

The Contribution Of Input Components To The Product Components (Goals Achievement) Of Integrated Special Education Program (Learning Disabilities)

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ABSTRACT

This study aims to evaluate the implementation of the Integrated Special Education Program-Learning Disabilities (ISEP-LD) in secondary schools in Peninsular Malaysia. This study examines the contribution of ISEP-LD (input) components toward goal achievement (product). This study found two important sources of input, human resources, and non-human resources. The data showed that the non-human resources input is the key aspect that assists special education teachers to achieve teaching and learning goals, which are the in-service training (IST), scheduling, parent and community, as well as financial support. On the other hand, for the human resource input, only the knowledge aspect contributed to the teaching and learning process of special education teachers. The education of students with special needs (SNS) has never been neglected by the government. Therefore, this study provides information to the government so that the integrated special education program could be continued with improvement by focusing on the regular in-service training for special education teachers.

Keywords: special education, program evaluation, input, product.

INTRODUCTION

Education is the right of every citizen of the world without exception. Education provides an opportunity for individuals to improve their standard of living, become successful members of society, and actively contribute to the development of the nation. Education for special children or termed special needs students (SNS) has never been neglected by the government. SNSs have an equal right to learn and socialize in a barrier-free learning environment (KPM 2018). Special education programs in Malaysia support the human rights declaration and contribute to the United Nations' Sustainable Development Goals (SDGs).

The implementation of special education in Malaysia is embodied in the Education Regulations 1997 Part II 3 (2) of the Education Act 1996. Through this Act, a student with special needs can attend a special education program, if he is able to manage himself and is certified by a panel consisting of medical officers, Ministry of Education officials, and Welfare Department officials. Special education in Malaysia is implemented through special education primary and secondary schools (SKPK and SMPK) for students with visual and hearing impairments. For students with learning disabilities, the MOE provides Special Education Integration Program (ISEP) in ordinary daily schools (primary and

secondary) either inclusive or semi-inclusive. The Inclusive Education Program is provided to the SNSs who meet the criteria to study with other mainstream students in the same class in the same school either fully inclusive or partially inclusive (Education Act 1996: Education Regulations (Special Education 1997).

Exemption from attending special education programs is given to students from these two categories: i) Students who are physically disabled but have the mental ability to learn like normal students, and ii) Pupils who have various disabilities or who are severely disabled or have a severe intellectual disability. Starting in 2019, the Zero Reject Policy will be implemented in stages for students with special needs (SNSs). Zero Reject Policy is an existing policy that has been strengthened in terms of its implementation to ensure that SNSs receive education according to their disabilities either in mainstream schools through the Integrated Special Education Program (ISEP) and Inclusive Program or in the Special Education Schools (Nursohana & Mohd Effendi, 2020)

Integrated Special Education Program (ISEP) is the largest special education program with a total of 90,876 students in 2,586 schools throughout Malaysia (BPKhas 2021). SNS with learning

disabilities is the largest contributor to the number of students in ISEP which is 79,921 (BPKhas 2021). After ISEP-LD has been implemented for a long time, the researcher would like to assess what are the problems faced in the implementation of ISEP in a mainstream daily secondary school.

ISEP-LD evaluation in this study used the CIPP Model (Context, Input, Process, and Product) pioneered by Stufflebeam (1971). According to Stufflebeam (1971), program evaluation can be conducted through several aspects. The main aspect is human input such as skills, knowledge, and attitudes. The other aspect is the non-human. The evaluation of the input components is divided into two namely human resources and non-human resources. The human resource input includes skills, knowledge, teacher attitudes, principal support, as well as parental and community support. Meanwhile, the non-human resource input includes frequency of attending in-service training (IST), IST effectiveness, infrastructure, information technology facilities, scheduling, modules, and materials as well as financial allocation.

Assessments are made to identify the strengths and weaknesses of the program. In addition, it helps government agencies and the treasury to assess the performance of each activity and then take necessary short-term action to solve problems. Furthermore, the government can also identify whether there is a need to continue, postpone or cancel the program through this assessment. To ensure effective national expenditure, the "Outcome Based Budget", Treasury Circular No. 2, 2012 states that every program implemented must be evaluated. This proves the need for ISEP-LD assessment to be carried out after it was introduced in 1988 in primary schools and continued at the secondary level in 1995.

