

The impact of collaborative teaching on teaching efficacy among inclusive teachers in Malaysia

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DOI: <https://doi.org/10.37134/bitara.vol12.sp.9.2019>

Published 12 December 2019

ABSTRACT

The purpose of this study is to explore the extent of collaborative practices for teaching students with special needs, among mainstream teachers and special needs teachers in Malaysia. Using a qualitative research method, data was generated through focus group sessions with four groups of teachers: pre-service mainstream teachers, in-service mainstream teachers, pre-service special education teachers, and in-service special education teachers. Interview questions were derived from the Teacher Efficacy in Inclusive Practice (TEIP) and the Collaborative Teaching Survey. Through thematic analysis, themes related to collaborative practices and teacher efficacy levels were derived from the participants' responses. The findings show that although the Malaysian teachers engage in collaborative practices, their perceptions towards students with SEN and their engagement differ according to their roles. Mainstream teachers were found to regard collaboration as seeking advice and exchanging ideas with special education teachers. Special education teachers, on the other hand, suggested that they preferred collaboration in implementing classroom inclusive practices. Interestingly, SEN teachers viewed collaboration with parents as essential to their teaching as well. The findings also suggested that knowledge and experiences in special education influence teachers' levels of teacher efficacy. The findings of this study support the cruciality of collaborative practices as a means of resolving issues of inadequate resources for students with special or additional needs in the Malaysian classrooms.

Keywords: special needs; collaborative teaching; education; inclusion; teacher training; teaching efficacy

INTRODUCTION

The Education Ministry of Malaysia (2013) had published the Malaysia Education Blueprint 2013-2025 for Preschool to Post-Secondary Education, committing to transform the education system with the intention of developing the social and economic capital of the country through eleven shifts of change in strategy and direction. As a start, the first shift, 'Shift 1', aimed to "Provide equal access to quality education of an international standard". This strategy is affirmed by the Education Ministry's aspiration to develop students holistically and is further addressed in Chapter 4 of the Malaysia Education Blueprint 2013-2025 (Preschool to Post-Secondary Education) to reassess the country's provisions for students with specific needs. In line with this objective, the current Malaysian Ministry of Education has recently announced that they are committed to improving special education in Malaysia within the next five years (Maszlee: 43 educational pledges, 2018).

Various research across Asia (e.g. Carroll, et al., 2013; Peer & Reid, 2016; Shah et al., 2013) have deduced several factors that influence the development of inclusion in schools. These factors can be related to teachers, students, resources and administration (Ng, 2015; Wright, 2015). In the Malaysia Education Blueprint 2013-2025 (Ministry of Education, 2013), it is suggested that the Malaysian special needs education system can be evaluated based on five dimensions: a) early identification, intervention and healthcare support, b) curriculum flexibility, c) teachers and other specialists, d) infrastructure and finances, and e) public awareness and involvement. Among these five dimensions, infrastructure and finances, and public awareness are two dimensions that are built on

“Wave 1” of the roadmap towards inclusive education in Malaysia while early identification and healthcare support falls into the medical area. Based on the five dimensions, this study intends to explore teacher-related factors and how they influence curriculum flexibility in an inclusive learning environment. In line with creating a pipeline of trained teachers and specialists, the aim of this study is to explore the impact of collaborative teaching on Malaysian teachers who teach in inclusive settings. This chapter will introduce Bandura’s (1977) social cognitive theory and how it is related to teachers’ efficacy, specifically in collaborative teaching within an inclusive educational setting. Handal and Lauvas’ Practical Theory and Action approach will then be introduced in support of Bandura’s (1977) self-efficacy concept.

Teacher Efficacy

Several studies have identified teacher efficacy as one of the elements that impact a teacher’s attitude towards inclusion (Carroll, Forlin & Jobling, 2003; Shah, Das, Desai & Tiwali, 2013). Teacher efficacy is based on the concept of self-efficacy established by Bandura (1977) who defined it as “a judgement of the capability to execute a given type of performance”. Recently, research on teachers’ efficacy has shown to be linked to greater teacher performances as a result of increased levels of effort among teachers (Malinen et al., 2013; Tschannen-Moran, Woolfolk Hoy & Hoy, 1998). Albeit its positive influence, it is imperative to be mindful that teachers’ efficacy is context-specific (Malinen et al., 2013; Tschannen-Moran & Woolfolk Hoy, 2007); teachers may feel more confident or comfortable teaching only in a particular setting (Malinen et al., 2013). To support the argument that teacher efficacy can be context-specific, this study adopts Handal and Lauvas’s (1987) Practical Theory and Action as an underlying approach which believes that every teacher’s decision to behave in a certain way when teaching is influenced by teacher-related elements such as teacher’s values or belief system, knowledge about teaching, and personal experiences with individuals with special needs (Shah et al., 2013). These factors specific to contexts such as the students’ capability (Sevimel & Subasi, 2018), temperament (Sevimel & Subasi, 2018) and support from the school’s administration (Zee & Koomen, 2016) are likely to shape a teacher’s decision to behave a certain way in teaching. In addition, environmental elements such as classroom management, type of instruction, and more recently, collaboration with other teachers and parents, are also context-specific and have been shown to affect teacher efficacy (Malinen, 2013; Ng, 2015).

