# CONTRIBUTIONS OF INCLUSIVE EDUCATION PROGRAMME, TEACHERS' ATTITUDES AND EFFICACY ON SOCIAL SKILLS AMONG STUDENTS WITH AUTISM SPECTRUM DISORDER

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A thesis submitted in fulfilment of the requirements for the award of degree of Doctor of Philosophy (Educational Psychology)

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> > MAY 2016

To my family for their patience, support, love, and for enduring the ups and downs during the completion of this thesis.

#### ACKNOWLEDGEMENT

I wish to express my deepest appreciation to all those who helped me, in one way or another, to complete this study. First and foremost, I thank God almighty who provided me with strength, direction and purpose throughout the study.

Special thanks to my main supervisor, Associate Professor Dr. Yeo Kee Jiar for all her patience, guidance and support during the execution of this study. Through her expert guidance, I was able to overcome all the obstacles that I encountered in these enduring two years of my study. In fact, she always gives me immense hope every time I consulted with her over problems relating to my study. Besides that, I would like to thank Dr. Hadijah Binti Jaffri as well for her invaluable guidance, suggestions and encouragement as my co-supervisor.

In addition, I must also recognize Associate Professor Dr. Azlina Binti Kosnin, Dr. Ng Pei Fern, Dr. Poon Cheng Yong, Dr. Yong May Lee, Miss Ong Yuh Min, Mdm. Norezah Binti Ayob and Mdm. Teo Sui Ian for their expert validation and efforts on my instruments. Moreover, I express my heartfelt gratitude and appreciation to the ministry officers, school administrators and teachers for their willingness to assist in data contribution and cooperation throughout the research process.

Among all the friends in my life, my sincere thanks to my best friend, Cindy Lee Chia Yin as being my proofreader throughout my thesis writing. Not forgetting my course mates, especially Lu Xi and Lee Moi Ching for giving opinions and advice on my research. Of all the other people whom I am unable to name it all here: friends, course mates and colleagues, I truly appreciate their invaluable supports and assistance provided for making this thesis a success.

#### ABSTRACT

Implementation of Inclusive Education (IE) Programme in Malaysia which is parallel to the international commitment to allow students with Special Needs (SN) to learn in the mainstream classroom environment was evident as the way forward in special education in Malaysia. Since the implementation in year 1997, studies on social skills among students with Autism Spectrum Disorder (ASD) is limited. This quantitative study employed the survey method to examine the contributions of IE Programme, teachers' attitudes and efficacy on social skills among students with ASD. Alongside this study, relationships among these four variables were explored. Respondents (n=267) comprised of 217 mainstream and 50 special education teachers from 21 public primary schools with IE Programme for students with ASD in the state of Selangor, Malaysia. Questionnaires on social skills among students with ASD, IE Programme implementation, teachers' attitudes and efficacy were distributed to the respondents to elicit their opinions. Partial Least Square Structural Equation Modeling (PLS-SEM) was conducted to examine the relationships among the four variables. Optimal structural paths on social skills among students with ASD in IE Programme classrooms has been identified ( $R^2=0.195$ ; GoF=0.36). The findings demonstrated significant relationships among all the predicted variables 0.20; t 1.96). IE Programme implementation was proven as the proximal cause ( of social skills among students with ASD. Teachers' attitudes played the role as the partial mediator which mediated the relationship between IE Programme implementation and social skills among students with ASD. Teachers' efficacy was found to be mediating the relationship indirectly. In short, social skills among students with ASD in IE Programme classrooms was found to depend on the IE Programme implementation and the relationship was influenced by teachers' attitudes and efficacy. To ensure the feasibility of IE Programme, pivotal attention should be drawn in the professional development among teachers who are at the frontline.

#### ABSTRAK

Pelaksanaan Program Pendidikan Inklusif (IE) di Malaysia sejajar dengan komitmen antarabangsa untuk membolehkan murid berkeperluan khas (SN) belajar di dalam kelas aliran perdana membuktikan langkah ke hadapan dalam bidang pendidikan khas di Malaysia. Sejak pelaksanaan pada tahun 1997, kajian tentang kemahiran sosial dalam kalangan murid autisme (ASD) adalah terhad. Kaiian kuantitatif ini menggunakan kaedah tinjauan untuk menyelidik sumbangan daripada Program IE, sikap dan efikasi guru terhadap kemahiran sosial dalam kalangan murid ASD. Seiring kajian ini, hubungan dalam kalangan empat pembolehubah ini telah diterokai. Responden (n=267) terdiri daripada 217 orang guru aliran perdana dan 50 orang guru pendidikan khas dari 21 buah sekolah rendah awam yang mempunyai Program IE untuk murid ASD di negeri Selangor, Malaysia. Soal selidik tentang kemahiran sosial murid ASD, pelaksanaan Program IE, sikap dan efikasi guru diedarkan kepada responden untuk mendapatkan pandangan mereka. Analisis pemodelan persamaan struktur kuasa dua terkecil separa (PLS-SEM) dijalankan untuk menyelidik hubungan antara empat pembolehubah. Laluan berstruktur optimum kemahiran sosial dalam kalangan murid ASD dalam kelas Program IE telah dikenal pasti (R<sup>2</sup>=0.195; GoF=0.36). Dapatan menunjukkan hubungan signifikan antara semua pemboleh ubah peramal (0.20; t 1.96). Pelaksanaan Program IE dibuktikan sebagai punca langsung terhadap kemahiran sosial dalam kalangan murid ASD. Sikap guru berperanan sebagai pengantara sebahagian yang mengantara hubungan antara pelaksanaan Program IE dan kemahiran sosial dalam kalangan murid ASD. Efikasi guru didapati mengantara hubungan tersebut secara tidak langsung. Pendek kata, kemahiran sosial dalam kalangan murid ASD dalam kelas Program IE didapati bergantung pada pelaksanaan Program IE dan hubungan ini terpengaruh oleh sikap dan efikasi guru. Demi keterlaksanaan Program IE, perhatian utama perlu ditumpukan pada perkembangan profesional dalam kalangan guru yang berperanan sebagai pelaksana.

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### LIST OF ABBREVIATIONS

DO	-	Direct Oblimin
EFA	-	Exploratory Factor Analysis
EPRD	-	Educational Planning and Research Division
IE	-	Inclusive Education
IEP	-	Individual Education Plan
IRT	-	Item Response Theory
JDE	-	Johor Department of Education
КМО	-	Kaiser-Mayer-Olkin
МКО	-	More Knowledgeable One
MNSQ	-	Mean Square
MOE	-	Ministry of Education
MOH	-	Ministry of Health
NASOM	-	National Autism Society of Malaysia
NJCIE	-	New Jersey Council on Inclusive Education
OCT	-	Operant Conditioning Theory
PAF	-	Principal Axis Factoring
PCA	-	Principal Components Analysis
PLS	-	Partial Least Squares
PMC	-	Point Measure Correlation
PWD	-	Persons with Disabilities
QIEIE	-	Quality Indicators for Effective Inclusive Education
RMM	-	Rasch Measurement Model
SCT	-	Social Constructivist Theory
SCoT	-	Social Cognitive Theory
SD	-	Standard Deviation
SDE	-	Selangor Department of Education
SED	-	Special Education Division