LITERATURE REVIEW

The Integrated Special Education Program (ISEP-LD) implemented by the MOE involves 2,294 schools (1,496 primary schools and 798 secondary schools) (BPKhas 2017), and is an effort to establish the education for students with special needs in line with the 1994 Salamanca Declaration which stipulates that "students with special needs who require special education should have that access in regular schools that accept them with student-centered pedagogy and are able to meet their needs". The MOE is committed to the ISEP-LD by providing a large allocation for special education development in Malaysia. For example, in 2015, RM27,985,121.54 was allocated while the expenditure for Special Needs Allowance alone

reached RM132,178,754.03 (BPPDP 2017). Apart from the infrastructure development involving school construction, special educational materials and equipment, ICT facilities, and so on, the professional development of special education teachers is prioritized in order to improve their knowledge and skills to operate ISEP-LD in schools to achieve the desired goals (KPM 2015).

However, since ISEP-LD was implemented, there are some problems and constraints. Previous studies have found that implementation constraints of ISEP-LD are related to the aspects of teacher weakness (Ab. Halim 2009), while other studies have found constraints in terms of school leader's support as well as parental commitment and cooperation (Shamsudin 2014). Meanwhile, a study entitled 'Current special education classrooms and constraints on the teaching process' stressed the infrastructure and teaching aids constraints (Mohd Hanafi et al. 2013).

Most of the ISEP-LD past studies only discussed certain aspects such as teachers, infrastructure, as well as teaching and learning separately (Ab Halim 2009; Noorafizah et al. 2014; Avalos 2011; Aird dan Heath 2011; Al-Zoubi et al. 2010; Mohd. Hanafi et al 2013). However, a comprehensive study, covering the implementation evaluation of the ISEP-LD as a whole, which includes the adequacy of input components, the level of the implementation process, and the level of ISEP-LD goal achievement has not been carried out. As the ISEP-LD is an important program that is continued to date with the largest number of special education students, a comprehensive evaluation should be done to assess the implementation process and the achievement of the goals.

QUESTIONS

To what extent do the input components contribute to the product component (goal achievement) of ISEP-LD?

METHODOLOGY

The design is a survey evaluation study using a questionnaire as the main instrument to evaluate the ISEP-LD implementation in secondary schools in Peninsular Malaysia. This ISEP-LD assessment used the CIPP Assessment Model by Stufflebeam et al. (1971). In this evaluation study, the researcher used a survey method to collect quantitative data by using a questionnaire as the main instrument.

Questionnaires are one of the tools commonly used to collect data, especially in the field of education. There are several examples in which it is used to gather information about events that cannot be

witnessed directly (Yada & Savolainen, 2017). In this study, a questionnaire was given to special education teachers in secondary schools which implemented ISEP-LD. The questionnaires were distributed using electronic techniques that we're using the mobile phones through the Google Forms, which was distributed to WhatsApp groups of special education teachers in selected schools. A total of 409 respondents answered the questionnaire. This study used a stratified random sampling technique. Sekaran and Bougie (2016) stated that the stratified random sampling technique that is not based on the ratio (disproportionate sampling) referred to the selection of equal samples, which is more appropriate if there is a stratified population that is too small or too large. Since the number of secondary schools that implement ISEP-LD in each state differs greatly, then the sampling that does not follow the actual ratio of the population is used. This data collection method was also easier and more economical.

The validity and reliability were done through face validity and content validity. Face validity was determined by administering a draft instrument to 15 ISEP-LD teachers in each school. They have submitted feedback in terms of sentence accuracy and confusion. For content validity, this study obtained instrument evaluation from five experts consisting of three program evaluation experts and two special education experts. The reliability of the questionnaire was good as Cronbach Alpha showed 0.677 and above except for the RWC mastery item, which was 0.403. Mohd. Majid (1990) stated that Cronbach's Alpha value above 0.60 was often used as a reliability index in research.

This study uses Multiple Regression Analysis (Stepwise) to determine whether the variables of human resource and non-human resource input evaluation contribute to the ISEP-LD goal achievement. Data were analyzed using Statistical Package for the Social Science (SPSS) software. Figure 1 depicts the research process.

