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The Relationship of Teacher Involvement in Early Intervention Program on Autistic Child Development

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Abstract

Autism refers to a 'developmental disorder' which is a developmental problem. According to the medical dictionary, autism is the state of being absorbed in fantasy and escape from reality. This definition refers more to the behaviour displayed by autistic children. The disabilities that autistic children have are in terms of social interaction, communication and behaviour. This will make these children being misunderstood by the community including their own teachers and parents. Therefore, there are a number of early intervention programmes that researchers in the field have found to help children diagnosed with autism to live their lives better. The purpose of this study was to identify early intervention programmes implemented by special education teachers and their impact on children's development.

Keyword: Autisme, Early Intervention, Teachers

Introduction

Autism is a developmental disorder that affects communication and interaction skills. The word autism comes from the Greek word 'auto' which means 'self'. In the early days, the word 'autism' was introduced by a psychiatrist, Eugene Bleuler. The term originally refers to individuals who have no contact with others from the outside world. Children with autism are extremely difficult to diagnose. In terms of physical appearance, these children are not much different than normal children. However, when serious observations are made, the difference that autistic children have will be reflected in the child's behaviour and emotions.

According to Majnemer (1998), early intervention can reduce the effects of slow development, and may even prevent it from becoming more serious. Additionally, early intervention can also maximise the potential of special needs children and reduce the burden towards society. These children, who are unable to learn social behaviour and skills on their own are also known as learning disabilities group (Low Level Learning Disorders Program Curriculum 1999). While,

research by Norsuhaily and Intan (2020) the difference between teaching children with special needs and regular students are the methodology. Teaching special education students are not by learning through content, but rather to study the pattern of teaching and guiding. This is because, each special education student has a problem different learning abilities.

Wolfendale (1997) presented four main goals of early intervention. Firstly, early intervention is aimed at providing support to families in order to support their children's development. Secondly, early intervention is aimed at improving children's development in key areas such as communication and mobility. The third is to increase children's confidence, and the fourth is to avoid potential problems in the future. Therefore, it is undeniable that early intervention plays a very important role in children with special needs, including children with autism.

Literature Review

Autism

Autism is often defined as a symptom that detracts a child's development and causes the child to have difficulty in their daily routine. In addition, these autistic children are more individualistic, often alone or more so in their own world.

According to a study by the National Association of Autism of Malaysia (NASOM) cited in the book "Child Development", the meaning of autism is a deficiency that exists till the end of life and shows its effects within the first 30 months of birth. NASOM also features autistic children who have limited communication and who are also unable to communicate. In addition, these children with autism also have behavioural problems. However, there are also advantages that these autism children have. They often show an interest in mathematics and mechanical skills or in music, "rote memory" and others (Nazir, 2014).

In Malaysia, a special association for autism children was established, the National Autism Association of Malaysia or better known as NASOM. The association was established on July 11, 1986. The association was registered under the Societies Act 1966 on March 31, 1987 (Rashid, 2007)

One of the objectives of NASOM is to track and conduct the treatment, learning and acceptance of autistic children. Next, to provide help and advisory to the family of autistic children. Third is to inform parents, professionals and the public about autism. To meet this objective, NASOM has established the National Center for Autism with daily schools, boarding schools, vocational training schools and more.

Gopal (2001) states that the cause of autism is also due to viral infection. The virus mentioned is the rubella virus. The fetus infected with this virus is likely to be autistic. There are many researchers who claim that this virus infection is one of the causes of childhood obesity. In addition, there are scientists who state that the risk factor for autism is genetical. To this day, the true cause of autism remains unknown. (Suteja, 2014). Ratajczak (2011) stated that autism occurs

due to genetic defects and inflammation of the brain and that it may cause an impairment in one's development.

Early Intervention

According to Sandler, Bardziunas, Cooley and De-Pijem (2001), early intervention was a process of providing services, education and support to children experiencing delays in physical or mental development that would hinder learning and influence the child's development. The program is aimed at meeting the needs of children and families categorised as special needs. The requirements provided include five areas of development namely physical, cognitive, communication, social and emotional development (Ali, 2008)

Applied Behavioral Analysis (ABA)

According to an Autism Speaks Autism Treatment Network (ATN) expert in an article entitled 'A Parent's Guide to Applied Behavioural Analysis' states that Applied Behavior Analysis (ABA) is a set of principles that are designed to be the foundation of behavioural treatment. The ABA is considered a best practice treatment by the US Chief Surgeon and the American Psychological Association. This is because the ABA intervention has been tested based on its utility, quality and effectiveness. The results of this test show that this ABA intervention is one of the best interventions to implement to autistic children.