Collaborative Teaching

The availability of additional support for teachers is associated with teacher efficacy in inclusive teaching practices (Shah et al., 2013). The cooperation between mainstream teachers and special education teachers has shown to help teachers engage in discussions on effective pedagogical methods to support inclusion (Jelas, 2010; Shah et al., 2013). While collaborative teaching has been recommended as an evidence-based practice, there are constraints to collaborative teaching. In Malaysia, the SEIP and Inclusive Education Programmes options only allow students with special needs to be attended to by special education specialists. This approach lacks a focus on collaboration between regular teachers and special education teachers (Jelas, 2010). Employing Pugach’s (1992) theoretical framework that posits a ‘unifying model’ to integrate both general teaching and special needs teaching (Jelas, 2010), this study positions that it is integral to have an amalgamation of accountability in both general teaching and special needs teaching; a concept that could be introduced to teachers as early as during a teacher education course (Jelas, 2010).

The ‘unifying model’ is supported by Stayton and McCollum (2002) with their suggestion of three models of teacher preparation for inclusive schools: a) the additional model, b) the infusion model, and c) the unification model (Jelas, 2010). The additional model suggests adding content about disabilities in general educators’ preservice training programs and field experiences (Stayton & McCollum, 2002). When the additions were found to still be inadequate to prepare preservice teachers for inclusion, the second model was suggested. The intention of the infusion model was to infuse more collaborative efforts between general education students and special education students in field experiences (Stayton & McCollum, 2002). Finally, Miller and Stayton (1996) suggested that the most ideal model, the unification model, is to combine all recommended personnel standards from both

general education and special education programs into one curriculum (Stayton & McCollum, 2002). The unification model implies that collaboration is a skill imparted to both general educators and special needs educators during teacher training and strengthened through viewing each other as “co-equal partners” during teaching (Stayton & McCollum, 2002).

Collaboration teaching is also supported by Yin, Jia and Jaffri (2014) who suggest that pedagogical training in special education hold equal importance for mainstream teachers and special education teachers. To prevent mainstream teachers passing on all the responsibilities of managing students with additional needs to special education teachers, both types of teachers should be provided with training on collaborative practices. Stayton and McCollum (2002) depicts this collaboration as imperative to the successful development of inclusive education as delivery of services for all children and families will be improved when both general educators and special educators are able to jointly identify policies and practices that benefit all children.

OBJECTIVE

This study aims to:

- a. explore how collaborative teaching impacts teacher efficacy among teachers who teach in an inclusive setting in Malaysia.

LITERATURE REVIEW

A variety of aspects concerning teacher-related factors, particularly teacher efficacy, have shown to influence the development of special education (Efthymious & Kington, 2017; Kleinsasser, 2014; Mag et al., 2017; Malinen, 2013; Park et al., 2016). In education research, teacher efficacy is measured based on the teacher’s “perceived ability” to influence students’ learning (Kleinsasser, 2014).

Teacher Efficacy

One of the factors that have been studied in line with inclusion is pedagogical practice. A qualitative research on the influence of teachers’ pedagogical practice in inclusion was conducted in the United Kingdom and one of the implications of this study was to establish the rights of mainstream teachers to choose whether or not they want to teach in inclusive classrooms (Efthymiou & Kington, 2017). It was found that when teachers were given the option to choose, the teachers that volunteered to teach in inclusive classroom showed more positive behaviours towards the students and reported higher levels of efficacy (Efthymiou & Kington, 2017). This proposition, however, is seen to be contradictory to Jelas’ (2010) opinion based on Vaughn’s (1996) stand that all mainstream teachers should be involved in inclusive practices despite their personal preferences. Additionally, Mag, Sinfield and Burns (2017) found that quality of teaching has one of the largest impacts on students’ learning. Duffin et al. (2012) claims that “examining teacher efficacy beliefs of pre-service teachers during teacher preparation is important because teacher efficacy beliefs are malleable early in learning...”. Moreover, Efthymiou and Kington (2017) had found that appropriate training and education for teachers in mainstream is also helpful in order for them to respond more consistently to the needs of students with special needs. Efthymiou and Kington (2017) also suggest that one of the greatest influences on the educational and social outcomes of these students is the behaviour and practices of the classroom teacher.