SEIP	-	Special Education Integration Programme
SEM	-	Structural Equation Modeling
SLT	-	Social Learning Theory
STATIC	-	Scale of Teacher Attitudes toward Inclusion
sSEN	-	Student with Special Educational Needs
sSN	-	Student with Special Needs
sASD	-	Student with Autism Spectrum Disorder
TSES	-	Teachers' Sense of Efficacy Scale
TSSA	-	TRIAD Social Skills Assessment
UN	-	United Nation
UNESCO	-	United Nations Educational, Scientific and Cultural
		Organisation
ZPD	-	Zone of Proximal Development
ZSTD	-	Standardised Z

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#### **CHAPTER 1**

#### INTRODUCTION

#### 1.1 Introduction

Autism no longer a rare disorder (Bond and Hebron, 2016). The international Autism Spectrum Disorder (ASD) prevalence rate is on the rise at an alarming rate, 0.62% of the population (Elsbbagh et al., 2012). ASD is a new DSM-V disorder which characterised by deficits in two core domains: deficits in social communication and social interaction; restricted repetitive patterns of behaviour, interests and activities. ASD is diagnosed only when the characteristic deficits of social communication are accompanied by excessively repetitive behaviours, restricted interests and insistence on sameness (APA, 2013). ASD are characterised by difficulties with social interaction, verbal and non-verbal communication and the development as well as maintenance of interpersonal relationships (Schroeder et al., 2014).

According to DfE (2013) and Estes et al. (2011), social skills was found to be a predictor of academic achievement among students with ASD (sASD). Furthermore, negative social skills tends to cause challenging behaviours such as stereotypy, agression and property destruction (Matson, Fodstad and Rivet, 2009). Apart from that, sASD are less likely to engage to their peers appropriately which causing difficulties in making friends (Campbell and Barger, 2014; Humphrey and Symes, 2011; Bauminger, Solomon and Rogers, 2010). They often exhibit low social understanding which lead to deviating from peer group norms (Garner and Hinton, 2010; Macintosh and Dissanayake, 2006; Wainscot et al., 2008; Horowitz et al., 2004). Consequently, they tends to be at an increased risk of social exclusion and bullying (Hebron and Humphrey, 2014; Zablotsky et al., 2014; Sterzing et al., 2012; Cappadocia, Weiss and Pepler, 2012; Kasari et al., 2011; Symes and Humphrey, 2011; Carter, 2009). Hence, it is crucial for sASD to receive social skills training in avoidance of problems in academic, occupational and independent living settings for their later day of development (Radley et al, 2015; Matson, Dempsey and Fodstad, 2009).

Inclusive Education (IE) or inclusion of typically developing peers is one of the evidence-based social skills trainings within mainstream school setting to promote social competence among sASD in enabling them to use social skills in the appropriate context (Radley et al., 2015; Nuernberger et al., 2013). Inclusion in mainstream schools allows sASD to interact, communicate, imitate and practice target social skills with their peers in non-training environments (Radley et al., 2015; Zhang and Wheeler, 2011; Chan et al., 2009). Nevertheless, Reed et al. (2011) found that both mainstream and special school placements among sASD bring improvement in social and behavioural outcomes but sASD in special schools made greater improvement in their behaviour problems (conduct and hyperactivity) than those in mainstream schools. The contradicting results require a more subtle understanding of provision for sASD which can meet their diverse needs (Ravet, 2011).

Bond and Hebron (2016) mentioned that the aspects of ethos, leadership and environment in the school systems determine the viability of schools in catering the needs of sASD. A shared commitment across all staff via targeted needs based training and whole school adaptations for sASD would develop awareness, empathy as well as understanding among all the school members for sASD (Humphrey and Symes, 2013; Ravet, 2011; Probst and Leppert, 2008; Glashan, Mackay and Grieve, 2004). Besides that, supportive leaders with expertise in schools is also crucial (Symes and Humphrey, 2011). They need to promote awareness, prioritise the needs of sASD and support the staff to work collaboratively in developing their skills (Morewood, Humphrey, and Symes, 2011). Furthermore, the physical environment such as design, location and layout are vital in providing effective support to sASD in schools (Morewood, Humphrey and Symes, 2011; Scott, 2009).

Teachers who are at the frontline of IE implementation play a key role in the successful IE among sASD (Emam and Farrell, 2009). Their willingness and perceptions of their competence in catering diverse students' needs in IE Programme classrooms have been highlighted in a number of studies (Smith, 2012; De Boer, Pjil and Minnaert, 2010; Ravet, 2011; Emam and Farrell, 2009; Humphrey and Parkinson, 2006). Teachers require knowledge on ASD and autism specific pedagogy as well as the skills to cater the needs of sASD in IE Programme classrooms (Keane et al., 2012; Smith, 2012; Loiacono and Valenti, 2010; Leach and Duffy, 2009; Tobias, 2009; Humphrey and Lewis, 2008a). As a way out, training, professional development and teacher education were proven to be effective in enhancing teachers' teaching strategies and perceptions towards included sASD (Leblanc et al., 2009; Horrocks, White and Roberts, 2008; Huang and Wheeler, 2007; Robertson et al., 2003).

In a nutshell, sASD should have the equal right to access to education as other typical developing peers. Education should provide them with empowering experience of control, achievement and success to the maximum extent possible. In current situation, the modification of school IE implementation and training of teachers to prepare them to teach learners with diverse abilities are greatly entailed to ensure the positive educational outcomes for sASD in IE. This study hopefully can bring light to the IE Programme implementation and its effect on the sASD in Malaysia via the empirical findings.

#### **1.2 Background of Research**

Autism is one of the fastest growing developmental disorder and we need to educate ourselves in order to address the challenges that come with the growing epidemic. Autism prevalence is on the rise at an alarming rate. The Center for Disease Control and Prevention (CDC) (2014) reported that a 30 percent increase in the prevalence rate of autism in United States of America over a period of two years, from 1 in 88 (2012) to 1 in 68 (2014). Besides that, in the United Kingdom, the prevalence rate is 1 case for every 66 births and a 56 percent increase of children with autism has been reported in the last five years. It is more worrying to hear that the prevalence rate is 1 in every 38 children in South Korea. However, prevalence of autism in Malaysia is currently under-diagnosed and the last study conducted by the MOH revealed a rate of 1 case in every 625 births (MOH, 2004).

Constantino *et al.* (2004) found that social, communication and repetitive or stereotypical behaviours are the three main domains of disorder among the children with ASD. According to Bender (2008), social skills refer to skills that facilitate listening, conversation and interpretation of social cues and nonverbal cues. Children with ASD experience specific social difficulties that are different from children with other developmental disabilities. Understanding their own and others emotions, understanding how to communicate their feelings and recognise other's feelings, knowing how to start and maintain interactions appropriately, and understand other people's perspectives are some examples of difficulties experienced by children with ASD (Wendy et al., 2010). Schreiber (2011) further explained that social skills deficits among sASD are characterized by poor eye contact, lack of joint attention, pedantic or odd speech patterns, difficulty both initiating and maintaining conversations, lack of social problem-solving ability, lack of empathy, and difficulties in interpreting their body language.

