

IPGKPT DESIGN AND TECHNOLOGY (RBT) TEACHER TRAINEES' KNOWLEDGE TO HANDLE SPECIAL NEEDS STUDENTS IN INCLUSIVE EDUCATION

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ABSTRACT

The importance for teachers in inclusive classrooms to have knowledge and skills in the management of student behavior has been reported in several studies. An effective teacher in an inclusive classroom is a teacher with high self-efficacy in handling students who have behavioral issues in their classroom. The pre-service teacher training of the Institute of Teacher Education Malaysia (IPGM) emphasizes on behavior management through several courses offered and enrichment activities outside of the lecture rooms. In this regard, several courses such as EDUP3023 Child Development, EDUP3043 Classroom Management and Behavior and also RBTS3132 Inclusive Education have been offered to expose trainee teachers to the knowledge in handling students with special needs for IPGM students who are not majors in special education. This concept paper on a descriptive quantitative study to be conducted to see the level of knowledge of trainee teachers, especially RBT major in one of the Institute of Teacher Education, Technical Education Campus (IPGKPT) on handling special needs students in inclusive education in schools. The methodology that will be use in this study involve questionnaires of a total 63 respondents of IPGKPT Semester 6 students who have studied the all three courses. The knowledge of RBT trainee teachers in handling MBK is anticipated to be in a high range as these three subjects involve many hands-on activities that require more control from the teachers during teaching and learning sessions.

Keywords: Inclusive education, special needs students, trainee teachers, hands-on activity

1. Introduction

The Inclusive Education Program (PPI) highlighted by the Ministry of Education Malaysia (MOE) in the Malaysian Education Development Plan (PPPM) 2013-2015 is an initiative carried out to celebrate Students with Special Needs (MBK) to learn together with typical students in the classroom and also in the same school (Amin & Yasin, 2016). In other words, all students without any segregation and exclusion are able to enjoy the same facilities and syllabus without having to take into account background, skin color, races, economic status and ability either physically or mentally. The implementation of PPI which is implemented in almost all schools around the world aims to provide opportunities for MBK to be active

academically and socially in school to form their identity so that they can contribute to the community (Norliah & Hanafi, 2016). Its implementation is also to comply with the zero rejects policy where special needs children to be involved to learn alongside normal students and teachers need to accept their presence without discrimination.

Pupils with Special Needs (MBK) are children with learning difficulties. Smart children or gifted children who have much higher abilities and intelligence than other children are also considered as children with special needs (Sari, 2017). In general, MBK is different from a typical child and requires different attention and care than a normal/typical child. Such differences can be classified in terms of mental characteristics, sensory ability, communication ability, behavioral and emotional as well as physical characteristics. According to the United Nations Children's Fund (UNICEF) Malaysia (2016), an estimated 440,000 children in the country are children with disabilities and tend to experience various barriers depending on factors such as type of disability, age, location, gender and ethnicity. Referring to the aspect of education in Malaysia, children who tend to have learning difficulties due to different mental characteristics such as Dyslexia, Autism, Attention Deficit Hyperactive Disorder (ADHD) and slow learners while in terms of physical consists of cerebral palsy, vision problems, hearing problems as well as speech problems.

Based on that, the National Transformation 2050 (TN50) has set the aspect of 'being a student' which is to be a student who is not only academically excellent but also covers the personality, physical and health as well as the positive nature of the students themselves to create a highly skilled generation to fill national needs (Nor & Rashed, 2018). One of the subjects provided by KPM for students is Design and Technology (RBT) and is the only subject that involves many psychomotor domains, physical movement or hands-on practical work. Boon & Ahmad (2012) stated that the safety aspects of the workshop that have to do with physical, mental, environmental and workplace health should be kept free from danger so that accidents that caused injuries can be avoided during the teaching and learning process. Thus, teachers need to be efficient in conducting teaching that is appropriate to the level of ability of MBK to determine the success of the teaching process implemented (Zulkifli & Mohamed, 2019). In other words, teachers need to strengthen their knowledge in handling MBK in inclusive classrooms especially for RBT subjects.

Overall, this study will revolve around the knowledge of trainee teachers on the handling of MBK in teaching and learning inclusive education for RBT subjects.

1.1 Purpose of the Study

The purpose of this study is to obtain information on the level of knowledge of RBT trainee teachers of IPGKPT in handling special needs students in inclusive education involving RBT subjects.

1.2 Objectives of the Study

The objectives of this study are to identify the level of knowledge of RBT trainee teachers of IPGKPT in handling special needs students in inclusive education involving RBT subjects.

The research questions to be answered through this study are:

1. What is the level of knowledge of RBT trainee teachers of IPGKPT in handling special needs students in inclusive education involving RBT subjects?

2. Literature Review

2.1 Knowledge of Teachers in Handling MBK

Special needs students (MBK) need more attention while learning than typical students and this has coincided with previous studies where some aspects need to be taken into account and modified according to the needs and characteristics of students (Ghafar & Jahaya , 2006). Teachers should play an important role in planning and providing a learning environment that is able to provide an effective experience (Noriati, Ying & Sharifah, 2017) and then be able to handle MBK well.

