

TEACHERS' MASTERY ON THE CONCEPTS OF DIFFERENTIATED INSTRUCTION IN INCLUSIVE PRIMARY SCHOOLS

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Abstract: In most inclusive elementary school classrooms, some students struggle with learning, others perform well beyond grade-level expectations, and the rest fit somewhere in between. Within each of these categories of students, individuals also learn in a variety of ways and have different interests. To meet the needs of a diverse student population, many teachers differentiate instruction. This study aims to determine mastery of the concept of differentiate instruction of inclusive primary school teachers in Boyolali. Research using descriptive approach, with a sample of 75 teachers assigned as an exceptional education teachers in inclusive primary schools. The research variables consist of independent variables in the form of implementation of educational and training activities on differentiate instruction and the dependent variable on concept mastery differentiate instruction in inclusive classrooms. Data was collected by using a test method that contains meaning of, the need, the implementing and the factors that may affect the success of differentiate instruction. Methods of data analysis using quantitative descriptive. The result of research showed that there were 67% of teachers master what differentiate instruction and why it is needed, 58% understand how to implement differentiate instruction, and 64% understand the factors that can affect the success of differentiate instruction.

Keywords: Concept of Differentiate instruction, Inclusive Primary School Teachers, Child with special needs, students with disabilities

INTRODUCTION

In most elementary classrooms, some students struggle with learning, others perform well beyond grade-level expectations, and the rest fit somewhere in between (Tomlinson, C. 1995, 1999). Within each of these categories of students, individuals also learn in a variety of ways and have different interests (Winebrenner, S. 1992, 1996). To meet the needs of a diverse student population, many teachers differentiate instruction (Tomlinson, Carol Ann. 2000).

In line with the opinion of the experts mentioned above, based on research in the Boyolali area conducted by Salim (2013) a number of 939 children was identified to those with special needs. Most type of Children with Special needs (CWSN) was slow learner (85.19%), followed by learning disabled (4.6%), mild mentally retarded (3.51%), behavioral disorder (1.8%), autistic (1.5%), blind (1.33%), quadriplegic (1.06%), mute (0,21%), and deaf (0.74%) and other. Viewed from the distribution of CWSN number at inclusive elementary school, 9 elementary schools (15.78%) have about 21 to 30 children with special needs, 41 elementary schools (71.92%) have 11-20 children with special needs, and 7 elementary schools (12.28%) have 1-10 children with special needs. Viewed from the distribution of inclusive elementary school, the highest number of CWSN occurs in the second (30.86%), third (20.98%), fourth (18.51%), first (14.81%), fifth (12.34%), and sixth grades (2.46%). Viewed from the sex of CWSN, about 447 boys (47.61%) and 492 girls (52.39%).

At its most basic level, differentiation consists of the efforts of teachers to respond to variance among learners in the classroom (Sternberg, R. J., Torff, B., & Grigorenko, E. L. 1998). When a teacher reaches out to an individual or small group to vary his or her teaching in order to create the best learning experience, that teacher is differentiating instruction (Tomlinson, C. 1995, 1999). Teachers can differentiate at least four classroom elements based on student readiness, interest, or learning profile: (1) content--what the student needs to learn or how the student will get access to the information; (2) process--activities in which the student engages in order to make sense of or master the content; (3) products--culminating projects that ask the student to rehearse, apply, and extend what he or she has learned in a unit; and (4) learning environment--the way the classroom works and feels (Danielson, C. 1996; Tomlinson, 2000).

Meanwhile (Michael L. Wehmeyer, et.al, 2002) stated there was growing number of efforts to conceptualize as how to gain access to the general curriculum for students with disabilities, few of these have addressed the needs of learners with mental retardation and other cognitive disabilities. Wehmeyer, Lattin, and Agran (2001) introduced a decision-making model to enable IEP teams to make curriculum decisions pertaining to the educational program of students with mental retardation that takes into account both the general curriculum and a student's unique learning needs. However, making a decision about the student's formal curriculum is only

one step in achieving the outcome that students with mental retardation both have access to and progress in the general curriculum. This article presents a multi-step process and multi-level model to gain access to and promote progress in the general curriculum for students with mental retardation and intensive support needs.

