

An Overview of Challenges, Readiness, and Roles of Special Education Teachers on Co-Teaching Component in Inclusive Classrooms

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ABSTRACT

The purpose of this study was to determine the challenges, readiness, and roles of special education teachers in implementing co-teaching in inclusive classrooms. Experience as a moderator was used to determine the effect of the co-teaching component. A sample of 270 respondents was selected from the population of special education teachers in Malaysia. The main result show that there is a positive relationship between the active role played by a special education teacher and the success of the co-teaching. However, the finding of this study rejected experience as a mediator. Experience cannot be used as a measurement of the teachers' roles in improving the acceptance of the co-teaching approach. Even without previous co-teaching experience, a special education teacher could play an active role, provide guidance, and raise awareness about the need to provide services to students. Overall, this study show that the effectiveness co-teaching in inclusive classrooms depend on the roles played by the special education teachers.

Keywords: Special education, readiness, inclusive education, co-teaching, Malaysia

INTRODUCTION

The education system in Malaysia has shown positive changes since the launching of the Malaysia's Education Blueprint in 2013. The Malaysia Education Blueprint (2013-2025) is a well written, admirable and challenging document. It highlights key strengths in our education system; lays out guidelines for actions to be undertaken; and provides interesting examples of effective changes achieved in other countries. The blueprint could transform our education system for the betterment especially for nurturing young talents. For students with special needs, the blueprint acknowledges that special needs students make up an estimated 10% of every cohort. But, in fact, it is generally accepted that if a broad spectrum of learning difficulties is included, the proportion of students needing specialized teaching and attention may be as high as 15 - 20%. However, there are shortages of qualified special education teachers and professionals who could make inclusive classroom a success. An inclusive education seeks to bring special needs learners, except for the severely disabled, into mainstream education through individual education plans implemented by well-trained teachers and professional. Inclusive education calls for teachers to be creative and classroom practice to be flexible so that the students can learn together with their peers. Accepting students of diverse abilities in the same classroom has been shown to bring benefits to all students. It is the hallmark of a progressive, humane and high quality education system. The blueprint agenda on best practices in education which calls for immediate action in three areas — improvements in skills, training and quality of teachers; working closely with families; and building partnerships with relevant local organizations. The blueprint outlines directions for immediate improvements in quality of teachers and school principals.

New developments in special education policies and implementation are expected to provide a positive impact to special needs students. There are new approaches introduced in the blueprint with regard to the implementation of inclusive education. New teaching approach with an added element will be able to enhance the image of special education (Ministry of Education Malaysia, 2013). Implementation of educational process should be in line with the rapid development of education. Besides, teachers and students who could contribute to the improvement in the quality of academic performance of special needs learners especially in an inclusive classroom. Moreover, the education transformation should fulfil the needs of special education students. One of the core features in special and inclusive education is co-teaching. It is a practice of pairing teachers together in an inclusive classroom to share responsibility of planning, instructing, and assessing students.

The implementation of co-teaching in special education may lead to many challenges. As such, the implementation of co-teaching in an inclusive classroom requires consideration in terms of teacher's knowledge, skills and attitude. As discussed by Conderman and Hedin (2012; 2013), there are many challenges associated with co-teaching such as planning, teaching arrangement, teaching styles, students' acceptance, support services, expectations, and assessment. Scruggs et al. (2007) stated that although there are many challenges in the early stages of implementation of co-teaching, the effectiveness of co-teaching approach is associated with the aspect of teachers' readiness. Friend and Cook (1992) mentioned that readiness has provided a new insight for the teachers involved. In addition, readiness is one of the factors required to enhance the quality of inclusive education. Readiness also refers to the ability of teachers to deliver a content subject effectively. Dicker and Murawski (2003) stated that teachers involved in the implementation of co-teaching should know the techniques and models of co-teaching and ready to implement the teaching process. According to Friend (2008b), there are six models of co-teaching and special education teachers should be familiar with them when they implement the co-teaching in an inclusive classroom. The roles of special education teachers in implementing the co-teaching in an inclusive special education teachers cannot be denied. There are many special education teachers who have contributed greatly to the implementation of inclusive education (Carrington & Robinson, 2004; 2006). Special education teachers have a great responsibility including the preparation of the subject content, familiar to the aspect of individual needs, and the welfare of each student. Special education teachers must always alert to the needs of SES according to their individual needs and able to fulfil the diverse needs.