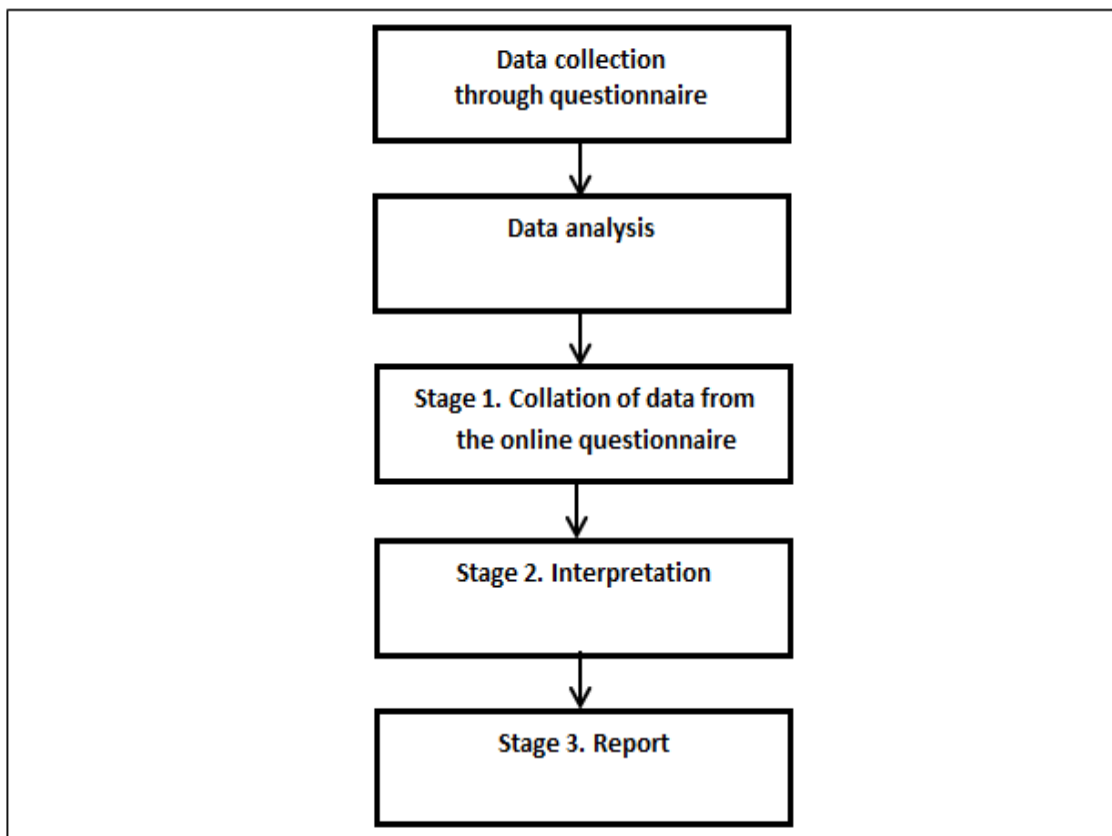


Figure 1. Flowchart of the research process

FINDINGS

This study aims to evaluate the percentage contribution of input components to the product component (goal achievement) of ISEP with learning disabilities. The respondents involved in this study are special education teachers in secondary schools who implement ISEP in the states of Johor, Kelantan, Selangor, and Kedah.

The respondents stated that the input component is a predictor of the product component (goal achievement). The influence of the input component is in terms of in-service training (IST), scheduling, parent and community support, finance, and knowledge on the product component (goal achievement) of ISEP.

Before Multiple Regression (Stepwise) analysis was carried out, it is necessary to ensure that the data is linear and normally distributed. This can be detected through the graph of residual scatter plot and normal regression plot from the linear regression plots in the SPSS 25.0 program. Some data that could interfere with the reliability of the

regression analysis were reviewed (via Casewise diagnostics analysis). In addition, some linear regression assumptions such as the variance equality test and normality test as well as the collinearity aspects were determined according to the specified method (Hair et al. 2006). Figure 1 shows the Normal Probability Plot.

