

ENHANCING LEARNING BEHAVIOR OF STUDENTS WITH DISABILITIES THROUGH PULL-OUT CLUSTER MODEL (POCM) (A CASE STUDY ON LEARNING PROBLEMS OF STUDENTS WITH DISABILITY IN INCLUSIVE SCHOOLS)

Gunarhadi

gunarhadi@fkip.uns.ac.id

University of Sebelas Maret Indonesia

ABSTRACT: Students with disabilities in inclusive schools are often hindered by learning barriers, and differentiated instruction of Pull-out Cluster Model (POCM) is found to be a solution. This research aims at: (1) exploring the values of POCM. (2) measuring the effect of POCM on the learning behavior of students with disabilities in inclusive classroom. This research is a case study involving teachers and students in two different regular schools in Surakarta, Central Java, Indonesia. Data was collected from questionnaire and observation. Questionnaire was used to evaluate the lesson plan, while observation was used to describe the teacher's activities and students' learning behavior during lesson study. The data was analyzed by both quantitative and qualitative descriptive of two different instructional models. The results showed that (1) POCM exceeded full inclusive model in terms of lesson plan. (2) students with disabilities indicate better behavior of learning participation. This research suggests that inclusive schools provide POCM system that is adaptive to learning behavior of students with disabilities.

KEY WORDS: Differentiated instruction, pull-out cluster model, full inclusion model, disabilities.

INTRODUCTION

The concept of inclusive education is enabling children with disabilities to develop to their own fullest potential. This concept is aligned to National Education Act No 20 – 2003 stating that children with special needs should get the educational access in regular schools. In the respect of its implementation, inclusive education is officially stated under Ministry of Education Rule No. 70 – 2009, on Inclusive Education for children with disabilities. Since then, the movement of inclusive education has changed the people's mindset from segregation to inclusion. A growing number of regular schools are open for a full access of all children regardless of any handicapping conditions. Educational service is conducted under a full inclusion system of management where children with disabilities are fully mainstreamed in the regular classroom.

Nonetheless, inclusive education is undergoing a progress termination due to some limitations of facilities, human resources, and curriculum as well as instructional strategy for children with disabilities in regular schools (Gunarhadi, 2014). In some cases, regular teachers are not accustomed to teaching children with disabilities. They are not familiar with the characteristics of students with various disabilities. For most of them, inclusion is a new world but they have to accept all the way it is. Many teachers complain for the facts that children are not engaged in learning together with the normal peers in a huge heterogeneous class. They do not know much to do with autistic students, for instance, with bizarre attitude and behavior during the

class. Moreover when the mainstreamed children have severe handicapping condition, to some extent, instructional system in inclusive classroom is not effective. On the other side, children with disabilities do not get meaningful benefit from educational services as expected. The lag behind those of non-handicapped (Hallahan& Cohen).Despite the controversion, inclusive education is positively supporting the spirit of education for all. Now that full inclusion system is considered ineffective for both normal peers and those with disabilities, a different model of instruction is sought.

IMPLEMENTATION OF INCLUSIVE EDUCATION IN INDONESIA.

Inclusive education recommends that educational services emphasize the importance of inclusive and friendly-learning environment. It means a school should provide a wide range of opportunities for children to attend, participate in learning, and gain meaningful results (UNESCO, 2002). Such an environment will make children feel physically, socially, psychologically safe, comfortable, and favorable to learning. To provide such a friendly learning environment, educational service could feasibly take place three types of services (Faillace, 2009). They are; full inclusion, cluster instruction, and individualized instruction.

The first is the instruction in of students with disabilities in the *full inclusion*. Students with disabilities learn together with the normal peers in regular class. They learn, interact, and cooperate or even compete with other students of normal peer in the regular class activities. The second is *Cluster instruction* where a group of some students with disabilities learn together in either full inclusion system or pulled out to a resource room in a regular school. In the full inclusion system, 3-6 students with disabilities sit in separately but learn together with other classmates a big classroom. The last is *individualized instruction* where a student gets educational service based on his individual needs and capability. Individual instruction should be given under the consideration that some severe handicapped children may not learn or benefit from general instruction (Sunardi, et al., 2010). Such a student with disability only learns through *one-to-one* education service.

Each type of the instructional models has advantages as well as disadvantages. Especially in full inclusion system, students with disabilities may not learn well along with other peers. Hence, they need extra help which is probably best given individually from the teacher. Unfortunately, individual service may not be available for such students. A teacher in full inclusion system is commonly too busy with major classroom problems that it is time consuming for such individual service. To solve these kinds of learning problems, Pull-out Cluster Model (POCM) is strongly assumed to be a flexible approach to making students learn meaningfully in a heterogenous classroom.

