



Impact of Implementation of Inclusive Education Program (IEP), Teacher Motivation on Resource Teacher Needs of Secondary School Teachers in Malaysia

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Abstract

The national education system provides a holistic education framework for all students including Students with Special Educational Needs. Unfortunately, the biggest obstacle in the world's education system is the ability to achieve academically and motivate Students with Special Educational Needs. In parallel, the national education system is faced with the challenge of addressing the needs of students at every level of schooling. Effective teaching and learning is needed to accommodate more challenging secondary level learning and public examinations. If the necessary support is not provided, it will result in frustration, academic failure, a curriculum that cannot be mastered and lost future opportunities in society by Students with Special Educational Needs as well as lower academic expectations. Overall, the study findings show that the factors of the Implementation of Inclusive Education Program (IEP) based on Teacher Knowledge, Teacher Attitude, Collaborative Strategy, Teacher Teaching Method, Teacher Training and Teacher Motivation have a significant and positive effect on the Resource Teacher Needs in Secondary School Teachers in Malaysia. Factor Teacher Motivation functions as a mediator in the relationship between Implementation of Inclusive Education Program (IEP) based on Teacher Knowledge, Teacher Attitude, Collaborative Strategy, Teacher Teaching Method, Teacher Training with Resource Teacher Needs in Secondary School Teachers in Malaysia. The overall results of this study show that the Implementation of Inclusive Education Program (IEP) and Teacher Motivation, are important factors in influencing the Resource Teacher Needs in Secondary School Teachers in Malaysia.

Keywords: *Inclusive Education Program (IEP), Teacher Motivation, Resource Teacher Needs, Structural Equation Modeling (SEM)*

Introduction

In Malaysia, the Inclusive Education Program (IEP) is divided into three categories, namely full inclusive, partial inclusive and place inclusive. Full inclusive education means that Students with

Special Educational Needs (SEN) will attend learning sessions in mainstream classes with other normal students. Partial in