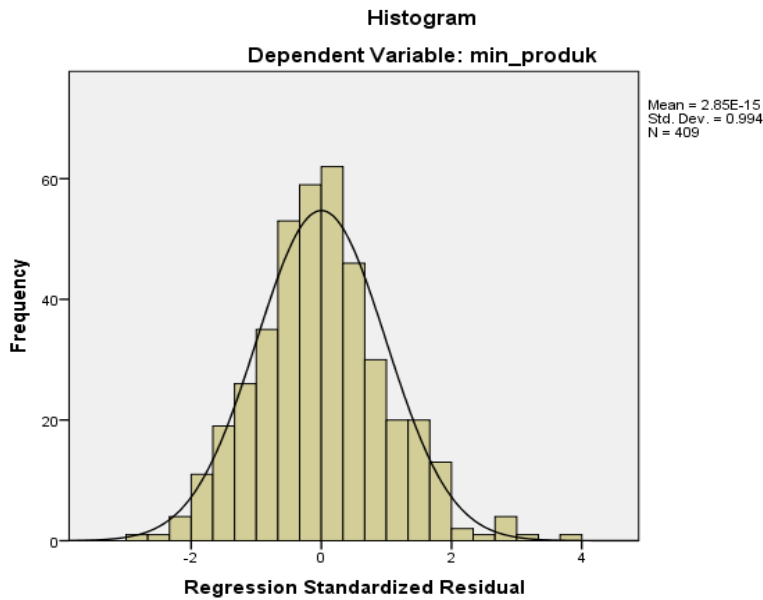


Figure 1 Normal Probability Plot

Figure 1 shows that the data is normally distributed because the distribution is bell-shaped. The

relationship between the product variables studied is shown in Figure 2.

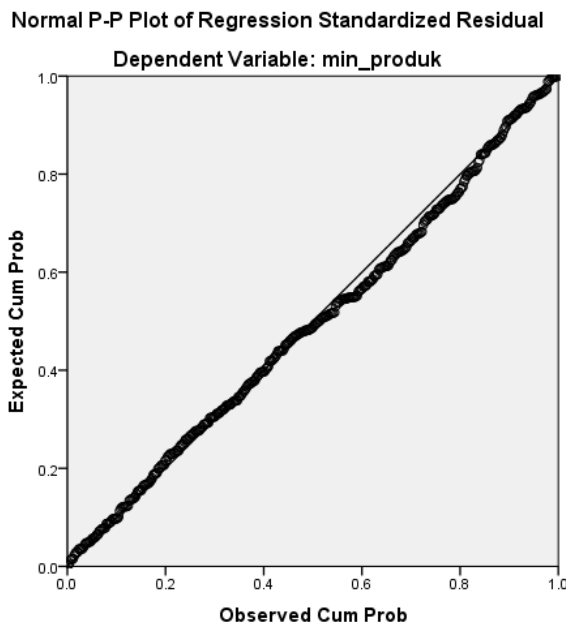


Figure 2 P-P Plot of Regression Standardized Residual

Figure 2 shows the points representing the data along the bottom left line up to the top right line. This indicates that the data do not deviate from the normal distribution and there is a positive correlation between the independent variable and

the dependent variable (Pallant 2013). The independent variable in this study is the input component, while the dependent variable is the product component (goal achievement) of ISEP.

Table 1 Analysis of Variance For The Input Components

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	22.201	1	22.201	174.775	.000 ^b
	Residual	51.700	407	.127		
	Total	73.901	408			
2	Regression	29.508	2	14.754	134.931	.000 ^c
	Residual	44.393	406	.109		
	Total	73.901	408			
3	Regression	31.953	3	10.651	102.836	.000 ^d
	Residual	41.948	405	.104		
	Total	73.901	408			
4	Regression	33.668	4	8.417	84.519	.000 ^e
	Residual	40.233	404	.100		
	Total	73.901	408			
5	Regression	34.636	5	6.927	71.096	.000 ^f
	Residual	39.265	403	.097		
	Total	73.901	408			

Table 1 shows that the stepwise regression analysis of the input component on the product component among teachers who implement the ISEP, which were IST [F (1,407) = 174.775, Sig = 0.000, p <0.05], scheduling [F (2,406) = 134.931 , Sig = 0.000, p <0.05], parental and community support [F (3,403) = 102.836, Sig = 0.000, p <0.05, finance F (4,404) = 84.519, Sig = 0.000, p <0.05], and knowledge [F (5,403) = 71.096, Sig = 0.000, p <0.05]] was a significant variant that predicts the

ISEP product component (goal achievement). The influence of the input components is in terms of the IST effectiveness, scheduling, parental and community support, finance, and teachers' knowledge on the product component (goal achievement) of ISEP. This indicates that the input components are the predictor of the product component. The following table shows the multiple regression analysis to identify the contribution of input components to the product component.

