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Challenges of co-teaching in Malaysian inclusive classroom: administrators', teachers' and parents' overview

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Abstract

The implementation of co-teaching in the inclusive classrooms in Malaysia is still in the earliest of stages. Hence this study highlighted the element of challenges in terms of positive relationship among school administrators, teachers and parents. This quantitative study also predicted the relationship by the spirit of acceptance, trust and cooperation stated in the questionnaires. It involved 240 respondents in Malaysia. The application of SEM-PLS 2.0 was used and the study showed that there is a positive relationship between the three variables. There are also few factors from the element of challenges that need to be addressed by the Ministry of Education (MOE) as an administrator to improve the referral process of implementing the co-teaching approach in an inclusive classroom.

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1. Introduction

The implementation of inclusive education in Malaysia has been introduced to provide opportunities for students with special educational needs (SEN) to follow the concept of least restrictive environment (LRE) (Mohd Zaman et al., 2014). According to the MOE (2013), Special Education Integration Program in the mainstream schools has to implement an inclusive program for students who are able to learn in the mainstream classes. The implementation of co-teaching in an inclusive program requires active involvement of teachers and administrators (Friend, 2008). The implementation of inclusive education seems to be incomplete in the absence of challenges and it should be emphasized. According to Friend (2006), Murawski (2008) and Scruggs et al (2007), inclusive education should be resolved with the implementation of co-teaching approaches, including the SEN which would benefit more consistently (Rytivaara, 2012).

The challenges in implementing co-teaching as an element to join the mainstream concepts need to be addressed (Zigmond, 2003). This is because according to Able et al. (2014), the involvement of administrators is required particularly in the planning of the implementation policies with co-teaching because it involves two groups of teachers. The role of the teacher will have an impact on students' learning and this is supported by Friend (2011) who stated that the role of teachers led many to challenge their extensive pressure to provide the best service to manage SEN. The challenges also involve expectations of parents (de Boer et al., 2010) as they want to ensure their children participation in the inclusive programs will be successful.

This study highlighted on the state of implementation of the inclusive education in Malaysia that was described by Jelas (2010), who emphasized on the involvement of teachers in the new paradigm of education in which teachers should have a basic knowledge of teaching SEN in the mainstream classroom. In addition, government needs to give high consideration in the policy (Jelas et al., 2012), where there are challenges in implementing the inclusive education (Ali et al., 2006). The elements of challenges are significantly related to school management with the success of inclusive education. Jelas et al. (2010) explained the needs to have an agreement from all levels to enable the university to become a teacher and understand the existence of an inclusive program in Malaysia. Therefore the implementation of co-teaching is seen as a challenge and needs to be brought forward in addition to the special attention given by teachers, administrators and parents who should serve as a guide and reference for improving the implementation.

2. The implementation of co-teaching challenges

The implementation of co-teaching requires acceptance as a major milestone aspect of the implementation. According to Rytivaara (2012), this condition requires administrators, teachers and parents to involve in instilling acceptance in the school community. This means that teachers need to have a strong self-concept in implementing co-teaching. For example, in the implementation of co-teaching, teachers should put priority on student learning task compared to the options and their skills in a subject. There are many aspects of the reception involving three personnel in this study. Mastropieti et al. (2005) reported positive aspects as necessary acceptance among all involved because of the challenges in the implementation of co-teaching which can be overcome if all parties involved can give commitment and show determination (Gerber & Popp, 1999).

Acceptance of the student abilities in the inclusive classroom is a challenge which must be accepted by teachers, administrators and parents (Kamens et al., 2013). The selecting category of the SEN students to enter the mainstream classes is at a minimum in learning. According to Cook and Friend (1992), parents also need to be convinced on the implementation of co-teaching as this will make it easier for teachers to provide the lesson because there are six models that can be used to help their children (Friend & Cook, 2010). Similarly, the challenge of administrator acceptance where they need to be clarified about the position and level of the student control that should be given special attention and this can be overcome with the implementation of co-teaching.

In addition to receiving the challenge from the school, parent mainstream acceptance is also an aspect that needs to be addressed. The presence of two teachers and SEN in the classroom is a situation which requires an adjustment (Villa et al., 2008). For the mainstream students, parents who never faced with this situation should be exposed and comprehensive information should be given to avoid misunderstand and distrust of the quality of their children future learning.. As explained by Thomas & Christine Walter (1997), this initiative will help parents to cooperate and create a more balanced school community as well as establish good morals among students.