Children with ASD can grow beyond their limitations and develop into productive citizens and they should not be labeled and restricted by their diagnoses. A number of studies have proven that IE was beneficial to the social learning among sASD (Runcharoen, 2014; Sawitree, 2014; Sansosti and Sansosti, 2012; Lindsay, 2011; Kamaliah and Wan Amimah, 2010; Zalizan, 2010b; Eldar, Talmor and Romem, 2010; Bong, 2009; Leach and Duffy, 2009; Pierangelo and Giuliani, 2008). IE settings provide social opportunities and enable sASD to develop learning through social interaction with their peers in natural environments (Sawitree, 2014; Zalizan,

2010b; Pierangelo and Giuliani, 2008; Kupersmidt and DeRosier, 2004). Even parents showed appreciation on the better chance of a 'normal life' which has been given to their child in IE classrooms (Zalizan, 2010b; Waddington and Reed, 2006).

In Malaysia, Zalizan and Manisah (2012) revealed that IE was introduced in year 1994 since its involvement in seminars and workshops hosted by the United Nations (UN) and United Nations Educational, Scientific and Cultural Organisation (UNESCO). Malaysia was a signatory country of The World's Declaration on Education for All (1990) and The Salamanca Statement (1994) in advocating IE for all students, regardless of individual differences. Subsequently, the Special Education Department (SED) was established in year 1995 to manage the special schools as well as take charge of special education provision (Lee and Low, 2014).

In year 1996, the Malaysian Education Act 1996 (GOM, 2012) was implemented. Under this act, the terms of 'Special Education', 'Special School' as well as 'Students with Special Educational Needs (sSEN)' were officially defined. According to the rules in Section 41 in the Education Act (1996), there are three categories of sSN; namely visual impairment, hearing impairment and learning difficulties. Down Syndrome, ASD, Attention Deficit Hyperactive Disorder (ADHD), mild mental retardation and specific learning difficulties such as Dyslexia are fallen under learning difficulties category (MOE, 2001). Following this, the Education Rules (Special Education) (1997) was introduced to implement special education programme in special schools, the special education integration programme and the IE programme.

Since then, the special education in special schools and Special Education Integration Programme (SEIP) were being highlighted as placement options rather than IE programme even though there were fifty three primary schools and ten secondary schools participated in the IE programme. The IE programme was mainly for the placement of those students with visual impairment at that time (Awang, 2001). Later on, sASD have started to join IE Programme under a collaboration project between the MOE and National Autism Society of Malaysia (NASOM) (Bong, 2009; Supiah, 2006). Until Year 2008, the Persons with Disabilities (PWD) Act has emerged the call for full and equal participation right in the society among persons with disabilities. Thus, attention to the individual rights of persons with disabilities has continued to grow. Under this Act, the private and government-run institutions are responsible in providing infrastructure, equipment and teaching materials, teaching methods, curricula and other forms of support in enabling children with disabilities to pursue education (UNICEF, 2014).

Year 2013 was the most crucial year in the history of development of the IE programme in Malaysia where some significant changes have been made onto the policy and practice. The Education (Special Education) Regulations (2013) (GOM, 2013a) has revoked the earlier Education Rules (Special Education) (1997) of which restricted the eligibility of the national Special Needs Education system only for sSEN who were 'educable'. 'Physically handicapped children', who were previously excluded for Special Needs Education, have been included under the 2013 Regulations. In the same year, the MOE set up its mission to give full and equal participation to those sSN in education as stated in the National Education Blueprint (2013-2025) (MOE, 2013b). The MOE has targeted a few destinies for the National Blueprint (2013-2025). For instance, in order to provide high quality of education which cater the sSN learning needs, every teacher will be well-equipped with the basic special education knowledge and make to achieve 75 percent enrolment of the sSN into the IE programme by year 2025. Again, in year 2013, Garis Panduan Program Pendidikan Inklusif Murid Berkeperluan Khas (Edisi Percubaan) (MOE, 2013a) has been released in order to give guidelines on the implementation of IE Programme (Teng, Yeo and Hadijah, 2014). SSN were being included based on their abilities, talents and potentials. All of them are required to follow the national curriculum in IE Programme classrooms.

Since IE was introduced, various researches has been done to identify the determinants of successful IE. The quality and effectiveness of IE implementation requires the development of knowledge and skills as well as the critical elements of successful IE among the sSN to resolve the present school challenges (Florian and

Rouse, 2009; Downing and Peckham-Hardin, 2007; Carroll, Forlin and Jobling, 2003). In other words, school readiness in regards to the implementation as well as teacher knowledge and understanding are the key factors of a successful IE.

A few elements of IE implementation have been highlighted as the determinants of successful IE in literature search. Several studies have highlighted school ethos or climate is vital in IE implementation (Bond and Hebron, 2016; Horicks, White and Roberts, 2008). A positive school ethos requires the existing of supportive leadership (Symes and Humphrey, 2011; Horicks, White and Roberts, 2008; Kugelmass and Ainscow, 2005). Having supportive leaders would ease the works in incorporating whole staff awareness and acceptance of diversity among students especially those with special educational needs (Ravet, 2011; Symes and Humphrey, 2011; Morewood, Humphrey and Symes, 2011; Glashan, Mackay and Grieve, 2004).

It was found that professional knowledge and sustained professional development via training and teacher education are necessary to a successful inclusion (Ravet, 2011; Symes and Humphrey, 2011; Morewood, Humphrey and Symes, 2011; Frederickson, Jones and Lang, 2010; Forlin, 2010; Zalizan, 2010; Probst and Leppert, 2008; Dybvik, 2004; Glashan, Mackay and Grieve, 2004). The trainings or professional developments should focus on whole school adaptations for students with Special Educational Needs (sSEN) in developing their skills and strengthen their sense of belonging in mainstream schools (Morewood, Humphrey and Symes, 2011; Osborne and Reed, 2011; Frederickson, Jones and Lang, 2010; Crisman, 2008).

As another crucial element in IE implementation, collaboration is a responsibility that is not easily accomplished (Gulson, Mohd Hanafi and Noraini, 2012). Collaboration teaching practice is a method of teaching where two teachers take responsibility for planning, teaching and monitoring the success of all learners in an inclusion class (Gilbert et al., 2012; Simonsen et al., 2010; Manisah, Ramlee and Zalizan, 2006). Besides that, collaboration works should be joint among parents,

teachers, schools and community in order to positively influence the development among sSEN in IE (Gulson, Mohd Hanafi and Noraini, 2012; Josep and Tan, 2012; Lindsay, 2011; Lord and McGee, 2011; Ponsiri, 2009; Lynch and Irvine, 2009; Boutot, 2007; deVore and Russell, 2007).

More individualised planning and instructional strategies as well as adapted curriculum and assessment have been emphasised in IE implementation (Gulson, Mohd Hanafi and Noraini, 2012; Siti and Zalizan, 2012; Charman et al., 2011; Kodak et al., 2011; Lindsay, 2011; Oriel et al., 2011; Rispoli et al., 2011; Shogren et al., 2011; Frederickson, Jones and Lang, 2010; Hasnah et al., 2010; Reichle et al., 2010; Hardman, Drew and Egan, 2008; Shokut et al., 2008). All these supports provided so that sSEN are able to better develop educational skills while being included in mainstream schools.

