

Teachers' Efficacy to Teach Students with Mathematics Learning Difficulties

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Article Info

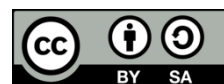
Keywords:

Mathematics
Learning difficulties
Dyscalculia
Teacher(s)
Teacher efficacy

ABSTRACT

This study explores teachers' perceptions of their efficacy in teaching students with mathematics learning difficulties, also known as dyscalculia. This study employed a quantitative survey method. Random cluster sampling was used to select 384 mathematics teachers in the survey. Teaching Students with Mathematics Learning Difficulties Scale has been adapted with permission from Dawson & Scott (2013). Inferential statistics of independent *t*-test, analysis of variance, and Kruskal Wallis H-test were used to analyze the data. The results showed that teachers have high efficacy in teaching students with mathematics learning difficulties. There is no significant difference in teachers' effectiveness in teaching students with mathematics learning difficulties based on age groups and years of experience. However, the findings show a significant difference in teachers' effectiveness based on different academic qualifications. This study implies that the awareness of dyscalculia among mathematics teachers has increased. Future researchers are suggested to design and develop more interventions and instruments to improve the basic mathematical skills among students with mathematics learning difficulties.

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1. INTRODUCTION

Mathematics is an essential subject in the global education system [1]. Mathematics learning and its completion allow students to gain experience and apply knowledge to their daily lives [2]. However, students with dyscalculia face difficulties in learning mathematics [3]. Students with dyscalculia or mathematics learning difficulties often fail in their mathematics subjects [4].

Dyscalculia refers to mathematics learning difficulties related to a substantial underachievement on an arithmetic standardized test [5]. In a study, Most teachers indicated limited strategies for supporting students with mathematics learning disabilities

[6]. Teachers' support can be articulated differently, but it is always necessary to consider individual needs. In this matter, all teachers should have the efficacy to work in an environment with students with a diverse range of abilities [7].

The teacher is one of the most crucial components of education and learning. Teachers' ability to choose the approach, methods, and teaching and learning strategies are essential to students' success [8]. In inclusive mathematics classrooms, teachers should be able to adapt instruction for students with disabilities or difficulties in learning [9]. Teachers also need effectively plan the intervention program that helps to support the specific needs of the student with mathematics learning difficulties successfully [10]. Teachers' perception needs to be identified and assessed because it fosters students' behavior. It is required to help design educational interventions for the students, Prepare students for life, and include them in the diversity of classroom needs [11].

Teachers at all levels struggle to meet the challenges of providing quality, comprehensive mathematics education that enables all students to thrive [12]. In particular, students with learning disabilities such as B. Dyscalculia. Dyscalculia is a term that refers to a wide range of mathematics learning difficulties or impairments [6]. Most teachers lack sufficient knowledge of characteristics, symptoms, and intervention strategies for mathematics learning difficulties. They have a common understanding of diagnosing, evaluating, and predicting mathematics learning difficulties. Even the more experienced teachers did not demonstrate more knowledge of mathematics learning difficulties or the strategies to address this specific learning difficulty [13] [14].

Previous studies showed that there are several teachers' efficacy scales in teaching students with disabilities [15] [16] [17]. Besides, there were also instruments to assess teachers' self-efficacy related to inclusive education [17] [18] and teachers' self-efficacy beliefs towards students with special educational needs [19]. Yoong [20] also investigated the perceptions of primary school mathematics teachers regarding mathematics learning difficulties in Malaysia. However, our study is different because teachers' efficacy in teaching students with mathematics learning difficulties was explored. In this study, the researcher adapted the questionnaire entitled Teaching Student with Disabilities Efficacy Scale [21] with the permission of Dr. Laron Scott. This instrument was chosen because it is a reliable and valid tool for focusing on teachers' efficacy in teaching students with mathematics learning difficulties.

A study in Malaysia found that teachers had insufficient knowledge and awareness of learning disabilities in mathematics [22]. Based on the previous study, Mathematics learning difficulties occur among primary school students in Malaysia. The knowledge of mathematics learning difficulties is crucial among teachers teaching mathematics subjects [20]. Differences in teachers' self-efficacy expectations were related to Gender, years of experience, and grade taught [23]. Gender can also play a role as a determinant of teacher effectiveness [24].