According to a study conducted by Chao, et, al. (2017) entitled 'Improving Teachers' Self-Efficacy in Applying Teaching and Learning Strategies and Classroom Management to Students with Special Education Needs in Hong Kong' emphasized that effectiveness in handling MBK will have a significant impact on the effectiveness of inclusive education implementation. This is measured through training courses given by teachers. Some of the aspects taken into account in this study are in terms of learning strategies, classroom management and teachers' knowledge and confidence. The questionnaire distributed to 347 teachers, including school administrators, however, had some shortcomings where the effectiveness of teachers in conducting inclusive classes did not includes in handling MBK behavior.

In addition, Zulkifli & Mohamed (2019) in their study have highlighted the level of knowledge of special education teachers in handling MBK behavior is more effective with the use of reinforcement. According to them, reinforcement is able to shape the personality of students as well as maintain focus on the learning process. Both positive and negative reinforcement should be practiced by teachers in handling MBK, especially during the teaching and learning process. However, the researchers were unable to provide examples of reinforcement used by teachers in class as a result because the instruments used were limited to questionnaires without involving observation forms. According to Cheong, Abdullah & Nee (2018), observation is the process of critically examining a situation or event to observe student behavior based on aspects that have been identified.

In the meantime, Mohan & Abd Majid (2020), have expanded the context of MBK management by conducting a study on teachers' knowledge of MBK disruptive behavior. The findings of his quantitative study using the questionnaire outline some important things that need to be taken into account in managing MBK behavior. Among the aspects that are considered important are in terms of management techniques, student characteristics, classroom atmosphere and teachers' knowledge of MBK. All these aspects play a role in handling MBK. However, this study did not expand further on examples of disruptive behaviors and the frequency of MBKs' behaving in such way during the learning process.

In summary, the main findings from past studies have been the starting point to formulate a conceptual framework for this study to be conducted. An assessment of the suitability and probability of easily obtaining data on the independent variables in the study was also taken into account. Among the items included in the independent variables in terms of knowledge of handling MBK are from the aspects of (1) student characteristics (2) lesson plans, (3) materials or equipment, and (4) reinforcement has been determined after examining the former studies.

2.2 Inclusive Education Program (PPI)

Inclusive education conducted in Malaysia by involving special needs students to study together with mainstream students is one of the government's efforts in creating a non-discriminatory education system. This implementation needs to be implemented and managed well and requires monitoring from time to time.

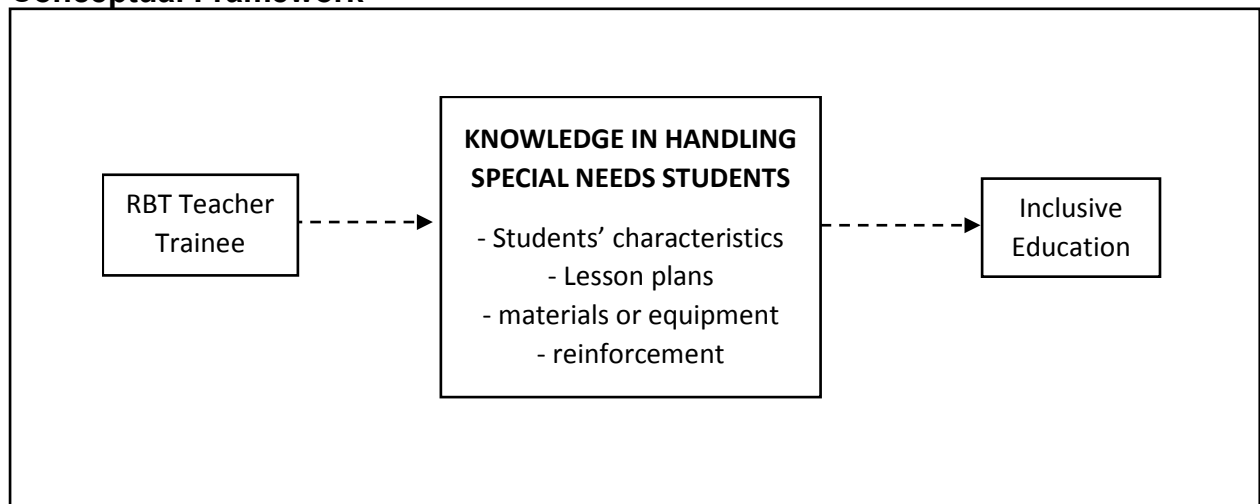
Ahmad (2014) in his study highlighted that the implementation of this PPI is only able to achieve its objectives when mainstream teachers who are directly involved with the program are given adequate in-service courses. This is to avoid the occurrence of constraints such as infrastructure, teaching resources and lack of teacher training (Gathumbi et. Al., 2015) that can cause PPI could not be implemented comprehensively. Both of these studies discuss the management as well as implementation of PPIs by teachers and administrators whether at a satisfactory level or not. Accordingly, several items from the two studies have been analyzed to be applied in future studies that is on inclusive implementation.