As the core person to carry out teaching and learning process, teachers play the crucial role in IE. Some international research have revealed that teachers are the vital agents in implementing and influencing the outcomes of their practice in IE (Ulug, Ozden and Eryilmaz, 2011; Emam and Mohamed, 2011; Cochran, 1998; UNESCO, 1999). Therefore, teachers' attitudes and efficacy towards teaching the sSN in IE have been highlighted in many studies (Nidhi, 2014; Astha, Sushma and Smriti, 2011; Rita, 2008; Tschannen-Moran and Woolfolk-Hoy, 2001). Some studies showed that an increase in teachers' knowledge of sASD would be favourable in changing their perceptions and attitudes towards sASD in IE classrooms (Leblanc et al., 2009; Bradshaw and Mundia, 2006; Subban and Sharma, 2006; Lifshitz et al., 2004).

In conclusion, IE Programme classrooms have provided sASD the natural environments with the typically developing peer models in creating the social skills learning opportunity. However, implementing IE is a time-consuming process. Though it has been practiced long time ago, it has yet come to a good equilibrium and the challenges have not come to an end. Further improvement of the present system and full support of stakeholders especially schools and teachers are required.

#### **1.3** Statement of the Problem

Though the IE programme has been implemented in Malaysian schools for two decades, it is still far from achieving the target of providing 'a responsive education path for every child and youth with SEN' (MOE, 2004). It is not an easy task when it comes to implementing IE Programme as it challenges the current educational practices and administration (Mary, 2014). Malaysia was slow in pace for the IE Programme as there was no clear guidelines provided and compulsion for schools to implement (Lee, 2010). According to Lee and Low (2014), the IE Programme was being left behind as compared to global trend due to the Ministry of Education (MOE) educational philosophy. There are gaps existing between policy and practices.

Malaysia practices integration instead of inclusion of sSN (Teng, Yeo and Hadijah, 2014; Lee, 2010; Zalizan, 2010b). Its seems the MOE's intentions is aligned with the integration models which mainly focuses on placing sSN in mainstream classrooms and they are expected to adapt to the existing education system rather than the education system adapting to the learner (UNESCO, 2008). As special education system exists before IE system, it is challenging to make these dual systems as inclusive as possible within a short span of time (Lee and Low, 2014). Several challenges of applying policy into practice have been highlighted in local studies such as lack of financial support, insufficient teaching resources, lack of staff members and difficulties of IE Programme implementation, inadequate facilities and personnel training programmes as well as absence of enabling legislation (Lee and Low, 2014; Sufean, Quek and Loh, 2008).

According to former Malaysia Deputy Education Minister, in the Malaysian context, IE refers to creating schools which welcome all learners, regardless of their characteristics, disadvantages or difficulties (Mary, 2014). It includes the traditionally excluded or marginalised groups as well such as disabled children, girls, children in remote villages and the hard core poor. However, several local previous studies criticised that the placement of sSN in IE Programme is based on child-

specific basis (Teng, Yeo and Hadijah, 2014; Lee and Low, 2014; Zalizan and Manisah, 2012; Lee, 2010). It is stated in the latest released IE Programme implementation guidelines, only those with qualified criteria and assessment are being included in IE Programme classrooms (MOE, 2013a). This has denied the equal access rights among sSN to education. In long run, it will cause the failure on the targeted 75 percent enrolment of the sSN into the IE programme by year 2025 in National Education Blueprint (2013-2025) (MOE, 2013b).

Many researches indicated that mainstream schools are unprepared to meet the challenges of IE and lack of guidelines as well as planning (Shaheen, 2012; Porter and Smith, 2011; Bourke, 2009; Villa and Thousand, 2005). There are many research showing that most of the teachers who involved in IE practices felt inadequately prepared to implement it (Shaheen, 2012; Sithabile, 2011; Jeshni, 2008). In Malaysia, IE Programme has been practiced without clear policy and formal support (Lee and Low, 2013; Zalizan and Manisah, 2012; Manisah, Ramlee and Zalizan, 2006). Teng, Yeo and Hadijah (2014) also commented that the released IE Programme implementation guidelines are insufficient to provide effective IE to the included sSN. According to the guidelines, included sSN are required to follow the national curriculum in IE Programme classrooms, no adaptation of curriculum and alternative assessment systems have been made in considerating their diverse learning needs (Lee and Low, 2014; Teng, Yeo and Hadijah, 2014).

Several local findings indicated the poor quality of IE Programme implementation. Manisah, Ramlee and Zalizan (2006) reveals that majority of the teachers perceived that IE Programme was being implemented ineffectively. Parents placed high expectation on the social skills development than academic gain among included sSN which was emphasised in IE system (Zalizan, 2010b; Zalizan and Manisah, 2012; Kamaliah and Wan Amimah, 2010). Besides that, special education and mainstream teachers had divided and dicrete role boundaries in educating the included sSN (Zalizan, 2010b; Manisah, Ramlee and Zalizan, 2006; Faridah, 2000). Malaysia is lacking of collaboration efforts and multidisciplinary supports among parents, schools and community (Lee and Low, 2014; Gulson, Mohd Hanafi and Noraini, 2012).

A number of studies on teacher's attitudes towards IE Programme have also been carried out locally (Bailey, Nomanbhoy and Tubpun, 2015; Mohd. Zuri and Wan Sharipahmira, 2014; Lee and Low, 2013; Nornadia *et al.*, 2013; Abdul Rahim and Khairul Annuar, 2013; Mohd Zuri and Aznan, 2012; Zalizan, 2010b; Abdul Aziz, 2007; Manisah, Ramlee and Zalizan, 2006; Haniz, 1998). Among these studies, inconsistency occurred onto their perceptions and attitudes towards the implementation of IE Programme. Many of them expressed their ambivalent feelings when it comes to real IE Programme classrooms teaching experiences (Sailajah, Judith and Vanessa, 2014; Lee, 2010). Teachers revealed that they have limited knowledge and skills on sSN, they needed more trainings and professional developments in equipping them for IE Programme classrooms teaching (Bailey, Nomanbhoy and Tubpun, 2015; Supiah, Haniz and Nordina, 2013; Siti and Zalizan, 2012).

Lee and Low (2014) and Mary (2014) urged that it is time to review and carrying out studies to evaluate the viability and effectiveness of IE Programme currently. MOE (1994) stated that learning social skills is the main aim of IE Programme for interacting appropriately in society. Therefore, researcher examined the main outcome of current study, social skills among sASD in IE Programme classrooms instead of their academic achievement. Besides that, the researcher has identified a few missing elements in previous researches. Literature search has shown that previous local researches mainly focused on the policy and practices of IE Programme, educational outcomes, teachers' attitudes and efficacy in separate studies. Since the variables are interconnected theoretically and practically, the relationship among them worth to be explored in yielding a more meaningful contributions to IE field.

#### 1.4 Research Objectives

The main objective of this study is to determine the influence of IE Programme implementation and teachers' factors towards social skills among sASD in IE Programme classrooms. The objectives of this study are specified based on the main objective as follows:

- To identify the level of social skills among sASD, teachers' attitudes, teachers' efficacy and IE Programme implementation.
- 2. To identify the difference on the level of social skills among sASD across the year being included in IE Programme classrooms.
- To identify the difference on the level of teachers' attitudes and teachers' efficacy towards IE Programme classrooms across teachers' groups (special education and mainstream teachers).
- To identify the predictors (teachers' attitudes, teachers' efficacy and IE Programme implementation) of social skills among sASD in IE Programme classrooms.
- To identify the relationships among IE Programme implementation, teachers' attitudes, teachers' efficacy and social skills among sASD in IE Programme classrooms.
- 6. To identify the mediating effects of teachers' attitudes and teachers' efficacy on the relationship between IE Programme implementation and social skills among sASD in IE Programme classrooms.