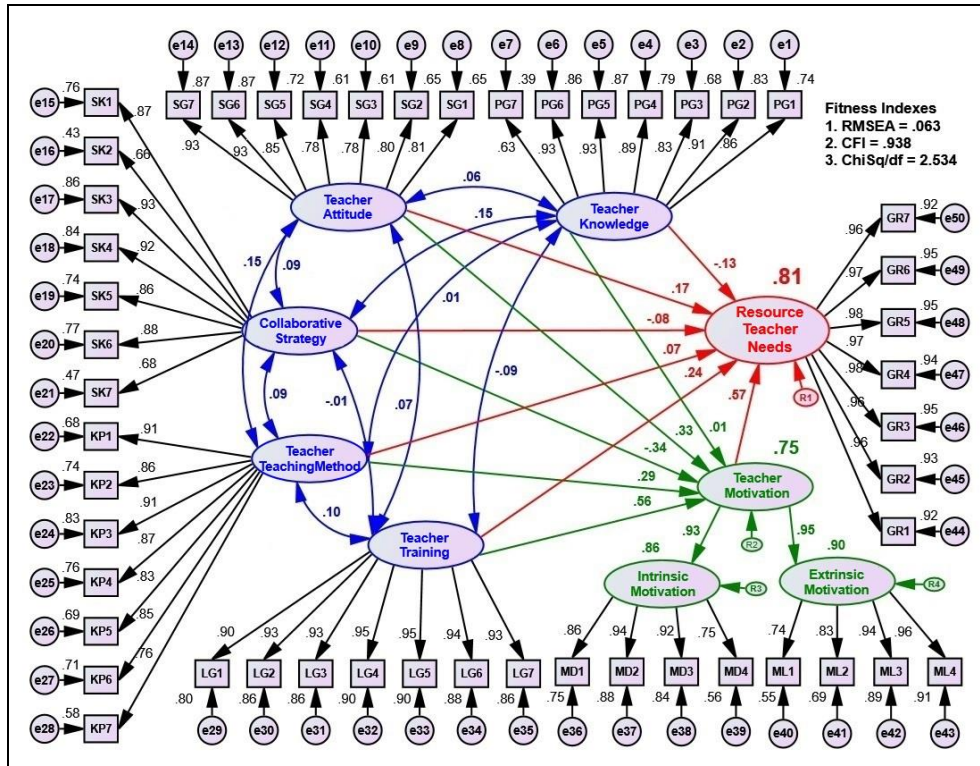


Figure 1: StandarTazed Regression Values

The R^2 value for the Resource Teacher Needs (RTN) is 0.81. This shows six (6) predictor constructs in the model (one headed arrow) which are Teacher Knowledge (TK), Teacher Attitude (TA), Collaborative Strategy (CS), Teacher Teaching Method (TTM), Teacher Training (TT) and Teacher Motivation (TM) contributed as much as 81 percent (%) to Resource Teacher Needs (RTN) among the population in this study. The R^2 value for Teacher Motivation (TM) is 0.75. This shows six (6) predictor constructs in the model (see arrow) which are Teacher Knowledge (TK), Teacher Attitude (TA), Collaborative Strategy (CS), Teacher Teaching Method (TTM) and Teacher Training (TT) contribute as much as 75 percent (%) to Teacher Motivation (TM) among the population in this study (Hossen et al., 2026).

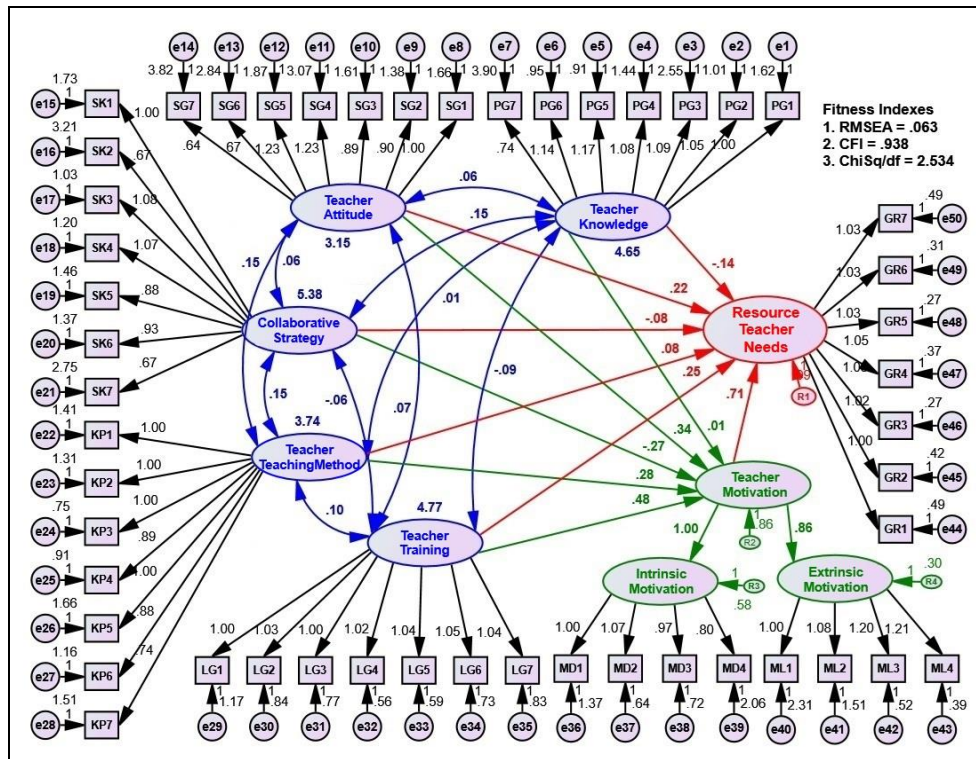


Figure 2: Unstandardized Regression Values

The regression equation for Resource Teacher Needs (RTN) and Teacher Motivation (TM) is:

- a) $RTN = (-0.14)TK + 0.22TA + (-0.08)CS + 0.08TTM + 0.25TT + 0.71TM$ ($R^2 = 0.81 = 81\%$).
- b) $TM = 0.01TK + 0.34TA + (-0.27)CS + 0.28TTM + 0.48TT$ ($R^2 = 0.75 = 75\%$).

