

Teacher needs for implementation of special needs early childhood intervention program

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Abstract

Special needs pupils are the human capital that needs to be given attention so that they are able to live independently and improve their self-reliance towards a successful career while contributing to the nation's development. The 21st Century skills are aimed at producing students who can compete globally. Therefore, this study was conducted to identify teachers' need for early intervention programs in special education preschools. The design of this study used a quantitative approach through the survey method using questionnaire instruments to obtain data. A total of 161 special education preschool teachers were selected through simple random sampling to answer the questionnaire. Aspects of teacher needs include training, collaboration, infrastructure and monitoring. While the implementation of early intervention involves aspects of planning and implementation. Instructors' needs were modified from the Malaysian Teacher's Standard instrument while the instrumentation of the initial intervention program was developed by the researchers based on the literature review appropriate to the scope of the study. Overall, the level of teacher needs in terms of training, collaboration, infrastructure, monitoring and teacher perspective in terms of planning and implementation are high. Kruskal Wallis analysis showed that there was a significant difference in teacher needs based on academic approval whereas in the overall MANOVA analysis, there were differences in teacher needs based on location. The implications of this study are that in order to achieve effective early intervention quality, the needs of teachers in terms of training, collaboration, infrastructure and monitoring should be given due attention.

Keywords: *Teacher Needs, Special Needs Early Childhood Intervention Program*

INTRODUCTION

The success of education translated into quality human capital development is a great responsibility that all educators, especially teachers in the classroom, need to recognize. The role and commitment of the teacher is very much needed and the task becomes very challenging with the 21st Century learning needs. Quality teachers are ready to face the challenge of the Ministry of Education to realize the transformation of the country's education as envisaged through the Malaysian Education Development Plan 2013–2025 (Malaysian Education Development Plan, 2013). Teacher quality is a decisive factor at the school level for student achievement including special needs students.

The Ministry of Education is constantly striving to improve the educational attainment of special needs students. However, research into these efforts has not yielded significant changes. The achievement of less special needs students in academia is no longer a new issue. The Ministry through the Special Education Division has taken several planned steps along with large budget allocations to enable these groups to receive education and succeed. To realize Malaysia's goals as a developed nation by 2020, students with special needs are not sidelined in developing the national agenda. This aspiration of educational transformation has also given attention to the involvement of special needs students (Ministry of Education Malaysia 2012a). Education transformation requires not only new approaches and strategies

but also the quality of its teachers, the complete and adequate infrastructure, it requires collaboration and supervision from the upper hand to help special needs students acquire and master the skills needed in the 21st century.

The Special Education Policy under the Ministry of Education Malaysia (MOE) is implemented through three programs namely the Special Education School, Integrated Special Education Program and Inclusive Education Program (Ministry of Education Malaysia 2013). In addition, special needs students can also study in private schools, Community Rehabilitation Centers or in non-governmental organizations (NGOs).

PROBLEM STATEMENT

Malaysia is still left behind to incorporate special needs students even though inclusive education has been enshrined in the Education Act 1996 (ZalizanMohdJelas2012). In the United States the majority of 99.5% of special education students receive inclusive education, only 0.5% of special needs students attend special education schools (Chhabra 2010). In Malaysia, the number of pupils in special needs as reported by the Special Education Division was 53, 952. However, only 64 people are in full-time inclusion programs while the Ministry of Education targets 75% of special needs students to enroll in inclusive programs by 2025 (Special Education Division 2012). This is closely related to the implementation of early intervention implemented in special education preschools that failed to help students with special needs who experienced various disabilities and developmental problems that became a hindrance to their learning (Zalizan Jelas 2009). The question is how these special needs students will face 21st century learning skills if this is not addressed.