Discrete Trial Training (DTT)

According to Downs (2013) the DTT intervention programme is based on the learning theory and behavioural analysis theory. In addition, DTT is also known as the "Lovaas Theory" which refers to Ivar Lovaas who advocates the use of DTT interventions as an intervention program for autistic children.

According to Lovaas (1987), quoted from Downs's (2013) study, 'Training New Instructor to Implement Discrete Trial Teaching Strategies with Children with Autism in a Community-Based Intervention Program', states that the DTT intervention programme has proven to improve development and education children diagnosed with autism.

According to Flippin, Reszak and Watson (2010) cited in the study of Jennifer B. Ganz, Emily M. Lund and Richard L. Simpson (2012), stated that the PECS intervention programme have received experts' attention and the review of studies conducted by these experts suggest that the practice of PECS intervention is able to help children with moderate to severe levels of communication.

According to Ogletree, Oren and Fischer (2007) in a study entitled 'Examining Effective Intervention Practices for Communication Impairment in Autism Spectrum Disorder', the advantage that the PECS intervention programme has over the other intervention programmes is that PECS requires less material gathering and is easy to acquire. In addition, the system used by the PECS intervention program is simpler and applicable in different locations. In addition, the materials used in the PECS intervention program are "lowtech" and reduce the chance of being

damaged and lost. The highly visual nature of PECS is the best intervention option for children with autism (Tincani, 2004).

Specials Needs Teacher

Education is one of the pillars for the development of a nation. Every community has the right to education according to their differences and abilities.

Special education is very important not only to those involved with special children, but to every community. This is because not only special education teachers should have knowledge of special education, but also parents and teachers of mainstream schools should also be aware of special education. This knowledge can help parents and teachers to identify children with learning disabilities according to the characteristics that they have identified.

According to Tee and Boon (1992) quoted in the book '*Pengantar Pendidikan Khas*', special education is a well-established education specifically for children with intellectual, physical, social or emotional characteristics. According to Mohd Zuri Ghani and Aznan Che Ahmad, the special education program emphasised and nurtured each student with different potentials. With different potentials, these students also have different educational needs. Therefore, education should be in line with the ability of these students.

The priority in educating special education students is not the content but rather for the instructional and instructional learning patterns. This is due to the idea that every special education student has different problems and abilities in learning. Therefore, problems and capabilities need to be identified first and the content of the new teaching can be adjusted according to the level of ability as well as the severity of the student's disability (Razhiyah, 2005).

Research Methodology

Research Objective

In this study, several research questions have been stated to achieve the objectives that are in line with the topic of this study. Several research questions have been identified:

- 1) What types of early intervention programs do teachers implement to children with autism?
- 2) How relevant are teachers' involvement in early intervention programs towards autistic child development??

Research Hypotheses

Research Hypothesis

There is a link between teacher involvement in early intervention programmes and autistic child development.

Null Hypothesis

There is no link between teacher involvement in early intervention programmes and autistic child development.

Research Instrument

To achieve the objectives of the study, the researcher used questionnaires which were constituted into Part A: Demographics of respondents and Part B: types of early intervention programmes applied by teachers and parents to children with autism. The questionnaire was adapted from an instrument developed by Hume, Bellini & Pratt (2005). This section used the likert scale based on the options: 1 = Yes, 2 = Uncertain and 3 = No. To answer the second research question, the researcher used correlation analysis.

Research Design

The method used in this study is a survey using a quantitative approach through a questionnaire. The survey method is a very popular method. This method is used to get swift information through a single collection of data, often through questionnaires. In this study the target population consisted of special education teachers in Kuala Terengganu, Malaysia. Convenient sampling was used in which the population sample of 110 people was determined to achieve the research objective.

