

# Skills, Knowledge, and Attitudes of Teachers in Implementing Integrated Special Education Program (Learning Disabilities) in National Secondary Schools in Peninsular Malaysia

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## Abstract

Special education transformation requires Special Education (SE) teachers to have competent skills, attitudes, and knowledge to provide the best education so that the potential of students with special needs (SNS) can be developed. However, SE teachers face challenges because these students suffer mental, emotional, behavioral, and sensory problems as well as physical. Therefore, this study aims to identify the level of skills, knowledge, and attitudes of teachers in implementing and conducting the Integrated Special Education Program - Learning Disabilities (ISEP-LD) in national secondary schools in peninsular Malaysia. A quantitative study was conducted on 409 teachers from 242 secondary schools implementing ISEP. Data were collected using a set of questionnaires containing 44 items. The data were analyzed descriptively using SPSS software to obtain the information on the research questions. The results found that the level of skills, knowledge, and attitudes of teachers in implementing ISEP-LD was moderately high. Therefore, the findings of this study can provide valuable input to the MOE in providing appropriate courses and training for ISEP teachers to improve skills, knowledge, and attitudes in implementing the teaching and learning of SNS in schools.

**Keywords:** Special education teacher, skill, knowledge, behavior, learning disabilities student.

## I INTRODUCTION

Special Education is one of the crucial aspects of the education system. In Malaysia, the government has established the Special Education Integration Program (ISEP) for Students with Special Needs (SNS) including those with learning disabilities (LD) at the primary and secondary school levels. This is one of the positive steps to help SNS equip themselves with certain skills to achieve holistic development. This is in line with the 1994 Salamanca Declaration which states that SNS should receive equal access to education in schools and the pedagogical approach implemented should meet their needs. This means that high skills, knowledge, and attitude are very important for a teacher to ensure smooth teaching thus bringing good effect on

students (Chian & Mohamed, 2021; Nurul Farahah & Suziyani, 2018). The skills, knowledge, and attitudes of special education teachers are emphasized because each SNS is different and unique in terms of physical, cognitive, and behavioral abilities (Hashim & Ibrahim, 2007). As agents of change, teachers should equip themselves with knowledge, skills and positive attitudes to help SNS effectively go through the behavior modification process in the T&L implemented (Ahmad & Abu Hanifah, 2015). Furthermore, priority should be given to the development of special education teachers to improve their knowledge, skills, and attitudes to handle ISEP in schools to achieve the desired goals.

However, there are challenges faced by special education teachers in educating students with

disabilities. Teaching and learning methods also differ according to their respective disability categories (Zalizan, 2012). This is because children with special needs have mental, emotional, behavioral, and sensory problems, as well as physical (Safani, 2000). Therefore, special education teachers need to have skills and knowledge related to special education and creativity (Sapira & Mohd Hanafi, 2016) in teaching and learning according to the needs of students (Ramlan, 2015). However, special education teachers still use less effective teaching techniques, weak in planning teaching and learning activities, are not skilled in teaching SNS, do not understand the attitudes and characteristics of SNS, as well as have low knowledge, skills, and attitudes (Noorafizah et al., 2014; Avalos, 2011; Aird & Heath, 2011; Al-Zoubi et al., 2010). The negative attitude of some special education teachers can slow down the development of SNS and further thwart the MOE's desire to produce independent SNS that can contribute to the country.

In addition, poor training is a constraint in producing trained teachers in special education because, in addition to professional skills, special education teachers need special education teaching skills to ensure effective education can be provided to SNS (Schuermann et al., 2003; Simpson, 2004). The question is, is the in-service training received by ISEP (LD) teachers effective in improving teachers' knowledge and skills? This is important because knowledge and skills are the critical elements that can improve teacher characteristics in the classroom (Protheroe et al., 2002). Without quality special education teachers, efforts to produce SNS as intended by the Philosophy of Special Education will not be achieved.