The double-headed arrow is the value of the correlation between two independent, namely the correlation:

- a) between Teacher Knowledge (TK) with Teacher Attitude (TA) results in a value of 0.06,
- b) between Teacher Knowledge (TK) with Collaborative Strategy (CS) results in a value of 0.15,
- c) between Teacher Knowledge (TK) with Teacher Teaching Method (TTM) results in a value of 0.01,
- d) between Teacher Knowledge (TK) with Teacher Training (TT) results in a value of -0.09,
- e) between Teacher Attitude (TA) with Collaborative Strategy (CS) results in a value of 0.09,
- f) between Teacher Attitude (TA) with Teacher Teaching Method (TTM) results in a value of 0.15,
- g) between Teacher Attitude (TA) with Teacher Training (TT) results in a value of 0.07,
- h) between Collaborative Strategy (CS) with Teacher Teaching Method (TTM) results in a value of 0.09,
- i) between Collaborative Strategy (CS) with Teacher Training (TT) results in a value of -0.01,
- j) between Teacher Teaching Method (TTM) with Teacher Training (TT) results in a value of 0.10,

The result of this correlation value shows that the Structural Equation Modeling (SEM) model built is valid based on the construct, due to the non-occurrence of multicollinearity problems.

Table 1 from Figure 2 above, shows the results of direct effect hypothesis testing for Teacher Knowledge (TK), Teacher Attitude (TA), Collaborative Strategy (CS), Teacher Teaching Method (TTM), Teacher Training (TT) and Teacher Motivation (TM) (independent variable) on Resource Teacher Needs (RTN) (dependent variable).

Table 1: Hypothesis of Direct Effect Between Constructs

Direct Effects Hypothesis	P	Decision
H ₁ : Teacher Knowledge has a significant effect on Resource Teacher Needs.	0.043	Supported
H ₂ : Teacher Attitude has a significant effect on Resource Teacher Needs.	0.008	Supported
H ₃ : Collaborative Strategy has a significant impact on Resource Teacher Needs.	***	Supported
H ₄ : Teacher Teaching Method has a significant impact on Resource Teacher Needs.	***	Supported
H ₅ : Teacher Training has a significant impact on Resource Teacher Needs.	***	Supported
H ₆ : Teacher Motivation has a significant effect on Resource Teacher Needs.	***	Supported
H ₇ : Teacher Knowledge has a significant effect on Teacher Motivation.	***	Supported
H ₈ : Teacher Attitude has a significant effect on Teacher Motivation.	***	Supported
H ₉ : Collaborative Strategy has a significant effect on Teacher Motivation.	***	Supported
H ₁₀ : Teacher Teaching Method has a significant effect on Teacher Motivation.	***	Supported
H ₁₁ : Teacher Training has a significant effect on Teacher Motivation.	***	Supported

1 Analysis Effect of Implementation of Inclusive Education Program (IEP) Based on Teacher Knowledge (TK) on Resource Teacher Needs (RTN)

Based on the analysis of Figure 2 above and Table 2 below shows that Teacher Knowledge (TK) has a significant effect on Resource Teacher Needs (RTN). The estimated regression weight (β) is -0.140, the significance level is 0.043 (Estimate = -0.140, S. E. = 0.069, C. R. = -2.021, Label = Significant). The results of this study show that Teacher Knowledge (TK) has a positive and significant effect on Resource Teacher Needs (RTN). Therefore, when Teacher Knowledge (TK) increases by 1 unit, an increase also occurs by -0.140 units on Resource Teacher Needs (RTN). Therefore, the testing of hypothesis **H₁** in this study is supported based on the observed data.

