

REMEDIAL EDUCATION TEACHER'S KNOWLEDGE TOWARDS INCLUSIVE EDUCATION

Jennifer Elanie Jaikin*¹, Mohd Norazmi Nordin¹

¹Faculty of Education, Universiti Kebangsaan Malaysia,
43600 UKM Bangi, Selangor Darul Ehsan, Malaysia.

*Corresponding author: Jennifer Elanie Jaikin (P118883@siswa.ukm.edu.my)

ABSTRACT

Inclusive education is an effort introduced by the Malaysian government to ensure that people with disabilities (OKU) receive education from a young age. The main goal of the government is to involve more students with special educational needs (MPBK) in the inclusive education and further improve the quality of education as a whole in this country. In effort to create an effective teaching and learning process that meet the needs of MBPK, a teacher must have a specific knowledge about MBPK and have sufficient skills to help them plan an effective learning and further be able to support the needs of MBPK in an inclusive classroom. The purpose of this study was to examine the level of knowledge of Remedial education teachers regarding the implementation of Inclusive education. This study was conducted in Tuaran, Sabah by using a survey as its method and consist of 39 people as a sample. Questionnaire as a research instrument is used in this study and the links are shared by using Whatsapp application. Statistical Package for the Social Science software version 26.0 was used to analyze data collected from this study. The findings of this study founds that the level of knowledge of Remedial education teachers regarding the implementation of Inclusive education is at a moderate level and there is no significant difference between the level of knowledge of teachers and the teaching experience of Remedial education teachers. Thus, the lack of exposure and training given by teachers has had an impact on the level of teachers' knowledge of Inclusive education.

Keywords: remedial education; inclusive education; special education; special needs

1. INTRODUCTION

The education field plays a very important role for the development of a country (Jalaluddin and Tahar 2022). The revolution in the development of education in Malaysia moves along with the change of times. Hence the Special Education field is also undergoing changes in line with the development of mainstream education. Hussin & Hamdan (2016) said that there are many studies that show that special education field needs a lot of improvement either at the basic level or at the implementation level. Improvements in the special education field need to be implemented due to the increase in the number of students with special educational needs (MBPK) who need education.

Muhammad Nor, Mohamed & Hanawi (2020) said that although currently only one percent of special needs individuals are registered in Malaysia, it is not possible if in the future the country will reach ten percent in line with the United Nations' estimation that ten percent of the developing

world's population has individuals identified as special needs individuals. Based on the increase in these number of individuals with special needs, an increase in the number of MBPK will also occur.

The growing number of MBPK every year requires many educational opportunities to be opened up for them. This educational opportunity opens up opportunities for the expansion of the Integration Special Education Programme (PPKI) and the opening of more new special schools. Apart from the expansion of PPKI and the opening of new special schools, a special programme known as inclusive education was developed by the Ministry of Education Malaysia (MOE) and the Special Education Division (BPK) was also introduced (Ali & Mohamad Nasri 2021).

The implementation of inclusive education in Malaysia context is more geared towards the concept of integration than the concept of inclusiveness itself. This is due to the fact that the country's education system is unable to meet the needs of MBPK and subsequently learning in mainstream classes does not bring learning benefits to MBPK students (Salleh and Che Omar 2018). Teachers play a very important role in creating and meeting the needs of MBPK in mainstream classrooms. Therefore, teachers' readiness especially in knowledge towards implementing inclusive education is of paramount importance.

Knowledge is a very important aspect for a teacher to plan and implement teaching, learning and facilitates activities (PdPc) (Lee and Mohamed 2021). Mainstream teachers are equipped with knowledge of the subjects taught by them as their first major subject however, not all mainstream teachers have knowledge of MBPK as well as inclusive education. Findings from previous studies have found that teachers' level of knowledge on inclusive education is only at a moderate level (Mohammad Hanapi *et al* 2022).

"What knowledge and skills should be honed among teachers so that they can teach MBPK effectively?" is a question that often raised by educators and it is proven that they still need help to answer those questions (Bryd and Alexander 2020). This gives the impression that there are still many teachers who are unable to apply specific teaching strategies that can help MBPK in the classroom. In addition to having to manage and address MBPK in mainstream classrooms, teachers also need to manage typical students in the same class within the same time period. Next, not all mainstream teachers have knowledge on teaching skills needed to teach MBPK. The low level of knowledge and lack of training in implementing inclusive education has left teachers without the skills to perform accommodation and modification of teaching skills (Pau and Mohd Yasin 2021)

Knowledge and attitude towards MBPK are intertwined with each other (Elizabeth and Seema 2019). A person's knowledge will determine their perspective either positively or negatively. Teachers' attitude towards inclusive education is the key to the successful implementation of inclusive education (Musyafira & Hendriani 2021). However, Tahar and Najib (2019) found that mainstream teachers' perceptions of MBPK students placed in their classrooms were negative. The same opinion was expressed by Al-Omari, Al-Motlaq and Al-Modallal (2015) as well as by Youssef and Youssef (2015) who found that teachers with low levels of knowledge showed an unwillingness to accept students with learning difficulties in their classrooms.

Teacher readiness in the implementation of inclusive education is very important as teachers play a very important role in the success of the initiatives planned by the Ministry of Education (MOE) (Lee and Mohamed 2021). Teacher plays the role as a person with self-competence and the ability to plan and implement PdPc based on the needs of MBPK (Yuzaidey et al 2018). Therefore, this study was conducted to examine the extent of the level of knowledge of teachers to implement inclusive education in remedial education classes

2. LITERATURE REVIEW

In Malaysia context, the government strives to ensure that people with disabilities (OKU) get an education from a young age. Hence to ensure that this effort is successful, the government has implemented various policies to create access for the disabled people to education. The Persons with Disabilities Act (2008) in Article 28 has insisted that children with special needs receive the necessary support to facilitate the full and equal participation of MBPK in the world of education. The Government is committed to involve more MBPK into the Inclusive education programme and thus improve the quality of education as a whole. This effort to engage more MBPK is in line with global trends geared towards inclusive education (Clear and Mohd Ahli 2014).