POCM is defined as a model of instructional strategy where students learn in a small group of students with homogeneous level of capabilities. Instead of learning together in full instruction system, students with similar learning problems may learn separately in a group so called *cluster*. In teaching strategy, clustering is the principle of differentiating instead of discriminating. Since inclusive education is responding to unique needs of students with disabilities, differentiation in teaching is required in special need education. For some students learning in cluster is preferable rather than learning in a classroom with a big number of students. Gregory and Chapman (2009) stated that one of differentiated strategies of teaching is by grouping the students in so called *cluster*. Clustering or grouping can be based on different criteria, knowledge, performance, attitude & skill, and peer tutoring. Hence, differentiated teaching means a different way of teaching. Grouping for placement such as clusters make students learn at their ease and capability basis. However, limited skills of teachers in a classroom with disabled children is often troublesome. Previous research shows that teachers prefer teaching a classroom, if any, students with mild learning problems (Gunarhadi, 2014). It implies that teaching students with different level of capabilities needs differentiation of teaching strategy. There are three types of cluster aligned in inclusive education system, i.e, special class, in-class cluster, pull out cluster.

CLUSTER OF SPECIAL CLASS

This kind of cluster allows students with disabilities to learn in special class for the whole school hours. Special class is a part of an inclusive school since students with disabilities learn in a special classroom provided by the inclusive school. Students with different handicapping conditions may learn in one classroom and get the educational services from one or two special teachers. Subgrouping is possible in this Cluster of special class. The grouping of special class is mainly addressed for academic purposes, and that is why grouping should be age appropriate and level basis of learning. For the sake of social inclusion, activities are designed and implemented under the school programs where all students may get together such as in camping, carnivals, and other gathering activities.

In -Class-Cluster

In-Class-Cluster is made up by grouping students with disabilities in the classroom. It deals with classroom arrangement where three or four students with disabilities sit around in a small group. The purpose of grouping is solely intended to make these students learn meaningfully from the classroom instruction. Such a kind of grouping does not mean at all for discrimination upon their right to education service. Instead, grouping is a matter of differentiation in learning strategy for academic enhancement. The positive point about this grouping is that the teacher can easily accommodate their needs of scaffolding while doing specific learning task within the classroom instruction. These students remain in the whole class for the whole time to enhance social interaction with thenormal peers.

Pull- out-Cluster.

Unlike in-class-cluster, *pull-out Cluster* is made up of students with relatively homogeneous level of abilities. For the sake of learning differentiation, this group is pulled out from the rest of the peers to have extra educational services. It is believed that learning together in a smaller group is more effective. Individual service may get focused attention for better academic attainment. However, they need to return to the original classroom as to enhance social interaction.

Educational service in cluster will enable each member of the small group of children with disabilities learn in their own paces under a careful control from the teacher. In addition to learning in a small group, these children learn on the individual basis of instruction. It is assumed that POCM could give better help for such children learn meaningfully in inclusive school settings.

METHOD

This study is an explorative survey of an action research carried out through a lesson study in an inclusive classroom. The sample of the research is of 27 teachers in inclusive schools by and mainstreamed students with disabilities in the respective schools in Surakarta, Central Java, Indonesia. The data of research was collected by means of questionnaire and observation. The data was analyzed both quantitatively and qualitatively as to describe the impact of POCM on the learning behavior of students with disabilities after the implementation of lesson study.

RESULTS

To get the data of learning behavior, an instrument in the form of lesson format is prepared. The following format of lesson plan was used in an instruction as to compare the learning behavior of students in full inclusion model (FIM) and Pull-out Model (POCM).

Table 1: Comparison of Lesson Plan Format between FIM and POCM

No	Aspects of skill	Full Inclusion Model (FIM)		Pull-out Cluster Model (POCM)	
		Average Score	Average Score (%)	Average Score	Average Score (%)
1	PRE-TEACHING PREPARATION				
	Lesson Plan	4.51	90.3 %	4.44	86.3 %
	Instructional Media	4.43	88.6 %	4.47	86.9 %
2	DIFFERENTIATED INSTRUCTIONAL STRATEGY				
	Modified curriculum/learning material	4.17	83.4 %	4.38	85.1 %
	Modified instructional strategy	4.2	84 %	4.47	86.9 %
	Modified learning behavior	4.11	82.3 %	4.47	86.9 %
	Modified evaluation	4.11	82.3 %	4.41	85.7 %
3	INSTRUCTIONAL MANAGEMENT				
	Effective media utilization	4.54	90.9 %	4.65	90.3 %
	Students' engagement in media utilization	4.26	85.1 %	4.76	92.6 %
	Encouragement of active participation	4.49	89.7 %	4.79	93.1 %
	Powerful reinforcement	4.11	82.3 %	4.41	85.7 %
	Joyful learning and enthusiasm	4.43	88.6 %	4.47	86.9 %
	Individualized instruction	3.86	77.1 %	4.82	93.7 %