Therefore, this study aims to identify the input level of the Special Education Integration Program (ISEP) in national secondary schools in terms of skills, knowledge, and attitudes of teachers in implementing ISEP (LD). In view of the above, this paper is structured into five sections including this section as the introduction, followed by the literature on ISEP (LD) implementation in national secondary schools. Three inputs will be discussed namely the skills, knowledge, and attitude of teachers in implementing and conducting ISEP-LD. The third describes the methodology used, sample selection, instrument, and data analysis. The

fourth section reports and discusses the findings of this study. Finally, the fifth section describes the conclusions, implications, limitations of this study, and suggestions for future research. The results from the study will help the MOE, in particular, to make improvements and implementation of effective training programs to improve the skills, knowledge, and attitudes of teachers to contribute to the special education teaching and learning quality.

## **2 Skills, Knowledge, and Attitudes of ISEP (LD) Teachers**

The Malaysian Teacher Standards (MOE, 2009) emphasize the need for teachers to master the knowledge. Teaching skills and the ability to combine knowledge, skills and values are among the characteristics of a quality teacher (Kamarul Azmi & Ab. Halim, 2007). T&L skills include planning, managing, delivering, guiding, and evaluating so that the dissemination of knowledge and skills can be done effectively. Teachers' content knowledge is directly proportional to student achievement and affects their teaching attitudes (Umar et al., 2010).

Fenstermacher and Richardson (2005) view that in the context of the teaching profession, competent teachers have three professional characteristics namely; (i) knowledge, (ii) skill in their optional subject, and (iii) personality. Teachers who are efficient, knowledgeable, and have a positive attitude are needed to educate SNS in ISEP (LD) to ensure that SNS receives quality education corresponding with the goals of the universal education system (Aminah et al., 2006). All special education teachers should constantly acquire new knowledge and improve skills on ISEP (LD) to improve T&L as well as be knowledgeable of SNS behavior management. Greater patience compared to mainstream teachers and an admirable attitude should also be possessed by special education teachers (Lee, 2009).

The lack of skills and knowledge among ISEP (LD) teachers is also due to the lack of special education option teachers. Abdul Halim's study (2009) found that ISEP faced the problem of a lack of Special Education Teachers who are trained and have options in Special Education. Although the MOE tries to solve this problem by

offering intervention courses and additional option intervention programs to non-option teachers placed in ISEP, due to allocation constraints, the short duration of courses given, for example, only five days intervention courses, results in limited knowledge and skills.

In addition, negative attitudes and emotions of teachers (Mohd. Hanafi et al., 2013; Nor Aini, 2010) are also linked to the failure of SNS to improve basic development in physical and motor, language, communication, cognitive, as well as social aspects (Abdul Rahim, 2006; Anderson, 2011). National Research Council, United States of America (2011) also reported that the attitude of special education teachers is the cause of SNS's failure to improve their learning in addition to the weakness of teachers' competencies in terms of knowledge and skills. Whereas for ISEP (LD) in particular, the level of skills and attitudes of teachers (Boyd et al., 2007; Finder, 2004) is crucial in determining the success of its implementation.

Ghazali (2011) states that teacher quality characteristics include a positive attitude, in-depth content knowledge and can be a role model and inspiration for students. According to Noraini et al. (2001), competent and skilled special education teachers are the most important characteristics that influence the success of the T&L process. The T&L success or failure is determined by the teacher's teaching skills according to the SNS's level of ability. A study by a research team from the Faculties of Education in all Public Institutions of Higher Learning (IPTA, 2006) involving 910 novice teachers found evidence of differences in terms of background, classroom administration, examination management, syllabus information, knowledge of school policy, administration, services, and interpersonal relationships among such teachers.

Exley's (2003) study on the effectiveness of teaching strategies based on the preparation of student learning methods found that the teaching and learning of children with special needs are strongly influenced by the skills and knowledge of teachers in implementing the T&L. He also stressed that education is a profession that demands high intellectualism, therefore, ISEP (LD) teachers need to have careful planning, high pedagogical knowledge, and skills in compiling teaching strategies to become a qualified teacher. However, in reality, it is found

that those who venture into this profession fail to educate themselves to generate more thoughtful and sophisticated ideas, instead many special education teachers allow themselves to be passive (Mohammed Sani, 2001).