This study aims to identify teachers' self-efficacy in teaching students with mathematics learning difficulties based on their perceptions. Four research questions which had been identified are; (1) Gender can also play a role as a determinant of teacher effectiveness Gender and efficacy in teaching students with mathematics learning

difficulties?; (2) Is there a big difference between teachers' age group and their efficacy in teaching students with mathematics learning difficulties?; (3) Are there significant differences in the teaching experience of teachers and their efficacy to teach students with mathematics learning difficulties?; and (4) Is there a big difference in the educational background of teachers and their efficacy to teach students with mathematics learning difficulties?

2. METHOD

This study employed a quantitative survey method. This section will discuss the instrument, survey participants, and study procedures. A measure of efficacy was adapted from the Teaching Students with Disabilities Efficacy Scale [21]. The scale is based on Bandura's social cognition theory and research by the RAND Corporation in the 1970s. The original version of the questionnaire had 19 items. Seven items were eliminated because they were about behavior problems, physical disabilities, and medication, which were not related to the specific learning difficulties of dyscalculia.

The questionnaire consisted of 12 items validated by three dyscalculia experts, three mathematics experts, and three learning disabilities experts. Based on the validation finding, one item was removed due to the low content validity index and Kappa statistics. Thus, eleven items have remained in this questionnaire. Figure 1 shows the theoretical framework of this study.

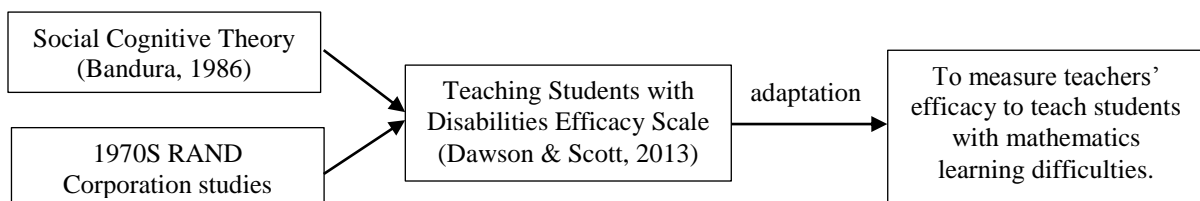


Figure 1. Theoretical Framework

Around four to six or seven percent of the students in the population have dyscalculia [5]. Students with mathematics learning difficulties exist in every mathematics classroom. Hence, the population of this study was mathematics teachers in primary schools. The total number of teachers in this target population was 95,371. Thus, several 384 respondents were selected based on [25]. All of them were voluntarily involved in this study. Before answering the questionnaire, the item about informed consent was shown [if you agreed to answer this questionnaire, please click on the button below]. The respondents were required to tick the [proceed] button to show their consent to participate in this survey.

Table 1 shows the respondents in this survey. Based on the table, 70 respondents are male (18.2%), and another 314 are female (81.8%). Based on the aspect of age group, there were 57 between 21 to 30 years old (14.8%), 145 respondents between 31 to 40 years old (37.8%), 134 respondents between 41 to 50 years old (34.9%), and 48 respondents between 41 to 50 years old (12.5%).

According to this, in the item of [years of teaching experience], 34 people (8.9%) have less than five years of teaching experience, 101 people (26.3%) have 5 to 10 years of

teaching experience, and 135 people have 11 to 20 years of teaching experience. Was a person Years of teaching experience (35, 2%), 87 respondents said he had between 21 and 30 years (22.7%) of teaching experience, and 27 respondents said he had more than 30 years of teaching experience (7.0%)). On the other hand, there were 27 respondents obtained a certificate as their highest academic qualification (7.0%), 37 respondents obtained a diploma (9.6%), 247 respondents obtained a bachelor's degree (64.3%), 70 respondents achieved a master's degree (18.2%), and three respondents achieved the highest academic qualification of Ph.D. (0.8%).

