THE RELATIONSHIP BETWEEN TEACHERS’ SELF-EFFICACY AND ATTITUDES TOWARDS INCLUSIVE EDUCATION IN PULAU PINANG

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Abstract

This study was administered to identify the relationship between teachers’ self-efficacy and attitudes towards inclusive education in Pulau Pinang. Apart from that, this study also identified the difference teachers’ self efficacy and attitudes based on gender and teaching experience. It is a survey-based quantitative study using questionnaires. Data were collected using the “Teachers’ Sense of Efficacy Scale” (TSES) and “The Scale of Teachers Attitudes toward Inclusive Classrooms” (STATIC). A total of 126 teachers who teach in mainstream with inclusive education from the state of Pulau Pinang were selected randomly as the sample of this study. The data were analyses using the Statistical Packages for Social Sciences (SPSS) Version 22.0 software. Statistical tools such as using t-test, Analysis of Varians (One-way ANOVA) and Pearson Correlation were utilized to test the hypothesis. This study found that participants were highly efficacious in teachers’ self-efficacy, compared to attitudes of teachers’ towards inclusive education. Besides, t-test showed that no significant differences between male and female teachers on their teachers’ self-efficacy and attitudes. The study also revealed that no significant difference between teacher’s experiences contribute in teachers’ self-efficacy and attitudes. Lastly, it was found that there was no significant relationship between teachers’ self-efficacy and attitudes towards inclusive education.

Keywords – teachers’ self-efficacy, attitudes, inclusive education, special needs students

1. INTRODUCTION

The tendency of education in Malaysia to help students with special needs began in the 1920s when several volunteers has paved the foundations to open the formal education of students with visual and hearing impairment. Through the implementation of the Education Policy Studies Certificate 169 appearing in the Cabinet Committee Report 1979 is a manifestation that leads to more serious attention and clear about the implementation of special education in Malaysia.

Special education in Malaysia focuses on three categories of students, namely students with learning disabilities, hearing and visual impairment. According to the Ministry of Education (MOE) (2013), special schools mean schools that accommodate students with visual impairment, hearing loss, and learning disabilities. Special education program integration (PPKI) is a mainstream school with special classes for students with special needs and inclusive education program is an education program for students with special needs can learn together with mainstream students by placing from one to five students with special needs in a class (MOE, 2013).

Focus on inclusive education began in Malaysia engage in seminars and workshops organized by the United States internationally and programs organized by the United Nations Educational, Scientific and Cultural Organization (UNESCO). In 1990, at the Jomtien Thailand, a declaration of the 'education for all' the world has focused on the integration of equity issues and initiatives for
students, including students with special needs. Similarly, in Harbin, China in 1993, commitment and passion for education for all a priority in seminars on policy, management, organization of special education for students with special needs. Seminars and 'education for all' has changed the emphasis of our country from the special education program to integration inclusive program.

2. STATEMENT OF PROBLEM

Department of Special Education (1998) states, the MOE is working on implementing inclusive education broadly and integrated. However, based on information KPM (2013), only 6% of students with special needs in Malaysia joined the inclusive education program. According to the Ministry of Education (2013), the goal in the Education Development Plan (PPPM) from 2013 to 2025 is to get 75% of students with special needs enrolled in inclusive education by 2025. KPM Intent is a big challenge for those involved with student needs particularly in special schools. Currently, the school does not have the ability to assess or provide a baseline of inclusive education. Therefore, the school does not know the real situation or how to improve the program (MOE, 2013). According Zalizan and Gina (2000), school organization and management system is the cornerstone of all education reform. Organization of school administrators, teachers and support staff must be clearly defined and understood about the function and implementation of inclusive education. Without a clear understanding of inclusive education certainly will cause problems.

Abdul Rahim (1994), holds some prerequisites to be considered for the success of inclusive education in Malaysia. Among the requirements is the understanding, acceptance and the ability of teachers to implement inclusive education. The challenge for teachers in inclusive education programs is increasing. Before this teacher just focuses on mainstream students only in class, but with the inclusion of students with special needs, it will increase their workload. According to Barco (2007), the primary responsibility of educating students with special needs in inclusive education program is the responsibility of mainstream teachers. This statement is supported by Cook (2002), states that mainstream teachers often need to restructure the teaching methodologies and practices to meet the needs of academic, social, cultural and special needs students.