Academic skills are highly valued by the community. Therefore, all children including SNS need to be educated to be able to read, write and count. Special Education teachers, especially with learning difficulties, need to equip themselves with knowledge related to effective teaching to ensure that they are dedicated, motivated, and have high efficiency in implementing the T&L to the SNSs (Gross & White, 2003). Additionally, teachers can take the initiative by producing interesting and creative learning materials to attract the interest of students especially those with special needs (Suwarno et al., 2022). In fact, a teacher's pedagogical knowledge, including the selection of appropriate teaching strategies, depends not only on the teacher's content knowledge but also on the teacher's knowledge of the students' level of understanding of the learning.

Issues such as teachers' academic qualifications and professionalism, knowledge of the SNS's characteristics, and the ability and confidence of teachers to teach special education (Nor Aini & Nor Hafizah, 2013) are problems that are often raised in special education in schools. Trained teachers are much needed to teach SNS because the differences in their disabilities present a great challenge to handle the differences in behavior, psychology, development, and skills. According to Tahir (2009), the special education teaching methods need to be adapted to MBK SNS of different ability levels. Teachers can take the initiative by producing learning materials that are interesting and creative to gain the interest of students with special needs (Suwarno et al., 2022). In addition, the selection of teaching aids based on information and communication technology (ICT) can also be utilized so that the desired T&L objectives can be met. This is because the advancement and sophistication of technology are crucial in education (Obaid Alnaqbi & Omar, 2020). This has posed a challenge to teachers who are not very skilled in ICT applications.

A study by Puteri Roslina and Nur Azimah (2016) found that special education teachers often implement chalk and talk in T&L. This is because teachers are less creative and do not

have the initiative to provide teaching aids in implementing the T&L process, in addition to making less use of existing teaching aids. Previous studies have also found that special education teachers for learning difficulties are less diligent to apply appropriate learning styles in the teaching and learning process (T&L) while SNS (LD) is weak in learning new things due to their limited ability (Puteri Roslina & Nur Azimah, 2016). The failure of teachers to modify T&L materials and methods as well as relying too much on the syllabus fails to attract SNS's interest.

Therefore, the level of knowledge, skills, and attitudes of ISEP (LD) teachers must be seen from various angles of management and teaching so that appropriate assessment can be produced to determine the level of input of knowledge, skills and attitudes of teachers for the fruitful implementation of ISEP (LD).

### 3 Methodology

This was a survey study using quantitative methods. The sampling method used was a stratified random sampling method to select 409 samples from 4250 populations. The sample consisted of special education teachers who teach ISEP (LD) which involved 242 secondary schools that implement ISEP in Peninsular Malaysia.

The research instrument was a questionnaire. The questionnaire was divided into two parts, namely part A and part B. Part A contains statements related to respondents' background information such as place of service, school location, gender, professional qualification, special education certification, skills certification, teaching experience, and option teacher and teaching ISEP. Whereas, Part B (44 items) covered skills (15 items), knowledge (11 items), and attitude of ISEP (LD) teachers in implementing and conducting ISEP (LD) (18 items). Next, the researcher used a 4-point Likert scale (1 = very low, 2 = low, 3 = high, 4 = very high) to measure skill and knowledge constructs. Meanwhile, the sub-construct of teacher attitude was measured using a 4-point scale (1 = strongly disagree, 2 = disagree, 3 = agree, 4 = strongly agree). The validity of the questionnaire content was referred to by five experts who had experience in the field of special education to check the content of the questionnaire items

based on sentence structure, clarity of meaning, and use of easy-to-understand language in measuring a criterion. While the reliability of this questionnaire is seen through the value of Cronbach's alpha and the results of the analysis shown a value of  $\alpha = 0.89$  (teachers' skills),  $\alpha = 0.91$  (teachers' knowledge), and  $\alpha$  value = 0.93 (teachers' attitude). This indicated that the reliability of this questionnaire was accepted and considered good as the value of  $\alpha$  exceeds 0.80 (Sekaran, 2016). Next, the study findings obtained through questionnaires were analyzed using Statistical Package for the Social Science (SPSS) software.