Table 1. Demographic data of the respondents

| Aspect | Percentage (%) | Number of Respondents |
|------------------------------|--------------------|-----------------------|
| Gender | Male | 70 |
| | Female | 314 |
| Age Group | 21 – 30 years old | 57 |
| | 31 – 40 years old | 145 |
| | 41 – 50 years old | 134 |
| | above 50 years old | 48 |
| Years of Teaching Experience | <5 years | 34 |
| | 5 – 10 years | 101 |
| | 11 – 20 years | 135 |
| | 21 – 30 years | 87 |
| | >30 years | 27 |
| Academic Qualification | Certificate | 27 |
| | Diploma | 37 |
| | Bachelor Degree | 247 |
| | Master Degree | 70 |
| | PhD | 3 |

Before the research was carried out, ethical approvals from the Ministry of Education, the State Education Department, and schools were acquired. These were crucial as they are the license for the data collection. A survey design was employed in this study. The questionnaire was validated by nine experts, including three math learning disabilities experts, three math experts, and three learning disabilities experts.

Pilot questionnaires were tested to refine their contents, wording, length, and sample. Data from the pilot test of needs analysis was analyzed to obtain the reliability of the questionnaire. The alpha coefficient value was obtained using Statistical Package of the Social Science (SPSS) version 23. The Cronbach Alpha provided a coefficient of inter-item correlations by calculating the average of all possible split-half reliability coefficients. It measures the internal consistency among the items and is used for multi-item scales [26].

The pilot test was carried out among 30 Mathematics teachers from primary schools. The data were analyzed to obtain reliability, and the items were improved. Consequently, needs analysis questionnaires were distributed to another 384 Mathematics teachers in primary schools. Google Forms was used as a medium to transmit the questionnaire. Figure 2 shows the flow chart of the survey process.

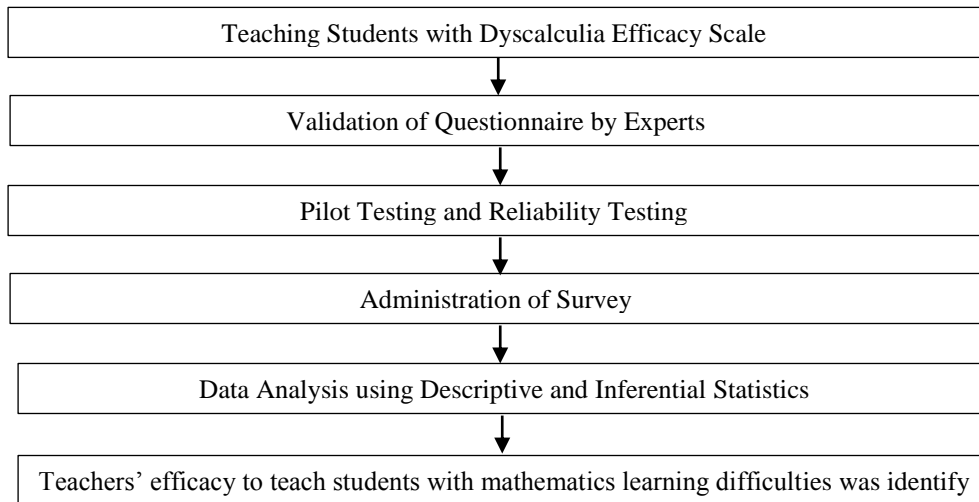


Figure 2. Flow chart of the survey process

The needs analysis questionnaire was analyzed with SPSS version 23. A 5-point Likert scale ranged from 1 for 'never possible' to 5 for 'never possible.' In general, data were reported using descriptive and inferential statistics. Descriptive statistics displayed data values using percentages, means, and standard deviations. Teachers' perceived effectiveness in teaching mathematics to students with learning disabilities was assessed. Inferential statistics use one-way t-tests, analysis of variance (ANOVA), and Kruskal-Wallis H-tests to assess the effectiveness of teachers teaching mathematics to students with learning disabilities across Gender, age group, educational experience, and educational background compared efficacy Qualification.