Co-teaching approach

Conderman and Hedin (2012) found that inclusive implementation requires a new perspective that is related to the quality of inclusive teaching by combination of teachers' expertise. It means that it can be interpreted as an inclusive that can be improved by implementing the recommendations special education teachers out by Friend (2008a). She stressed the requirements for the implementation of co-teaching. However, there are many obstacles that must be overcome to enable the administrator to carry out certain matters that have been kept in the act. The co-teaching approach has been widely and frequently discussed. According to Rice and Zigmond (2000), the implementation of co-teaching is a continuation to the concept of team teaching. In the 1990s the term was shortened to cooperative learning "co-teaching". According to the Friend, Cook and Hurley-Chamberlain (2010), they termed teaching together as a teaching approach that involves the implementation in which the mainstream teachers and special education teachers share the responsibility to design, deliver, and evaluate teaching sessions to be assigned to a group of students which involve the collection of special education students.

Friend and Cook (2008a) stated that co-teaching can also be referred to as collaborative teaching, team teaching or cooperative learning. It also consists of professionals, mainstream teachers, and special education teachers. This statement is supported by Friend and Cook (1992) who stated that the term refers to collective teaching will provide educational benefits to SES and mainstream students in inclusive classroom. Magiera et al. (2005) combined a few elements presented in previous studies with regard to the purpose of co-teaching subsequently. It may produce a new definition of co-teaching approach of a mainstream elements between mainstream teachers and special education teachers. They should work together in a physical space with a variety of teaching activities and also provide optimal teaching for the students. This opinion is also in line with McDuffie et al. (2009) in

which they suggested to make the co-teaching beneficial to students with diverse background and abilities and also attributes to collaborate, and share knowledge and skills to improve their programs.

The implementation of co-teaching approach requires a paradigm shift in thinking that involves many parties. This study will fill the gap in the inclusive implementation in Malaysia. Co-teaching is one of the alternatives to fulfil the empty space in inclusive practice and yet to lead the involvement of special education teachers in full inclusion special education teachers as mentioned 75% of inclusive practice in 2025 (Anuar & Rahim, 2013). A consistent effort is required to overcome the challenges in implementing co-teaching as described by Sukumaran (2014) and it is also must be implemented with the help of legislation. The involvement and understanding of a teacher can be achieved by providing exposure through courses and training on the teaching components together as shown by previous studies (Zigmond, 2003; Hallahan & Kaufman, 2006; Friend, 2011; Anuar & Rahim, 2014) with respect to inclusion implementation.

Components and challenges of co-teaching approach

The components of co-teaching approach with the purpose of teaching in this study refer to the five point proposed by Friend (2008a). According to Friend (2008a), in order to obtain the best implementation of co-teaching, teachers should be alert about the component of co-teaching. Based on this suggestion, philosophy, personal qualities, professional qualities, classroom dynamics, and external support are key to the success of co-teaching. The relationship between each item will give the meaning to the common teaching approach. Teacher recruitment is an important element for the success of co-teaching approach. However there are many challenges encountered prior to the success. Several studies found that challenges will shape the experience. Through the experience, a new approach of teaching will be enhanced. According to Bradley et al. (2007), time management is a priority requirement in planning the co-teaching. A teacher faces many challenges thus a teaching session should be discussed prior to implementation. The impact on non-systematic scheduling is also a barrier to be discussed among teachers.

However, according to Bristol (2014), teachers must allocate appropriate time of discussion for the plan to be implemented. Lin and Lin (2014) expressed the need for specific training plan time and discussion to be emphasized. The implementation of co-teaching requires the approval of the administrator. The role of the administrator is to ensure that this approach can be carried out and it is a very important aspect. For example, the number of teachers involved need to be considered. Literature has shown that teacher ratio need to be compatible and should be in accordance with the needs of SES so that teaching can be done better. Scruggs et al. (2007) argued that the lack of administrative support and attention as it will complicate the implementation of co-teaching. Hence, the planning and implementation of co-teaching must be supported by the administrators to allocate financial support. According to Madaus et al. (2010), the distribution of financial allocations for the implementation of co-teaching is also a determinant of the success in which could produce a positive impact as the needs of special education students is not limited to the aspect of teaching but also involves the purchase and provision of specialized learning tools. Ajuwon (2008) asserts that, in inclusive classrooms, students need to be prepared because learning aids are geared toward individual needs. Obviously, this shows that the financial allocation is needed to ensure the success of co-teaching in inclusive setting.