Modification of the learning process requires creativity teacher because the time provided for teachers to teach in inclusive education class is the same as mainstream classes. However, many teachers are not able to adapt their classroom teaching involving students with special needs (Baker & Zigmond, 1995). This opinion is consistent with studies Eiserman et al. (1995), which states that many teachers think that they are not able to teach in inclusive education classes.

According Haniz Ibrahim (1998), a total of 66.9% of mainstream teachers have negative perceptions of inclusive education in Kedah. In addition, negative attitudes and low self-efficacy for a number of teachers have also contributed to this situation (Eiserman et al., 1995). Low teacher self-efficacy is associated with weakness strategic used by teachers to teach in inclusive classes (Baker & Zigmond, 1995). According to Baker and Zigmond (1995), low self-efficacy of teachers will have an impact on attitudes and behavior in the classroom with students with special needs. Without adequate support through training and professional programs will lead to low self-efficacy of teachers and MOE efforts see success in inclusive education programs will be difficult?

At this point, there are teachers who are concerned about the inclusion of students with special needs into inclusive education program which did not have the knowledge to meet their educational needs. While most teachers agree that inclusive education is good for special needs students, but teachers in mainstream feel they are not well prepared, do not have sufficient exercise, or do not have the appropriate resources to teach in the classroom inclusive education (Fuchs & Fuchs, 1994).

Based on the issues that have been disclosed, researchers found that self-efficacy and attitudes of teachers is an issue that requires special attention and further study because it is a problem for many countries who implementing inclusive education. In addition, the implementation of inclusive education program in Malaysia is still considered to be new when compared with the developed countries that have done earlier. Hence, there is a variety of problems, particularly involving the ability of
mainstream teachers to teach in inclusive education program. This problem has attracted the interest of researchers to conduct further research on the relationship between self-efficacy with teachers' attitudes towards inclusive education in the state of Penang.

3. PURPOSE OF THE STUDY

In this study, researchers wanted to test the level of self-efficacy levels of teachers and teachers' attitudes towards inclusive education as a whole. Researchers also will examine the levels of self-efficacy levels of teachers and teachers' attitudes towards inclusive education in Penang based on demographic criteria such as gender and the experience of teaching students with special needs. In addition, this study will examine the relationship between self-efficacy of teachers' attitudes towards inclusive education in the state of Penang.

4. RESEARCH QUESTIONS

Based on the research objectives, research questions to be studied by the researchers is as follows:

1. What is the level of self-efficacy of teachers towards inclusive education?
2. What is the level of teachers' attitudes towards inclusive education?
3. Is there a significant difference in the level of self-efficacy of teachers towards inclusive education by demographic criteria such as gender teacher?
4. Is there a significant difference in the level of teachers' attitudes towards inclusive education by demographic criteria such as gender teacher?
5. Are there significant differences in the level of self-efficacy of teachers towards inclusive education by demographic criteria, namely the experience of teaching students with special needs?
6. Is there a significant difference in the level of teachers' attitudes towards inclusive education by demographic criteria, namely the experience of teaching students with special needs?
7. Is there a relationship between self-efficacy of teachers with teachers' attitudes towards inclusive education?

5. RESEARCH HYPOTHESIS

Based on the first and second objectives of the researcher will examine the level of self-efficacy and the level of teachers' attitudes towards inclusive education. No hypothesis is formed because the researchers will use descriptive method of the total score, mean and percent.