Furthermore, not all teachers in special education preschools can implement early intervention programs in the classroom. This is due to the lack of good knowledge, understanding, skills, and training among teachers in conducting early intervention programs (National Early Childhood Intervention Conference 2006). In addition, the literature review found that previous studies did not touch on aspects of teachers' need for the implementation of early intervention in special education preschools in particular. In addition, the implementation of early intervention has not been widely implemented in special education preschools due to issues related to teacher competencies that need to be addressed (Wang 2004). The same was said by Duchnowski, Kutash, Sheffield and Vaughn (2006) that the issue of training needs to enhance the knowledge and skills of special education pre-school teachers lacked proper attention from the authorities. Likewise, the role played by the school administrators, District Education Officers and other divisions of the Ministry of Education in providing monitoring, guidance and training on the implementation of early intervention is still lacking. In this regard, aspects of collaboration between schools and multidisciplinary groups in designing early intervention special needs children are difficult to establish. This is also supported by Begum Khalid and Mohd. Hanafi Yasin (2013) notes that collaboration is less focused on sharing ideas in designing early childhood special needs interventions.

In addition, these early intervention programs are very important in special education preschools to provide early exposure to preschool curricula to special needs students as well as adapt them to the school environment. It is also supported by Noor Aini Ahmad, Zamri Mahamod and Zahara Aziz (2012) that special needs pupils need early intervention in preschool which includes teacher action modifying curriculum, motor skills training, speech training and communication. Accordingly, the study of Hasnah, Mohd. Hanafi, Mohd. Mokhtar and Noraini Ahmad (2010) also point out that early intervention can reduce the disabilities faced by special needs students. The findings of Shahrul Arba'iah, Norzaini Azman and Manisah Mohd Ali (2008) also report that early intervention is an important factor as it generates the potential for deaf children. Therefore, it is clear that early intervention programs need to be implemented in special education preschools so that special needs students have the same opportunity to receive the same education as normal children.

Recent studies have also highlighted issues among special education preschool teachers who do not have the training, inability to teach special needs students, misunderstandings of children's special education characteristics, lack of knowledge, skills, teachers' attitude towards implementing interventions it is found to be still at a low level (Aird & Heath 2011; Ware 2006; Ismail, Al-Zoubi, Bani Abdel Rahman and Al-Shabatat 2009; Al-Zoubi, Bani Abdel Rahman & Ismail 2010; Avalos 2011). In addition, the implementation of early intervention has not been widely implemented in the kindergarten classroom due to issues related to teacher competence that need to be addressed (Wang 2004). These include poor early intervention techniques, poor teacher education and training, background, unpreparedness, and teacher perspectives on implementation and planning of early intervention (Dale, Mills, Cole and Jenkins (2008; Wang 2004). The causes of these weaknesses are also associated with teacher problems such as workload, limited time (Lesley, Craig-Unkefer & Ann 2012), weaknesses in planning aspects, and implementation of interventions, ineffective strategies, multiple responsibilities, teachers' attitudes and curriculum inconsistencies (Johnson, Gallagher, Cook & Wong 2011).

To provide quality teaching for children with special needs, special education preschool teachers need to be trained to master early intervention for at-risk children in preschool (Tamar Andrews 2012; Swartz 2007; Yell, Shriner & Katsiyannis 2006). Therefore, the purpose of this study is to examine the needs of preschool teachers in terms of training, infrastructure, collaboration and monitoring of the implementation of early intervention programs in special education preschools.

HYPOTHESIS

Ho₁: There is no significant relationship between teacher needs and teachers' perspectives on the implementation of early intervention in special education preschools.

Ho₁: There is no significant relationship between teacher needs from the training aspect and the teacher's perspective on the implementation of early intervention in preschool special education.

Ho₂: There is no significant relationship between teacher needs in terms of collaboration and teacher perspective on implementation of early intervention in special education preschool.

Ho₃: There is no significant relationship between the needs of teachers in terms of infrastructure and teachers' perspectives on the implementation of early intervention in special education preschools.

Ho₄: There is no significant relationship between teacher needs in terms of monitoring and teacher perspective on the implementation of early intervention in special education preschools.