#### **1.5** Research Questions

Based on the research objectives, the research questions are thus as follows:

- 1. What is the level of social skills among sASD, teachers' attitudes, teachers' efficacy and IE Programme implementation?
- 2. Is there any significant difference on the level of social skills among sASD across the year being included in IE Programme classrooms?
- 3. Is there any significant difference on the level of teachers' attitudes and teachers' efficacy towards IE Programme classrooms across teachers' groups (special education and mainstream teachers)?
- 4. What are the significant predictors (teachers' attitudes, teachers' efficacy and IE Programme implementation) of social skills among sASD in IE Programme classrooms?
- 5. Is there any significant relationships among IE Programme implementation, teachers' attitudes, teachers' efficacy and social skills among sASD in IE Programme classrooms?
- 6. Is there any significant mediating effects of teachers' attitudes and teachers' efficacy on the relationship between IE Programme implementation and social skills among sASD in IE Programme classrooms?

#### 1.6 Hypotheses

From the research questions, 5 hypotheses are formulated. The hypotheses are shown as follows:

### 1.6.1 Hypothesis 1

Ho1: There is no significant difference on the level of social skills among sASD across the year being included in IE Programme classrooms.

### 1.6.2 Hypothesis 2

Ho2: There is no significant difference on the level of teachers' attitudes and teachers' efficacy towards IE Programme classrooms across teachers' groups (special education and mainstream teachers).

#### 1.6.3 Hypothesis 3

Ho3: There is no significant predictors (teachers' attitudes, teachers' efficacy and IE Programme implementation) of social skills among sASD in IE Programme classrooms.

#### 1.6.4 Hypothesis 4

Ho4: There is no significant relationships among IE Programme implementation, teachers' attitudes, teachers' efficacy and social skills among sASD in IE Programme classrooms.

#### 1.6.5 Hypothesis 5

Ho5: There is no significant mediating effects of teachers' attitudes and teachers' efficacy on the relationship between IE Programme implementation and social skills among sASD in IE Programme classrooms.

#### **1.7** Significance of Study

This research would be of significant contribution. The findings of this study are essential to give evidence and a determining conclusion as well as influence on IE Programme in education system.

This study provides meaningful insights on the social skills learning among sASD in IE Programme classrooms. The influences of IE Programme implementation, teachers' attitudes and teachers' efficacy were being identified. The relationships can be used by the researchers worldwide as one of their references in order to widen the body of knowledge and deepen the insight of the studies in this field.

On the other hand, systematic literature search carried out by the researcher on the study of influence of IE Programme implementation towards social skills among the sASD shows no report at present in Malaysia. The previous research are mainly focus on teachers' attitudes towards IE Programme. Therefore, it is time to call for expanding the research in this field locally in order to improve the quality of IE Programme in Malaysia as well as supporting the MOE to accommodate more sSN under National Education Blueprint (2013-2025). In other words, it is hoped that the attempts and findings of this study may direct towards the scope where role changes are required to further enhance the quality and progress of sASD.

As known, schools face greater challenges to ensure that every child has an equal opportunity to education regardless of their disabilities (Hindlin, 2005). Through this study, schools will realise its roles in giving full support to the IE Programme implementation for sSN especially those with ASD who need a social interaction environment so much as in their social skills learning process.

Policies such as IE Programme implementation among sASD may not bring a major impact on the services provided by the schools unless the teachers involved give affirmation outcomes that such attempt will yield even greater returns. In this study, researcher will determine the overall levels of teachers' attitudes and teachers' efficacy towards IE Programme which then propose recommendations that can be done to improve IE Programme implementation in school. Besides that, teachers are able to get to know about their sASD social progress so as to foster effective IE Programme learning to them.

Finally, the results of this study may be used as the helpful guidelines for parents to make decision on the matter regarding the best placement of their children with ASD. They will have clearer view on current IE Programme implementation in our country and the efforts have been put in by the government in supporting the needs and the rights among sSN to advocate for access to other services or resources necessary for them in order to achieve their potential.

#### **1.8** Theoretical Framework

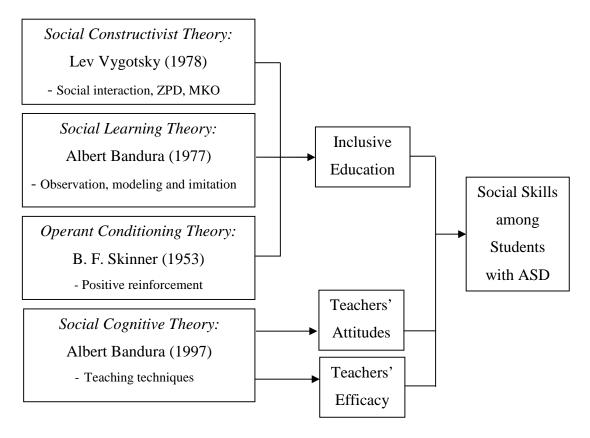


Figure 1.1 Theoretical Framework

This section solidly inlay the study in the theoretical framework that underpins it, which made it possible to comprehend understanding of the theoretical based social skills learning among sASD in IE Programme classrooms. This study is conceptualised in terms of Social Constructivist Theory (SCT), Social Learning Theory (SLT), Operant Conditioning Theory (OCT) and Social Cognitive Theory (SCoT). A discussion of these theories ensues.

This framework encourages the sASD in the society especially their parents and teachers who can proclaim their democratic right in a wider sense and potentially advancing their social efficacy. Furthermore, the framework awakens the society to begin readjusting themselves and to post their beliefs towards a more positive thought on the inclusion of sASD. They will have better social skills in IE Programme classrooms (Sawitree, 2014; Sansosti and Sansosti, 2012; Lindsay, 2011; Kamaliah and Wan Amimah, 2010; Eldar, Talmor and Romem, 2010; Bong, 2009; Leach and Duffy, 2009; Pierangelo and Giuliani, 2008).

Since the past several decades, SCT has greatly influenced educational practices. SCT is virtually a theory which allows a student to construct knowledge through the learning environment (Ebert and Culyer, 2011). The learning environment supports and challenges the learner's pace of learning and supporting them to become a more effective thinker. Constructivism argues that knowledge has been generated from the social experiences that we have (Leatherman, 2007).

Vygotsky (1978) believed that learning could not be separated from social context. He stresses the fundamental role of social interaction in the development of cognition. He believed strongly that community plays a central role in the process of learning. In other words, sASD can learn better socially and academically from their nondisabled peers as well as teachers through their social participation within an inclusion classroom as compared to the segregated special education classroom which stir up restrictive social interaction among sSN. According to Harding (2009), students are able to listen and communicate more effectively through peer learning. Thus, inclusion classrooms provide better social learning environment which will be in the great help to sASD to build their effective social skills.