2.1. Implementation challenges

The involvement of special education and mainstream teachers in the inclusive classrooms is a new one. Teacher's knowledge of the act and the provisions of law in the implementation of inclusive and co-teaching are also some aspects that received special attention from the Ministry of Education Malaysia and internationally. Many studies should be carried out mainly to overcome the existing problems and deal with issues that require more in-depth discussion (Creamer & Nevin, 2006). Many of the findings from abroad show that the level of student achievement in the mainstream and SEN increased (Villa et al., 2008) and the acceptance of the concept of equality in education (Hang & Rabren, 2009) will be achieved with a more significant improvement compared to only running inclusive classroom.

There are some challenges for groups of teachers to go through the practices of co-teaching. Teachers need to be prepared and know the level of achievement of the students. In the implementation of co-teaching, there are many models proposed by Friend (2006), which can be used as guide for teachers to implement co-teaching. Apart

from recognizing the identity and category of each student, teachers need to know their specific needs, especially in terms of learning abilities, and learning tools that help manage themselves (Ross-Hill, 2009). This is a challenge that must be passed for the teachers involved in the inclusive classroom. Teachers' preparation in getting the documentation ready and carrying out the monitoring of the achievement also represents a new challenge (Ploessl & Rock, 2014). Recording procedures and conducting this observation also involve many parties. For example, in the preparation of the documents for Individualized Education Plan (IEP), teachers need to cooperate to plan and conduct remedial and enrichment activities other than the provision of appropriate objectives (Rotter, 2014; Pretti-Frontczak & Bricker, 2000) in addition to the multi-disciplinary team as appropriate.

2.2 Administration challenges

Administrators are highly influential personnel (Pancsofar & Petroff, 2013) in providing cooperation to the implementation of co-teaching in inclusive classrooms. Generally the decision to establish, authorize, and other aspects related to the continuation in inclusive classrooms are under the responsibility of the administrator, but it will involve a level of confidence, enthusiasm and attitude of the respective teachers. The implementation of co-teaching requires an administrator to learn more about special education and how it should be handled. As a reference, most administrators do not have special education teaching background (Anuar & Rahim, 2014). The administrator who runs the special education program should be proficient in designing the professionalism development programs (Ploessl & Rock, 2014) which is necessary among all teachers. The implementation of co-teaching in public schools will involve teachers. Therefore, the administrator needs to have a team that can carry the responsibility for conducting the counseling sessions to the teachers. According to Howard and Potts (2009), the frequency of conducting observation and discussion is needed to strengthen the implementation of effective teaching sessions.

2.3 Challenges on Parents

Parental involvement in the planning and implementation of co-teaching is a necessary collaboration. Parents and SEN must provide their full cooperation in the implementation of co-teaching. The positive impact of the implementation of co-teaching to their children is evident in the study conducted by Gerber and Popp (1999). In some studies, there is full support from parents regarding the implementation of co-teaching. As parents, their support is required to create a good social integration among students. According to Gerber and Popp (1999), although this consideration is more challenging for them, a significant positive impact to overcome problems arises from the issue. The implementation of co-teaching in inclusive classes gives parents a share feeling and anxiety (Branding et al., 2008) with teachers and administrators associated to the formation of their children's IEP. This situation also increases the level of awareness to parents because of the formation of IEP (Etscheidt, 2006) and that there are challenges in the cooperation required by the school to ensure the achievement of IEP quality (Marx et al., 2014) to happen with the support of parents. The aspects of the communication challenges described by Guskey and Jung (2009) between school and parents will develop a community better than one way (Van Dyck et al., 2006). This has to be practiced before parental involvement can be improved through the discussions on the implementation of co-teaching.

3. Research Method

In this study research methodology is involved, three settings. Which are the development of research instruments, setting of respondent and data analysis.

3.1 Research Instrument

This quantitative study uses a purposive sampling that involves three groups of people: administrators, teachers and parents. The instrument was developed by the researchers using a 5-point Likert scale. This instrument is distributed to the respondents by post and email. Respondents were asked to return the completed questionnaire within seven days. This survey instrument was subjected to exploratory factor analysis (EFA) and validation process in three stages: test (pre-service teacher), retest (language specialist), and pilot test (among respondents in Johor). From the pilot test, Cronbach's Alpha for the whole instrument is 0.919 and for the construct of Administration (0.928), Implementation (0.908) and Performance (0.922). The survey items were constructed from the literature written by Friend (2008); Murawski (1999), Kamens et al., (2013) and Able et al., (2015). The instrument was divided into two parts: Section A and Section B. Section A (demography) consisted three questions (gender, race, and academic)

while Section B comprised of 21 questions (challenges).