In the next research question, five hypotheses were constructed and tested in answer to the research question. Hypotheses are:

Ho1: There is no significant difference in the level of self-efficacy of teachers towards inclusive education by demographic criteria such as gender teachers.
Ho2: No significant difference in the level of teachers' attitudes towards inclusive education based on demographic criteria such as gender teachers.
Ho3: There is no significant difference in the level of self-efficacy of teachers towards inclusive education by demographic criteria, namely the experience of teaching students with special needs.
Ho4: No significant difference in the level of teachers' attitudes towards inclusive education based on demographic criteria, namely the experience of teaching students with special needs.
Ho5: There is no significant relationship between self-efficacy of teachers with teachers' attitudes towards inclusive education.

6. RESEARCH METHODOLOGY

This study is a quantitative survey using a questionnaire to collect data from respondents. According to the Gay and Airasian (2009), this design is suitable for a large population to obtain uniformity of facts and information from respondents systematically. Questionnaires were used to obtain standard figures can be analyzed through the frequency, mean, percentage, standard deviation, t-test, ANOVA and Pearson correlation. Variables to be analyzed are the efficacy and attitudes that act as the independent variable while
the teachers who implement inclusive education were used as the dependent variable.

This study population consisted of 193 teachers from mainstream schools who teach in inclusive classes in 13 schools. To meet the criteria of the recommended sampling (Gay & Airasian, 2009; Krejcie & Morgan, 1970), the study set out to select a total of 130 teachers in the sample. The sample or the respondent is done using simple random sampling method to select respondents among teachers from each school.

Teacher self-efficacy questionnaire measured using the "Teachers Sense of efficacy Scale" (2001). "Teachers Sense of efficacy Scale" (TSES) is the short version of the questionnaire of 12 items in the questionnaire that was modified by Tschannen-Moran and Hoy (2001), from a previous version developed by Tschannen-Moran and Hoy in 1990 in 'The Ohio State University'. To measure the attitudes of teachers who teach inclusive education, the survey "The Scale of Teachers Attitudes Toward Inclusive Classrooms" (Static) is used. Static questionnaire was developed by Cochran (2000), which contains 20 items.

TSES instrument for reliability studies conducted by Tschannen-Moran and Hoy (2001), in general, the reliability of the TSES 12 items was .90 (α). The researchers conducted a pilot study showed that the reliability of this instrument was .94 (α), which is higher than the level of reliability of the TSES in the study conducted by Tschannen-Moran and Hoy (2001). Static attitude instrument contains 20 items that had previously been tested on 516 people in north Alabama teachers (Cochran, 2000). Reliability was calculated by using Cronbach Alpha. Cochran (2000), found that the coefficient of reliability was .89 (α) and consistency to the group and other groups. The pilot study conducted by the researchers showed that the reliability coefficient was .91 (α).

SPSS v.22 software will be used to analyze the data because it fulfills almost all the processing techniques and data analysis. Significant level set in this study is at 0.05 (α). The results of data analysis will use descriptive statistics and inferential statistics to indicate the frequency, mean, standard deviation, percentage, t-test, ANOVA and Pearson correlation.

6.1 DESCRIPTIVE FINDINGS

Descriptive analyzes involving the mean and standard deviation made in order to see the level of efficacy and the level of teachers' attitudes towards inclusive education. Accordingly, the two variables are used to seeing this relationship is self-efficacy of teachers consists of three subscale; student engagement, instructional strategies and classroom management. The second variable is the attitude that consists of four subscale; advantages and disadvantages of inclusive education, professional issues, philosophical issues and concerns about the logistics of inclusive education. Descriptive analyzes are described below:

6.1.1 Teacher Self Efficacy

Part B of the questionnaire is the self-efficacy of teachers consists of three subscale with each subscale consists of four questions. Three subscale of efficacy is divided into three levels, namely low scores (1:00 to 3:50), medium (3:51 to 6:50) and high (6:51 to 9:00). Three subscale efficacy was analyzed in this study. Based on Table 1, all the self-efficacy subscale had high level of student involvement subscale showed a mean of 6.90, the mean of the subscale total teaching strategy is 7:05, and classroom management subscale showed the highest mean 7:16. Total mean for self-efficacy of teachers at the high level is 7:04.