In addition, Vygotsky (1978) emphasised the implication of the Zone of Proximal Development (ZPD) and More Knowledgeable Other (MKO) for inclusive classrooms. The learning will take place whenever the student is given guidance by the more competent ones such as teachers. Miller (2011) further explained that they may contribute in terms of providing prompt, clues, modelling, explanation, leading questions, discussion, joint participation, encouragement and control of the child's attention. Hence, social skills learning among sASD in IE Programme classrooms depends on the supports provided by their teachers. As proven, teachers' attitudes and teachers' efficacy predicted the educational outcomes of IE (Ulug, Ozden and Eryilmaz, 2011; Emam and Mohamed, 2011; Schaefer, 2010; Kuyini and Desai, 2007). In SLT by Bandura (1977), the observational learning and a causal model which consists of environment, person and behaviour are being highlighted. Both the behavioural and cognitive learning occur via the processes such as observation, modeling and imitation of others. Behaviour and academic modeling happen via verbal instruction, live modeling by a person and symbolic modeling through four steps such as attention, retention, reproduction and motivation.

According to Lamport, Graves and Ward (2012), IE rooted on SLT as IE Programme classrooms provide sSN with the chances to observe and imitate their nondisabled peers and teachers socially as well as academically. Appropriate behaviours and social skills wished for can be modeled by typical peers and teachers in order to arouse sSN attention to exhibit them (Sayeski and Brown, 2011; Sugai and Horner, 2009). Miller (2011) stated that sSN can watch the correct behaviour and model that desired performance in hopes of pleasing the teacher and being praised. In short, teachers are the crucial one to create the opportunities for modeling, practice and feedback related to targeted social skills among sASD in IE Programme classrooms.

The third theory, OCT gives merit to sASD social skills learning in IE Programme classrooms too. Skinner (1953) believed that positive reinforcement is more effective in changing behaviour than punishment. OCT proposed that consequences bring about an individual's behaviour and help to reduce problem behaviours (Ebert and Culyer, 2011; Kimber, Aaron and Jill, 2014).

OCT can be applied in helping sSN to differentiate conditions under which a behaviour should or should not be used in IE Programme classrooms. As for example, included sASD will have clearer expectations when the positive reinforcement was given to their models whenever they behave properly. Consequently, sASD will try to behave appropriately in order to meet those expectations. They know that their proper behaviours and social skills will increase the likelihood of others (Kimber, Aaron and Jill, 2014). With that, their social skills will keep improving with the positive reinforcement found in IE Programme

classrooms. Undeniable, teachers' roles in implementing IE Programme are vital. They need to ensure that positive reinforcement are appropriately being given in terms of timing and situation so that confusion would not being created among sASD.

Last but not least, SCoT (Bandura, 1997) proposed that teachers' selfefficacy affects the efforts where they approach tasks and the consequenses actions by the efforts. SCoT further depicted that teachers' efficacy influences students' learning environment based on their pedagogy approaches. In line with SCoT, previous studies reported that teachers' attitudes and efficacy are believed being influential to the learning of students with diverse needs in IE Programme classrooms (Ulug, Ozden and Eryilmaz, 2011; Emam and Mohamed, 2011; Leyser, Zeiger and Romi, 2011; Schaefer, 2010; Kuyini and Desai, 2007).

The higher the level of self-efficacy brings along higher confidence using different types of teaching techniques in the classrooms. More efficacious teachers tend to be more positive towards inclusion, including showing more patience to students with special learning needs and likely to utilise effective teaching techniques (Loreman, 2015; Wolfson and Brady, 2009). In relation to IE Programme classrooms teaching, higher efficacious teachers would be able to create a better learning environment for the students with diverse learning needs.

To conclude, above mentioned theories depict clearly that IE Programme will be transpired among sASD to meet their needs in developing their potential as well as abilities socially. New insights can be developed from this framework as the researcher explores on its implications to this study. Hopefully, the study outcomes further support the Ministry efforts in improving current IE Programme implementation among sASD.

#### **1.9** Conceptual Framework

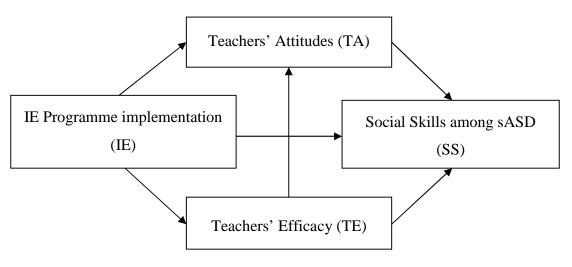


Figure 1.2Conceptual Framework

Theoretical framework in previous section as well as past literature review suggested the placement of sASD in IE Programme classrooms is helpful to improve their social skills. Apart from that, the role of teachers is such a crucial common factor in determining the social skills learning among included sASD.

In accordance, researcher has proposed a conceptual framework as in Figure 1.2 above based on the theories, literature reviews as well as research objectives. The conceptual framework consists of four variables, namely Social Skills among sASD (SS), IE Programme implementation (IE), Teachers' Attitudes (TA) and Teachers' Efficacy (TE).

In this study, IE plays as the independent variable whereas SS will be the dependent variable. Meanwhile, TA and TE will be the mediators which may have influence on the relationship between IE and SS.

Researcher hypothesised that there will be a positive relationship between IE and SS as IE was found to be beneficial to the social learning among sASD (Sawitree, 2014; Sansosti and Sansosti, 2012; Lindsay, 2011; Kamaliah and Wan Amimah, 2010; Eldar, Talmor and Romem, 2010; Bong, 2009; Leach and Duffy, 2009; Pierangelo and Giuliani, 2008). The strength of the relationship between IE and SS is examined in order to see the contributions of IE quality on social outcome among sASD.

Besides that, both of the mediators, TA and TE are expected to have their influences on the relationship between IE and SS as teachers were the vital agents in influencing the outcomes of their practices in IE (Ulug, Ozden and Eryilmaz, 2011; Emam and Mohamed, 2011; Cochran, 1998; UNESCO, 1999).

Lastly, TE is estimated to contribute to TA as previous studies reported that teachers with higher efficacy will have more positive attitudes towards teaching sSEN in inclusion (Leblanc *et al.*, 2009; Barco, 2007; Bradshaw and Mundia, 2006; Subban and Sharma, 2006; Lifshitz, Glaubman and Issawi, 2004). This indicating that TE is playing a role in influencing TA, to contribute to the relationship between IE and SS.

## 1.10 Scope and Limitations

This study focuses on the level of social skills among sASD in IE Programme classrooms. In order to gain meaning insights through Structural Equation Modeling (SEM), the minimum number of valid respondents required will be at 200 (Kline, 1998). Researcher collected data using pencil-paper questionnaire.

The samples of research were chosen among the teachers who are involving in IE Programme in the public primary schools in Selangor only. Thus, the findings may not reflect the schools with different settings such as private primary schools and secondary schools. Besides that, it could not be generalised to other districts, states or geographical areas as well. The conclusions gained from this study are subjected to a number of limitations. Firstly, the teachers are taken as the respondents of this study as they are the key players in IE and they know their sASD's progression well especially their social skills. The teachers will answer the questionnaire generally based on their observations and opinions towards IE Programme classrooms. They may be different in dignity, believe system and responding style.

The design of survey instrument for this study is within Malaysian context and it is mainly for this doctoral study only. The respondents outside of this study may give various opinions if they were asked to respond to the same instruments.