Table 2 shows the mean value interpretation scale [27]. The range between 1.00 to 1.80 is interpreted as very low; the range between 1.81 to 2.60 is interpreted as low; the range between 2.61 to 3.20 is interpreted as a medium; the range between 3.21 to 4.20 is interpreted as high, and the range between 4.21 to 5.00 is interpreted as very high.

Table 2. Mean score interpretation

| Mean Score | Interpretation |
|-------------|----------------|
| 1.00 – 1.80 | Very Low |
| 1.81 – 2.60 | Low |
| 2.61 – 3.20 | Medium |
| 3.21 – 4.20 | High |
| 4.21 – 5.00 | Very High |

3. RESULTS AND DISCUSSION

The descriptive statistics used to analyze teachers' efficacy in teaching students with mathematics learning difficulties were percentages, means, and standard deviation. In contrast, the inferential statistics used to analyze this data were independent *t*-test, one-way ANOVA, and Kruskal Wallis H-test. Table 3 shows the teachers' efficacy in teaching students with mathematics learning difficulties. The item with the highest mean was [I can give consistent praise for students with mathematics learning difficulties, regardless of how minor or slow the progress is] ($M = 4.14$; $SD = 0.74$), followed by [I can encourage

students in my class to be good role models for students with mathematics learning difficulties] ($M = 4.10$; $SD = 0.73$) and [I can establish meaningful relationships with my students with mathematics learning difficulties] ($M = 4.04$; $SD = 0.75$). On the other hand, the item with the lowest mean is [I can adapt the curriculum to help meet the needs of a student with dyscalculia in my classroom] ($M = 3.56$; $SD = 0.84$). Overall, all of the items in this part achieved a high average mean ($M = 3.85$) and an average standard deviation of 0.79.

Table 3. Teachers' efficacy to teach students with mathematics learning difficulties

| No. | Item | 1(%) | 2(%) | 3(%) | 4(%) | 5(%) | Mean | SD |
|-----|---|------|------|------|------|------|------|------|
| 7 | I can give consistent praise to students with mathematics learning difficulties, regardless of how small or slow the progress is. | - | 1.8 | 15.9 | 49.0 | 33.3 | 4.14 | 0.74 |
| 8 | I can encourage students in my class to be good role models for students with mathematics learning difficulties. | - | 1.8 | 16.1 | 51.8 | 30.2 | 4.10 | 0.73 |
| 11 | I can establish meaningful relationships with my students with mathematics learning difficulties. | - | 1.8 | 20.3 | 49.5 | 28.4 | 4.04 | 0.75 |
| 9 | I can effectively encourage all of my students to accept those with mathematics learning difficulties in my classroom. | - | 3.1 | 21.6 | 46.7 | 25.5 | 3.98 | 0.77 |
| 10 | I can create an open and welcoming environment for students with mathematics learning difficulties in my classroom. | - | 3.1 | 23.4 | 48.7 | 24.7 | 3.95 | 0.78 |
| 5 | I can be an effective team member and work collaboratively with other teachers, paraprofessionals, and administrators to help my students with mathematics learning difficulties reach their goals. | - | 3.1 | 29.2 | 49.0 | 18.8 | 3.83 | 0.76 |
| 6 | I can consult with an intervention specialist or other specialist when I need help without harming my morale. | - | 5.5 | 31.5 | 40.4 | 22.7 | 3.80 | 0.85 |
| 2 | I can use various strategies for teaching the curriculum to enhance understanding for all my students, especially those with mathematics learning difficulties. | 0.5 | 6.3 | 32.3 | 45.8 | 15.1 | 3.69 | 0.82 |
| 3 | I can adjust my lesson plans to meet all my students' needs, regardless of their ability level. | 1.3 | 6.3 | 32.3 | 46.1 | 14.1 | 3.65 | 0.85 |
| 4 | I can break down a skill into parts to facilitate learning for students with mathematics learning difficulties. | - | 6.5 | 34.9 | 47.4 | 11.2 | 3.63 | 0.77 |

| No. | Item | 1(%) | 2(%) | 3(%) | 4(%) | 5(%) | Mean | SD |
|-----|---|------|------|------|------|------|------|------|
| 1 | I can adapt the curriculum to help meet the needs of students with mathematics learning difficulties in my classroom. | 1 | 8.1 | 36.5 | 43 | 11.5 | 3.56 | 0.84 |

