one of the tests can give results in the form of predictions of child development can be used as one way to identify children with special needs in early childhood. Research conducted by Cadman, et al. in 1984, a study on the effectiveness of the use of DDST for detection of developmental disorders in preschool children. In this study the results of DDST compared with the assessments made by teachers to the learning disorders that occur at school. Kindergarten teachers assess student performance at schools using the rating scale of learning, behavioral, and special needs. Of the 42 students who

have tested positive DDST, more than 50% of them have learning difficulties or behavioral disorders and some of them then continued their education in special schools.

D. PAUD TEACHER'S ROLE IN IDENTIFICATION OF CHILDREN WITH SPECIAL NEEDS

In principle, the identification of children with special needs as early as possible can be done alone by parents, communities through neighborhood health center programs, and experts. In addition, with increasingly high number of children who received early childhood education through existing educational institutions, teachers as a component of the community can identify by observing the child's development in general. In children with conditions that look different from his friends can be followed up by testing DDST II.

Knowledge of child development is one of ability to be owned, especially teachers who teach in inclusive education. As noted by Miriam (2003) in Suparno (2010), the abilities to be

possessed by teachers of inclusive education are as follows:

1. Knowledge of child development
2. Understanding the need and value the importance of communication and dialogue interaction in class
3. Understanding the importance of encouraging a sense of self-esteem of children associated with the development, motivation, and learning through positive interaction and source-oriented.
4. Understanding of the "Convention on the Rights of the Child" and their implications for the implementation of education and development of all children
5. Understanding of the importance of creating a learning-friendly environment-related content, social relationships, approaches, methods, and learning materials
6. Understanding the importance of active learning and creative thinking and logical development
7. Understanding the importance of evaluation and continuous assessment by teachers
8. Understanding the concept of inclusion and enrichment as well as how the implementation of

inclusion and differentiated learning between teachers and parents or caregivers of children. The information

9. Understanding of the barriers to learning including those caused by physical or mental disability provided by parents will be useful in the assessment of some existing test items.

10. Understanding the concept of quality education and the need for implementation of new approaches and methods.

With the detection of abnormalities of developments in children that leads to the special needs of children, teachers can advise parents to bring children to the experts who can determine the exact diagnosis of the cause of resistance in children. In addition, early intervention possibly also could be done to children to prevent a more serious resistance.

In practice, implementation of the DDST II tests can not be performed properly without the cooperation

E. CONCLUSION

Identification of children with special needs early childhood can be done by early childhood teachers by assessing the level of development of children with a variety of methods. DDST II is one method that has been widely recognized and proven accurate in child development. Given the important role of teachers in identifying children with special needs in inclusive early childhood education (PAUD) necessary training to enhance teachers' knowledge and skills in using this test method is required.

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