Teachers' readiness of co-teaching

The implementation of co-teaching approach can be further strengthened by the readiness aspect among special education teachers. Among the necessary readiness is the shared responsibility. Teachers need to commit in every teaching design they have decided. According to Friend and Cook (1992), as a result of a readiness to share responsibility, it will reduce the workload and increase cooperation (Murawski et al. 2008). Hence, it is important to build teachers' readiness expectation on how co-teaching works. Special education teachers should be able to adapt the new environment. They should be prepared to be placed in the mainstream classroom and teachers can run lessons in pairs as a way to adapt to the mainstream. As stated by Friend (2008a), teachers need to improve their communication skills because the implementation of co-teaching requires the teachers to teach together. Hence, it is critical to ensure the communication between the teachers is smooth so that the learning objectives could be achieved.

Elevated levels of learning achievement are very important in inclusive classroom. In order to achieve an improvement, every student's strengths and weaknesses need to be addressed. Special education teachers should be ready to record and analyze any changes in students' behaviors and always be sensitive to the needs of students. Positive changes will reflect the success of students with disability. Other than the readiness to change the special education teachers' attitudes and behaviors, they should also need to increase their mastery in the subject syllabus (Austin, 2001). Teachers need to be flexible in delivering the educational content and they should be able to make adjustments according to students' ability levels. The teachers must also be ready to change their teaching techniques to increase the quality of students' learning. According to Gately (2005), teachers should be able to deliver their teaching content according to students' acceptance capability.

Teachers' roles in co-teaching

There are several roles need to be given special attention by the special education teachers who are involved in the implementation of co-teaching approach. This approach will provide vital experience for each teacher as highlighted by Friend (2008a). The presence of teachers in inclusive classrooms will provide a new experience to the SES as well as increase their motivation to learn. Scrugg et al. (2007) found that the motivation and learning performance of two groups of students improved by the presence of two teachers. In the implementation of co-teaching, Special education teachers roles are as a facilitator in the classroom (Learned et al., 2009). Special education teachers need to focus on the subjects that are taught and understand the content. Mastropieri et al. (2005) suggested that teachers should convey them in a form that is easily understood by SES. In line with the findings, although there are six models introduced, the tendency of mainstream teachers plan and the implementation of some specific models have a good impact on improving teacher recruitment and special education teacher performance (Anuar, 2014).

According to Madaus et al. (2010), special education teacher have to carry out discussions with mainstream teachers about the contents and weight that should be given to special education students. As it is known, the level of acceptance of the students is not the same as the mainstream students and they should be given the suitable of curriculum content (Murawski, 2008). Discussion with mainstream teachers on the weight of the examination should also be done. The discussion is crucial for the special needs learners not loaded with educational content that will ultimately affect their motivation to learn. Discussion among the teachers should be carried out as the concept of inclusive classroom learning may be continued even if the contents of a subject are modified. The implementation of common approach also required special education teachers to communicate with students more often. They will provide the information about the current state of the students then facilitate the students and teachers will know their feedback during class. Students should be given attention by monitoring their level of understanding. Teachers can change the learning approach if they feels inappropriate at the time required.

METHODS

Figure 1 shows the relationship formed through the three aspects mentioned in the review of the challenges (Scrugg, 2007), readiness (Murawski, 2008), the roles of special education teachers (Friend & Cook, 2000), and the roles of co-teaching (Friend, 2008a). Challenges, roles, and readiness are formulated to strengthen the understanding of special education teachers in implementing the co-teaching approach by understanding the components. It is assumed that these three aspects would enhance the teaching effectiveness with the elements that required according to the needs of teachers in Malaysia. The hypotheses developed from the literature mentioned are as follows:

- H1.** There is a positive relationship between the challenges of co-teaching and
- H2.** There is a positive relationship between the roles of co-teaching and
- H3.** There is a positive correlation between the willingness and co-teaching

Based on previous research, it is found teacher's experience in inclusive classroom is also critical in ensuring the success of the co-teaching. Thus, in this study, experience is selected as a moderator variable. In this study, experience is referring to the special education teacher's experience in handling inclusive classroom. The hypotheses are as follows:

H4. Teacher's experience has a positive effect on the relationship between challenges and the co-teaching