The implementation of the inclusive education programme in Malaysia is currently divided into two approaches. This approach consists of full inclusive implementation and partial inclusive implementation. Haris and Khairuddin (2021) say that these two types of implementations have differences in terms of the place of study and its teachers. MPBK which follows a full inclusive programme will be enrolled in the school's Student Database Application (APDM) system and will subsequently attend teaching and learning sessions for all academic subjects based on the original national curriculum or those that have been modified in the mainstream classroom. Apart from these MBPK students studying together and being in the typical student range on a full-time basis, they will also be involved in co-curricular activities just like other typical students.

In contrast to partial inclusiveness, MBPK will be enrolled in the APDM system of PPKI classes and will attend at least one academic subject either core subjects or elective subjects or follow co-curricular activities together with mainstream students. Tin and Wah (2018) says that this partial inclusiveness occurs when MBPK only attends certain subjects in the mainstream classes. Apart from the subjects or co-curricular activities involved, MBPK is placed in the same special education class as per usual. Attendance records for students participating in this partial inclusive programme will be recorded in the attendance system of the Integration Special Education Programme (PPKI). Jani, Alias and Tumin (2020) said that the Malaysian government is committed to improve education for the disabled even in policy level but the impact of inclusive education on the quality of life of the disabled is still unknown.

Around November 2018, the Ministry of Education (MOE) has launched a policy known as the Inclusive Policy for Persons with Disabilities (OKU). This effort to include the disabled is an effort that is in line with the policy enacted by the government, the Zero Rejection Policy. This policy has been introduced to ensure that MBPK also has access to education (Chin 2020). Based on past studies, there are issues and challenges faced by the implementers who are directly involved with this implementation as the effort to include the disabled especially in the context of education.

In order to create an effective inclusive environment, an education system that meets the needs of inclusiveness and teaching methods that meet the inclusiveness needs must be established in teaching and learning activities. Inclusive education is an effort aimed at integrating students with special educational needs into the mainstream educational process and adapting the school atmosphere to students with special educational needs so that these students receive social justice and equality (Akbarovna 2022).

The special education programme is a programme aimed to help typical students to master the basic skills which consist of reading, writing and counting skills (Ministry of Education Malaysia 2012). There are special educational students who enter the special education classes when their schooling sessions are still based in mainstream schools despite being a disabled. This is due to the fact that students do not master basic skills. These basic skills consisting of reading, counting and writing skills are the requirement for the admission of students to special education classes.

One of the types of disability faced by students admitted to remedial education classes is students with dyslexia problems. Dyslexia according to Mercer Wegerif & Dawes (1999) is a type of difficulty or inability to master reading skills even if the individual has received an adequate education. Based on the survey, 314 000 children have dyslexia problems in Malaysia (Yuzaidey et al. 2018). This is in line with data released by the Special Education Division of the Ministry of Education Malaysia in 2019 which stated that there are 2987 students with special educational needs with dyslexia problems currently pursuing learning in mainstream classes.

Based on this statement, it can be concluded that students with dyslexia problems will mostly go into remedial education classes to learn the basic skills. This is because, students with dyslexia are more likely to experience problems in basic skills which are reading, spelling, writing and counting skills (Ali 2010). Indirectly, they need to enter remedial education classes when they still need to continue their studies in mainstream schools.

The admission of students into remedial education programmes, not limited to students with dyslexic problems alone, but also students with other disabilities provided that they did not master the basic skills mentioned. This is in line with the statement issued by the Department of Special Education (2009) which is the main focus of the establishment of remedial education is with the objective to help and deal with the shortcomings or abnormalities in shaping the learning skills of the students involved.

Remedial education is a type of education that takes a different approach compared to the usual mainstream classes in Malaysia schooling system (Saidin and Mohd Bukhari 2023). Fullan and Langoworthy (2013) said that teachers need to have knowledge of the learning content that students need to master, the pupil level of knowledge and also have the ability to set up the perfect teaching strategy in class.

In order to create an effective teaching and learning process and meet the needs of MBPK students, remedial education teachers should be equipped with sufficient levels of knowledge to enable them to conduct inclusive education effectively in remedial education classes (Derbala and Yasin 2022).

A teacher should have specific knowledge of MBPK as well as sufficient skills to help teachers to plan an effective learning process and thus be able to support and meet the specific needs of MBPK in a classroom. Low level of teacher's knowledge is a contributor to the fact that the teacher's mastery of teaching pedagogy is weak and in turn negatively affects the teacher's own ability (Sharma and Tunj 2019)

However, not all teachers have specific knowledge of MBPK and have skills that can help support and meet the needs of MBPK in mainstream classes and this also includes remedial education teachers (Leijen, Arcidiacono and Baucal 2021). Preliminary findings from studies conducted by Leifler E. (2020) have found that teachers' level of knowledge on the implementation of inclusive education is at a low level.

Lyn, Cheong and Rosli (2020) in their study also obtained the same finding that the level of teachers' knowledge of inclusive education is lower compared to special education teachers in some of the items reviewed by the researchers for this study. Overall, the findings from this study found that not only is the level of mainstream teachers' knowledge of inclusive education is at a low level but also the level of special education teacher's knowledge of inclusive education is also at a low level as well.

The findings from this study are also supported by findings from studies conducted by several researchers, namely Bhavya, et al., (2015) and Basim et al., (2019), which found that the level of knowledge of teachers on students with learning problems themselves is only at a moderate level. However, there are also studies that have been carried out that have found that the level of knowledge of teachers of inclusive education is at a high level. Madarang and Martin (2022) found that teachers' level of knowledge of inclusive education is at a high level and teachers have sufficient knowledge of inclusive education.