Collaborative Teaching

The concept of collaborative teaching in schools that include special needs students or students who are differently abled, emphasizes on the cooperative relationship between special needs teacher and the classroom or subject teacher (ACS Athens, 2014; Pratt et al., 2016; Willegems et al., 2017; Yin et al., 2014). Jelas (2010) found that it is most ideal when general teachers and special educational needs teachers work collaboratively, and when training programs for both groups are merged. The results of this research showed 80% of the participants agree to work collaboratively in inclusion (Jelas, 2010). Similarly, another study conducted in Malaysia reported 57% of the

mainstream teachers were agreeable to working collaboratively, especially with support personnel and assistant teachers (Bailey, Nomanbhoy & Tubpun, 2015). This result is reflected in their responses that indicated a significant change in their classroom practices when they collaborate with other supporting staff or assistant teachers (Bailey et al., 2015). In addition to collaborative practices among teachers, research have also found that the cooperation from other parties, such as administration and parents, also play imperative roles in the successful development of inclusion in schools (Bailey et al., 2015; Ng, 2015; Pratt et al., 2016). Ng (2015) found that these collaborations with other “important parties” make things like the process of dealing with the students’ disability and reviewing the suitability of the curriculum more efficient. It was also found that collaboration among the teachers contributed to greater knowledge of their pedagogy and content leading them to increased levels of teacher efficacy (Park et al., 2016). Furthermore, one of the key factors to successful inclusion is the consolidation of knowledge and skills from teachers and parents (Adams, Harris & Jones, 2018; Friend & Cook, 2007) as these are the two people who have direct interaction with students.

METHODOLOGY

Research Design

A qualitative design involving focus groups was employed to thoroughly explore the research questions. The use of focus groups allows group interaction that may produce insights that may have been less accessible otherwise (Morgan, 1988).

Participants

Participants were recruited by outreaching to the researcher’s personal contacts and through snowball sampling. Sixteen participants were purposefully categorized into four groups: a) pre-service SEN teachers, b) pre-service mainstream teachers, c) in-service SEN teachers, and d) in-service mainstream teachers. The pre-service teachers were recruited from various local universities and have had their teaching practicum in local inclusive schools while the in-service teachers were recruited from a local mainstream school.

Ethical Considerations

This research is ensured an approval by the University’s Board of Ethics. All participants were provided with an introduction letter and an informed consent form to confirm their voluntary participation and to assure them that the information they provide will not be circulated. Ethics approval from external parties such as the Ministry of Education and/or institutions were obtained where necessary. During the focus group sessions, participants were asked for their consent to be audio recorded. Participants were not forced in any way to comply to this. The participants were also informed that all data collected will be stored in audio and physical written format under the security of the University. The participants were given assurance that only the researcher will have access to the data.

Data Collection Instruments

Focus group questions were generated from two questionnaires, the Teacher Efficacy for Inclusive Practices (TEIP) Scale (Sharma, Loreman & Forlin, 2012) and collaborative teaching from Damore and Murray (2009).

Pilot study

Two teachers who vary in their teaching experiences in the field of special education participated in the pilot phase of the research. The selection procedure of the participants was based on convenience, but it is ensured that the participants selected were representable of various dimensions that are various dimensions that are significant to the study in terms of professional

experience and language. The technique used for the pilot study was a focus group discussion. The focus group discussion took one and a half hours and was held in an indoor space. The purpose of the focus group was to explore a variety of topic areas which included confidence in their pedagogical approach and behaviour management, parental involvement, collaboration; to gain an in-depth understanding of factors that may influence teachers' willingness to communicate about their practices, and to pilot test the focus group questions.

Data Collection

Data was collected through four focus groups with individuals through snowball sampling method. During the focus groups, participants were asked several questions relevant to teachers' efficacy in using inclusive instructions, collaboration with other teachers, and in managing behaviour in inclusive classrooms.

Data Triangulation

In this study, selection bias is reduced as the participants were recruited based on several criteria such as number of years of teaching experience (e.g. pre-service and in-service), type of school they teach in (e.g. public school and private school), and type of teacher (e.g. mainstream teacher and special education teacher). By interviewing different groups of teachers of different experiences, information exchanged by each participant during the focus group/interview sessions were comparable.