H5. Teacher's experience has a positive effect on the relationship between the roles and the co-teaching

H6. Teacher's experience has a positive effect on the relationship between readiness and the co-teaching

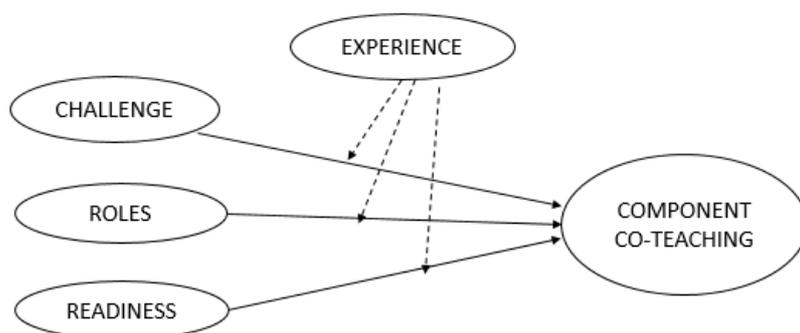


Figure 1: Research Model

Instrumentation

The instrument was developed by the researchers using a 5-point Likert scale of SD (strongly disagree), D (disagree), N (neither agree nor disagree), A (agree), and SA (strongly agree). This survey instrument was subjected to exploratory factor analysis (EFA) and validation process in three stages: test, retest, and pilot test. The pilot test Cronbach's Alpha for the instrument, challenges, component, readiness, and roles were 0.818, 0.854, 0.720, 0.888, and 0.808 respectively. The items survey were constructed from the literature written by Friend (2008a). The questionnaire was divided into two parts: Section A and Section B. Section A (demography) consisted six questions (gender, race, experience, academic qualification, position, and training) while Section B comprised 27 questions which were divided into four fractions: components (5 questions), challenges (7 questions), roles (8 questions) and willingness (7 questions).

RESULTS

Respondents

This quantitative study was conducted in Malaysia with a sample of 270 respondents. The respondents were special education teachers from different backgrounds and teach the Integration Program of Special Education in secondary schools in Malaysia. A total of 34 schools participated from 14 states. Data collection was conducted by distributing questionnaires to the selected schools. From 270 questionnaires distributed, only 240 special education teachers were acceptable for analysis using structural equation modelling (SEM). This sample size also fulfilled the required sample size at 90% confident level with standard deviation of 0.5, and $\pm 5\%$ margin of error. The rest 30 special education teachers cannot be accepted because the special education teachers did not meet the criteria. Table 1 represents the demographic data of the respondents.

Table 1: Respondent Profile

Demographic Variables		Frequency	Percentage (%)
Gender	Male	60	25.0
	Female	180	75.0
Race	Malay	205	85.4
	Chinese	10	4.2
	Indian	22	9.02
	Others	3	1.03
Experience	1-8 Years	113	47.1
	9-16 Years	69	28.7
	17-22 Years	58	24.2
Academic qualification	PhD	2	0.8
	Master	26	10.8
	Degree	192	80.0
	Diploma	16	6.7
	Certificate	4	1.7
Position	Administrator	103	42.9
	Teacher	137	57.1
Training	Yes	135	56.3
	No	105	43.7

DATA ANALYSIS

This study used IBM SPSS 21.0 to analyze the data using descriptive and inferential statistics. The reliability analysis of the data collected was conducted to determine the internal consistency of the constructs. This study also assessed the properties of measurement scales for convergent validity and discriminant validity, and constructed the composite reliability by confirmatory factor analysis (CFA) followed by the application of structural equation modelling (SEM) to test the hypotheses. Partial least squares (PLS) was based on SEM. SEM was used in this study to verify the path relationships of challenges, roles, readiness, and the component of co-teaching. PLS is a well-established technique for estimating path coefficients in structural models and has been widely used in various research studies (Ali & Amin, 2014). The PLS technique has become increasingly popular in education research as well as social sciences research. Moreover, it is generally powerful because of its ability to model latent constructs under the condition of non-normality and small medium sample sizes (Chin, 1998).

Measurement Model

In this study, 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 that all constructs are accepted because the AVE value range are between (0.617) to (0.733). For CR values, the recommended value exceeds 0.7 (Hair et al., 2006) and this study shown the range are 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). Even though there were two rejected items P1 and R6 in the condition of due to low factor loading.