THEORETICAL FRAMEWORK

The theoretical framework of teacher needs for implementing early intervention in special education preschools is a source of the Malaysian Standard Teacher Model (Teacher Education Division 2009). According to the Malaysian Teacher Standards Competency Model, there are 5 key requirements including qualification, training, collaboration, infrastructure and information structure and quality assurance. However, researchers focus only on the needs of teachers in terms of training, collaboration, infrastructure and enhancing aspects of monitoring needs based on literature review. The needs of teachers are reviewed in terms of the training needed to carry out early intervention, while collaboration needs to establish co-operation with various parties such as cooperation between teachers and parents, schools, multidisciplinary groups and non-governmental organizations (NGOs). Implementing early intervention programs in special education preschools. While teachers' perspectives on the implementation of early childhood pre-school special education programs are viewed from the planning and implementation aspects based on previous literature reviews and studies.

METHODOLOGY

This study examines teachers' need for early intervention programs in special education preschools. The design of this study used a quantitative approach through the survey method using questionnaire instruments to obtain data. The study population is a special education preschool teacher from all over Malaysia. In this study, 161 special education preschool teachers were selected through simple random sampling to answer the questionnaire.

The construction of teachers' needs in terms of training, infrastructure, collaboration and monitoring was adapted from the Malaysian Teacher Standards Model by the researcher to fit the context of this study. While the implementation of the early intervention program is based on literature reviews and previous studies. A pilot study was conducted on 30 respondents of special education preschool teachers to test and improve the validity and reliability of the instrument. The Cronbach's Alpha reliability coefficient for all teacher needs questionnaires ranged from 0.793 to 0.903 and the Initial Intervention Implementation questionnaire was 0.884. This instrument has appropriate reliability and the researcher is confident that the instruments in this study can be used because according to Majid Konting (2004) the level of 0.71 to 0.99 is the best level of item reliability by the sample.

Teacher needs instruments are adapted and modified from the Malaysian Teacher Standards Model, while planning and implementation instruments are based on the literature and previous studies. The questionnaire consisted of 3 sections namely Part A of the respondents' demographics, Part B of Teacher Needs consisting of 21 items while Section C on the Implementation of the Early Intervention Program contained 12 items and all of them containing 33 items. The questionnaire was used on a five-point Likert scale. The data analysis process involved descriptive statistics and inference using Statistical Package for Social Science (SPSS) version 22.0.

RESULT

The study involved 161 respondents. The demographic profiles of the respondents in this study were described based on their academic approval and teaching experience. The profiles of the respondents in this study are detailed as follows.

Table 4.1 Demographic Profile of Respondents Study

Demographics	Frequency	Percentage
Gender		
-Male	4	2.5%
-Female	157	97.5%
Academic qualifications		
- SPM	10	6.2%
- Diploma	29	18.0%
- STPM	10	6.2%
- Bachelor's Degree	112	69.6%
Teaching experience (in years)		
- Less than 1	15	9.3%
-1-3	28	17.4%
-4-5	32	19.9%
- 6 years above	86	53.4%
Specialty field		
-Yes	159	98.8%
-No	2	1.2%
Preschool		
-Learning Disabilities	136	84.5%
-Hearing Disorders	21	13.0%
-Vision Problems	4	2.5%

Based on the demographic profile of respondents indicated the gender of 4 people (2.5%) male teachers and 157 female teachers (97.5%). While academic approval shows, 10 (6.2%) SPM-approved teachers, 29 (18.0%) Diploma-approved teachers, 10 (6.2%) STPM-approved teachers and 112 (69.6%) Bachelor-approved teachers. Subsequently, based on teaching experience, 15 (9.3%) experienced teachers were less than 1 year old, 28 (17.4%) experienced teachers 1 to 3 years, 32 (19.9%) experienced teachers 3 to 5 years, and 86 (53.4%) experienced teachers over 6 years. According to the field of specialization, 159 people (98.8%) said 'yes' and 2 (1.2%) said 'no'. Further, according to the preschool program, 136 (84.5%) teachers with learning disabilities, 21 (13.0%) hearing impaired teachers and 4 (2.5%) visually impaired teachers.

Teacher Needs Levels of Training Aspects

Table 4.2 presents the findings and discussion of teachers' need for early intervention programs in special education preschools. Overall the needs of special education preschool teachers should be summarized as follows.