Table 2 Stepwise Multiple Regression Analysis

Variables	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	R2	Contribution
	B	Standard Error	Beta				
IST Effectiveness	.194	.032	.276	6.041	.000	0.300	30%
Scheduling	.134	.042	.162	3.195	.002	0.099	9.9%
Parent and Community Support	.150	.032	.210	4.723	.000	0.033	3.3%
Finance	.107	.028	.171	3.832	.000	0.023	2.3%
Knowledge	.132	.042	.132	3.151	.002	0.013	1.3%
Constant	.866	0.130		6.656	.000		

Table 2 shows the contribution of human and non-human resources input on the product starting from IST effectiveness, which contributed 30 percent (Beta = .276, t = 6.041, Sig = 0.000 and R² = 0.300). Next, scheduling contributed 9.9 percent (Beta = .162 , t = 3.195, Sig = 0.002 and R² = 0.099), parental and community support contributed 3.3 percent (Beta = .210, t = 4.723, Sig = 0.000 and R² = 0.033), finance contributed 2.3 percent (Beta = .171, t = 3.832, Sig. 0.000 and R² = 0.023), and knowledge contributed 1.3% (Beta = 0.132 , t =

3.151, Sig = 0.002 and R² = 0.013) towards the product component (goal achievement) of ISEP. According to Pallant (2013), the remaining percentage in a regression analysis is contributed by other factors. On the whole, the null hypothesis (Ho) is rejected. From the multiple regression findings, the following regression equation is made;

$$\bar{y} = .866 + .194x_1 + .134x_2 + .150x_3 + .107x_4 + .132x_5$$

In which;

\bar{Y}	-	Product components (goal achievement)
X1	-	IST
X2	-	Scheduling
X3	-	Parent and Community Support
X4	-	Finance
X5	-	Knowledge

Constant = .866

DISCUSSION

This study found that the human resources and non-human resources input are the predictive components of the product. In detail, these five input components which consist of IST effectiveness, scheduling, parent and community support, finance, and teachers' knowledge contribute to the Product Component (ISEP Goal Achievement) ranging from 1.3 percent to 30 percent contribution. The findings indicate that special education teachers need more preparation and quality training than regular academic teachers who teach mainstream students.

Special education teachers who implement the ISEP program need more preparation compared to regular teachers (Norizan et al. 2013; Mohd. Sharani 2006) considering ISEP have SNS from various learning disabilities such as autism, down syndrome, hyperactivity, and dyslexia. Moderate to high levels indicate that special education teachers felt unconfident in their skills, knowledge, and attitude in implementing ISEP.

Knowledge, skills, and attitudes are crucial aspects for all teachers to ensure the success of all educational agendas (Abdullah 2010; Abd. Rahman, Mohd. Anuar & Ahmad Kamar 2011; Sri Andayani 2019). Teachers also need to have strong pedagogical knowledge and content expertise to carry out tasks effectively (Knight 2005; Sri Andayani 2019; Steiner & Kowal 2007). Therefore, ISEP teachers need to improve their skills, knowledge, and attitudes in line with the increasingly complex current developments. Teachers need to equip themselves with specific and up-to-date skills (Duthilleul 2005; Shulman 2004), as well as be flexible and adaptable to new demands (Berry et al. 2008; Zhao & Bryant 2007). High expectations are also placed on teachers in order to be ready to perform clerical tasks such as scheduling and be skilled in using the latest information technology in addition to the role of the principal to provide full support to the school.

Parental and community support was found to be at a moderately low. These findings are contrary to the study of Abd Razak and Noraini (2011), which found that parents played an important role in stimulating the academic success of students in school. Similarly, Abidah's (2014) study on parental involvement in the SNS's Individual Education Plan shows that parental involvement in decision making is only at a moderate level.

CONCLUSION

In conclusion, the input aspects of human and non-human resources on the product aspect (goal achievement), which are ISP effectiveness, scheduling, parent and community support, finance, and teacher knowledge contribute to the product aspect. Therefore, the teachers' hard work is needed in addition to skills, attitudes, principal support, and information technology facilities to help teachers combine human resources with the latest digital technology that suits their ability. In essence, the results show that the effectiveness of integrated special education programs (learning disabilities) in daily secondary schools can be further improved by enhancing the input of human resources and non-human resources aspects to further develop the potential of special education teachers to ensure meaningful teaching and learning.

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