Table 3 shows the discriminant validity for this study. According to Ramayah et al. (2013), the low correlations between the measure of interest and the measure of other constructs indicated good discriminant validity. Table 3 shows that the square root of AVE (diagonal values) of each construct is larger than its corresponding correlation coefficients, indicating adequate discriminant validity (Fornell & Larcker, 1981). 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 indicated discriminant validity between all constructs based on the cross-loadings criterion.

Table 2. Validity and reliability for the constructs

	Outer Loadings	AVE	CR
Challenges		0.704	0.942
C1 – Time management	0.935		
C2 – Time allocation	0.953		
C3 – Discussion between teachers	0.787		
C4 – Systematic schedule	0.817		
C5 – Discussion with administrator	0.955		
C6 – Financial allocation	0.684		
C7 -	0.691		
Components		0.617	0.889
K1 – Philosophy	0.788		
K2 – Personal qualities	0.780		
K3 – Professional qualities	0.849		
K4 – Classroom Dynamics	0.749		
K5 – External support	0.757		
Readiness		0.636	0.923
P1 – Sharing responsibility	0.739		
P2 – Communication	0.926		
P4 – Workload	0.815		
P5 – Adaptation on environment	0.784		
P6 – Student record	0.925		
P7 – Subject mastery	0.929		
Roles		0.733	0.942
R1 – Motivation	0.900		
R2 – Facilitator	0.833		
R3 – Model selection	0.773		
R4 – Discussion session	0.610		
R5 -	0.896		
R7 – Weight content	0.836		
R8 - Student activity	0.691		

Note: P1 and R6 were deleted due to low factor loading.

Table 3. Discriminant validity (inter-correlations) of variable constructs

	Challenges	Component	Readiness	Roles
Challenges	0.839			
Component	0.754	0.785		
Readiness	0.842	0.763	0.798	
Roles	0.732	0.744	0.923	0.856

Note: Diagonal values represent the square root of the AVE while off-diagonal values represent the correlations.

Table 3 shows the results of testing the discriminant validity of the measures sales. The elements of the diagonal matrix represent the square roots of the AVEs for challenges (0.839), component (0.785), readiness (0.798), and roles (0.856). Hence, in this study, the off-diagonal elements in the corresponding row and column, supported the discriminant validity of the co-teaching approach.

Table 4: Cross loadings

	Challenges	Component	Readiness	Roles
C1	0.935	0.757	0.635	0.747
C2	0.953	0.759	0.645	0.771
C3	0.787	0.502	0.554	0.660
C4	0.817	0.604	0.619	0.710
C5	0.955	0.744	0.640	0.768
C6	0.684	0.462	0.574	0.619
C7	0.691	0.503	0.674	0.684
K1	0.513	0.788	0.657	0.603
K2	0.408	0.780	0.484	0.489
K3	0.496	0.849	0.612	0.595
K4	0.366	0.749	0.447	0.427
K5	0.935	0.757	0.635	0.747
P1	0.588	0.512	0.739	0.827
P2	0.679	0.638	0.926	0.889
P4	0.611	0.693	0.815	0.658
P5	0.550	0.674	0.784	0.641
P6	0.671	0.625	0.925	0.886
P7	0.653	0.645	0.929	0.867
R1	0.688	0.647	0.930	0.900
R2	0.601	0.560	0.735	0.833
R3	0.952	0.761	0.645	0.773
R4	0.480	0.420	0.555	0.610
R7	0.685	0.640	0.919	0.896
R8	0.603	0.546	0.735	0.836

Structural Model

As discussed previously, the evaluation of model measurement of the items have been conducted. The outer loadings, composite reliability, average variance extracted (AVE = convergent validity), and discriminant validity. Firstly, the model measurement was tested for convergent validity. This was assessed through factor loadings, composite reliability (CR), and average extracted (AVE) (Hair et al., 2013). Figure 2 is the structural model based on the empirical data.