Table 1: Efficacy subscale (N = 126)

<table>
<thead>
<tr>
<th>Efficacy</th>
<th>Mean</th>
<th>Std Deviation</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student involvement</td>
<td>6.90</td>
<td>1.161</td>
<td>High</td>
</tr>
<tr>
<td>Teaching strategies</td>
<td>7.05</td>
<td>1.232</td>
<td>High</td>
</tr>
<tr>
<td>Classroom management</td>
<td>7.16</td>
<td>1.116</td>
<td>High</td>
</tr>
<tr>
<td>TOTAL</td>
<td>7.04</td>
<td>1.170</td>
<td>High</td>
</tr>
</tbody>
</table>

6.2 TEACHER ATTITUDES

Attitude dimensions are dimensions that were in section C questionnaire. Attitude dimension contains four subscale and a number of questions in each subscale of the seven questions the advantages
and disadvantages of inclusive education; five questions of professional issues; four questions philosophical issues; four questions and concerns about the logistics of inclusive education. Four subscale attitude is divided into three levels, namely low scores (1:00 to 2:50), medium (2:51 to 4:50) and high (4:51 to 6:00).

All scale attitudes of teachers in this study were analyzed. Based on Table 2, there is only one subscale attitude at the high level of philosophical issues which show a mean of 4.68. Subscale mean for the rest of the advantages and disadvantages of inclusive education, professional issues, and concerns about the logistics of inclusive education are respectively 3.74, 3.72 and 4:24 categorized as moderate. Mean overall attitude is moderate ie 4:10.

It can be concluded that the subscale attitude towards inclusive education is in the highest philosophical issues. The subscale that less attention in the attitude questionnaire is the professional issues.

Table 2: Attitudes subscale (N = 126)

<table>
<thead>
<tr>
<th>Efficacy</th>
<th>Mean</th>
<th>Std.Deviation</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advantages and disadvantages inclusive education</td>
<td>3.74</td>
<td>0.786</td>
<td>Average</td>
</tr>
<tr>
<td>Professional Issues</td>
<td>3.72</td>
<td>1.029</td>
<td>Average</td>
</tr>
<tr>
<td>Philosophy Issues</td>
<td>4.68</td>
<td>0.654</td>
<td>High</td>
</tr>
<tr>
<td>Anxiety about inclusive education</td>
<td>4.24</td>
<td>0.825</td>
<td>Average</td>
</tr>
<tr>
<td>TOTAL</td>
<td>4.10</td>
<td>1.030</td>
<td>Average</td>
</tr>
</tbody>
</table>

6.3 THE RESULT INTERVENTION

This study consists of five main hypotheses to be tested for validity. All the results of hypothesis testing are described as follows: -

Ho1: There is no significant difference in the level of self-efficacy of teachers towards inclusive education by gender of teacher.

Gender differences in the level of overall teacher self-efficacy were tested using t-test for two independent samples, as shown in Table 3. The aim is to determine whether the mean values for the variables male and female variables were significantly different at the 0.05 significance level. T-test results show the value of t = 1.020 and 0.310 is the significant value (p > 0.05) at the two ends. This study confirms that there is no significant difference between both variables on the level of teacher self-efficacy as a whole. These results led to the hypothesis Ho1 failed and rejected.

Table 3: t-test Results for Level Efficacy based on gender (N = 126)

<table>
<thead>
<tr>
<th>Teacher Gender</th>
<th>Assumption of equality of variance</th>
<th>Dk</th>
<th>Sig.(2 decimals)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assumption of equality of variance are met</td>
<td>12</td>
<td>.310</td>
<td></td>
</tr>
<tr>
<td>Assumption of equality of variance is not met</td>
<td>4</td>
<td>.900</td>
<td></td>
</tr>
</tbody>
</table>

*At the significance level of p <0.05

Ho2: No significant difference in the level of teachers' attitudes towards inclusive education by gender of teacher.

Gender differences in the level of overall attitude was tested using t-test for two independent samples, as shown in Table 4. The aim is to determine whether the mean values for the variables male and female variables were significantly different at the 0.05 significance level. T-test results show the value of t = -1.25 and significant value is the 0.900 (p > 0.05) at the two ends. This study confirms that there is no significant difference between both variables on the level of overall attitude. These results led to the hypothesis Ho2 failed and
rejected.