Wehmeyer, Sands, Knowlton, and Kozleski (2002) identified five action steps to ensure that students with mental retardation progress in the general curriculum. They summarize the key elements of this approach, which involves 3 levels of action (planning, curriculum, and instruction), 3 levels of the scope of instruction (whole school, partial school, and individualized), and 3 levels of curriculum modifications (adaptation, augmentation, and alteration).

To be able to have a mastery of concepts about what differentiated instruction, why did it take no differentiated instruction, how differentiated instruction execution model and determine the factors that may affect the success of differentiated instruction to teachers in advance given training for three days. Then the teachers are given a test to determine the level of their mastery of differentiate instruction.

METHOD

The research was conducted in Boyolali, Central Java Province. The research used descriptive approach, with a sample of 75 teachers assigned as special education teachers in inclusive primary schools. School sample was taken by purposive random sampling with criteria (1) based on the decree of District Education Office Boyolali, schools designated as school organizer inclusive education, (2) provided an exceptional education teachers, (3) the minimal of education level of the exceptional education teachers stratum 1, (4) they were willing to follow the program of activities during the study.

The research variables consist of (1) independent variables in the form of implementation of educational and training activities on differentiate instruction and (2) the dependent variable on concept mastery differentiate instruction in inclusive classrooms.

Data was collected by using a test method. Material was tested on (1) what differentiate instruction, (2) why differentiate instruction was selected by teachers to teach children with abilities, (3) how differentiate instruction execution models and (4) determine the factors that may affect the success of differentiate instruction.

There were four components of differentiated instruction that was included in the test material, ie the content of components, processes, products and components of the learning environment. Method of quantitative descriptive was used to analyze the data.

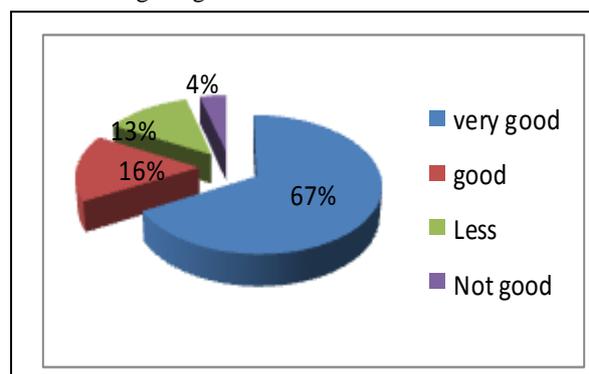
RESULT AND DISCUSSION

Research result:

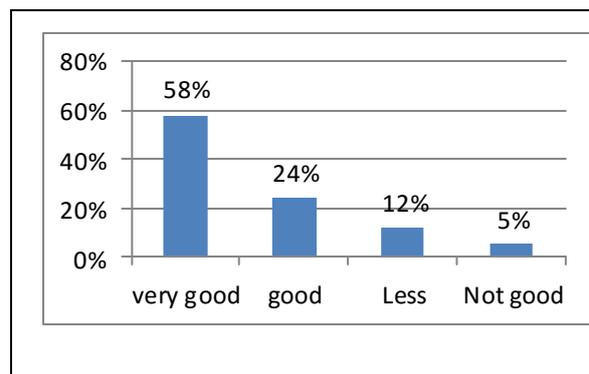
The characteristics of seventy-five people of the total number of exceptional education teachers in this study include as follows: (1) 48 people (64%) women and 27 (36%) of men; (2) the education level 14 (18.6%) strata 2 and 61 (81.3%) strata 1; (3) As many as 48% are between 20-35 years old, 34.6% were 36-50 years old, and there are 17.3% were 51 years and over.

Educational background in strata 1 varies: (a). Special education programs 34.66%; (b). Non-exceptional education program 57.3; and (c). Non-education program 8%. The next, the experience as a teacher as follows: (a) less than 5 years = 28%; (b) 5 years - 10 years = 42.7%; and (c) more than 10 years = 29.3%.