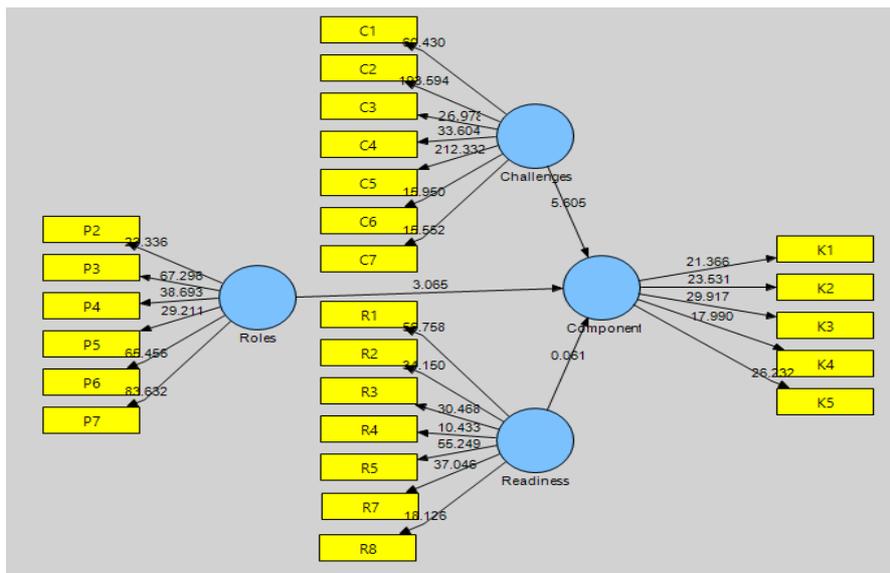


Figure 2: Structural modelling

From the data obtained through bootstrapping procedure, it showed a significant correlation (0.061) between the teachers' readiness and the co-teaching component. These findings demonstrated that the readiness of the factors contributed to the successful implementation of co-teaching rather than the teacher's role (3.065) while the challenges showed no significant relation (5.605) with the co-teaching component. Thus, the factors contributed to the success of co-teaching should be given attention in future research.

Hypothesis Testing

After the bootstrapping procedure, the results of the three hypotheses showed H1 is not supported while H2 and H3 are supported.

Table 5: Hypotheses testing

Hypotheses	Relationship	Std. Beta	Std. Error	t-value	Decision
H1	Challenges -> Component	0.449	0.080	5.605**	Supported
H2	Readiness -> Component	0.010	0.158	0.061	Not Supported
H3	Roles -> Component	0.407	0.133	3.065**	Supported

**p>0.01, *p>0.05

Moderation Analysis

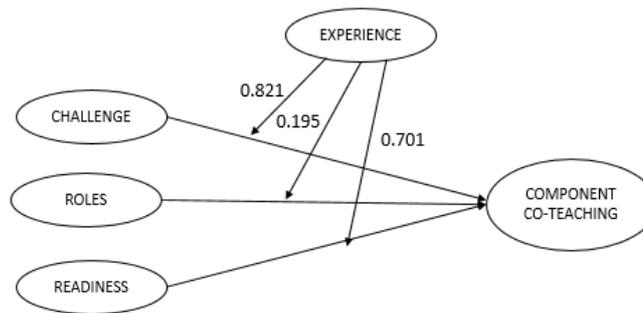


Figure 3: Moderation analysis

After the bootstrapping procedure, the result of moderator analysis showed all hypotheses are not supported.

Table 6: Moderator hypotheses testing

Hypotheses	Relationship	Std. Beta	Std. Error	t-value	Decision
H4	Challenges * Experience -> Component	0.070	0.085	0.821	Not Supported
H5	Readiness * Experience -> Component	0.106	0.151	0.701	Not Supported
H6	Roles * Experience -> Component	-0.025	0.129	0.195	Not Supported

**p< 0.01, *p<0.05

DISCUSSION

Based on the data obtained, there are many possible discussions related to the implementation of co-teaching as a new approach for special education teachers in Malaysia. The findings on the teacher ratio adjustment in the environment were in accordance with the opinion by Friend (2008a) regarding the challenges faced by teachers in running lessons together. Similarly, Murawski and Dieker (2008)

stated that the adjustment to the new environment requires the teachers' teaching time management. Teachers also need more time to design a model with more appropriate teaching techniques. According to a study conducted by Scruggs (2007), there were constraints and challenges in the early stage of teaching together. However, the moderator used to form hypotheses rejected the aspects of the experience that is used as a factor to support challenges. Thus, experience is not critical in determining the success of co-teaching.