In addition, Amin & Yasin (2016) also highlighted some things that need to be taken into account for the success of PPI. One of the aspects emphasized is the knowledge of mainstream administrators and teachers. This is because, teachers who do not have a special education background should be given training or courses before they are involved with the program. Bouck (2004) in the study of Ahmad (2014) also discusses the involvement of MBK in vocational programs only in a small percentage of 0.5% only. The findings were obtained through a questionnaire conducted on teachers. The inclusive implementation of this low -level skill area has aroused a desire to conduct a study by linking this inclusive education with the Technology Design specialization, which is a branch of vocational programs for primary schools.

Overall, the findings of previous studies have provided enlightenment for this study to continue especially in terms of conceptual framework of the study. The lack of research in handling special needs students in the inclusive education involving skills or vocational programs has been the impetus to continue this study as a hope that awareness on the involvement of MBK in the field of skills and vocational learning is not impossible and can be realized.

3. Methodology

Conceptual Framework



From the literature review, a conceptual framework has been constructed and there are four components that will be linked to the knowledge of RBT trainee teachers in IPGKPT on the handling of MBK in inclusive classrooms. All these components are found to be important to measure their level of knowledge in handling students with special needs in the classroom and to determine whether the three subjects provided by IPGM related to students with special needs are able to assist trainee teachers in receiving and providing learning appropriately to the needs of students with special needs. Therefore, the dependent variable of this study is the knowledge in handling special needs students meanwhile the independent variables are students (1) student characteristics (2) lesson plans, (3) materials or equipment, and (4) reinforcement.

The characteristics of students with special needs need to be known by every teacher before learning process can be carried out properly. If the teacher does not have a solid knowledge of the student's background, the teacher's ability to build emotional and social relationships and gain trust from the student will be limited. A good teacher-student relationship will create a conducive environment for students to learn better. Teachers' knowledge of student characteristics includes students' level of ability, communication ability, reading ability and student emotional management. The ability of teachers to identify the level of ability of students based on background information and characteristics of students encountered will help teachers to pursue more effectively and confidently in inclusive education classes especially for teachers who are not from special education fields.

In the meantime, a good lesson planning will determine the success of a learning process. Teachers' knowledge in organizing effective activities for students with special needs is important to ensure that learning objectives can be achieved. For students with special needs, the learning outcomes set by teachers must be appropriate to the level of ability and capability of students with special needs. Teachers of special needs students are supposed to diversify teaching methods and techniques and be creative in order to attract students' interest in learning (Norfadilah, 2014). The success of teachers in attracting students and maintaining their interest throughout the learning process will prevent students from disruptive behavior and allow the teaching process to run smoothly. Teachers who are successful in planning effective classes will increase the level of confidence of teachers to deal with students with special needs in inclusive education classes.

Effective teaching and learning occur by using a variety of resources available either outside or inside the classroom itself. Exciting lessons using variety of tools and materials will help students to focus on the teacher's teaching. Good knowledge can help increase teachers' confidence to innovate in teaching (Abdul Rahman, 2016). The knowledge and experience that teachers have will help them to improve the lesson as well as enhance the modification and adaptation process of those materials. RBT subjects practiced in schools that involve a variety of sharp equipment such as needles throughout the learning initiate a high level of knowledge among teachers to ensure that the equipment is suitable and safe to use. The ability of teachers to adapt learning equipment and materials for students to learn, especially students with special needs whose level of ability is less than typical students will ensure that the goal of inclusive education is achieved well.

In order to develop students' good behavior, the element of reinforcement is a component that is often practiced by teachers in the classroom. Positive or negative reinforcement will ensure that only desired behaviors from the student are accepted in the classroom. According to Lampion et, al. (2012), effective reinforcement help teachers implement better teaching as desired while being able to improve the academic success of students especially for students with special needs who have emotional and social disorders. Disruptive and unwanted student behavior can affect the smoothness of the lesson as teachers have to resolve the unwanted behavior that arise while they are teaching. Teacher's knowledge in using appropriate reinforcement to shape student behavior

especially for students with special needs will create a healthy classroom environment. This will indirectly increase the effectiveness of the implementation of inclusive education in schools.

4. Discussion

The knowledge of RBT trainee teachers in handling students with special needs in inclusive education will be measured based on four independent variables, namely knowledge of student characteristics, lesson plans, materials or equipment, and reinforcement. Based on courses related to inclusive education provided by IPGM, information on whether the IPKPT teacher trainees in major knowledge in handling special needs students in the inclusive class will be known.

However, the knowledge gained from the three courses provided to RBT trainee teachers is still at a discontented level for them to give the best performance when involved with inclusive education. Additional and practical courses that involve students directly handling students with special needs should be multiplied to provide a meaningful experience for the trainee teacher. Courses and training that are diverse in aspects of student management, classroom management and teaching knowledge will ensure the better future of inclusive education in this country when involving teachers who are not from the main path of special education.

5. Conclusion

This study is expected to inform about the teacher trainees' level of knowledge in handling students with special needs in the inclusive classroom. As these trainees have undergone three courses about inclusive education and special needs children, it would be interesting to see how these trainees perceive their level of knowledge in regard to special needs children and inclusive education.

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