To further ensure the credibility and trustworthiness of the current study's findings, respondent validation, or member checking, was implemented to eliminate interviewer bias. After the focus group sessions have taken place, the participants' responses were transcribed then the transcripts were returned to each participant to check for accuracy.

Data Analysis

All the focus group discussions were audio taped and transcribed verbatim by the researcher. A research diary was kept throughout the data collection period in order to maintain my position as a researcher and identify any areas of researcher bias. Once the discussions were transcribed, thematic analysis procedure was used to identify common themes or patterns that surface among the responses from all the interview transcriptions. As recommended by Braun and Clarke (2006), the use of thematic analysis allows researchers to be flexible with the themes that emerge from the transcriptions. Moreover, if there should be any unexpected themes that come up during the transcription process, thematic analysis allows the researcher to explore these novel themes flexibly (Braun & Clarke, 2006).

Due to its flexible nature, themes derived through thematic analysis can be analysed in two ways: 'bottom up' or 'top down'. The 'bottom up' approach is known as the inductive way where themes are not decided beforehand while the 'top down' approach, the deductive way, is when the themes are pre-determined by the researcher before the data collection process starts. As the study aims to explore perceptions, the inductive approach of the thematic analysis was employed because the inductive approach has been suggested for studies that are more exploratory in nature. Therefore, the 'bottom up' approach was adopted to allow the consideration of unexpected themes, should there be any.

RESULTS

Two main themes were derived from the data: teacher efficacy and collaborative practices. Four sub-themes were then derived from both the main themes: high teacher efficacy, low teacher efficacy, collaboration with other teachers, and collaboration with parents.

Teacher Efficacy

Teacher efficacy, based on the denotation of self-efficacy by Bandura (1977), is a teacher's judgment of their own capability in teaching. From the data, teacher efficacy was identified through the words and expressions used by the participants in the focus group sessions. Based on the responses, two levels of efficacy were recognised: high teacher efficacy and low teacher efficacy. The data showed a significant association between the level of teacher efficacy and the extent of collaboration each group of teachers practiced. Figure 1 illustrates the relationships that arose from the results of the data analysis.

