

Differentiated Instruction:

An alternative learning approach for all learners in inclusive setting

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Abstract—The presence of diverse learners in an inclusive setting requires teachers to re-examine the teaching and learning practices that have been applied so far. The homogeneity of learners has been replaced by a wide variety, but in many contexts teachers seem to have not adapted the learning methods to follow this trend. The use of a single learning approach ignores the different abilities of learners in learning. This study aims to describe a differentiated instruction approach as an alternative learning approach in inclusive settings. Literature shows that Differentiated Instruction has a philosophy that the learning approach should be varied and tailored to the diversity of learners in the classroom. Based on differences in learning readiness, interests, and learning styles, the teacher differentiates instruction in the content or subject matter, process, product, and evaluation.

Keywords—*learning approach; differentiated instruction; learner's diversity; inclusive setting*

I. INTRODUCTION

Inclusive education means that all students attend and are welcomed by their neighborhood schools in age-appropriate, regular classes and are supported to learn, contribute and participate in all aspects of the life of the school. The development of inclusion has become central of international education policy and has forced changes in legislation in many countries including Indonesia.

Inclusion in education is concerned with providing equal learning experiences and equal opportunities for all children, youth with a specific focus on groups susceptible to be left out from society life. This apply not only to children with special educational needs but even those considered to have emotional, behavioral, physical and mental disabilities but also to minority communities; gifted or talented students; children with social difficulties such as street children, children of prison inmates; people in disadvantaged and remote areas [1].

The presence of diverse learners in an inclusive setting requires teachers to re-examine the teaching and learning practices that have been applied so far [2]. The homogeneity of learners has been replaced by a wide variety, but in many contexts teachers seem to have not adapted the learning methods to follow this trend [3]. The use of a single learning approach ignores the different abilities of learners in learning [4].

A pre-study conducted in three of inclusive schools shows that regular teachers failed to show lesson plan that including activities for students with special needs placed in their class. They only make a general lesson plans for typical students and have not accommodate students with special needs yet. This study aims to examine a differentiated instruction approach as an alternative learning approach in inclusive settings.

II. INCLUSIVE EDUCATION

The World Conference on Special Needs Education, June 1994 considered the rights of children with disabilities to receive an education in regular school classrooms. Representatives of 92 countries and 25 international organizations formulated the UNESCO Salamanca Statement, which proclaimed that, regardless of their intellectual, physical, social, language or emotional condition, all children have an equal right to receive an education and that schools must provide a suitable, inclusive learning environment for these children [1].

Since then, a Framework for Action on Special Needs Education has been implemented globally to combat discriminatory attitudes towards disabled children, build an inclusive society where all children are welcome, and to achieve education for all [5]. The strategy calls upon governments around the world to place a high priority on policies to provide inclusive orientated programs in schools and to ensure equal opportunity in education for the disabled. Many countries have adopted these policies across all levels and curriculum areas with a view to 'ensure that special needs education forms part of every discussion dealing with education for all.'

Inclusive education means educating learners with special educational needs in regular education settings. However, inclusive education is not limited to only placement. Rather, it means facilitating education of students with special needs with a whole suite provisions which include curriculum adaptation, adapted teaching methods, modified assessment technique, and accessibility arrangements [6]. Effective inclusion of students with special needs in the mainstream curriculum is depend on adequate differentiation of the teaching approach to match individual learning characteristics of the students.

III. DIFFERENTIATED INSTRUCTION

A. Definition

Differentiated instruction can be defined as a philosophy of teaching that is based on the premise that students learn best when their teachers accommodate the difference in readiness levels, interests and learning profiles [6,7]. Differentiated instruction is a process to teaching and learning for students of differing abilities in the same class. The intent of differentiating instruction is to maximize each student's growth and individual success by meeting each student where he/she is and assisting in the learning process [8].

Differentiated instruction seeks to move away from teaching to the whole class in the same manner and addresses the needs of all learners, including those who are at risk and the gifted, through various forms of well planned, well-organized, flexible curriculum and instructional strategies [8]. Differentiated instruction can enable students with a wide range of abilities to receive an appropriate education in inclusive classrooms, from gifted students to those with mild or even severe disabilities [9].

B. Strategies of Differentiation

Differentiation is supposed to occur in terms of content, processes, and products [10]. Differentiation also occurs in classroom management strategies (such as grouping and peer tutoring), in the interactions between student and teacher, in the arrangement of the classroom environment, and in the methods of assessment.

1) *Content*: Content is what we teach or the curriculum. Content consists of facts, concepts, generalizations or principles, attitudes, and skills related to the subject, as well as materials that represent those elements. Content can be differentiated in two ways. In differentiating content, first we can adapt what we teach by varying learning outcomes on the basis of what students already know. Teacher can differentiate the content by selecting and organizing learning experiences at various levels of cognitive taxonomy. For example, students who are unfamiliar with the concepts may be required to complete tasks on the lower levels of Bloom's Taxonomy: knowledge, comprehension, and application. Students with partial mastery may be asked to complete tasks in the application, analysis, and evaluation areas, and students who have high levels of mastery may be asked to complete tasks in evaluation and creation. The second way to differentiate content is by choosing resources for the students. For example the teacher may use varied resource material like concrete objects or print material, interactive software for teaching science or students may be assigned to groups to explore the internet resources related to the topic in science. In this way the students could have a choice to work appropriately in groups, or individually, but all are working towards the same instructional objectives irrespective of their varying abilities [8]. Differentiation in content means that students with learning difficulties are required to cover less material in the lesson. In the case of gifted or more-able students, the reverse

would be true: they would do more and in greater depth, and often do the work more independently. The learning tasks set for the students will be varied; some work is at a simpler level, other tasks are at a more complex level. The resource materials used in the lesson (texts, worksheets, blackboard notes), may also be modified by using simpler [7].