Table 4.2 Requirements of Special Education Preschool Teachers

No.	Teacher requirements	Mean	Standard deviation	Interpretation
1.	Exercise	4.65	0.40	High
2.	Collaboration	4.62	0.33	High
3.	Infrastructure	4.76	0.41	High
4.	Monitor	4.49	0.38	High
	Overall	4.63	0.27	High

Table 4.2 shows that the need among the highest quality special education preschool teachers in terms of infrastructure (mean = 4.76 and SD = 0.41) is highest. Next, the training aspect (min = 4.65 and SD = 0.40) was high, the collaboration aspect (min = 4.62 and SD = 0.33) was high and the monitoring aspect (min = 4.49 and SD = 0.38) was at the highest level. Overall, the need for special education preschool teachers was high (mean = 4.63 and SD = 0.27). To see more clearly the level of need among special education preschool teachers, see Figure 4.1 below.

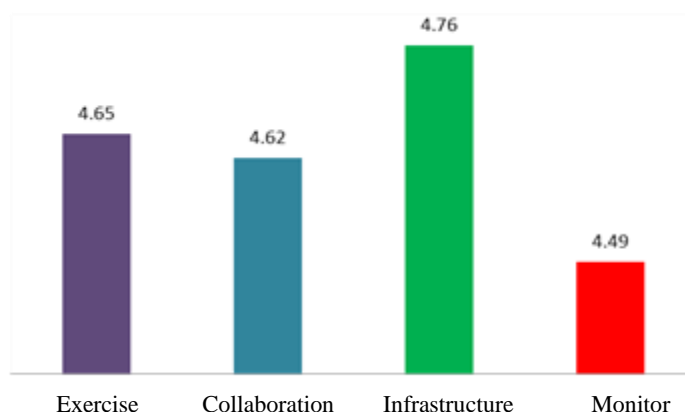


Figure 4.1 Requirements for Special Education Preschool Teachers

Figure 4.1 shows that special education preschool teachers have high infrastructure requirements. This is followed by training and collaboration. The lowest requirement is monitoring.

Level of Teacher Perceptions of Early Intervention Programs In Special Education Preschools.

The findings from the planning and implementation aspects show teachers' perceptions of pre-school special education children's early intervention programs as shown in Table 4.3 below.

Table 4.3 Levels of teachers' perceptions of early intervention programs in special education preschools.

No.	Early Childhood Intervention Program	Mean	Standard Deviation	Interpretation
1.	Planning	4.82	0.33	High
2.	Implementation	4.38	0.23	High
	Overall	4.56	0.23	High

Table 4.3 shows that the level of teachers' perceptions of early childhood pre-planning special education programs in terms of planning (mean = 4.82 and SD = 0.33) has higher meanings than in terms of implementation (mean = 4.38 and SD = 0.23). Overall, teachers' perceptions of early intervention programs in special education preschools were high (mean = 4.56 and SD = 0.23). To see more clearly the level of teachers' perceptions of early childhood pre-school special education programs, see Figure 4.2 below.

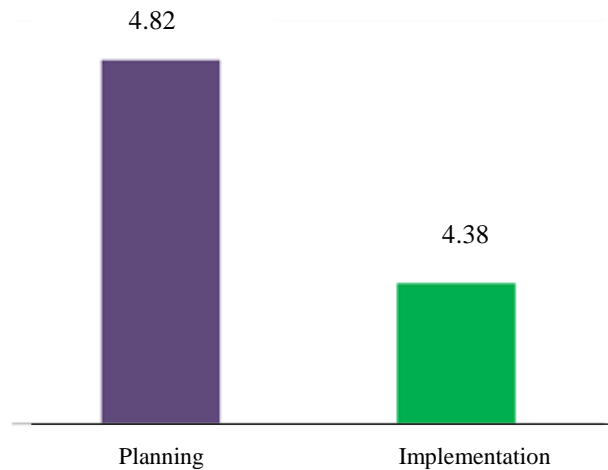


Figure 4.2 Teachers' Perceptions of the Early Intervention Program in Special Education Preschools.

Figure 4.2 shows that teachers' perceptions of early intervention programs in pre-school special education are planning. This is followed by teachers' perceptions of early intervention programs in special education preschools in terms of implementation.