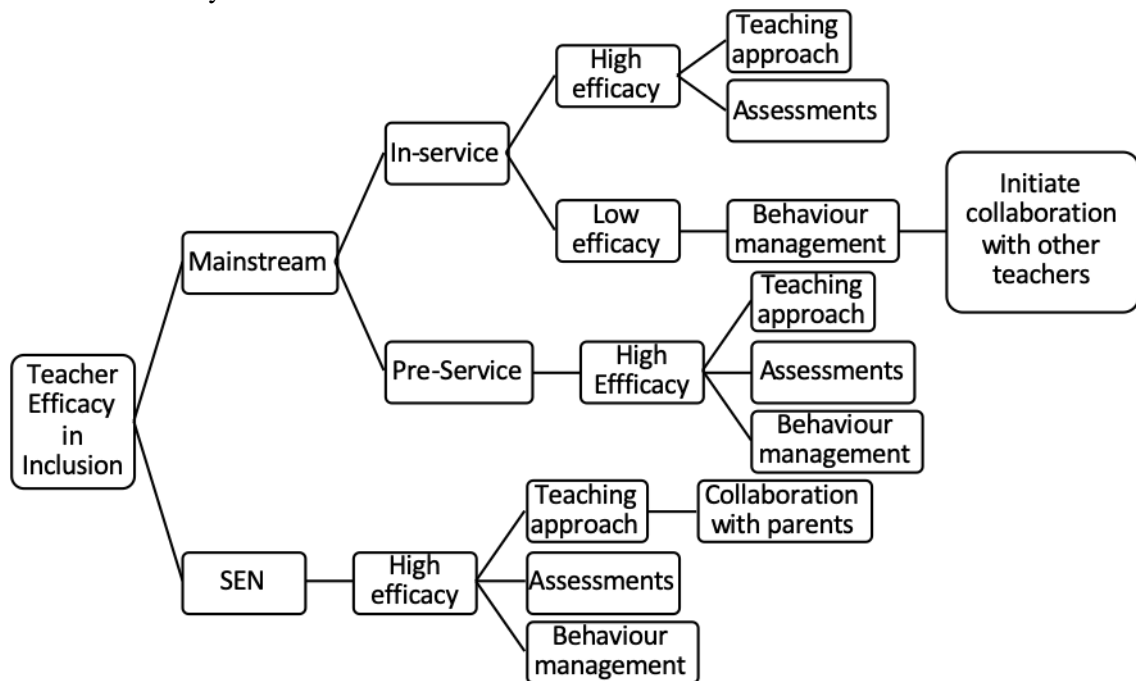


Figure 1 Teacher efficacy among teachers in inclusive schools in Malaysia

High teacher efficacy. The results of the data analyses show teachers from all the four groups exhibited high level of teacher efficacy. Figure 1 demonstrates teachers have high level of teacher efficacy in regard to their teaching approach and assessing students' progress. Some of the teaching methods they shared they use such as the use of songs, interactive PowerPoint slideshows, interactive games and differentiation are based on a "multisensory approach". Hinata, a pre-service mainstream teacher, said: "From my observation that this kind of pupil they can't really learn if they cannot imagine or if they cannot see the pictures."

Nar, another fellow pre-service mainstream teacher, said:

"So, when I use PowerPoint, they will be more interactive in the classroom, they would like to try, they want to answer the questions instead of doing the usual classroom...So I think generally that's what they like; they like to move around and also they like ICT (Information and Communications Technology)." Cha also shared that her students in the mainstream classroom "were engaged in the lesson" when she used interactive PowerPoint slideshows in her teaching.

The pre-service special education teachers group shared that they are confident in their daily teaching pedagogy because it is based on an Individualised Educational Plan (IEP) of each student. Based on these responses, it is profound that more pre-service teachers group exhibited high levels of confidence in their teaching methods and in the approach that they use to assess the students despite the diverse abilities within the classroom.

In terms of behaviour management within an inclusive classroom, the special education teachers displayed higher levels of teacher efficacy compared to the mainstream teachers. They encountered “helplessness” when faced with challenging behaviours before having a moment of “reflection” and “realization” and then deciding on various behaviour management strategies to use in their classrooms. Some teachers shared that the helplessness had led them to become more “creative” and “innovative” with their techniques. Many of the teachers also expressed “hopefulness” and held a positive outlook towards their behaviour management strategy and the improvement of their students.

Furthermore, the data indicated several common elements such as collaboration with other teachers or parents, teacher training, teaching experience and passion were positively linked to the high levels of teacher efficacy regardless of their role. For example, Cha, a pre-service mainstream teacher sheds some light on how collaborating with other teachers and her lecturer from her teacher training course had guided her confidence in assessing her pupils:

“Before I go into class, I discussed with the subject teacher and she briefly told me about the students...My lecturer advised me to assess them every day but I need to include that in my lesson plan...I will prepare a rubric based on what my lecturer advised me to do cause it is easy for [the students].”

Another pattern that emerged from the data revealed that the two pre-service groups associated their high teacher efficacy to their training while the two in-service groups associated theirs to their teaching experience. Both groups of special education teachers, conversely, demonstrated more passion for their jobs than the other groups of participants.

Low teacher efficacy. Low levels of teacher efficacy were more prevalent among mainstream teachers than special needs teachers when it comes to behaviour management in the classroom. The in-service mainstream teachers group expressed that they were frustrated, annoyed, challenged, helpless, and some even felt they did not believe in inclusion. Mes said: “[Inclusion] can’t be happening. It is impossible...I think it is so difficult...So we really have a tough time. It should be separated. It cannot be mixed together. They should have their own class.” Mas agrees with this notion. Coco said:

“We can’t put all the [special needs] students in one class. That’s killing the teacher.”

These responses indicate that the in-service mainstream teachers, albeit being experienced, are affected by students’ misbehaviour as they feel almost as if their classroom practices are being challenged. Nonetheless, Figure 1 shows that despite exhibiting lower levels of efficacy when it comes to behaviour management in the classroom, the in-service mainstream teachers shared that they tend to initiate discussions with other teachers who share the same students to review students’ behaviour across different class and deliberate behaviour management strategies together. This indicates a potential link between low teacher efficacy and higher levels of collaborative practice.

Collaborative Practice

All the participants answered the question “how much do you work with other professionals?” which illustrates the existence of collaboration; each participant had at least one collaborative experience during their time of service. In the focus group, the question about collaboration was left open-ended to encourage participants to share the extent and type of collaborative practices they engage in in their professional experiences. From their responses, two common types of collaboration emerged: collaboration with other teachers and collaboration with parents. Figure 2 further illustrates the results of the data analysis for the collaborative practice theme.