Past studies conducted by Palaniandy and Mohd Yasin (2021) have found that teachers' level of knowledge on the implementation of inclusive education has a significant relationship with teachers' teaching skills and has a significant relationship also to teachers' attitudes in the implementation of inclusive education. The study conducted by Tahar and Najib (2019) also found the same finding that the level of knowledge of teachers has a significant relationship with the level of readiness of mainstream teachers in the implementation of inclusive education.

The relevance of the level of knowledge and teachers' understanding with the level of readiness of teachers in implementing inclusive education has been consistently stated by researchers for past studies (Ekstam *et al.* 2018; Mat Rabi *et al.* 2018). Ekstam *et al.* (2018) says that teachers need to have an adequate level of knowledge either knowledge of inclusive education or about the content of subjects so that teachers can manage and handle the learning needs of students in inclusive classrooms.

Based on past studies, one conclusion that can be made is that the findings of studies on the teachers' level of knowledge on inclusive education is vary. These different findings are likely to be influenced by factors such as democracy, background and many others. However, the study conducted specifically to examine the willingness of remedial education teachers to conduct

inclusive education is very lacking especially within the time frame of five years back, therefore, this study was conducted to identify remedial education teachers' level of knowledge towards inclusive education and subsequently assess whether the teacher's experience affects teachers' knowledge towards inclusive education. This assessment is important to ascertain whether this experience factor is a big factor why inclusive education cannot be implemented in full.

3. METHODOLOGY

Researchers have chosen to conduct quantitative studies to assess remedial education teachers' level of knowledge towards the implementation of inclusive education as it is in line with the purpose of the study conducted by the researchers. Kariya (2020) says that survey studies are suitable to conduct when a researcher wants to measure opinions and perceptions. Next, Turkoguz (2021) says that the survey study, which is one of the designs for quantitative studies, is a research approach that aims to determine the situation in the past or in the present as it happens in reality. The sample size of a study should be in large quantities to reduce sampling errors (Tuckman 1978). Therefore, large sample sizes can generalize a population and thus help to reduce errors from occurring in a study. The population targeted in this study consisted of remedial education teachers around Tuaran district. Based on the sample selection that was focused, a total of 39 remedial education teachers were made into study samples to obtain teachers' feedback on their knowledge level on the implementation of inclusive education. The sample selection is in line with Mohd Majid's statement (1990) which said that the sample size for a study should exceed 30 percent of the study population.

A questionnaire question which is the instrument used in this study was distributed to teachers around Tuaran district using the Google Form platform. This study is conducted in form of survey study which is using a questionnaire as its instruments. The questionnaire was chosen as an instrument in this study as it is a practical and effective way to obtain information on a particular matter (Hasan and Yukun 2020). The questionnaire in this study was adapted from a previous study which was conducted by Palaniandy and Mohd Yasin (2021)

The researchers have divided the questionnaire items into two parts, namely (a) the respondent's demographic and (b) the respondent's level of knowledge. Items in Section (a) include six items while section (b) has 14 items. The items in this questionnaire were built to measure the level of knowledge of remedial education teacher towards inclusive education in the Tuaran district by using a five-level Likert scale. The Likert Scale is a measurement scale that is commonly used to assess an individual's level of consent to a statement (Suasapha 2020). The following is a table of the likert scales that have been used for the section B question item questionnaire.

Table 1: Five-level Likert Scale

Score	Statement	Singkatan
1	Strongly Disagree	SD
2	Disagree	DA
3	Uncertain	UC
4	Agree	A
5	Totally Agree	TA

3.1. Data Collection Procedure

Data collection in this study was carried out by using questionnaire as its instruments. The questionnaire for this study was shared to the remedial education teachers of Tuaran district by using the Google Form application. A link to this questionnaire was given to the remedial education teachers in Tuaran district mainly through the Whatsapp application.

Statistics is a branch of applied mathematics that uses numbers and then manipulates them. Descriptive statistics is a type of measurement carried out on a sample in a study and its reporting involves only the measured sample and is not to form a generalization for a group outside the sample that has been measured by a researcher (Ibrahim 2010). The data in this study was analysed using a computer software known as the Statistical Package for Science Package (SPSS) Version 23. The data collected were analysed to find the mean value, frequency and percentage of remedial education teachers' level of knowledge towards the implementation of inclusive education. Researchers used the mean score obtained to interpret it to five levels consisting of very low, low, medium, high and very high levels in line with the interpretation of the mean range presented by Moidunny (2009).

Table 2: Mean Range Interpretation

SOVEREIGNTY	PHASE
1.00 to 1.89	Very Low
1.9 to 2.69	Low
2.7 to 3.49	Moderate
3.5 to 4.29	High
4.3 to 5.00	Very High

Source: Moidunny (2009)

4. STUDY FINDINGS

4.1. Demographic Profile of Respondents' Background

Respondents' demographic in this study were focused on the background of the respondents consisting of gender, age, academic qualifications, teaching experience and the status of the respondent's exposure to inclusive education. The profile of the respondents in this study is set out in the table as follows;

Table 3: Demographic profile of respondent background

	FREQUENCIES	PERCENT (%)
Sex		
Men	11	28.2%
Woman	28	71.8%
Age		
25 years and below	0	0%

26 – 30 Years	8	20.5%
31 – 35 Years	4	10.3%
36 – 40 Years	4	10.3%
41 – 45 Years	12	30.8%
46 years and above	11	28.2%
Academic Qualifications		
Diploma of Education	6	15.4%
Bachelor	28	71.8%
Master Degree	5	12.8%
Doctorate	0	0.0%
Teaching Experience		
Less than 1 Year	0	0.0%
1 to 5 Years	8	20.5%
6 to 10 Years	6	15.4%
11 to 15 Years	8	20.5%
16 to 20 Years	8	20.5%
21 Years and above	9	23.1%
N = 39		

Respondents for this study consisted of 39 respondents comprising of remedial education teachers in Tuaran district. The respondents were consist of 11 men (28.2%) and 28 woman (71.8%) Most of the respondents in this study are remedial education teacher aged between 41 and 45 years old who recorded the highest percentage with 30.8% and followed by respondents aged 46 and above (28.2%), respondents aged between 26 to 30 Years (20.5%), respondents aged between 26 and 30 Years (20.5%), respondents aged between 31 to 35 years old and finally respondents aged 36 to 40 years old recorded a percentage of 10.3%.