There were discussions regarding the teacher ratio readiness in conducting lessons by Friend (2008a), and Murawski and Dieker (2008). The discussions have many similarities with the findings of this study. The aspect of readiness shows a positive value which means that the teachers are prepared for their co-teaching lessons together. Preparation includes shared responsibility, commitment, and the willingness to bear the additional tasks. The finding also indicated a positive correlation between the readiness and co-teaching components. The result also shows that teachers are prepared and ready to implement co-teaching in their classrooms. However, the moderator used in this study rejected the hypotheses made because experience showed no change in terms of readiness. In this study, the item of communication is related to the aspects of readiness. It means that teachers must possess good communication skill (Murawski & Dieker, 2008) and also they need to motivate their special needs students to communicate with others. Novice teachers could also serve as a co-teacher since previous experience in co-teaching is not really necessary. But the new teachers need to learn and consult with the experience teachers.

CONCLUSION

This study was designed to determine the challenges, readiness, and roles of special education teachers in implementing co-teaching in inclusive classrooms in Malaysia. The main result shows that there is a positive relationship between the active role played by a special education teacher and the success of the co-teaching. However, the finding of this study rejected experience as a mediator. Experience cannot be used as a measurement of the teacher's role in improving the acceptance of the co-teaching approach. Even without previous co-teaching experience, a special education teacher could play an active role, provide guidance, and raise awareness about the need to provide services to the special needs students. This study also shows that the effectiveness co-teaching in inclusive classrooms depend on the roles played by the special education teachers. The positive role of special education teachers is crucial for the success of co-teaching approach. Teachers need to motivate students because they need to play the role as facilitator. In this study, the active involvement of special education teachers in the inclusive classrooms was shown to be important. Moreover, the aspect of readiness of the special education teachers is critical to prepare them to carry out their responsibilities more effectively and efficiently. This study could also be part of an initial investigation that may lead to better outcomes of co-teaching in Malaysian inclusive classrooms.

REFERENCES

- Ali, F. & Amin, M. (2014). The effect of physical environment on customer's emotions, satisfaction and behavioural loyalty. *Journal for Global Business Advancement*, 7(3), 249-266.
- Anderson, J. & Gerbing, D. (1988). Structural modelling in practice: A review and recommended two-step approach. *Psychological Bulletin*, 103(3), 411-423.
- Anuar, M.K. & Rahim, A. (2013). Perception of mainstream teacher about inclusion. *2nd International Seminar on Quality and Affordable Education*. UTM: Faculty of Education.
- Anuar, M.K. & Rahim, A. (2014). Inclusive implementation: Overview of administrator, mainstream teacher and special education teacher. *Proceedings of the International Seminar of Postgraduate Special Education UKM-UPI-SEAMEO*. UKM: Faculty of Education.

- Ajuwon, M. (2008). Inclusive education for students with disabilities in Nigeria: Benefits, challenges and policy implementation. *International Journal of Special Education*, 23(3), 34-44.
- Austin, V.L. (2001). Teachers' beliefs about co-teaching. *Remedial and Special Education*, 22, 245–255.
- Bradley, R., Danielson, L. & Doolittle, J. (2007). Responsiveness to intervention: 1997 to 2007. *Teaching Exceptional Children*, 39(5), 8-12.
- Bristol, L. (2014). Leading-for-inclusion: Transforming action through teacher talk. *International Journal of Inclusive Education*, 19(8), 802-820.
- Carrington, S. & Robinson, R. (2004). A case study of inclusive school development: A journey of learning. *International Journal of Inclusive Education*, 8(2), 141-153.
- Carrington, S. & Robinson, R. (2006). Inclusive school community: Why is it so complex? *International Journal of Inclusive Education*, 4(5). 232-334.
- Chin, W.W. (1998). Issues and opinions on structural equation modelling. *MIS Quarterly*, 22(1), 7-16.
- Conderman, G. & Hedin, L. (2012). Purposeful assessment practices for co-teachers. *Teaching Exceptional Children*, 44(4), 18-27.
- Conderman, G. & Hedin, L.R. (2013). Co-teaching with strategy instruction. *Intervention in School and Clinic*, 49(3), 156-163.
- Dieker, L.A. & Murawski, W. (2003). Co-teaching at the secondary level: Unique issues, current trends, and suggestions for success. *The High School Journal*, 86, 4.
- Fornell, C. & Larcker, D.F. (1981). Evaluating structural equation models with unobservable and measurement error. *Journal of Marketing Research*, 18(1), 39-50.
- Friend, M. (2011). *Special education: Contemporary perspectives for school professionals*. Upper Saddle River, NJ: Pearson.
- Friend, M. (2008a). Co-teaching: A simple solution that isn't simple after all. *Journal of Curriculum and Instruction (JoCI)*, 2(2), 9-19.
- Friend, M. (2008b). *Special education: Contemporary perspectives for school professionals*. Boston: Pearson Education, Inc.
- Friend, M., & Cook, L. (1992). The new mainstreaming: How it really works. *Instructor*, 101(7), 30-36.
- Friend, M. & Cook, K. (2000). *Interactions: Collaboration skills for school professionals*. White Plains, NY: Longman.
- Friend, M., Cook, L. & Hurley-Chamberlain, D. (2010). An illustration of the complexity of collaboration in special education. *Journal of Educational and Psychological Consultation*, 20, 29.
- Gately, S.E. (2005). Two are better than one. *Principal Leadership*, 5(9), 36-41.
- Hair, J.F., Black, W.C., Babin, B.J., Anderson, R.E., & Tatham, R.L. (2006). *Multivariate data analysis* Upper Saddle River, NJ: Prentice-Hall.