3.1. Teachers' Efficacy based on Gender

Table 4 compares teachers' efficacy based on Gender, $N = 384$. In this output, the mean of male teachers' efficacy is 3.90, with a standard deviation of 0.73 and a standard error mean of 0.08. On the other hand, the mean of female teachers' efficacy is 3.83, with a standard deviation of 0.55 and a standard error mean of 0.03. Accordingly, the mean of male teachers' efficacy (3.90) is slightly higher than the mean of female teachers' efficacy (3.83) but with a more significant standard deviation for male teachers' efficacy (0.73) than the standard deviation for female teachers' efficacy (0.55).

Table 4. Comparison of teachers' efficacy based on Gender

| Gender | Mean | N | Standard Deviation | Standard Error Mean |
|--------|--------|-----|--------------------|---------------------|
| Male | 3.8983 | 76 | .72621 | .08330 |
| Female | 3.8288 | 308 | .55207 | .03146 |

Table 5 shows the analysis of the independent t -test for comparison between Gender. Based on the data analyzed through SPSS, the mean difference is 0.07. Since the p -value for Levene's Test is 0.00 ($p < 0.05$), equal variance not assumed had been considered. The p -value for significant two-tail is 0.44 ($p > 0.05$); hence there is no significant difference between teachers' Gender and their efficacy in teaching students with mathematics learning difficulties.

Table 5. Analysis of independent t -test for comparison between Gender

| | Levene's Test for Equality of Variance | | t-test for Equality of Means | | | | | 95% Confidence Interval of the Difference | |
|----------------------------|--|------|------------------------------|--------|-----------------|-----------------|-----------------------|---|--------|
| | F | Sig. | t | df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | Lower | Upper |
| Equal Variance Assumed | 13.370 | .000 | .919 | 382 | .358 | .06952 | .07561 | -.07915 | .21818 |
| Equal Variance Not Assumed | | | .781 | 97.432 | .437 | .06952 | .08904 | -.10720 | .24623 |

3.2. Teachers' Efficacy based on Age Group

Before analyzing the teachers' efficacy based on age group, a normality test was carried out. Table 6 shows the tests of normality for age groups. Since the data consists of more than 50 participants, the Kolmogorov-Smirnov test is used. The p -value is 0.00 ($p < .05$), so the null hypothesis was rejected, and the data is not from a normal distribution.

Table 6. Tests of normality for age group

| | Kolmogorov-Smirnov ^a | | | Shapiro-Wilk | | |
|------|---------------------------------|-----|------|--------------|-----|------|
| | Statistic | df | Sig. | Statistic | df | Sig. |
| Data | .219 | 384 | .000 | .878 | 384 | .000 |

a. Lilliefors Significance Correction

Since the data was not in a normal distribution, thus Kruskal Wallis H-test was carried out instead of one-way ANOVA. The test revealed insignificant differences, $H(3) = 6.777$, Asymp. Sig. = 0.079 ($p > 0.05$), for teachers' efficacy based on four different age groups (21 – 30 years old, $n = 53$; 31 – 40 years old, $n = 137$; 41 – 50 years old, $n = 147$; and above 50 years old, $n = 47$). In other words, there is no significant difference between teachers' age groups and their efficacy in teaching students with mathematics learning difficulties.

3.3. Teachers' Efficacy based on Teaching Experience

Before analyzing the teachers' efficacy based on teaching experience, a normality test was carried out. Table 7 shows the tests of normality for teaching experience. Since the data consists of more than 50 participants, the Kolmogorov-Smirnov test is used. The p -value is 0.00 ($p < .05$), so the null hypothesis was rejected, and the data is not from a normal distribution.