Most of the respondents in this study were found to have a Bachelor's Degree of 28 people with a percentage of 71.8%, followed by 6 respondents with a Diploma in Education (15.4%) and 5 respondents with a Master's Degree (12.8%). As for the teaching experience, the study found that respondents with more than 21 years of teaching experience recorded the highest frequency of 9 people with a percentage of 23.1% followed by respondents with teaching experience of 1 to 5 years, teaching experience of 11 to 15 years and respondents with teaching experience of 16 to 20 years who recorded the same percentage of 20.5% with a frequency of 8 people. Next, respondents with 6 to 10 years of teaching experience recorded a percentage of 15.4% with a frequency of 6 people and finally no respondents with less than 1 year teaching experience.

4.2. Teacher Knowledge Level on the Implementation of Inclusive education

Remedial education teachers' level of knowledge in the implementation of inclusive education is evaluated through 14 question items. Based on the detailed research in this study, it was found that most teachers said that they were unsure in seven items i.e. item B1, 'I was trained to teach students with special educational needs' (38.5%), B3 i.e. 'I have inclusive knowledge of teaching in inclusive classes in schools' (41%), B4 i.e. 'I apply inclusive knowledge in special recovery mainstream classes' (43.6%), B6 i.e. 'My knowledge of inclusiveness helps me to teach students

with special educational needs effectively' (41%), B9 i.e. 'I have knowledge in motivational theory to prepare my teaching to be more effective' (46.2%), B10 i.e. 'I know my knowledge contributes to the effectiveness of inclusive programmes' (35.9%) and B12 i.e. 'I know other teachers are equipped with knowledge to be inclusive.' (41%).

Table 4: Teachers' level of Knowledge on the Implementation of Inclusive education

	STATEMENT	STS	TS	TP	S	SS
B1	I received training to teach students with special educational needs	5 (12.8%)	8 (20.5%)	15 (38.5%)	8 (20.5%)	3 (7.7%)
B2	I can effectively pass my knowledge to students with special educational needs.	4 (10.3%)	9 (23.1%)	11 (28.2%)	14 (35.9%)	1 (2.6%)
B3	I have inclusive knowledge of teaching in inclusive classes in schools.	1 (2.6%)	9 (23.1%)	16 (41%)	10 (25.6%)	3 (7.7%)
B4	I apply inclusive knowledge in a remedial education class	2 (5.1%)	6 (15.4%)	17 (43.6%)	13 (33.3%)	1 (2.6%)
B5	I am ready to be equipped with knowledge in inclusive education.	1 (2.6%)	1 (2.6%)	8 (20.5%)	13 (33.3%)	16 (41%)
B6	Knowledge of inclusive education helped me to effectively teach students with special educational needs.	1 (2.6%)	5 (12.8%)	16 (41%)	11 (28.2%)	6 (15.4%)
B7	I know that every teacher involved with inclusive education can teach effectively in inclusive classes.	2 (5.1%)	4 (10.3%)	9 (23.1%)	19 (48.7%)	5 (12.8%)
B8	In my inclusive classroom, I use all my knowledge to provide effective teaching	0 (0%)	2 (5.1%)	11 (28.2%)	18 (46.2%)	8 (20.5%)
B9	I have knowledge in motivational theory to prepare my teaching to be more effective	0 (0%)	3 (7.7%)	18 (46.2%)	12 (30.8%)	6 (15.4%)
B10	I know my knowledge contributes to the effectiveness of inclusive programs	0 (0%)	4 (10.3%)	14 (35.9%)	11 (28.2%)	10 (25.6%)
B11	In my teaching preparation, I chose the right strategy for students with special educational needs.	0 (0%)	6 (15.4%)	9 (23.1%)	16 (41%)	8 (20.5%)
B12	I know other teachers are equipped with the knowledge to be inclusive.	2 (5.1%)	7 (17.9%)	16 (41%)	10 (25.6%)	4 (10.3%)

B13	My knowledge has a positive impact on my students' academic results	0 (0%)	5 (12.8%)	8 (20.5%)	15 (38.5%)	11 (28.2%)
B14	My knowledge helps other teachers to teach more effectively during teaching and learning	1 (2.6%)	3 (7.7%)	9 (23.1%)	19 (48.7%)	7 (17.9%)
OVERALL MEAN					3.471	

However, most teachers agree that they can effectively pass on their knowledge to student with special educational needs (38.5%). Next, the study also found that 74.3% of remedial education teachers said they were prepared to be equipped with knowledge of inclusive education and most remedial education teachers (66.7%) also admitted that their knowledge had a positive impact on students' academic results and that their knowledge also helped other teachers to teach more effectively.

Table 5: Mean table and standard deviation of the remedial education teachers' level of knowledge towards the implementation of inclusive education.