Table 4: t-test Results for Level Attitude Based on Gender Factor. (N = 126)

*At the significance level of p <0.05

**Ho3:** There is no significant difference in the level of self-efficacy of teachers towards inclusive education in the experience of teaching students with special needs.

ANOVA analysis was conducted to examine the differences in levels of self-efficacy of teachers based on the experience of teaching students with special needs in schools in the study. ANOVA results are shown in Table 5 ANOVA results showed no significant difference in efficacy according to the level of teaching experience (F = .889, p = .449). Therefore, the hypothesis Ho3 failed and rejected.

Table 5: ANOVA Mean Scores for Student Teaching Experience With Special Needs Teacher Self-Efficacy Level Overall (N = 126)

ANOVA

**Ho4:** No significant difference in the level of teachers' attitudes towards inclusive education in accordance with the experience of teaching students with special needs.

ANOVA analysis conducted to examine differences in the level of teachers' attitudes based on the experience of teaching students with special needs in schools in the study. ANOVA results are shown in Table 6 ANOVA results showed no significant difference in the level of attitude by the teaching experience (F = 1.602, p = .192). Therefore, the Ho4 hypothesis failed and rejected.

Table 6: ANOVA Mean Scores for Student Teaching Experience With Special Needs Teacher Attitudes Overall Level (N = 126)

ANOVA

**Ho5** based: There is no significant relationship between self-efficacy of teachers’ attitudes towards inclusive education.
Pearson correlation test results (r) shows the correlation coefficient between self-efficacy of teachers' attitudes are weak r = 0.172. R values showed a weak positive relationship between self-efficacy with teachers' attitudes towards inclusive education. Table 7 shows the results for this hypothesis. The findings of the study (p = 0.056> 0.01) confirmed that there was no significant relationship between self-efficacy of teachers' attitudes towards inclusive education. These results led to the hypothesis Ho5 failed and rejected.

Table 7: Results of Pearson Correlation Between Self-Efficacy and Teacher Attitudes (N = 126)

<table>
<thead>
<tr>
<th></th>
<th>Efficacy</th>
<th>Attitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>Efficacy Pearson Colleratio</td>
<td>1</td>
<td>.172</td>
</tr>
<tr>
<td>Colleratio n</td>
<td>.056</td>
<td>126</td>
</tr>
<tr>
<td>Sig. (2 decimals)</td>
<td>126</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ANOVA analysis found no significant difference in the level of self-efficacy of teachers according to the experience of teaching students with special needs. This shows that teachers have a high level of efficacy and did not show a significant difference in the level of efficacy while teaching experiences are different. The finding is consistent with studies Brenner (2013), which shows the mean scores associated with efficacy levels did not differ significantly based on years of experience. According to Brenner (2013) again, new teachers serving (1 to 5 years) have a high level of efficacy in the belief that they can cope with problems based on the knowledge acquired during their studies. After serving several years (6 to 10 years), they will get married and have a family. It will limit the amount of time previously used to achieve the goals of teaching. While this is usually their efficacy levels will decline slightly. After the teacher through the challenges and overcoming the problems of family life, the level of self-efficacy they will return high for subsequent years (11 years and above).

T-test analysis showed no significant difference in the level of self-efficacy and the level of teachers' attitudes based on gender teachers. Brenner (2013), also obtained results consistent with this efficacy study when the analysis showed no significant difference between the efficacy of primary school teachers based on gender. These results indicate that teachers have the motivation and determination are almost the same as in the classroom and are not influenced by gender. In addition, another study about attitudes also consistent with this analysis when data showed no significant difference between gender and the attitude of teachers for inclusive education (Brenner 2013; Wright 2013; Kuester, 2000 Van Reusen et al., 2001). However, one fact that needs to be seen is the result of a study involving gender changing and inconsistent to one gender. It is often associated with a place of cultural factors (Lampropoulou & Padellia, 1997).