3.2 Respondents

This quantitative study was conducted in Malaysia where the purposive and convenience samplings were chosen. There were 240 purposive respondents (administrators, teachers, and parents). The respondents were administrators (30), teachers (150) and parents (60). A total of 25 schools from 14 states participated in this survey. Data collection was done by distributing questionnaires to schools identified by MOE and convenience sampling (parents) in Johor. From 300 sets of questionnaires distributed, 290 sets were returned. From 290 sets, only 240 sets were accounted in accordance with the sample size required for the structural equation modeling (SEM) (i.e. a minimum of 10 respondents for each item in the survey instrument) (Chin, 1988). This sample size also fulfilled the required sample size of 240 respondents which was considered 90% confidence level, standard deviation of 0.5, and $\pm 5\%$ margin of error (Bulpitt, 1987). The rest 12 sets cannot be accepted because they did not meet the criteria.

3.3 Data Analysis

In this study different instruments were used to analyse the findings from the respondents in order to see their overview on the elements of challenges. The first data analysis was done by using IBM SPSS 21.0 to process the descriptive analysis and reliability of the data collected and access the demographic profile of the sample and the internal consistency of the constructs. The second measurement, the partial least squares (PLS) based SEM was used to analyse the three groups of respondents. As suggested by Anderson and Gerbing (1988), this study assessed the properties of measurement scales for the convergent validity and discriminant validity and then the constructed composite reliability by using the confirmatory factor analysis (CFA) followed by the analysis of structural equation modeling (SEM) to test the hypotheses. According to Laing (2015) the structural equation modeling by using PLS is a popular statistical technique for multivariate data analysis in the social and behavioral sciences, and education and becomes popular recently. This is because of the ability to model the latent constructs under the conditions of non-normality and small medium sample sizes (Ali et al., 2015).

3.4 Results

There are three sections of results in this study. Section A refers to Demographic, Section B Measurement Model and Section C Structural Model. Table 1 provides the demographic profile of the three groups of respondents.

4. Demographic

There are Administrators (60), Teachers (150) and Parents (30) were involved in the study. There were 146 males and 94 females. For the academic back ground there were 162 respondents has degree and 13 has master. 175 respondents are Malays and followed by Chinese and Indian.

5. Research Framework and Hypotheses

Figure 1 is the research framework. In the research framework, there are three hypotheses mentioned in the relationship of variables. There are three elements involved to determine the group of respondent.

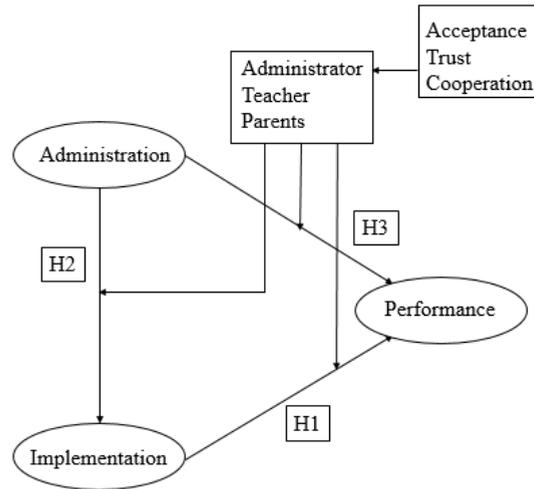


Figure 1: Research Framework and Hypotheses

H1: There are positive relationship between implementation and performance.

H2: There are positive relationship between administration and implementation.

H3: There are positive relationship between administration and performance.

6. Measurement Model

In this study, the model measurements were evaluated by examining the outer loadings, CR, average variance extracted (AVE), convergent validity, and discriminant validity. Firstly, the model measurement was tested for convergent validity. This was assessed through factor loadings, CR, and AVE (Hair et al., 2006). According to Chin (1998), loading items must be more than 0.6, then it will be considered as the recommended value (refer to Table 2). The result in this study shows all constructs are accepted because the AVE value range is between (0.617) to (0.733). For CR values, the recommended value exceeds 0.7 (Hair et al., 2006) and this study shows the range is between (0.889) to (0.942). While AVE which reflects the overall amount of variance in the indicators accounted for by the latent construct, the recommended value exceeds of 0.5 (Hair et al., 2006).