	ITEM	MIN	SP	PHASE
B1	I was trained to teach students with special educational needs in inclusive classes.	2.90	1.119	MODERATE
B2	I am able to effectively pass on my knowledge to students with special educational needs.	2.97	1.063	MODERATE
B3	I have an inclusive knowledge of teaching in inclusive classes in this school.	3.13	0.951	HIGH
B4	I apply inclusive knowledge in the first stream classroom	3.13	0.894	HIGH
B5	I am willing to be equipped to be knowledgeable in inclusive education.	4.08	0.984	HIGH
B6	My knowledge of inclusiveness helped me teach students with special educational needs effectively.	3.41	0.993	MODERATE
B7	I know that every teacher involved with inclusive education can teach effectively in inclusive classes.	3.54	1.022	HIGH
B8	In my inclusive classroom, I use all my knowledge to provide effective teaching	3.82	0.823	HIGH
B9	I have knowledge in motivational theory to prepare my teaching to be more effective	3.54	0.854	HIGH
B10	I know my knowledge contributes to the effectiveness of inclusive programs	3.69	0.977	HIGH
B11	In my teaching preparation, I chose the right strategy for students with special educational needs.	3.67	0.982	HIGH

B12	I know other teachers are equipped with the knowledge to be inclusive.	3.18	1.023	MODERATE
B13	My knowledge has a positive impact on my students' academic results	3.82	0.997	HIGH
B14	My knowledge helps other teachers to teach more effectively during teaching and learning	3.72	0.944	HIGH
OVERALL MEAN		3.471	0.627	MODERATE

Table 5 shows the mean value of the level of knowledge of remedial education teacher towards the implementation of inclusive education. Based on the research to Table 4, the overall mean for remedial education teachers' level of knowledge in the implementation of inclusive education is $M=3.471$, $SP=0.627$ which is at a moderate level. This suggests that the teacher's knowledge of the implementation of inclusive education is at a moderate level only.

Next, this study also examined the differences between the level of knowledge of teachers based on the teaching experience of remedial education teachers in the implementation of the inclusive education programme in order to see whether teaching experience has an impact on remedial education teachers' level of knowledge on the implementation of inclusive education.

Table 6" Remedial education teachers' level of knowledge towards the implementation of inclusive education based on teachers' teaching experience.

Teaching Experience	N	Min	Standard Deviation	F	Significant
Less than 1 Year	0	0	0	1.789	0.154
1 to 5 Years	8	3.81	0.472		
6 to 10 Years	6	3.69	0.464		
11 to 15 Years	8	3.06	0.541		
16 to 20 Years	8	3.41	0.802		
21 Years and above	9	3.44	0.627		

The mean value of the remedial education teachers' level of knowledge based on the teaching experience of remedial education teachers has found that teachers with 1 to 5 years of experience have obtained the highest mean value of $mean=3.81$, $s.d=0.472$ and followed by teachers with experience of 6 to 10 years have obtained $mean=3.69$, $s.d=0.464$. Next, teachers aged 21 years and above have obtained $mean=3.44$, $s.d=0.627$ and lastly teachers aged 16 to 20 years old have obtained a mean value $=3.41$, $s.d=0.802$.

Through a one-way ANOVA calculation carried out against the level of knowledge and teaching experience of remedial education teachers found that the value $F(4,34)=1.789$, $p=0.154$ is greater than the alpha value of 0.05. Thus, it can be concluded that there is no significant difference between the teachers' level of knowledge and the teachers' teaching experience in the implementation of the inclusive education. The hypothesis for this study which was there was no significant difference in the level of knowledge of teachers based on the remedial education teachers' teaching experience in the implementation of the inclusive education failed to be rejected.

5. DISCUSSION

This study was conducted with the aim of identifying the level of knowledge of remedial education teacher towards the implementation of inclusive education in Tuaran district. Ekstam *et al.* (2018) says that teachers need to have an adequate level of knowledge either knowledge of inclusive education or about the content of subjects so that teachers can manage and handle the learning needs of students in inclusive classrooms. This is in line with a statement issued by Subri, Yaakub and Nudin (2021) which says that the most important aspect to ensure the effectiveness of teaching and learning activities is pedagogical knowledge.

Based on findings in this study, remedial education teachers' level of knowledge towards inclusive education is at a moderate level. This clearly shows that remedial education teachers still do not have a solid knowledge of inclusive education. Teachers need to have a specific knowledge of MBPK and have sufficient skills to help teachers to plan effective learning and thus be able to support and meet the specific needs of MBPK in a class. Low level of teachers' knowledge is a contributor to the fact that the teacher's mastery of teaching pedagogy is weak and negatively affects the ability of the teacher themselves (Sharma 2019). Therefore, remedial education teachers should have in-depth knowledge of inclusive education so that teachers can meet the needs of MBPK in remedial education classes.

The findings obtained in this study are in line with the study conducted in Gombak district secondary school by Palaniandy and Mohd Yasin (2021) which has found that the level of knowledge of teachers on the implementation of inclusive education programmes is at a moderate level. Findings from this study found that 35.5% of teachers said they were unsure whether they knew the strategies that must be put in place for the success of inclusive education programs. The same findings were obtained by Lee and Mohamed (2021) in the study conducted by them, namely the teachers' knowledge on the implementation of inclusive education in preschool classes is at a moderate level.

Lee and Mohamed (2021) said that their study samples did not have enough knowledge to teach MBPK. Next, the findings from this study found that 56% of respondents said that they did not have enough knowledge in teaching children with special needs preschool. Mohamad Hanapi et al (2022) in their study has also obtained the same findings which are at a moderate level only for teachers' knowledge on inclusive education. The study found that the items that got the highest mean value is the item 'I'm having trouble teaching students with low cognitive levels'. While items that have received the lowest mean value are the item 'Special education students can excel in lessons if involved earlier'.

However, the findings of this researcher are contrary to studies conducted by Leifler E. (2020) which has found that the level of knowledge of teachers on the implementation of inclusive education is at a low level. Lyn, Cheong and Rosli (2020) in their study also found that the same result is that the level of mainstream teachers' knowledge of inclusive education is lower than that of special education teachers in some of the items reviewed by the researchers for this study. Overall, the study found that not only are mainstream teacher levels of knowledge of inclusive

education at a low level but the knowledge level of special education teachers on inclusive education is also at a low level.

Hamdan et al (2023) has also obtained the same results which is that the level of knowledge of teachers is at a low level which is contrary to the findings obtained by the researchers in this study. Hamdan *et al* (2023) found that 59.5% of teachers said that the main obstacle for teachers to implement inclusive education was that teachers did not have sufficient knowledge of inclusive education and 48.6% of teachers said they did not receive proper training on inclusive education. The study also found that the majority of respondents (78.4%) agreed that a lack of teachers in terms of knowledge levels would cause students to experience learning dropouts.