### 4 Results and Analysis

Data obtained from 409 respondents, 79.2% (n=324) were female and 20.8% (n=85) were male. From the 409 respondents, the majority of 48.6% (n=199) have 1-10 years of experience teaching special education, 34.5% (n=141) had 11-15 years of experienced, 9.8% (n=40) had 16-20 years of experience while 7.1% (n = 29) had more than 20 years of experience in special education. The majority of respondents had special education option 54.3% (n = 222) and 45.7% (n = 187) was non-special education option. Next, to answer the research question:

What is the level of human resource input evaluation on the implementation of ISEP in schools in terms of skills, knowledge, and attitudes of teachers?

Descriptive statistical analysis (mean, frequency, and standard deviation) was used to identify the level of human resources input evaluation on the ISEP implementation in schools in terms of skills, knowledge, and attitudes of teachers. The result of ISEP implementation input evaluation can be referred to as the mean score interpretation adapted from Othman et al. (2006) as follows:

The mean score of 1.00 to 2.00 was low.

The mean score of 2.01 to 3.00 was moderately low.

The mean score of 3.01 to 4.01 was moderately high.

The mean score of 4.01 to 5.00 was high.

#### 4.1 Teachers' Skills

Table 1 shows the data related to the level of teachers' skills in the implementation of ISEP in schools. The findings shown that 13 items measuring teachers' skills had a moderately high level with a mean value between 3.10 to 3.59 while two items had a low skills level with a mean value of 2.82 and 2.84. The findings shown that the K1 item, "Skilled in implementing the ISEP (LD) screening test for the SNS" recorded the highest mean value (mean = 3.59 SD = 0.373) in which 254 respondents (62.1%) out of 409 respondents agreed that they had very high skills in

performing SNS screening test. Meanwhile, item K14 which is "Skilled in teaching Basic Vocational Skills (Basic Cooking, Basic Sewing, Basic Agriculture, Basic Aquaculture, Basic Multimedia, Basic Reflexology, and Basic Manufacturing - if teaching basic vocational skills)" recorded the lowest mean score (mean = 2.82 SD = 0.740) where 110 respondents (26.9%) had very low and low skills in teaching Basic Vocational Skills. On the whole, the findings show that the teacher's skill level score on the implementation of ISEP for SNS in schools is at a moderately high level (Mean=3.18, SD=0.373).

Table 1: *The level of teachers' skills in the ISEP implementation*

		VL	L	H	VH
No.	Teacher's skills				
S1	Skilled in performing ISEP (LD) screening test procedure for the SNS	2 (0.5%)	8 (2.0%)	145 (35.5%)	254 (62.1%)
S2	Daily lesson plan writing skills for the ISEP (LD) T&L implementation	0	4 (1.0%)	249 (60.9%)	156 (38.1%)
S3	Skilled in designing T&L strategies in accordance with the ISEP (LD) SNS potential	0	9 (2.2%)	268 (65.5%)	132 (32.3%)
S4	Skilled in using suitable teaching aids according to the cognitive potential of the ISEP (LD) special needs students	0	15 (3.7%)	269 (65.8%)	125 (30.6%)
S5	Skilled in using ICT to attract the interest of SNS	1 (0.2%)	33 (8.1%)	287 (70.2%)	88 (21.5%)
S6	Skilled in using ICT to improve the acquisition of SNS's knowledge	2 (0.5%)	27 (6.6%)	288 (70.4%)	92 (22.5%)
S7	Skilled in using ICT to improve the T&L quality	1 (0.2%)	34 (8.3%)	271 (66.3%)	103 (25.2%)
S8	Skilled in utilizing ISEP (LD) special needs students' information profile	0	29 (7.1%)	272 (66.5%)	108 (26.4%)
S9	Strategic planning skills to increase the effectiveness of ISEP (LD)	0	21 (5.1%)	283 (69.2%)	105 (25.7%)
S10	Skilled in performing assessments during the T&L	0	17 (4.2%)	270 (66.0%)	122 (29.8%)
S11	Skilled in performing assessments after the T&L	0	21	281 (68.7%)	107