#### 1.11 Assumptions

- 1.11.1 The respondents are assumed to have answered the survey items precisely and truthfully.
- 1.11.2 The instruments used are assumed to measure the real situations on IE Programme based on the respondents' observations and opinions.
- 1.11.3 Information used in designing the survey is assumed to be current and accurate.
- 1.11.4 The respondents are assumed to have the background necessary to complete the survey.
- 1.11.5 The research is done with the interest of sASD and researcher has done her best to be sensitive towards the culture, social and economic status as well as the education system in Malaysia.

#### **1.12** Definition of Terms

There are several terms frequently used throughout this study. The following are explanations of the terms based on their importance as highlighted in this research.

## 1.12.1 Inclusive Education / Inclusion

Inclusive Education (IE) is defined as a process of addressing the diverse needs of all learners by reducing barriers to, and within the learning environment. Inclusive education is therefore, "about enabling schools to serve all children" (UNESCO, 1994). In educational philosophy, the term of inclusion was defined as the description of a situation where all children are belonging to the same community school regardless of their gender, abilities, socio-economic background, ethnic, religion, mother tongue and cultural background (Els, 2005). Furthermore, Irvine and Lynch (2009) stated that inclusion is a unified system of public education that incorporates all children and youths as active, fully participating members of school community that views diversity as the norm and that ensures a high-quality education for each student by providing meaningful curriculum, effective teaching and necessary supports for each student.

First of all, Kochoung (2010) stated that IE is about transforming educational systems to accommodate the needs of children with special needs. In addition, inclusion is a placement which allow all students with disabilities to participate in the general education curriculum as well as in regular classes with their typically developing peers to the maximum extent possible (Osgood, 2005; Westling and Fox, 2009). Taylor (2006) mentioned that inclusion means serving students with a full range of abilities and disabilities in the general education classroom with appropriate in-class support. Inclusion also means students with disabilities being placed in general education classrooms full-time with special education support services provided (Henly, Ramsey and Algozinne, 2006).

IE refers to creating schools which welcome all learners, regardless of their characteristics, disadvantages or difficulties (Mary, 2014). IE is then being regarded as providing education for all students regardless of their strength and weaknesses to become part of the school system. It also involves pupils with special education needs (Hishammuddin, 2008).

In Malaysia, IE Programme is defined as the programme of educating children with special needs in an environment where they have maximum interaction with their non-disabled peers (MOE, 1994). Among the aims of IE Programme are:

- i. to facilitate learning social skills necessary for interacting appropriately in society;
- ii. to develop positive self-esteem for acceptance in an able-bodied world;
- iii. to share available resources in regular classrooms.

In this study, the term of IE Programme has been used while it was used interchangeably between IE and inclusion in overseas studies.

#### **1.12.2 Inclusive Education Implementation**

According to Irvine and Lynch (2009), IE implementation included visionary leadership, collaboration, support for staff and students, effective parental involvement, refocused use of assessment, appropriate levels of funding, curricular adaptation and effective instructional practices.

NJCIE (2010) further revealed eleven quality indicators for IE implementation, namely leadership, school climate, scheduling and participation, curriculum, instruction and assessment, programme planning and individual education plans development, programme implementation and assessment, individual

student supports, family-school partnerships, collaboration planning and teaching, professional development, planning for continued best practice improvement.

Josep and Tan (2012) revealed that there are four critical components needed in IE among sASD, namely the individual characteristics or needs of sASD, schools, teachers and family involvement.

In Malaysia, IE Programme implementation has been guided by the *Garis Panduan Program Pendidikan Inklusif Murid Berkeperluan Khas (Edisi Percubaan)* (MOE, 2013a). There are five elements namely students' criteria, students' placement, teacher, teaching and learning as well as assessment included as IE Programme implementation.

According to Teng, Yeo and Hadijah (2014), the elements in the *Garis Panduan Program Pendidikan Inklusif Murid Berkeperluan Khas (Edisi Percubaan)* are insufficient to provide effective IE Programme for students with Special Needs (sSN). Therefore, in current study, the components of IE Programme implementation were adapted from QIEIE (NJCIE, 2010). For instance, best practice planning, curriculum, instruction and assessment, collaborative planning, IEP implementation, knowledge and awareness, collaborative teaching and leadership in professional development.

# 1.12.3 Teachers' Attitudes

Attitude refers to affective, cognitive and behavioural components that correspond respectively to one's evaluation of, knowledge of and predisposition to act toward the object of the attitude (Wagner, 1969). Teachers' attitudes refer to teachers' personality characteristics such as locus of control, behavioural indicators of attitudes (Anotonak and Larrivee, 1995).

On the other hand, teachers' perceptions and willingness to cater the differences among students with special needs have been identified as a determinant of success IE implementation (Anotonak and Larrivee, 1995; Wilczenski, 1992). According to Manisah, Ramlee and Zalizan (2006), teachers' willingness in accepting students with special needs is the hallmark of IE Programme. Teachers' attitudes relate closely toward the achievements and developments among students with special needs. Ulug, Ozden and Eryilmaz (2011) found that teachers' attitudes influence students' performance and personality developments linearly.

In this study, teachers' attitudes refers to the definition given by Cochran (1998) regarding the perceptions of mainstream or special education teachers towards students with special needs in inclusion classrooms. Their opinions were examined via Scale of Teachers' Attitudes Toward Inclusion (STATIC) (Cochran, 1997).

#### 1.12.4 Teachers' Efficacy

According to Bandura (1997), self-efficacy refers to one's beliefs that he or she is able to make arrangements and carry out necessary tasks in attaining the goals given. Teachers' efficacy also represent teachers' confidence in their ability to promote students' learning (Goddard, Hoy and Woolfolk, 2000).

In this study, teachers' efficacy is defined as teachers' beliefs in their abilities to organise and execute courses of action necessary to bring about desired results, which was examined by the 12-item-short form of The Teachers' Sense of Efficacy Scale (TSES) (Tschannen-Moran and Woolfolk Hoy, 2001). Therefore, the term of teachers' efficacy has been used interchangeably with teachers' self-efficacy.

## 1.12.5 Social Skills

According to Bender (2008), social skills refer to skills that facilitate listening, conversation and interpretation of social cues and nonverbal cues. Social skills are often described as a set of abilities that enable children to respond in acceptable ways to certain social requests (Elliott and McKinnie, 1994). Unchalee, Thidakorn and Kamonrat (2014) had identified the three problematic social skills among students with ASD: the self-control behaviour, the communications skills and working in a team.

Students with ASD are often recognized first by their social ineptness and communication failure. Their social skills deficits are characterized by poor eye contact, lack of joint attention, pedantic or odd speech patterns, difficulty both initiating and maintaining conversations, lack of social problem-solving ability, lack of empathy, and difficulties in interpreting their body language (Schreiber, 2011).

Children with Autism Spectrum Disorder (ASD) experience specific social difficulties that are different from children with other developmental disabilities. Understanding their own and others emotions, understanding how to communicate their feelings and recognise other's feelings, knowing how to start and maintain interactions appropriately, and understand other people's perspectives are some examples of difficulties experienced by children with ASD (Wendy *et al.*, 2010).

Social skills in this study mainly refers to the social skills deficits in three areas namely cognitive, behavioural and affective among the students with ASD. The difficulties experienced by them were examined by TRIAD Social Skills Assessment (TSSA) (Wendy *et al.*, 2010) which were being adapted by researcher.