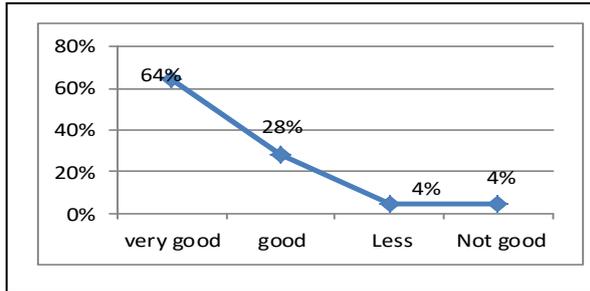
The teachers understanding on differentiate instruction varies; 67% with a very good understanding, 16% good, 13% less, and 4% poor understanding. This data can be described as seen in the following diagram:



The reason for differentiated instruction: The understanding of teachers on the differentiated instruction can be drawn in the following diagram:



Teachers' understanding of the multiple factors that can affect the success of differentiate instruction, 64% of teachers are very good understanding, 28% good, 4% less, and 4% are not good. The results can be described as follows:



DISCUSSION

The results of this study on the concept of differentiated learning of the special education teachers showed as many as 67% teachers have a very good understanding, 16% good, 13% less and 4% still not good understanding. These results indicate that the majority of teachers (83%) had a good understanding. However, it should be noted that there are still as many as 17% of teachers who do not understand about differentiated learning. This situation can be understood, because educational background in strata 1 of teachers, only 34.66% of teachers background from special educational program, the remaining 63% is not a graduate of a special education program. This condition indicates they need for further education and training, especially for teachers who do not have an understanding. Because if this is not done to be able to hinder the implementation of differentiated learning in school inclusion. This condition also as feared by John Charema (2010) these are some of the major challenges that developing countries face in implementing inclusive education: (1) Inclusion and participation are essential to human dignity and to the enjoyment and exercise of human right. (2) Human differences are normal. (3) Learning differences must be adapted to the needs of the child. (4) Ordinary schools must recognize and respond to the diverse needs of their students. The correct understanding of the notion differentiated learning is very important. Its a basic level, differentiation consists of the efforts of teachers to respond to variance among learners in the classroom (Sternberg, R. J., Torff, B., & Grigorenko, E. L. 1998). Whenever a teacher reaches out to an individual or small group to vary his or her teaching in order to create the best learning experience possible, that teacher is differentiating instruction (Tomlinson, C. 1995, 1999).

Most of special education teachers in regular schools (92%) already have a good understanding about the reason for the need for a differentiated learning for learners of varying abilities. This condition is in line with the statement of Danielson, C. (1996) and Tomlinson (2000) that teachers can differentiate at least four classrooms elements based on student readiness, interest, or learning profile: (1) content - what the student needs to learn or how the student will get access to the information; (2) process - activities in the which the student engages in order to make sense of the master or the content; (3) products -

culminating projects that ask the student to rehearse, apply, and extend what he or she has learned in a unit; and (4) learning environment - the way the classroom works and feels. The differentiating content at the elementary level include the following: (1) using reading materials at varying readability levels; (2) putting text materials on tape; (3) using spelling or vocabulary lists at readiness levels of students; (4) presenting ideas through both auditory and visual means; (5) using reading buddies; and (6) meeting with small groups to re-teach an idea or skill for struggling learners, or to extend the thinking or skills of advanced learners. The differentiating process or activities at the elementary level include the following: (1) using tiered activities through which all learners work with the same important understandings and skills, but proceed with different levels of support, challenge, or complexity; (2) providing interest centers that encourage students to explore subsets of the class topic of particular interest to them; (3) developing personal agendas to be completed either during specified agenda time or as students complete other work early; (4) offering manipulations or other hands-on supports for students who need them; and (5) varying the length of time a student may take to complete a task. The differentiating products at the elementary level include the following: (1) giving students options of how to express required learning; (2) using rubrics that match and extend students' varied skills levels; (3) allowing students to work alone or in small groups on their products; and (4) encouraging students to create their own product assignments as long as the assignments contain required elements. And the differentiating learning environment at the elementary level include: (1) making sure there are places in the room to work quietly and without distraction, as well as places that invite student collaboration; (2) providing materials that reflect a variety of cultures and home settings; (3) setting out clear guidelines for independent work that matches individual needs; (4) developing routines that allow students to get help when teachers are busy with other students and cannot help them immediately; and (5) helping students understand that some learners need to move around to learn, while others do better sitting quietly (Salim, 2015).

CONCLUSION

It can be concluded that 67% of teachers master the knowledge and the function of differentiated instruction, 58% understand how to implement differentiate instruction, and 64% understand the factors that can affect the success of differentiating instruction.

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