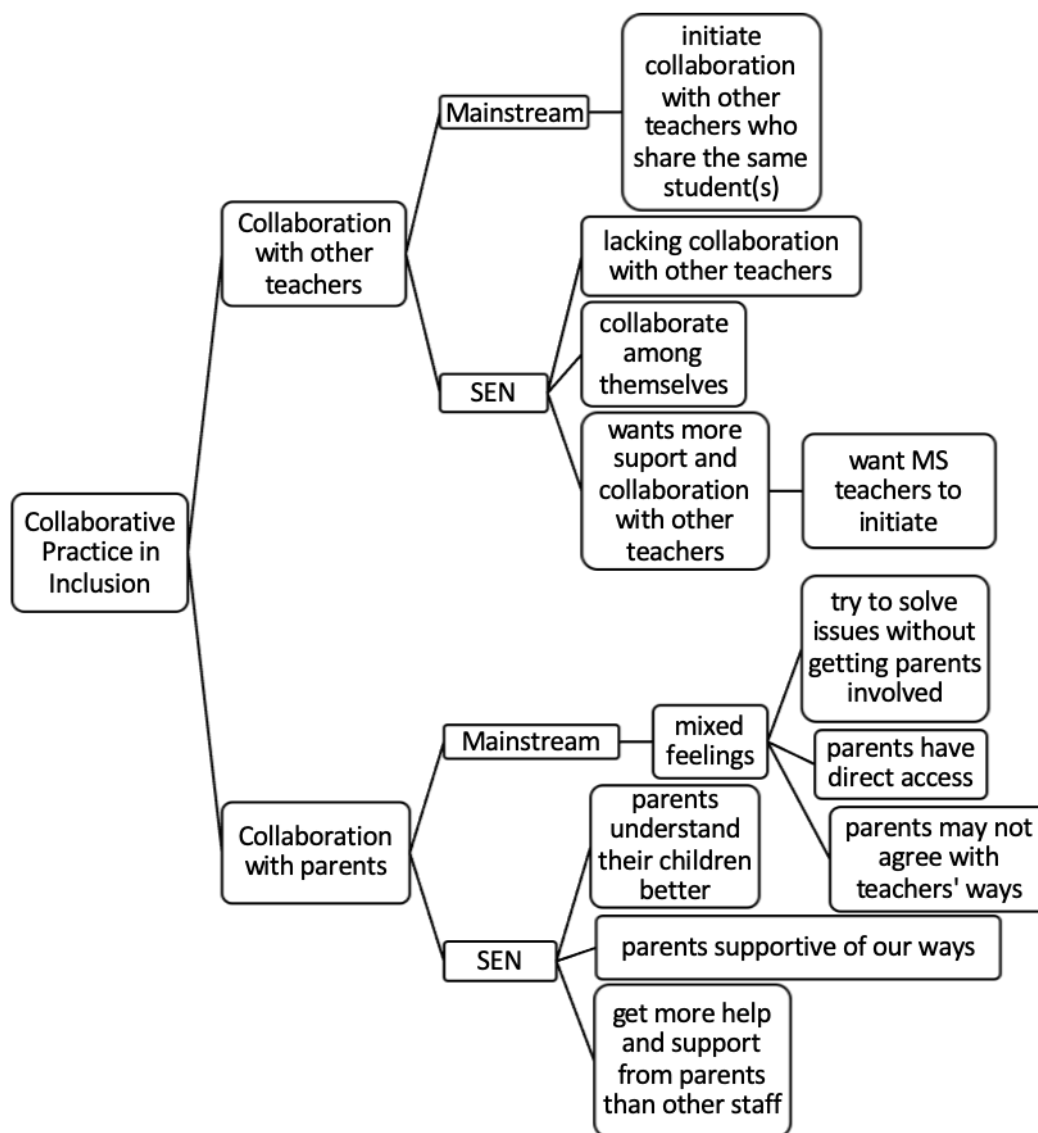


Figure 2. Collaborative practice among teachers in inclusive schools in Malaysia

Collaboration with other teachers. One of the common themes that emerged throughout the focus group sessions was collaboration between mainstream teachers and special needs teachers. The data shows that more mainstream teachers, in-service and pre-service, tend to collaborate with other teachers when it comes to teaching approach, assessing students’ academic progress, behaviour management in the classroom, and identifying strategies to improve students’ learning.

Hinata, a pre-service mainstream teacher, said:

“[Special education teachers] know better what to do and what kind of activities, what kind of approach rather than normal teachers.”