Table 2: Regression Coefficient Value, Probability (p) Teacher Knowledge (TK) on Resource Teacher Needs (RTN)

Construct	Construct	Estimate	S. E.	C. R.	P	Label
RTN	<- TK	-0.140	0.069	-2.021	0.043	Significant

2 Analysis Effect of Implementation of Inclusive Education Program (IEP) Based on Teacher Attitude (TA) on Resource Teacher Needs (RTN)

Based on the analysis of Figure 2 above and Table 3 below shows that Teacher Attitude (TA) has a significant effect on Resource Teacher Needs (RTN). The estimated regression weight (β) is 0.216, the significance level is 0.008 (Estimate = 0.216, S. E. = 0.081, C. R. = 2.663, Label = Significant). The results of this study show that Teacher Attitude (TA) has a positive and significant effect on Resource Teacher Needs (RTN). Therefore, when Teacher Attitude (TA) increases by 1 unit, an increase also occurs by 0.216 units on Resource Teacher Needs (RTN). Therefore, the testing of hypothesis **H₂** in this study is supported based on the observed data (Alam et al., 2025).

Table 3: Regression Coefficient Value, Probability (p) Teacher Attitude (TA) on Resource Teacher Needs (RTN)

Construct	Construct	Estimate	S. E.	C. R.	P	Label
RTN	<- TA	0.216	0.081	2.663	0.008	Significant

3 Analysis Effect of Implementation of Inclusive Education Program (IEP) Based on Collaborative Strategy (CS) on Resource Teacher Needs (RTN)

Based on the analysis of Figure 2 above and Table 4 below shows that Collaborative Strategy (CS) has a significant effect on Resource Teacher Needs (RTN). The estimated regression weight (β) is -0.082, the significance level is 0.000 (Estimate = -0.082, S. E. = 0.072, C. R. = -17.123, Label = Significant). The results of this study show that Collaborative Strategy (CS) has a positive and significant effect on Resource Teacher Needs (RTN). Therefore, when Collaborative Strategy (CS) increases by 1 unit, an increase also occurs by -0.082 units on Resource Teacher Needs (RTN). Therefore, the testing of hypothesis H_3 in this study is supported based on the observed data (Mohd Pauzi & Shahadat Hossen, 2025).

Table 4: Regression Coefficient Value, Probability (p) Collaborative Strategy (CS) on Resource Teacher Needs (RTN)

Construct	Construct	Estimate	S. E.	C. R.	P	Label
RTN	<- CS	-0.082	0.072	-17.123	***	Significant

***Significant value at the significance level, $p < 0.001$

4 Analysis Effect of Implementation of Inclusive Education Program (IEP) Based on Teacher Teaching Method (TTM) on Resource Teacher Needs (RTN)

Based on the analysis of Figure 2 above and Table 5 below shows that Teacher Teaching Method (TTM) has a significant effect on Resource Teacher Needs (RTN). The estimated regression weight (β) is 0.084, the significance level is 0.000 (Estimate = 0.084, S. E. = 0.055, C. R. = 15.687, Label = Significant). The results of this study show that Teacher Teaching Method (TTM) has a positive and significant effect on Resource Teacher Needs (RTN). Therefore, when Teacher Teaching Method (TTM) increases by 1 unit, an increase also occurs by 0.084 units on Resource Teacher Needs (RTN). Therefore, the testing of hypothesis H_4 in this study is supported based on the observed data.

Table 5: Regression Coefficient Value, Probability (p) Teacher Teaching Method (TTM) on Resource Teacher Needs (RTN)

Construct	Construct	Estimate	S. E.	C. R.	P	Label
RTN	<- TTM	0.084	0.055	15.687	***	Significant

***Significant value at the significance level, $p < 0.001$

5 Analysis Effect of Implementation of Inclusive Education Program (IEP) Based on Teacher Training (TT) on Resource Teacher Needs (RTN)

Based on the analysis of Figure 2 above and Table 6 below shows that Teacher Training (TT) has a significant effect on Resource Teacher Needs (RTN). The estimated regression weight (β) is 0.254, the significance level is 0.000 (Estimate = 0.254, S. E. = 0.053, C. R. = 4.773, Label = Significant). The results of this study show that Teacher Training (TT) has a positive and significant effect on Resource Teacher Needs (RTN). Therefore, when Teacher Training (TT) increases by 1 unit, an increase also occurs by 0.254 units on Resource Teacher Needs (RTN). Therefore, the testing of hypothesis H_5 in this study is supported based on the observed data (Alam et al., 2025).