#### 1.12.6 Individual Education Plan (IEP)

An IEP is a written document prepared for a named student with special educational needs which specifies the learning goals that are to be achieved by the student over a set period of time and the teaching strategies, resources and supports necessary to achieve those goals (NCSE, 2006).

IEP is designed by team members consisting of parents, teachers, administrators and other related personnel when appropriate. It is a contract or written document between teachers and parents which takes into account of students' needs and other related services (Nora, 2009).

In this study, IEP refers to a record containing items as determined by the Registrar General which specifies the educational plan for each pupil with special educational needs (GOM, 2013b).

#### **1.12.7** Collaboration Teaching Practice

Collaboration teaching practice is a method of teaching where two educators take responsibility for planning, teaching and monitoring the success of all learners in an inclusion class (Gilbert *et al.*, 2012). Collaboration as the existence of shared power among people aimed towards a common goal that could not be achieved otherwise by a single individual or organisation independently (Bauer and Shea, 2003).

Collaboration in this study is seen to be important for mainstream teachers and special education teachers in sharing the common beliefs and values to build up the firm relationship which will contribute to the enhancement of learning among the included learning difficulties students. Besides that, they will plan, teach, monitor and evaluate all of the students in inclusive classrooms cooperatively.

#### 1.12.8 General Education Teacher / Mainstream Teacher

General education teacher are specialists trained to teach a standard curriculum to typically developing students. At the same time, general education teachers face the challenge of effectively accommodating the needs of students with learning disabilities in their classroom (Jung, 2007).

General education teacher is the classroom teacher who is responsible for any adaptation that may be necessary for all the students' success in general education classroom setting. They are an integral part of a successful educational experience for the child with disabilities. It is important for them to have the knowledge and skills to understand the way where disabling condition affect the ability to learn academic skills or to adapt in social situations. They must also be able to recognize learning or behaviour problems and seek the appropriate individualized programme (Drew and Hardman, 2007).

In this study, researcher decided to use mainstream teacher as the general education teacher to tally with the term used in *Garis Panduan Program Pendidikan Inklusif Murid Berkeperluan Khas (Edisi Percubaan)* (MOE, 2013a).

## 1.12.9 Special Education Teacher

Special education teachers are in a unique position to promote positive inclusive experiences as well as to offer support and expertise to their mainstream peers (Wood, 1998).

In this study, special education teacher is defined as the trained special education teacher by government in special education field who may help the mainstream teacher to identify the child's specific problem areas and recommend appropriate assessment techniques and educational strategies in inclusion classrooms.

#### **1.12.10** Students with Special Educational Needs (sSEN)

At present state, the Malaysian legislation in providing the rights for the disabled is still inadequate. The Education Act 1996 and the Education (Special Education) Regulations 1997 (GOM, 2012) make provisions for special education for pupils with special educational needs. Pupils with special educational needs are defined in Regulation 2 of the 1997 Regulations as those with visual impairment, hearing impairment or learning difficulties being recognized and supported in the schools by the Malaysian Ministry of Education.

In the Education (Special Education) Regulations 2013 (GOM, 2013), the students with special educational needs will be provided with Special Education either in special schools or schools which implement Special Education Integrated Programme or Inclusive Education Programme at all school levels. The term of sSEN was being used whenever the Education Act 1996 and the Education (Special Education) Regulations 2013 were referred to.

## **1.12.11** Students with Special Needs (sSN)

In National Education Blueprint (2013-2025) (MOE, 2013b), Ministry of Education of Malaysia (MOE) set up its mission to give full and equal participation to those students with special needs (sSN) in education. In addition, MOE has given *Garis Panduan Program Pendidikan Inklusif Murid Berkeperluan Khas (Edisi Percubaan)* (MOE, 2013a) as the guidelines for IE Programme practices in the country.

The term of sSN was being used in both of the important documents above. Thus, sSN was being applied most of the time throughout this study as it is common and more familiar to the teachers in schools.

#### **1.12.12** Students with Autism Spectrum Disorder (sASD)

Autism Spectrum Disorder (ASD) is a new DSM-V disorder encompassing the previous DSM-IV which falls under Pervasive Developmental Disorders: autistic disorder (autism), Asperger's disorder, childhood disintegrative disorder, Rett's disorder and pervasive developmental disorder not otherwise specified. It is characterised by deficits in two core domains: deficits in social communication and social interaction; restricted repetitive patterns of behavior, interests and activities. ASD is diagnosed only when the characteristic deficits of social communication are accompanied by excessively repetitive behaviours, restricted interests and insistence on sameness (APA, 2013).

Some people with autism are chatty, whereas some others are silent. Many of them have sensory issues, gastrointestinal problems, sleep difficulties and other medical problems. Some others may even have social-communication delays (MOE, 2014a). ASD is a group of disorders with similar characteristics that include difficulties with communications and social interactions and manneristic. Manneristic behaviours include distinctive behavioral traits, idiosyncrasies and exaggerated habits (Jennifer, 2007).

Under United States' federal special education law, the Individuals with Disabilities Education Act (IDEA) 2004 (USA, 2004), all types of ASD are classified under one term, autism. It is a developmental disability significantly affecting verbal and nonverbal communication and social interaction, usually evident before age 3 that adversely affects a child's educational performance.

According to Pierangelo and Guiliani (2008), autistic disorder sometimes called as "classic autism" is the most common condition in a group of developmental disorders known as ASD. Classic autism is characterized by impaired social interaction; problems with verbal and nonverbal communication and unusual, repetition or severely limited activities and interests.

#### 1.13 Conclusion

In the first chapter, the background to IE, both in IE literature and within Malaysian scenario was described. Besides, the importance and the need of implementation of IE among sASD are being discussed too. Meanwhile, there are lots of critics and doubts being raised by the public regarding IE implementation and its impacts in Malaysia towards sASD in inclusion class.

The MOE of Malaysia aims to create a fair education chance among all of the students for the sake of their rights in order to keep up with global changes in education. Thus, researcher will help to investigate IE Programme implementation status and the impact of IE Programme towards social skills among sASD.

The research objectives are constructed to determine the research questions. They are also developed to ascertain the influences after the implementation of IE Programme in Malaysia thus far. Definitions of terms used in the study have also been discussed in this chapter.

The next chapter describes the theoretical framework which explain the learning of social skills among sASD in IE Programme classrooms. Furthermore, previous studies on the social skills among sASD, IE Programme implementation, teachers' attitudes and teachers' efficacy towards IE Programme are being studied in supporting the claims and proposition of this research.

- iv. The current paths structure of social skills among sASD is mainly involving in teachers' psychological variables as mediators. To investigate the influence of teachers' factors thoroughly, teachers' demography profiles such as age, gender, teaching experience and so on may be included in the future study.
- v. The identification of paths structure in this study is insufficient to determine the causal factors which contribute to the social skills among sASD in IE Programme classrooms. Future researcher may carry out a longitude study to identify a causal paths structure for social skills learning among sASD in IE Programme classrooms.

# 5.9 Conclusion

Limited research on IE Programme has created the call for this study. The identified paths structure in this study greatly contributed to the body of knowledge in this field.

The researcher depicted and related the findings of this study to the literature review and past research in this field. The clearer picture on the social skills among sASD in IE Programme classrooms was provided via the comparison made onto the research findings and discussion. Based on the research findings, the theoretical and practical implications were discussed. On top of that, some recommendations were also suggested for the future studies.

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