Cha, a pre-service mainstream teacher, shared that the special education teacher of her school would meet with her and sometimes even exchange lesson plans, so she can adapt some of his teaching approaches in her lessons. Nar, a pre-service mainstream teacher, shared that she usually discusses about her students’ academic progress with another teacher who was teaching the same subject as her. Mes, an in-service mainstream teacher, echoed Nar’s response when he shared that he often meets with other teachers who share the same students as him to discuss their academic progress as well as their behaviour in the classroom. It was also found that these mainstream teachers who

collaborate with other teachers were more likely to have students who have low academic achievement levels or students with additional needs in their classroom.

Cha said:

“During my first observation, my lecturer, he went to the school and sat together with my cooperative teacher and discuss about my class because among all the class, mine is the third class. Third class and also we have special needs [students]...So, they sit down and give me ideas on how to teach the class without excluding the special needs students.”

On the contrary, the special needs teachers did not share as much about their experiences collaborating with other teachers. Figure 2 illustrates, from their responses, both groups of special needs teachers work more closely with one another rather than with other teachers from the school. They did, however, provide some suggestions on how collaboration between special needs teachers and mainstream teachers should work to create a conducive learning environment within an inclusive setting.

Sol, a fellow pre-service special needs teacher, said:

“We do not wish anything. Just wish cooperation from [other special needs teachers] who have many experience to teach us how to become like them or how to become a good teacher for inclusive students.”

In reference to receiving support from other teachers in the school, H, an in-service special needs teacher, said:

“To educate everybody, the awareness is a must, don’t just say only. It needs action. Say ‘pity’, everyone can say ‘pity’. When we need them (other teachers), where?”

Furthermore, Pugach’s (1992) unifying model that suggests both mainstream teachers and special needs teachers are responsible for their students was not reflective in the data that was found in this study. When asked “who do you think is responsible for the special needs students who are placed in the mainstream classroom, and why?”, Hinata, a pre-service mainstream teacher, said, “By hook or by crook, it must be the [classroom] teacher. There’s no one else.” The pre-service special needs teachers, on the other hand, agreed that the mainstream classroom teachers cannot be expected to take on such a responsibility as “they do not know anything about disabilities and the problems faced by the inclusive students” and that special needs teachers and mainstream teachers need to discuss different methods of teaching.

Figure 2 clearly expounds the various factors that can influence the rate of collaboration between general educators and special needs educators. These include efficacy levels, compatibility of teachers, teachers’ familiarity of the subject taught, and level of administrative support received. Figure 2 illustrates how the mainstream teachers are more inclined to collaborate with other teachers who share the same “behavioural” students while the special needs teachers, who are seen to hold higher efficacy levels, do not engage in collaboration with other teachers as much. Instead, it is seen that the special needs teachers tend to collaborate more with other stakeholders of the school such as parents of their students.

Collaboration with parents

Based on the data analysis, it was found that while mainstream teachers tend to collaborate more with other teachers including special education teachers, collaboration with parents was seen to be more popular among the special education teachers. H, an in-service special education teacher, said that she feels “lucky” to be receiving support from her students’ parents. J and K, both in-service special education teachers as well, held positive views towards collaborating with parents with these quotes: “We do welcome them.” and “We need [collaboration with parents].” H also shared that the collaboration she has with parents worked both ways.

She said:

“Yes, they ask for our help, we ask for their support. So, we work as a team. Together. Good collaboration. So far good. So, if we tell them we have program, like there’s new program such as outing or any session, we just tell them what we need, and the parents willingly prepare the things for their children for the program.”

Among the special education teachers, the data shows that the pre-service group held more unenthusiastic opinions of collaboration with parents compared to the in-service special education teachers. Sol, a pre-service special education teacher, shared an experience whereby parents did not agree to the method taught at school and vice versa.

Sol said:

“They want to teach their children using their own way they can use it at home. We at school have to follow our method...There are some parents who didn’t agree with what the method used by teacher. For example, we cannot scold their children at all. We cannot reprimand their children’s mistakes at all.”

It was also identified that mainstream teachers expressed their rare collaborations with parents under a more negative light as illustrated in Figure 2. Cha shared that she does not agree to parents being involved especially during teaching and that “[the students’] demons start to come out especially when their parents are there.”

Cha continues,

“So when I’m teaching, and having that parent looking at you all the time, it’s very...I’m not comfortable at all.”

Mes, an in-service mainstream teacher, said:

“[Parents] are very defensive and they feel offensive when you say that. But there are some parents who are really supportive. We love those kinds of parents.”