Table 3 shows the discriminant validity for this study which by the square root of the AVE (diagonal values) of each construct is larger than the corresponding correlation coefficients, indicating adequate discriminant validity (Fornell & Larcker, 1981). As discussed by Ramayah et al., (2013), the low correlations between the measure of interest and the measure of other constructs indicate good discriminant validity. Moreover, a comparison of the loadings across the columns in Table 4 also indicates that each indicator’s loading on its own construct is, in all cases, higher than all cross-loadings with other constructs. Thus, the results indicate discriminant validity between all constructs based on the cross-loadings criterion. Table 5 shows the weight of the first-order constructs on the designated second-order construct indicating the challenges of administrating, performing and implementing co-teaching in inclusive classroom. The weight of implementation is 0.152 which a t-value of 41.814, the weight of performance is 1.089 which t-value of 43.176 and the weight of administration is 0.837 which t-value of 28.418.

Table 1: Validity and Reliability for Constructs

| | Loadings | AVE | CR | Cronbach’s Alpha |
|------------------------------------|----------|--------------|--------------|------------------|
| Challenges (Administration) | | 0.704 | 0.943 | 0.927 |
| A1 – Collaboration culture | 0.915 | | | |
| A2 – Program planning | 0.935 | | | |
| A3 – Professional development | 0.798 | | | |
| A4 – Numbers of students | 0.816 | | | |

| | | | | |
|------------------------------------|-------|--------------|--------------|--------------|
| A5 – Observation contact | 0.939 | | | |
| A6 – Support group | 0.714 | | | |
| A7 – IEP Planning | | | | |
| Challenges (Implementation) | | 0.651 | 0.928 | 0.908 |
| P1 – Model selection | 0.905 | | | |
| P2 – Modification techniques | 0.837 | | | |
| P3 – Identity of students | 0.754 | | | |
| P4 – Knowledge of Policy | 0.640 | | | |
| P5 – Additional resources | 0.900 | | | |
| P6 - Documentation | 0.744 | | | |
| P7 – IEP Implementation | 0.837 | | | |
| Challenges (Performance) | | 0.690 | 0.939 | 0.922 |
| F1 – Sharing responsibility | 0.674 | | | |
| F2 – Communication | 0.941 | | | |
| F3 – Positive impacts | 0.759 | | | |
| F4 – Early exposure | 0.942 | | | |
| F5 – Informative | 0.770 | | | |
| F6 – Additional strategy | 0.740 | | | |
| F7- IEP Evaluation | 0.940 | | | |

Table 2: Discriminant Validity

| | IM | PE | AD |
|-----------------------|-----------|-----------|-----------|
| Implementation | 0.807 | | |
| Performance | 0.962 | 0.830 | |
| Administration | 0.837 | 0.760 | 0.839 |

Table 3: Cross Loadings

| | Administration | Performance | Implementation |
|-----------|-----------------------|--------------------|-----------------------|
| A1 | 0.915 | 0.648 | 0.732 |
| A2 | 0.935 | 0.660 | 0.750 |
| A3 | 0.798 | 0.575 | 0.647 |
| A4 | 0.816 | 0.646 | 0.684 |
| A5 | 0.939 | 0.655 | 0.748 |
| A6 | 0.714 | 0.582 | 0.627 |
| A7 | 0.722 | 0.675 | 0.703 |
| F1 | 0.561 | 0.674 | 0.584 |
| F2 | 0.695 | 0.941 | 0.900 |
| F3 | 0.603 | 0.759 | 0.827 |
| F4 | 0.690 | 0.942 | 0.893 |
| F5 | 0.618 | 0.770 | 0.744 |
| F6 | 0.556 | 0.740 | 0.686 |
| F7 | 0.682 | 0.940 | 0.890 |

| | | | |
|-----------|-------|-------|--------------|
| P1 | 0.699 | 0.946 | 0.905 |
| P2 | 0.614 | 0.749 | 0.837 |
| P3 | 0.934 | 0.660 | 0.754 |
| P4 | 0.494 | 0.541 | 0.640 |
| P5 | 0.695 | 0.941 | 0.900 |
| P6 | 0.618 | 0.770 | 0.744 |
| P7 | 0.617 | 0.752 | 0.837 |

Table 4: Weights of the First-Order Constructs on the Designated Second-Order Construct

| Second-Order constructs | First-Order Constructs | Weight | t-Value |
|--------------------------------|-------------------------------|---------------|----------------|
| Cco-T ^a | IM | 0.152 | 41.748 |
| | PE | 1.089 | 28.384 |
| | AD | 0.837 | 42.341 |

Cco-T^a: Challenges of Co-Teaching; IM: Implementation; PE: Performance; and AD: Administration; critical *t*-value, **2.58 (*P* < 0.01).