Table 6: Regression Coefficient Value, Probability (p) Teacher Training (TT) on Resource Teacher Needs (RTN)

Construct	Construct	Estimate	S. E.	C. R.	P	Label
RTN	<- TT	0.254	0.053	4.773	***	Significant

6 Analysis Effect of Teacher Motivation (TM) on Resource Teacher Needs (RTN)

Based on the analysis of Figure 2 above and Table 7 below shows that Teacher Motivation (TM) has a significant effect on Resource Teacher Needs (RTN). The estimated regression weight (β) is 0.771, the significance level is 0.000 (Estimate = 0.771, S. E. = 0.082, C. R. = 8.698, Label = Significant). The results of this study show that Teacher Motivation (TM) has a positive and significant effect on Resource Teacher Needs (RTN). Therefore, when Teacher Motivation (TM) increases by 1 unit, an increase also occurs by 0.771 units on Resource Teacher Needs (RTN). Therefore, the testing of hypothesis H_6 in this study is supported based on the observed data (Hossen et al., 2023).

Table 7: Regression Coefficient Value, Probability (p) Teacher Motivation (TM) on Resource Teacher Needs (RTN)

Construct	Construct	Estimate	S. E.	C. R.	P	Label
RTN	<- TM	0.711	0.082	8.698	***	Significant

7 Analysis Effect of Implementation of Inclusive Education Program (IEP) Based on Teacher Knowledge (TK) on Teacher Motivation (TM)

Based on the analysis of Figure 2 above and Table 8 below shows that Teacher Knowledge (TK) has a significant effect on Teacher Motivation (TM). The estimated regression weight (β) is 0.010, the significance level is 0.045 (Estimate = 0.010, S. E. = 0.055, C. R. = 12.143, Label = Significant). The results of this study show that Teacher Knowledge (TK) has a positive and significant effect on Teacher Motivation (TM). Therefore, when Teacher Knowledge (TK) increases by 1 unit, an increase also occurs by 0.010 units on Teacher Motivation (TM). Therefore, the testing of hypothesis H_7 in this study is supported based on the observed data.

Table 8: Regression Coefficient Value, Probability (p) Teacher Knowledge (TK) on Teacher Motivation (TM)

Construct	Construct	Estimate	S. E.	C. R.	P	Label
TM	<- TK	0.010	0.055	12.143	***	Significant

8 Analysis Effect of Implementation of Inclusive Education Program (IEP) Based on Teacher Attitude (TA) on Teacher Motivation (TM)

Based on the analysis of Figure 2 above and Table 9 below shows that Teacher Attitude (TA) has a significant effect on Teacher Motivation (TM). The estimated regression weight (β) is 0.344, the significance level is 0.000 (Estimate = 0.344, S. E. = 0.081, C. R. = 4.240, Label = Significant). The results of this study show that Teacher Attitude (TA) has a positive and significant effect on Teacher Motivation (TM). Therefore, when Teacher Attitude (TA) increases by 1 unit, an increase also occurs by 0.344 units on Teacher Motivation (TM). Therefore, the testing of hypothesis H_8 in this study is supported based on the observed data (Rashed et al., 2025).