DISCUSSION

To answer the first research question, the unanimous response from the participants when asked about practicing collaboration is seen as advantageous within a school environment as collaborative practices not only fosters good relationship, but its effects have also been found to benefit students (Pratt, Imbody, Wolf & Patterson, 2016). This outcome is also seen to be supported by Mattatal and Power (2014) who encourage collaboration to be a “generalized process” for teachers rather than an approach or strategy. While this indicates a positive foundation for an inclusive learning environment, delving into the different types of collaboration and investigating the extent of collaboration that is being practiced is crucial.

The findings of this study show that mainstream teachers, more than special needs teachers, demonstrated collaborative practices with other teachers. This finding is in line with that of Jelas (2010) who found 80% of their participants agree to work collaboratively within an inclusive environment and that of Bailey, Nomanbhoy and Tubpun (2015) where more mainstream teachers were willing to collaborate with other support teachers and assistant teachers. It is noteworthy, however, that despite the greater extent of collaboration, the mainstream teachers showed lower levels of efficacy towards inclusion. Albeit being confident in their teaching approach, assessment methods, and behaviour management strategies, mainstream teachers showed a lack of confidence and interest when the topic of inclusion arose. This finding can be interpreted in light of various factors including limited resources and lack of knowledge and experience (Nishan, 2018).

On a larger scale, teacher training courses should undergo a revamp in their system so that modules on learning disabilities, special needs, special education pedagogies, behaviour management strategies and inclusion can be included in their syllabus (Pugach, 1992; Stayton & McCollum, 2002). Schools should also encourage all teachers to attend professional development courses that can further

nourish their knowledge and skills in an inclusive environment. Additionally, collaboration requires teachers to put in some extra effort and time. Thus, inclusive schools must allocate sufficient time and resources for teachers to engage in collaboration with one another (Nishan, 2018). Moreover, schools have to be well-equipped with resources to cater to an inclusive environment so that teachers can engage in collaborative practice with ease (Forlin & Sin, 2017).

In terms of collaboration with parents, the participants had both positive and negative experiences but held more stringent outlook towards the extent of parental involvement in their teaching. In Malaysian schools, parent-teacher relationship has not yet been established beyond bi-annual parent-teacher conferences and parent-teacher association meetings. Parents in Malaysia are viewed more as a source of funds for schools rather than a collaborative partner in education. This outlook must change. Echoing Bronfenbrenner's ecological systems theory (1979), parents and teachers are part of an individual's innermost layer which represents one's immediate environment. Parents have direct interaction with an individual at home while teachers interact with student's directly in the classroom (Bronfenbrenner, 1979). These relationships, once interlinked, can be advantageous for the development of the students academically and behaviourally.

IMPLICATION OF FINDINGS

Based on the findings of this study, the core of a successful transformation towards a more inclusive education system is associated with collaboration and teacher efficacy which are ultimately linked to knowledge, experience, resources and time. This study implicates a revamp in the teacher education system in Malaysia whereby training on special education and inclusion must be unified into teacher training courses (Jelas, 2010). Mainstream teachers and special education teachers should undergo the same training throughout their teacher degree in order for all teachers to understand and experience the inclusive concept of teaching and learning (Jelas, 2010; Pugach, 1992; Stayton & McCollum, 2002).

Limitations

Some of the drawbacks of this study include its sample size, data collection process and researcher bias. Only sixteen participants were involved in this study. The small sample size implies the lacking ability of the results of this study to be generalised to the masses. Moreover, the teachers from each of the groups belong to the same institution or school. This could evoke a limitation on the type of experiences faced by the teachers within each group. Additionally, the snowballing sampling method that was used to recruit participants for this study was adopted out of convenience. This is a limitation as the data from the research may not be the best representation of all Malaysian teachers.

Future recommendations

For future research, it is recommended that participants are recruited based on more demographic details such as years of teaching experience, education history, and personal experiences. Therefore, instead of adopting the snowballing sampling method, it is recommended that in future, researchers adopt the purposeful sampling method in order to gain greater insight from parties with various experiences and a diverse background to better represent the population of a particular nation.

CONCLUSION

From this study, the researcher found most mainstream teachers collaborate with other teachers while special education teachers tend to collaborate more with parents of their students. Teachers with high efficacy and engagement in collaborative practices are significant to effective implementation of inclusion within a classroom. With an emphasis on adequate pre-service and in-service teacher training courses, support from the school, sufficient and appropriate resources, and

clearly defined roles; the rate of collaborative practice among teachers can rise thus encouraging higher levels of teacher efficacy and ultimately lead to a more wholesome and effective inclusive educational environment for students as well as teachers.

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