Data Analysis

Respondent's Demographic

Question	Yes	No	Uncertain
Intervention Applied Behavioural Analysis	104 (94.5%)	1 (0.9%)	5 (4.5%)
Intervention Discrete Trial Training	101 (91.8%)	1 (0.9%)	8 (7.3%)
Intervention Floor time	103 (93.6%)	-	7 (6.4%)
Intervention Picture Exchange Communication	107 (97.3%)	-	3 (2.7%)

The total number of respondents among the special education teachers for this study were 110 respondents consisted of men and women. 18 teachers (16.4%) were male and 92 teachers (83.6%) were female. The respondents were also classified based on their age range from 20 years to 60 years and above. A total of 31 teachers (28.2%) were in their 20s and 30s. For 31 to 40 year olds there were 44 teachers (40.0%) and the third age group was between 41 and 50 years old, 25 (22.7%). Meanwhile, 10 teachers (9.1%) were in the age group of 51 to 60 years.

For the number of respondents by race, there were 106 Malay teachers (96.4%) and the remaining 4 teachers (3.6%) are Chinese. Based on the experience as a special education teacher, the questions were classified based on the first to five years of experience for 44 teachers (40.0%)

and secondly, 6 to 10 years of experience for 37 teachers (3.6%). Meanwhile, 7 teachers (6.4%) had 11 to 15 years experience as special education teachers and another 22 teachers (20.0%) had experience as special education teachers over 16 years.

Respondents were asked about the number of autistic students that they had taught during their time as a special education teacher. Out of 110 special education teachers, 64 teachers (58.2%) had previously taught autistic students with a ratio of 1 to 3. Meanwhile, 33 teachers (30.0%) said they had taught 4 to 6 students with autism during their time. A total of 12 teachers (10.9%) responded that they taught 7 to 9 autistic students throughout their time as special education teachers. Subsequently, 1 teacher (0.9%) answered that they taught 10 to 12 autistic children.

Next is about the interest of special education teachers in educating children with autism. The analysis showed that the numbers and percentages of 110 special education teachers in this research were particularly interested in the efforts to educate and teach autistic students. This was because all 110 teachers (100%) answered 'Yes' to questions related to their interest in educating autistic students. The researcher also asked respondents whether they had a child diagnosed with autism. 9 teachers (8.2%) had children diagnosed with autism while 101 teachers (91.8%) had no children diagnosed with autism system.

The First Intervention Program Applied by The Special Education Teachers

The first type of intervention was Applied Behavioural Analysis (ABA). A total of 104 teachers (94.5%) answered 'Yes' while 1 teacher (0.9%) answered 'No' and the rest answered 'Uncertain' which were 5 special education teachers (4.5%).

The second type of early intervention was Discrete Trial Training. 101 teachers (91.8%) answered 'Yes' while 1 teacher (0.9%) answered 'no' and 8 teachers (7.3%) answered 'Uncertain'. The next type of early intervention was related to floortime intervention. 103 special education teachers (93.6%) out of 110 special education teachers applied this intervention to children with autism. The rest answered 'uncertain' which were 7 special education teachers (6.4%).

Next was the Picture Exchange Communication System Intervention, where 107 teachers (97.3%) answered 'yes' and 3 teachers (2.7%) answered 'No'. This indicated that special education teachers applied the intervention program and the most widely used intervention was PECS.

The Relationship Between Teachers in Intervention Programs Towards Autistic Child Development Correlations

		Involvement	Autistic Child Development
Teacher's Involvement	Pearson Correlation	1	.451**
	Sig. (2-tailed)		.000
	N	110	110
Autistic Child Development	Pearson Correlation	.451**	1
	Sig. (2-tailed)	.000	
	N	110	110

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

The table above showed the relationship between teacher involvement and autistic child development. The correlation results in the table above showed that the relationship between the involvement of special education teachers and with the development of Austistic children was positive at $r = 0.451$, $n = 145$, $p < 0.05$.

Discussion

Based on the results of the analysis, the results showed that the teachers applied early intervention programmes and the most commonly used was the PECS intervention.

Meanwhile the results of the second correlation test showed that there was a strong correlation between the teachers involvement and the development of autistic children with a positive correlation value of $r = 0.451$ and according to Cohen (1988), the correlation values were as follows:

Correlation Value	Relationship
± 0.1 to ± 0.29	Weak
± 0.3 to ± 0.49	Moderate
± 0.5 to ± 1.0	Strong

Conclusion

In conclusion, teachers involvement in early intervention programmes had a positive relationship with the development of autistic children. This showed that teacher involvement is an important factor in improving the development of autistic children. Therefore, the overall results obtained by the researcher indicates that all the objectives of the research were achieved successfully.

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