Table 9: Regression Coefficient Value, Probability (p) Teacher Attitude (TA) on Teacher Motivation (TM)

Construct	Construct	Estimate	S. E.	C. R.	P	Label
TM	<- TA	0.344	0.081	4.240	***	Significant

9 Analysis Effect of Implementation of Inclusive Education Program (IEP) Based on Collaborative Strategy (CS) on Teacher Motivation (TM)

Based on the analysis of Figure 2 above and Table 10 below shows that Collaborative Strategy (CS) has a significant effect on Teacher Motivation (TM). The estimated regression weight (β) is -0.274, the significance level is 0.000 (Estimate = -0.274, S. E. = 0.070, C. R. = -3.940, Label = Significant). The results of this study show that Collaborative Strategy (CS) has a positive and significant effect on Teacher Motivation (TM). Therefore, when Collaborative Strategy (CS) increases by 1 unit, an increase also occurs by -0.274 units on Teacher Motivation (TM). Therefore, the testing of hypothesis H_9 in this study is supported based on the observed data.

Table 10: Regression Coefficient Value, Probability (p) Collaborative Strategy (CS) on Teacher Motivation (TM)

Construct	Construct	Estimate	S. E.	C. R.	P	Label
TM	<- CS	-0.274	0.070	-3.940	***	Significant

10 Analysis Effect of Implementation of Inclusive Education Program (IEP) Based on Teacher Teaching Method (TTM) on Teacher Motivation (TM)

Based on the analysis of Figure 2 above and Table 11 below shows that Teacher Teaching Method (TTM) has a significant effect on Teacher Motivation (TM). The estimated regression weight (β) is 0.275, the significance level is 0.000 (Estimate = 0.275, S. E. = 0.079, C. R. = 3.498, Label = Significant). The results of this study show that Teacher Teaching Method (TTM) has a positive and significant effect on Teacher Motivation (TM). Therefore, when Teacher Teaching Method (TTM) increases by 1 unit, an increase also occurs by 0.275 units on Teacher Motivation (TM). Therefore, the testing of hypothesis H_{10} in this study is supported based on the observed data.

Table 11: Regression Coefficient Value, Probability (p) Teacher Teaching Method (TTM) on Teacher Motivation (TM)

Construct	Construct	Estimate	S. E.	C. R.	P	Label
TM	<- TTM	0.275	0.079	3.498	***	Significant

11 Analysis Effect of Implementation of Inclusive Education Program (IEP) Based on Teacher Training (TT) on Teacher Motivation (TM)

Based on the analysis of Figure 2 above and Table 12 below shows that Teacher Training (TT) has a significant effect on Teacher Motivation (TM). The estimated regression weight (β) is 0.477, the significance level is 0.000 (Estimate = 0.477, S. E. = 0.044, C. R. = 10.888, Label = Significant). The results of this study show that Teacher Training (TT) has a positive and significant effect on Teacher Motivation (TM). Therefore, when Teacher Training (TT) increases by 1 unit, an increase also occurs by 0.477 units on Teacher Motivation (TM). Therefore, the testing of hypothesis H_{11} in this study is supported based on the observed data (Rahman et al., 2025).

Table 12: Regression Coefficient Value, Probability (p) Teacher Training (TT) on Teacher Motivation (TM)

Construct	Construct	Estimate	S. E.	C. R.	P	Label
TM	<- TT	0.477	0.044	10.888	***	Significant

Conclusion

Overall, the analysis of the impact of the Implementation of Inclusive Education Program (IEP) and Teacher Motivation (TM) on Resource Teacher Needs (RTN), shows a significant effect. The analysis of the impact of the Implementation of Inclusive Education Program (IEP) based on Teacher Knowledge (TK), Teacher Attitude (TA), Collaborative Strategy (CS), Teacher Teaching Method (TTM), Teacher Training (TT) on Teacher Motivation (TM), also showed a significant effect. The results of this study show the effect of factors Implementation of Inclusive Education Program (IEP) and Teacher Motivation (TM), very important in Secondary School Teachers in Malaysia. Therefore, the Implementation of Inclusive Education Program (IEP) needs to play a role on these factors to further improve the academic achievement of students, besides the emphasis is also given to Secondary School Teachers in Malaysia.

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