The findings obtained by this researcher are also contrary to studies conducted by Madarang and Martin (2022) which found that teachers' level of knowledge of inclusive education is at a high level. Researchers for the study say that teachers have sufficient knowledge of inclusive education. Furthermore, this study has also found that the main challenge faced by teachers in the implementation of inclusive education is that teachers do not have sufficient training especially to increase the level of knowledge of teachers towards inclusive education or ways to control MBPK in the classroom.

The study, conducted by Fuad and Tahar (2021), also found the same finding that the level of knowledge of mainstream teachers on the characteristics of students with learning difficulties is at a high level. The findings from this study found that teachers' level of knowledge of learning-impaired pupil management strategies was also at a high level. Researchers cite the importance of teachers to know the characteristics of learning problems to help teachers to modify teaching and learning activities to suit the problems faced by students (Greer and Meyen 2009)

Based on the reference to past studies, the findings of the study conducted by the researchers on the level of knowledge of teachers on the implementation of inclusive education coincide with the previous study of the level of knowledge of mainstream teachers on the implementation of inclusive education as the remedial education teacher is also a mainstream teacher serving in mainstream schools. As such, remedial education teachers also experience the same difficulties as other mainstream teachers. Students who enter remedial education classes usually have a lot of learning disabilities (Saidin and Bukhari 2023).

The study also found that the level of knowledge did not have a significant difference with remedial education teachers' teaching experiences in the implementation of Inclusive education. This gives the impression that teaching experience cannot provide an explanation of the teacher knowledge on the implementation of inclusive education. The length of service that a teacher has served does not affect their level of knowledge. (Othman, Chiang & Md Zuki, 2017).

The exposure of teachers especially remedial education teachers to MBPK and inclusive education has also affected the teachers' knowledge. This is supported by Karim, Kumbong and Robert (2022) statement which says that inclusive education cannot achieve success because the parties involved does not have sufficient knowledge in dealing and teaching MBPK. Mainstream teachers, especially remedial education teachers in context of education in Malaysia, does not have a

sufficient exposure to inclusive education or to MBPK itself. This have impacted teachers' level of knowledge towards inclusive education and resulting teacher's knowledge to be at a moderate level only. This is supported by findings from previous studies that have found that there are still many individuals who do not understand inclusive education either in Malaysia or abroad (Abdullah 2019; Widyasari & Novara. 2018; Alfariis 2017)

Therefore, a form of support that should be given to Remedial education teachers is to provide adequate training to remedial education teacher on Inclusive education (Tristani and Basset-Gunter 2019). Support in this form of training is a systematic approach and in turn can improve not only the level of knowledge of teachers but also the skills of teachers especially in the use of pedagogy consisting of teacher teaching methods and strategies for MBPK (Sharma, Forlin and Loreman 2008). Therefore, support in this form of training can help teachers of Special Recovery to increase their level of knowledge from medium to higher level.

The level of knowledge of teachers is at a moderate level only because teachers do not receive adequate training to teach students with special educational needs. McCrimmon says that teacher training in inclusive education is inadequate. Sanchez, Rodriquez and Martinez (2019) have identified that inadequate training is the cause of the teacher's level of competence towards inclusive education is low. This is disappointing because an effective and consistent training will affect the attitudes, knowledge and teachers' skills and subsequently teacher training in the special education field (Tristani and Basset-Gunter 2019). Mohd Amin and Mohd Yasin (2016) said that inclusive education failed to perform properly due to the lack of training related to inclusive education.

6. CONCLUSION

This study has found that the level of knowledge of teachers on the implementation of inclusive education is at a moderate level. This has shown to some extent that teachers need adequate support especially in terms of adequate and relevant training in the implementation of inclusive education. Adequate training will create more knowledgeable, capable and sensitive teachers to the needs of MBPK and in turn can help improve teachers' readiness in implementing inclusive education in mainstream classrooms. Therefore, there is a need to provide adequate training and exposure to remedial education teachers so that the effectiveness and quality of inclusive education can be further improved.

REFERENCE

- Abdullah, S., A., K. (2019). *Program Pendidikan Inklusif bagi Murid-Murid Berkeperluan Khas di Malaysia*. KPM: Bahagian Pembangunan Kurikulum.
- Ali, M. (2020). Tahap kesediaan guru aliran perdana melaksanakan pengajaran dan pembelajaran terhadap murid bercirikan disleksia. *Jurnal Penyelidikan Guru*, 1(1), 54(66)
- Ali, N., & Mohamad Nasri, N., (2021). Halangan yang dihadapi oleh guru aliran perdana dalam melaksanakan program Pendidikan Inklusif. *Jurnal Dunia Pendidikan*, 3(3), 74-82