Table 7. Tests of normality for teaching experience

| | Kolmogorov-Smirnov ^a | | | Shapiro-Wilk | | |
|------|---------------------------------|-----|------|--------------|-----|------|
| | Statistic | df | Sig. | Statistic | df | Sig. |
| Data | .176 | 384 | .000 | .915 | 384 | .000 |

a. Lilliefors Significance Correction

Since the assumption of normality was violated, thus Kruskal Wallis H-test was carried out instead of one-way ANOVA. The test revealed insignificant differences, $H(4) = 7.924$, Asymp. Sig. = 0.094 ($p > 0.05$), for teachers' efficacy based on teaching experience (< 5 years, $n = 30$; 5 – 10 years, $n = 91$; 11 – 20 years old, $n = 140$; 21 – 30 years, $n = 96$; and > 30 years, $n = 27$). In other words, there is no significant difference between teachers' teaching experience and their efficacy in teaching students with mathematics learning difficulties.

3.4. Teachers' Efficacy based on Academic Qualification

Before analyzing the teachers' efficacy based on academic qualifications, a normality test was carried out. Table 8 shows the tests of normality for the age group. Since the data consists of more than 50 participants, the Kolmogorov-Smirnov test is used. Based on the results, the p -value is 0.00 ($p < .05$), so the null hypothesis was rejected, and the data is not from a normal distribution.

Table 8. Tests of normality for academic qualification

| Data | Kolmogorov-Smirnov ^a | | | Shapiro-Wilk | | |
|------|---------------------------------|-----|------|--------------|-----|------|
| | Statistic | df | Sig. | Statistic | df | Sig. |
| Data | .347 | 384 | .000 | .786 | 384 | .000 |

a. Lilliefors Significance Correction

Since the assumption of normality was violated, thus Kruskal Wallis H-test was carried out instead of one-way ANOVA. The test revealed a significant difference, $H(4) = 12.483$, Asymp. Sig. = 0.014 ($p < 0.05$), for teachers' efficacy, based on academic qualification (certificate, $n = 24$; diploma, $n = 41$; bachelor degree, $n = 245$; master degree, $n = 71$; and Ph.D., $n = 3$). Table 9 shows the pairwise comparisons of academic qualifications. Based on the table, there is a significant difference between a Ph.D. and a master's degree ($p = 0.038 < 0.05$), a certificate and master's degree ($p = 0.008 < 0.05$), and a bachelor's degree and a master's degree ($p = 0.007 < 0.05$).

Table 9. Pairwise comparisons of academic qualification

| Sample 1-Sample 2 | Test Statistic | Std. Error | Std. Test Statistic | Sig. | Adj. Sig. |
|-------------------------------|----------------|------------|---------------------|------|-----------|
| PhD-Certificate | 65.896 | 67.849 | .971 | .331 | 1.000 |
| PhD-Bachelor Degree | 94.790 | 64.359 | 1.473 | .141 | 1.000 |
| PhD-Diploma | 97.317 | 66.268 | 1.469 | .142 | 1.000 |
| PhD-Master Degree | 135.282 | 65.306 | 2.071 | .038 | .383 |
| Certificate-Bachelor Degree | -28.894 | 23.698 | -1.219 | .223 | 1.000 |
| Certificate-Diploma | -31.421 | 28.477 | -1.103 | .270 | 1.000 |
| Certificate-Master Degree | -69.386 | 26.161 | -2.652 | .008 | .080 |
| Bachelor Degree-Diploma | 2.527 | 18.695 | .135 | .892 | 1.000 |
| Bachelor Degree-Master Degree | -40.492 | 14.933 | -2.711 | .007 | .067 |
| Diploma-Master Degree | -37.965 | 21.733 | -1.747 | .081 | .807 |

The ANOVA results showed no significant difference in teachers' efficacy between genders, age groups, and teaching experiences. Besides, analysis of the Kruskal Wallis H-test shows a significant difference in teachers' efficacy between different academic qualifications, which were between the pairs of Ph.D. and master's degree, certificate and master degree, and bachelor degree and master degree.

The result is in line with previous research, which mentioned that teachers' experience, certification, or Gender did not affect teachers' efficacy [28]. [13] Also, age and Gender did not predict the teachers' knowledge about mathematics learning difficulties. In other words, age groups and genders do not affect the teachers' efficacy in teaching students with mathematics learning difficulties. Previous studies also showed that teachers rated students with difficulties in mathematics significantly easier to identify at a distance than students with difficulties in writing [29].