- Hallahan, D.P. & Kauffman, J.M. (2006). *Exceptional learners: Introduction to special education*. Boston, MA: Allyn and Bacon.
- Learned, J.E., Dowd, M.V., & Jenkins, J.R. (2009). Instructional conferencing helping students succeed on independent assignments in inclusive special education teacherstings. *Teaching Exceptional Children*, 41(5), 46-51.
- Lin, P. & Lin, Y. (2014). Identifying Canadian teacher candidates' needs for training in the use of inclusive classroom assessment. *International Journal of Inclusive Education*, 19(8), 771-786.
- Madaus, J.W., Pavimik, L., Patnaod, M., Scarpatti, S., Richard, N., Wright, D., Elena, H., & Gable, R.K. (2010). Teaching food safety skills to students with disabilities. *Teaching Exceptional Children*, 42(4), 44-51.
- Magiera, K., Smith, M., Zigmond, N. & Gebauer, K. (2005). Benefits of co-teaching in secondary mathematics classes. *Teaching Exceptional Children*. 37(3).
- Mastropieri, M.A., Scruggs, T.E., Graetz, J.E., Nordland, J., Gardizi, W., & McDuffie, K. (2005). Case studies inco-teaching in the content areas: Successes, failures, and challenges. *Intervention in School and Clinic*, 40, 260-270.
- McDuffie, K.A., Mastropieri, M.A. & Scruggs, T.E. (2009). Differential effects of peer tutoring in co-taught and non-cotaught classes: Results for content learning and student' teacher interactions. *Exceptional Children*. 75(4), 493-510.
- Ministry of Education Malaysia. (2013). *Malaysia education blueprint 2013-2015: Preschool to post secondary education*. Putrajaya: Kementerian Pendidikan Malaysia.
- Murawski, W.W. & Dieker, L.A. (2008). 50 ways to keep your co-teacher. *Teaching Exceptional Children*, 40(4), 40-48.
- Murawski, W.W. (2005). Addressing diverse needs through co-teaching: Take baby steps! *Kappa Delta Pi Record*, 41(2), 77-82.
- Pijl, S.J. (2007). Introduction: The social position of pupils with special needs in regular education. *European Journal of Special Needs Education*. 22(1), 1-5.
- Ramayah, T., Yeap, J.A. L., & Ignatius, J. (2013). An empirical inquiry on knowledge sharing among academicians in higher learning institution. *Minerva*, 51(2), 131-154.
- Rice, D. & Zigmond, N. (2000). Co-teaching in secondary schools: Teacher reports of developments in Australian and American classrooms. *Learning Disabilities Research and Practice*, 15(4), 190-197.
- Scruggs, T.E., Mastropieri, M.A. & McDuffie, K.A. (2007). Co-teaching in inclusive classrooms: A metasynthesis of qualitative research. *Exceptional Children*. 73(4), 392-416.
- Sukumaran, S. (2014). Inclusion in Malaysia integrate preschools. *International Journal of Inclusive Education*, 19(8), 821-844.
- Wise, D. & Jacobo, A. (2010) Towards a framework for leadership coaching. School leadership and management. *Formally School Organisation*. 30 (2), 159-169.

Zigmond, N. (2003). Where should students with disabilities receive special education services? Is one place better than another? *The Journal of Special Education*. 37(3), 103-199.