- Alfaris, M., R. (2017). Dukungan Sosial dan Aksesibilitas Pendidikan Inklusi di Perguruan Tinggi Berorientasi Masa Depan dan Kontinuitas. *Praktik Pendidikan bagi Penyandang Disabilitas: Prosiding*, hlm 95.
- Al-Omari, H., Al-Motlaq, M., & Al-Modallal, H. (2015). Knowledge of and attitude towards attention-deficit hyperactivity disorder among primary school teachers in Jordan. *Child Care in Practice*, 21, 128–139.
- Akbarovna, A., S. (2022). Inclusive education And Its Essence. *International Journal of Social Science & Interdisciplinary Research*, 11(01), 248–254.
- Akta Orang Kurang Upaya (2008)
- Basim, A. C. T., Fysal, N., Akhila, T. A. & Aswathy, P. S. (2019). Assessment of knowledge level on learning disability among primary school teachers. *International Journal of Contemporary Pediatrics*, 6(2), 1-5.
- Bhavya, B.S., et al. (2015). The knowledge and attitude of teachers regarding specific learning disabilities among children: A descriptive approach *International Journal of Recent Scientific*, 6(1), 2636-2641.
- Byrd, D. R., & Alexander, M. (2020). Investigating special education teachers' knowledge and skills: Preparing general teacher preparation for professional development. *Journal of Pedagogical Research*, 4(2), 72-82.
- Chin, M. (2020). The Zero Reject policy: a way forward for inclusive education in Malaysia? *International Journal of Inclusive education*.
- Derbala, R. & M. Yasin, R. (2022). Tahap Pengetahuan, Penerimaan, Ketersediaan dan Amalan Pengajaran Guru Pemulihan Khas Terhadap Pengajaran Terbeza. *Malaysian Journal of Social Sciences and Humanities (MJSSH)*, 7(4), 1 – 20.
- Ekstam, U., et al. (2018). Special education and subject teachers' self-perceived readiness to teach mathematics to low-performing middle school students. *Journal of Research in Special Educational Needs*, 18(1), 59–69
- Elizabeth, K., T. & Seema, P., U. (2019). Knowledge and attitude of primary school teachers towards inclusive education of children with specific learning disabilities. *Journal of social work education and practice*, 4(2), 23-32.
- Fuad, Y., A., Tahar, M., M. (2021). Tahap pengetahuan dan sikap guru aliran perdana dalam mengenal pasti murid bermasalah pembelajaran. *Jurnal Dunia Pendidikan*, 3(1), 696 – 706.
- Fullan M & Langworthy M. (2013). *Towards a New End; New Pedagogies for Deep Learning*. Washington: Collaborative Impact
- Greer, D., & Meyen, E. (2009). Special Education Teacher Education: A Perspective on Content Knowledge. *Learning Disabilities Research & Practice*, 24(1), 196 - 203.
- Haris, H. and Khairuddin, K. F. (2021). Pelaksanaan Pedagogi Inklusif bagi Murid Berkeperluan Khas Masalah Pembelajaran. *Malaysian Journal of Social Sciences and Humanities (MJSSH)*, 6(2), 197 - 210
- Hamdan, A., et al. (2023). *Halangan yang ditempuhi oleh guru aliran perdana di Malaysia dalam melaksanakan program Pendidikan Inklusif*. Perak: Universiti Pendidikan Sultan Idris
- Hasan, N. & Bao, Y. (2020). Impact of “e-Learning crack-up” Perception on Psychological Distress among College Students during COVID-19 Pandemic: A Mediating Role of “Fear of Academic Year Loss”. *Children and Youth Services Review*, 118, 1 – 9.

- Hussin, M., K., A. & Hamdan, A., R. (2016). Challenges of co-teaching in Malaysian inclusive classroom: administrators', teachers' and parents' overview. *Procedia-Social and Behavioral Sciences*, 217(1), 477 – 486.
- Ibrahim, S. (2010). *PhD Kecil Tapi Signifikan*. Shah Alam, Selangor: Pusat Penerbitan Universiti, Universiti Teknologi Mara.
- Jalaluddin, N., S. & Tahar, M., M. (2022). Pelaksanaan Pendidikan Inklusif dalam kalangan Guru Arus Perdana. *Malaysian Journal of Social Sciences and Humanities (MJSSH)*, 7(2), 1 - 11.
- Jani, R., Alias, A. A. & Tumin M. (2022). Persons with disabilities' education and quality of life: evidence from Malaysia. *International Journal of Inclusive education*, 26(8), 753-765
- Jelas, Z. M., & Mohd Ali, M. (2014). Inclusive education in Malaysia: Policy and practice. *International Journal of Inclusive education*, 18(10), 991-1003.
- Karim, M., F., Kumbong, A., & Robert, N., N. (2022). Isu dan cabaran dalam memperkasakan Pendidikan Inklusif dalam kalangan guru aliran perdana di Malaysia. *International Journal of Contemporary Education, Religious Studies and Humanities (JCERAH)*, 2(1), 15-27.
- Kariya, H., S. (2020). Faktor-Faktor Yang Mempengaruhi Pencapaian Akademik Pelajar Politeknik METrO Betong Sarawak. *Jurnal Dunia Pendidikan*, 2(4), 9-18.
- Konting, M., M. (1990). *Kaedah Penyelidikan Pendidikan*. Kuala Lumpur: Dewan Bahasa dan Pustaka
- Lee, K., C., & Mohamed, S. (2021). Tahap Pengetahuan Guru dalam Pelaksanaan Pendidikan Inklusif di Kelas Prasekolah. *Jurnal Dunia Pendidikan*, 3(2), 253-260
- Leifler, E. (2020). Teachers' capacity to create inclusive learning environments. *International Journal for Lesson and Learning Studies*, 9(3), 221-244.
- Leijen, Ä., Arcidiacono, F., Baucal, A. (2021) The Dilemma of Inclusive education: Inclusion for Some or Inclusion for All. *Front Psychol.*, 12(1)
- Lyn, J. M., Cheong, L. S., & Rosli, N. A. (2020). Mainstream versus special needs educators: Comparisons of knowledge levels towards their roles and responsibilities in supporting inclusive education. *Jurnal Pendidikan Malaysia*, 30-40.
- Madarang, H., & Martin, M. (2022). Teachers and parents standpoints on knowledge and challenges in inclusive education. *Quantum Journal of Social Sciences and Humanities*, 3(2), 1–16
- Mat Rabi, N., et al. (2018). Readiness of Pre-Service Teacher to Teach Student with Special Needs through Inclusive education Course. *Internasional Journal of Academic Research in Progressive Education & Development*, 7(4), 200 – 210.
- Mccrimmon, A. (2015). Inclusive education in Canada: Issues in Teacher Preparation. *Intervention in School and Clinic*, 50(1), 234-237.
- Mercer, N., Wegerif, R., & Dawes, L. (1999). Children's Talk and the Development of Reasoning in the Classroom. *British Educational Research Journal*, 25(1), 95–111.
- Mohamad Hanapi, M., et al. (2022). Tahap Pengetahuan Guru Aliran Perdana dalam Pelaksanaan Program Pendidikan Inklusif Sekolah Rendah di Sabak Bernam. *Jurnal Dunia Pendidikan*, 4(1), 512-518
- Mohd Amin, N., & Mohd Yasin, H., H. (2016). Pelaksanaan Program Pendidikan Inklusif Murid Berkeperluan Khas dalam Pelan Pembangunan Pendidikan Malaysia 2013 – 2015. *Seminar Antarabangsa Pendidikan Khas Rantau Asia Tenggara Siri Ke-6*.