From the above table, it is seen that teachers' competence on instructional strategy in POCM exceeds the full inclusion model. The instructional strategy of cluster model exceeds the full inclusion model in the aspects of the modified learning behavior and evaluation. In term of classroom management, POCM exceeds FIM in terms of media utility, students' engagement, and reinforcement. The only strong point of full inclusion model was in term lesson plan or preparation.

DISCUSSION

1. Lesson plan

Full Inclusion (90%) is higher than the Cluster Model (86.3%). It means that lesson plan in full inclusion is better prepared since the teacher has been a custom to providing the lesson before teaching. Meanwhile, lesson plan in cluster is less prepared since POCM is somewhat different or even new for teachers. However, with the score more than 90% it means that the lesson was well prepared for both FIM and POCM.

Teaching media in full inclusion was better prepared as well (88.6%) than the one in Cluster model (86.9%). It means the sophistication of the media by animation was obviously seen. On the contrary, in Cluster model, the media was not as obvious as the one in Full inclusion. This happens because most regular teachers are not accustomed to making lesson specially design for a small group instruction. So, what they prepare is what they always do for the regular class instruction.

2. Differentiated Instructional Strategy

a. Modified Learning Material.

Learning material in the full inclusion (88.4%) was a fixed package delineated from the syllabus. In addition, the package was presented in the instruction. On the other hand, in cluster model (85.1%), selecting material was more important rather than giving all material in the package of syllabus. It means only certain material can be elicited and given to the small number of students in the cluster. In this case, cluster model accommodate only the important points of the material was addressed to students on the individual basis.

b. Modified Instructional Strategy

Method of instruction in full inclusion (84%) has already accommodated the problems of students with disabilities. Method of instruction for cluster model (86.9%), however, emphasizes more on small group and individual needs. Scaffolding is typical service in this cluster model, either in class cluster or pull out model

c. Modified Learning Behavior.

Full inclusion model (82,3%) has already paid attention to learning needs students with disabilities who are mainstreamed in regular class. Learning behavior of students with disabilities is different from those of non handicapped students. The problems of modifying the learning behavior in full inclusion model of instruction is focused more on the attainment for the non-handicapped students (Halvorsen& Neary). That makes sense, since the number of students with disabilities is smaller part of the whole number of students in the classroom. Learning behavior (86.9%) in POCM gets more specific service in pull out model as compared to students in the full inclusion model. Individual scaffolding for students becomes a typical characteristic POCM by giving the students opportunities to keep on task of learning meaningfully.

d. Modified Evaluation

3. Instructional Management

Effective utility of learning media

Students learn better through media. Learning medium stimulates as many senses as possible when it is attracting. Although there is no difference of learning engagement between students in FIM and POCM, for students with disabilities, learning engagement through media utilization is convincing. For such students, media function as an extrinsic motivator to productive learning behavior (Reeve, 2006).

Reinforcement.

Reinforcement is another way of motivating agent that can increase the power of learning behavior. Joyful and enthusiastic learning environment could be the most reinforcing condition to effective learning. In the case of students with disabilities, learning in POCM is more joyful since they have least stressing condition as compared to learning in a big inclusive classroom. They are likely to be intrinsically motivated to perform better since they feel confident (Brophy, 2005).

Individualized instruction

Individualized instruction is a typical program in special education. Such a program could fit a small class size where individual needs may clearly be identified for further treatment. That is the reason why a individualized instruction fits well in POCM instead of FIM. Compared to classical service, individualized instruction is strongly believed to be more effective (Cooper, 2011).

E. CONCLUSION

The research draws conclusion that

1. POCM exceeded full inclusive model in term of students' performance due to flexible instructional strategy and classroom management.
2. POCM utilizes student centered approach that children with disabilities actualize better behavior of controllable learning participation.

This research suggests that inclusive schools provide POCM system to enhance learning behavior of students with disabilities.

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