However, this study's findings contradict previous studies that mentioned teachers have insufficient and low knowledge of mathematics learning difficulties [13] [14]. Based on our findings in this study, the teachers rated themselves as having high efficacy in teaching students with mathematics learning difficulties. This is a good phenomenon as the teachers' efficacy in teaching students with mathematics learning difficulties had been increased in Malaysia as there have been many workshops, seminars, sharing sessions, and

talks on the topic of mathematics learning difficulties in recent years. However, there is also a possibility of a gap between teachers' efficacy based on their perception and actual competence levels [21]. The nature of self-reported data limits the findings of this study. It is not possible to know whether survey responses reflected actual practice. Further research is needed to investigate the teachers' efficacy based on students' perceptions of mathematics learning difficulties.

This study brought contributions to the theory, methodology, and practice. In theory, a better theoretical comprehension of mathematics teachers' efficacy in teaching students with mathematics learning difficulties was obtained. From the methodology aspect, steps in adapting the instrument were explained. In this study, an instrument, namely the Teaching Students with Disabilities Efficacy Scale [21], was adapted with the permission of Dr. Laron Scott. This study contributed to a teacher efficacy questionnaire in teaching students with mathematics learning difficulties.

4. CONCLUSION

Teachers' efficacy has consequences for students' success in mathematics learning [8]. This study showed that teachers' perception of teachers' efficacy in teaching students with mathematics learning difficulties is high. There are no significant differences between teachers' efficacy based on age groups and years of experience. However, there is a significant difference between different academic qualifications. This study is crucial because it added more knowledge on mathematics learning difficulties for policymakers, teachers, parents, students, and future researchers.

In Malaysia, students with mathematics learning difficulties may study in mainstream, remedial, or special education classes [3]. The knowledge of mathematics learning difficulties is essential for every mathematics teacher. It can be incorporated into the content of academic and training courses, especially for teachers or pre-service [10]. Thus, teachers teaching mathematics, special education, and remedial education shall acquire the knowledge of mathematics learning difficulties and possess the efficacy in teaching students with mathematics learning difficulties.

Besides, this study is a milestone in mathematics learning difficulties for mathematics and special education. Based on a study in Malaysia, there remains a lack of appropriate instructional scaffolds to help students with mathematics learning difficulties to organize their learning structures by addressing their mathematical skills [6]. The findings on teachers' efficacy in teaching students with mathematics learning difficulties are significant to the Ministry of Education Malaysia. Appropriate resource development and funding may be provided in the research on dyscalculia so that students with this specific learning difficulty can improve their learning capability to the maximum level. Future researchers should also design and develop more interventions and diagnoses to assist students with mathematics learning difficulties.

The limitation of this study is that the questionnaire to evaluate the perception of teachers on their efficacy was adapted from a questionnaire originally designed for students with disabilities. Hence, a questionnaire for mathematics learning difficulties will be designed and developed. Besides, teachers' efficacy in this study has only been

evaluated based on the mathematics teachers' perceptions. For future studies, the researchers may investigate the teachers' efficacy rated by students. This is to obtain a more detailed view regarding teachers' efficacy in teaching students with mathematics learning difficulties.

ACKNOWLEDGEMENTS

The authors especially thank the Malaysian primary school mathematics teachers who participated in this study. This research received no specific funding from public, commercial, or non-profit sector funding agencies. The authors thank the Malaysian Ministry of Education for providing scholarships for Ph.D.

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APPENDIX**Teaching Students with Mathematics Learning Difficulties Scale****Part A: Demographic Data**

Please tick (✓) on the relevant answer in the space provided.

1. Gender

[] Male

[] Female

2. Age Group

[] 21 – 30 years old

[] 31 – 40 years old

[] 41 – 50 years old

[] above 50 years old

3. Years of Teaching Experience

[] < 5 years

[] 5 – 10 years

[] 11 – 20 years

[] 21 – 30 years

[] > 30 years

4. Academic Qualification

[] Certificate

[] Diploma

[] Bachelor Degree

[] Master Degree

[] PhD

5. E-mail Address: _____