The Relationship of Teacher Needs with Teacher Perspectives to the Implementation of the Early Intervention Program.

Pearson correlation analysis was conducted to identify the relationship between teacher needs and teachers' perspectives on the implementation of early intervention in preschool special education. The results of the Pearson correlation analysis are as shown in Table 4.55 below.

Table 4.55 *Pearson correlation of teacher needs and teachers' perspectives on early intervention implementation in special education preschools.*

Relationship	Perceptions of teacher R	Sig.- p	Relationship Strength
Exercises	0.380	0.000 **	Simple
Collaboration	0.415	0.000 **	Simple
Infrastructure	0.372	0.000 **	Simple
Monitoring	0.356	0.000 **	Medium

** Significant at level 0.01, 2 ends

Table 4.55 shows that there is a significant relationship between teacher needs from the training aspect and the teacher's perspective on the implementation of early childhood special education preschool intervention with values of $r = 0.380$ and $\text{sig} = 0.000$ ** ($p < 0.05$). Relationship strength is positively modest. This indicates that the null hypothesis ($H_{01.1}$) is rejected. Subsequently, there was a significant relationship between teacher needs from the collaboration aspect and the teacher's perspective on the implementation of early intervention in special education preschool with values of $r = 0.415$ and $\text{sig} = 0.000$ ** ($p < 0.05$). Relationship strength is positively modest. This indicates that the null hypothesis ($H_{01.2}$) is rejected. In this regard, there was also a significant relationship between teacher needs from the infrastructure aspect and the teacher's perspective on the implementation of early intervention in special education preschool with values of $r = 0.372$ and $\text{sig} = 0.000$ ** ($p < 0.05$). Relationship strength is positively modest. This indicates that the null hypothesis ($H_{01.3}$) is rejected.

Meanwhile, there was a significant relationship between teacher needs from the monitoring and teacher perspective on the implementation of early intervention in special education preschool with values of $r = 0.56$ and $\text{sig} = 0.000$ ** ($p < 0.05$). Relationship strength is positively modest. This indicates that the null hypothesis ($H_{01.4}$) is rejected. Overall, there is a significant relationship between teacher needs and teachers' perspective on the implementation of early intervention in special education preschools. This indicates that the null hypothesis (H_{01}) is rejected. This means that all four aspects of training, collaboration, infrastructure and monitoring have a moderate relationship with teachers' perspectives on the implementation of early intervention in special education preschools.

DISCUSSION

In this study aspects of teachers' need for early intervention in special education preschools include training, collaboration, infrastructure and monitoring. Overall it shows that the needs of special education preschool teachers in terms of training are high (mean = 4.65 and SP = 0.40). These findings clearly indicate that preschool teachers' demand for training needs is high. Based on the findings of the special education pre-school teachers' findings, training requires early intervention. The findings of this study also support the findings and views (Tamar Andrews 2012; Swartz 2007; Yell, Shriner &Katsiyannis 2006) that special education preschool teachers need to be trained so that they can implement early intervention specifically for children at risk in special education preschool classes. Some of the reasons

for the failure of the early intervention program were the lack of training and exposure for early intervention.

This early intervention program is especially important for preschoolers with special needs who are experiencing developmental disabilities to help them reduce their disabilities. It is also noted by Booth and Kelly (2012) that evidence shows that the quality of early intervention programs of special needs students can help determine children's social, behavioral, language and communication, motor skills, fine motor skills, cognitive development and school readiness skills. The findings of this study also support the findings and views (Tamar Andrews 2012; Swartz 2007; Yell, Shriner & Katsiyannis 2006) that special education preschool teachers need to be trained so that they can implement early intervention specifically for children at risk in special education preschool classes.

This finding also supports the study of Witt, Joseph, Elliott and Martens (2004) who found that teachers needed specialized skills and training on early intervention for children with special needs who had severe behavioral, language and communication problems and who needed large amounts of time to do it. Teachers feel that they can implement the intervention, but they acknowledge the lack of skills and knowledge even though they have experience teaching special needs children and attending in-service training (O'Reilly & Duquette 2008).

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