7. Structural Model

In this study the structural model and hypotheses were tested by Smart PLS 2.0 and it was recognized by Ringle et al. (2005). A bootstrapping procedure with 500 interactions was performed to examine the statistical significance of the weights of sub-constructs and according to Chin et al., (2008) researchers should run bootstrapping procedure. Figure 1 shows the result of the bootstrapping analysis. The results of *t*-values show positive relationship between the implementation to performance, administration to implementation and administration to performance.

Table 5 presents the complete results of the structural model and hypotheses testing. All three hypotheses were strongly supported indicating that challenges to administrators, implementation and performing co-teaching in inclusive classroom can be managed successfully by the positive acceptance, trust and cooperation among school administrators, teachers and parents.

Table 5: Structural Estimates (Hypotheses Testing)

| Hypotheses | Standard Beta | Standard Error | t-Value | Decision |
|-------------------------------------|----------------------|-----------------------|----------------|-----------------|
| H1 Implementation -> Performance | 1.089 | 0.026 | 42.482** | Supported |
| H2 Administration -> Implementation | 0.837 | 0.020 | 42.193** | Supported |
| H3 Administration -> Performance | 0.760 | 0.026 | 28.765** | Supported |

Notes: Critical *t*-values. *1.96 (*P* < 0.05); **2.58 (*P* < 0.01).

8. Discussion and Conclusion

It was challenging regarding the implementation of co-teaching. In this study the views of three parties are measured. Administrators, teachers and parents is what determines the success of co-teaching approach. A culture of collaboration among the parties involved in enabling all parties are satisfied with the program designed because it involves consenting administrators, teachers and parents. Acculturation involves the construction of collaboration in the implementation of the IEP (Branding et al., 2008) because teachers act as executor and parents see the changes and improvement in the quality of the IEP as a successful way. This study introduces the co-teaching model implemented in Malaysia.

This combination is the result of pressure exerted by the challenges that affect the implementation and

performance as discussed by (De Boer, 2010). To create the role of co-teaching, it is fully required that administrators, teachers and parents to seat together. Administrators should be responsible for leading and involving teachers (Friend, 2011) and parents (Howard & Potts, 2009) in the planning and implementation of co-teaching. The elements of acceptance, trust and cooperation allow this combination to become more established where everyone involved must work together and unite for the success of the scheme implemented. Special education is indispensable spirit of acceptance (Murawski, 2008), including the acceptance of teachers and students to join in the mainstream classes. Similarly, there is a need for mainstream to foster trust in the coalition as well as equally benefit. The implementation of co-teaching needs cooperation to generate power in the form of mutual agreement. Therefore, both parties involved should cooperate as the basis for the implementation of co-teaching.

The involvement of administrators, teachers and parents are able to provide a very significant impact (Friend & Cook, 2000) in this study shown the same result. The good achievement on the level of achievement among students in inclusive classrooms through the implementation of co-teaching, as one of the approaches used to facilitate cooperation between teachers (Ross-Hill, 2009). As suggested by (Klehm, 2014; Sruggs et al., 2007; Smith & Smith, 2000) it is supported this study, the relationship between the personnel involved can give a good impression in the context of trust, acceptance and cooperation. Despite the many challenges that must be addressed by the administrators, the need to provide professional training, encourage collaboration in schools, implement schedules and ratio of students involved in the implementation of co-teaching. It will give a new atmosphere to the school community. This situation will be normal when it is implemented over time and periodic monitoring is done to ensure the continuity of co-teaching approach.

Challenges faced by group of teachers can bring positive impact (Villa et al., 2008), especially in the preparation of the IEP, understanding of the diverse needs of students and making documentation of student achievement which have proven the effectiveness of learning information. Through the implementation of co-teaching, the role of parents is seen as central to the success of children. The role of parents is indispensable for ensuring their children to get the chance to improve academic achievement and social skills in the inclusive classrooms. A form of effective two-way communication will be carried out between the school and parents, which gives the impression that it is synonymous with the achievement because parents get information that is required from the administrators and teachers.

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