2) *Process*: Process refers to how we engage students to learn the content so that all students are able to understand or make sense of the content and skills, as well as to incorporate the content and make connections to what is already known, understood or able to do. Based on the pre-assessment results, the teacher should decide about the different ways to deliver the instruction. If using cooperative learning methods, then the process component includes using flexible grouping; this means that groups of students should be different for the different activities and if some students who are more comfortable in working individually then they should be allowed to do so. Another part of the process piece is classroom management. To effectively operate a classroom using differentiated instruction, teachers must carefully select organization and instructional delivery strategies [8]. When teaching and learning processes are modified, some of the following strategies may be used: The teacher may give more assistance or less assistance to individuals according to their needs. The teacher may re-teach some concept or information to some students, using simpler language, more examples. Questions asked during the lesson may focus on different levels of difficulty for different individuals. Closer monitoring of the work of some students takes place during the lesson. Varying the rate at which the students are expected to work, with extra time allowed for some. Extra practice provided for those who need it, often via differentiated homework assignments. The way students are grouped for specific purposes (ability, interest, friendships) can also be apart of differentiation of the teaching process. Co-operative learning, peer assistance, and group work are most frequently advocated for inclusive classrooms. Classroom learning centres may be set up, individual contract systems established, and computer-assisted-instruction may be used. Generally adopting a more student-centred and activity based approach in most areas of the curriculum [7]. Differentiated instruction requires a repertoire of teaching method [11].

3) *Product*: Product is something that the student produces at the end of the lesson to demonstrate the mastery of the content. The product is an integral component of the differentiated instruction, as the preparation of the assessments will primarily determine both the 'what' and 'how' instruction will be delivered. Assessments, both formal and informal, determine what level of understanding the students have of the subject matter. This component allows students to display their knowledge in several ways for to create a different end of the story, or to prepare a 3-dimensional model or to prepare a sketch that explains mastery of concepts in the social studies lesson, to write a book report, to perform a play, debate or investigate an issue, to design a game, and compare or contrast

[8]. Modifying the products of learning may mean that each student is not expected to produce exactly the same amount or quality of work as every other student. A student may be asked to produce work in a different format, for example an audio recording, a drawing or poster, rather than an essay. Or the student may complete a multiple choice exercise rather than prepare a project involving extensive writing. Individual students might negotiate what they will produce, and how they will produce it, in order to provide evidence of their learning in a particular topic [8].

4) *Assessment*: Assessment refers to any process used to determine how much learning and what quality of learning has occurred for each student in the class. Assessment provides an indication of how effective a particular episode of teaching and learning has been. Assessment also highlights anything that may need to be taught again, revised, or practised by some students. Assessment is intertwined with [12]. Grading refers to the fairly common practice of indicating the quality of the work a student has produced for assessment purposes. Often a letter grade (e.g. A, B, C, D) is used, or the work may be given a mark out of 10 or 100. Modifications to assessment include such options as simplifying the assessment task or some students. Shortening the task, allowing longer time for some students to complete the task or test. Allowing a student with special needs to have some assistance in performing the task (e.g. dictating answers to a scribe). Enabling the student to present the work in a different format (e.g. scrapbook rather than essay) [8].

C. *Barrier to Differentiation*

The reasons most commonly given by teachers for failing to make accommodations for students with special needs in their classes are 1) Planning and preparing for adaptive teaching is extremely time consuming, 2) It is difficult to implement different procedures in the classroom for certain individuals while trying to maintain other students on task, and at the same time manage the class, 3) Simplifying the lesson content and slowing the pace may compromise the needs of the higher-achieving students, 4) Using different approaches and different resources draws more attention to students with learning problems, and 5) Special support and 'making things easy' does not prepare the student for the 'real world', where few accommodations will be made for an individual's problems. The larger the class the more difficult it becomes to teach adaptively. Lack of time and resources, along with curricular constraints, were also viewed as impediments [13]. Differentiation demands the commitment of teachers, administrators, and students. Teachers and students are challenged to shift comfortably into a new instructional paradigm. Administrators are challenged to provide teachers access to a variety of instructional materials, to encourage them to use new methodologies, and to support teachers' professional development.

IV. CONCLUSION

Differentiation refers to an organized, yet flexible way of adjusting teaching and learning methods to accommodate each student's learning needs and preferences in order to achieve his/her potential as a learner. Differentiated instruction has a philosophy that the learning approach should be varied and tailored to the diversity of learners in the classroom. Differentiated instruction provides multiple approaches to content, process, product, and evaluation based on the differences in learning readiness, interests, and learning styles using student-centered, a blend of whole-class, group, and individual. Differentiation demands the commitment of teachers, administrators, and students. Teachers and students are challenged to shift comfortably into a new instructional paradigm. Administrators are challenged to provide teachers access to a variety of instructional materials, to encourage them to use new methodologies, and to support teachers' professional development. Despite the ever-changing classroom profile of students, resources, and reforms faced by teachers, practices should continue to evolve and the relevant research base should grow.

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