7. DISCUSSION

Mean scores obtained in relation to self-efficacy among mainstream teachers who teach in inclusive classes are generally higher than the mean score of attitude that is at a moderate level. This finding is an indicator that does not help, especially among interested parties with special needs students. The main factor that has been identified as the root mean of attitude is moderate because teachers do not have the knowledge and training to students with special needs. The finding is in line with studies and Tappendorf Leyser (2001), when the teachers are not interested in teaching students with special needs due to lack of experience and no professional training on inclusive education.
experience did not affect teachers' attitudes towards inclusive education. Wright's study (2013), indicates the reverse when the teachers are older, and have experience of teaching the old inclusive education less positive than teachers who are younger and less teaching experience. Teachers who have long been taught to feel burdened with the task of improving and changing the teaching approach in the classroom with students with special needs.

Pearson correlation study showed no significant relationship between self-efficacy with teachers' attitudes towards inclusive education. Damasco study (2013), also shows the results of this study are nearly parallel with when found higher self-efficacy, but their attitudes are toward the lower level. Thompson's study (2012), nor is rather to find a significant relationship between self-efficacy with the attitude of mainstream primary schools to students with special needs in inclusive classes. Most self-efficacy studies with this attitude shows a significant relationship between teachers with teachers' attitudes (Bradshaw & Mundia, 2006; Hsien, 2007; Sharma et al, 2008;). Hsien (2007) states the key factors that support a significant relationship between teachers with professional training because of the attitude that has been given to the teacher.

8. IMPLICATIONS OF STUDY

The results showed the problems faced by mainstream teachers are not confident and do not have the knowledge to handle students with special needs. In order to overcome this problem, there is a need to ensure that teachers are trained to be successful mainstream to effective teaching in the classroom with students' varying needs and abilities (Almog & Shechtman, 2007; Barman et al, 2007; DeSimone & Parmar, 2006; Jenkins & Yoshimura, 2008; Martínez & Dick, 2005; Rose et al., 2007; Sharma et al., 2008). This statement is in accordance with the recommendations of the MOE (2013) to train teachers to teach in inclusive classes on the basics of handling students with special needs.

The successful implementation of inclusive programs is largely dependent on the teacher to be positive and have a high level of self-efficacy. An effective professional development program should be designed to meet the specific needs of the school community, including teachers (Quick, Holtzman, & Chaney, 2009). Almog (2008), states that the specific professional development needs to address concerns about the implementation of inclusive education as teacher knowledge and implement an appropriate approach results from studies that have been performed. Thus, the MOE urged to not only provide the basic training of handling special needs students, but professional training undertaken must be focused on student disability and implemented intensive stages.

In addition to focusing on the training of teachers, the MOE (2013) acknowledged the mainstream schools have students with special needs and they lack of friendly facilities and technical equipment that is limited. Therefore, a proactive approach should be taken by the ministry to immediately upgrade the facilities and equipment needed by students with special needs in particular assistive technology devices in the classroom. If facilities for students with special needs can be met, it will not only help students but will indirectly increase the motivation and change to a more positive attitude when teaching in class inclusion.

In addition, it is recommended that future studies consider factors "antecedent" which was the cause of high or low self-efficacy and attitudes of teachers in enhancing the implementation of inclusive education. There is no doubt about the need to study a broader and deeper aspects of demography because there are many more who have not studied the demographics associated with self-efficacy and attitudes of teachers, especially research in the country.

9. CONCLUSION

Based on the findings, it is clear that there is no significant relationship between self-efficacy of teachers' attitudes towards inclusive education. In addition, the analysis confirmed no significant difference level of self-efficacy and the level of teachers' attitudes based on gender and teaching experience. Further results showed that self-efficacy are high, while his teacher was at a moderate level. Accordingly, there is a need to undertake professional training for mainstream teachers who teach in inclusive classes. Training is definitely able to improve the quality of teaching, self-efficacy and attitude to be more positive when dealing with students with special needs in the
classroom. This is a step towards success in the Malaysian education system as embodied in the Girl Guides Association (2013-2025).

REFERENCES