- Moidunny, K. (2009). *The Effectiveness of the National Professional Qualification for Educational Leaders (NPQEL)*. Unpublished Doctoral Dissertation, Bangi: The National University of Malaysia.
- Muhammad Nor, Sabariah., Mohamed, H., & Hanawi, S., A. (2020). *Peramalan Kemasukan Murid Berkeperluan Khas*. Bangi: Universiti Kebangsaan Malaysia
- Musyafira, I., D. & Hendriani, W. (2021). Sikap Guru Dalam Mendukung Keberhasilan Pendidikan Inklusi. *Jurnal Kependidikan Jurnal Hasil Penelitian dan Kajian Kepustakaan di Bidang Pendidikan, Pengajaran, dan Pembelajaran*, 7(1), 75-85
- Othman, N., Chiang, W., L., & Md Zuki, N., S. (2017). *Pendidikan Abad Ke-21: Peranan Teknologi Maklumat dan Komunikasi serta Cabarannya*. Bangi: Penerbitan Fakulti Pendidikan, Universiti Kebangsaan Malaysia.
- Palaniandy, N., & Mohd Yasin, M., H. (2021). Tahap Kesediaan Guru Arus Perdana Terhadap Pelaksanaan Program Pendidikan Inklusif: Tinjauan Di Sekolah Menengah Daerah Gombak. *Jurnal Dunia Pendidikan*, 3(1), 633-644
- Pau, S., L. & Mohd Yasin, M., H. (2021). Pengetahuan Dan Sikap Guru Aliran Perdana Terhadap Program Pendidikan Inklusif di Daerah Sibu. *Jurnal Dunia Pendidikan*, 3(1), 515-529
- Saidin, N., F. & Mohd Bukhari, N., A. (202)3. Faktor keciciran murid-murid program Pemulihan Khas sekolah rendah di Malaysia: (Fall behind factors of Malaysian primary school students in program Pemulihan Khas. *Jurnal Pengajian Melayu (JOMAS)*, 34(1), 26–48.
- Sánchez, P. A., Rodríguez, R., & Martínez, R. M. M. (2019). Barriers to student learning and participation in an Inclusive school as perceived by future education professionals. *Journal of New Approaches in Educational Research*, 8(1), 18–24.
- Salleh, S., & Che Omar, M. (2018). Masalah pengajaran guru dalam program pendidikan inklusif di sekolah. *Asian People Journal*, 1(2), 243-263.
- Sharma, D., P. & Tunj, G., A. (2019). Assessment of Knowledge Sharing Practices in Higher Learning Institutions: A New Exploratory Framework-AT-DP KSPF. *IUP Journal of Knowledge Management*, 27(1), 1-15.
- Sharma, U., Forlin, C., & Loreman, T. (2008). Impact of training on pre-service teachers' attitudes and concerns about inclusive education and sentiments about persons with disabilities. *Disability & Society*, 23(7), 773–785.
- Sharma, R. (2019). Ensuring quality in teacher education. *International Journal of Multidisciplinary Research (IJMR)*, 5(10), 21-24.
- Suasapha, A. H. (2020). Skala Likert untuk penelitian pariwisata; beberapa catatan untuk menyusunnya dengan baik. *Jurnal Kepariwisata*, 19(1), 29–40.
- Subri, M. R., Yaakub, R., & Boheran Nudin, A. (2021). Pelaksanaan Pengajaran Guru Cemerlang dalam Mata Pelajaran Bahasa Melayu ketika Pandemik COVID-19: Satu Kajian Kes: The Implementation of Teaching among Excellent Teachers in Malay Language Subject during COVID-19 Pandemic: A Case Study. *PENDETA*, 12(1), 21–32.
- Tahar, M., M. & Najib, F. (2019). Kesiapan guru aliran perdana terhadap pelaksanaan pendidikan inklusif. *E-prosiding persidangan antarabangsa sains sosial dan kemanusiaan*. Kolej Universiti Islam Antarabangsa, Selangor.
- Tin, A. C., & Wah, L. L. (2018). *Pendidikan Inklusif*. Petaling Jaya: Sasbadi Sdn. Bhd.
- Tristani, L., & Bassett-Gunter, R. (2019). Making the grade: teacher training for inclusive education: A systematic review. *Journal of Research in Special Educational Needs*, 20(3), 246 - 264

- Tuckman, B., C. (1978). *Conducting Educational Research*. New York: Harcourt Brace Jovanovich.
- Turkoguz, S. et al. (2021). Quantitative evaluation of prospective teachers' view on inclusive education. *European Journal of Education Studies*, 8(1), 219-236.
- UNESCO. (1994). *The Salamanca Statement and Framework for Action on Special Needs Education*. Paris: UNESCO.
- Widyasari, P. & Novara, A., A. (2018). Peran Strategi Pengajaran Guru dalam Relasi antara Efikasi Guru dan Penerimaan Teman Sebaya Terhadap Siswa di Sekolah Inklusif. *Jurnal Psikologi Sosial*, 16(2), 101-113.
- Youssef, M., H., & Youssef, F. (2015). Knowledge of and attitudes toward ADHD among teachers insights from a Caribbean Nation. *SAGE Open*, 5, 1–8.
- Yuzaidey, N. A. M., et al. (2018). Interventions for children with dyslexia: A review on current intervention methods. *Med J Malaysia*, 73(5), 311-320.