			(5.1%)		(26.2%)
S12	Skilled in performing diagnostic tests	0	39 (9.5%)	270 (66.0%)	100 (24.4%)
S13	Skilled in building an Individual Education Plan (IEP) for SNS	0	40 (9.8%)	287 (70.2%)	82 (20.0%)
S14	Skilled in teaching Basic Vocational Skills (Basic Cooking, Basic Sewing, Basic Agriculture, Basic Aquaculture, Basic Multimedia, Basic Reflexology, and Basic Manufacturing - if teaching basic vocational skills)	22 (5.4%)	88 (21.5%)	239 (58.4%)	60 (14.7%)
S15	Skilled to attract interest /external contributions to help ISEP (LD)	5 (1.2%)	111 (27.1%)	239 (58.4%)	54 (13.2%)

#### 4.2 Teachers' Knowledge

The analysis in Table 2 displayed the descriptive findings to identify the level of knowledge of teachers on the implementation of ISEP in schools. In this study, the level of teachers' knowledge was measured based on 11 items. The findings of the analysis shown that item K2 "Knowledgeable in the special education subjects taught" recorded the highest mean value (mean = 3.35 SD = 0.544) in which 397 (97.1%) out of 409 respondents agreed that they had a high and very high level of knowledge in

teaching special education subjects. However, the knowledge level of teachers was at a low and very low level (105 respondents) if teaching basic vocational skills subjects. This is strengthened by item K3 namely "Knowledgeable in teaching Basic Cooking, Basic Sewing, Basic Agriculture, Basic Aquaculture, Basic Multimedia, Basic Reflexology, and Basic Manufacturing (if teaching basic vocational skills)" was at a moderately low level with a mean score of 2.87 and SD = 0.740.

Table 2: *The knowledge level of teachers on the ISEP implementation*

		VL	L	H	VH
<b>No.</b>	<b>Teachers' Knowledge</b>				
K1	Knowledgeable in recognizing the SNS characteristics	0	20 (4.9%)	233 (57.0%)	156 (38.1%)
K2	Knowledgeable in Special Education subjects taught	1 (0.2%)	11 (2.7%)	242 (59.2%)	155 (37.9%)
K3	Knowledgeable in teaching Basic Cooking, Basic Sewing, Basic Agriculture, Basic Aquaculture, Basic Multimedia, Basic Reflexology, and Basic Manufacturing (if teaching basic vocational skills)	19 (4.6%)	86 (21.0%)	235 (57.5%)	69 (16.9%)
K4	Knowledgeable in providing quality teaching to SNS	0	26 (6.4%)	286 (69.9%)	97 (23.7%)
K5	Knowledgeable in adapting teaching methods to the SNS ability level	0	20 (4.9%)	271 (66.3%)	118 (28.9%)
K6	Knowledgeable of SNS assessment	0	36	286	87

			(8.8%)	(6.9%)	(21.3%)
K7	Knowledgeable in planning and implementing co-curricular activities appropriate to the SNS ability level	1 (0.2%)	35 (8.6%)	275 (67.2%)	98 (24.0%)
K8	Knowledgeable in identifying problems in teaching SNS	1 (0.2%)	28 (6.85%)	269 (65.77%)	111 (27.14%)
K9	Problem solving knowledge in teaching SNS	1 (0.2%)	26 (6.36%)	274 (66.99%)	108 (26.41%)
K10	Knowledgeable of collaborating with Special Education support professional groups (3PK, MOH, Special Education NGOs)	5 (1.22%)	99 (24.21%)	248 (60.64%)	57 (13.94%)
K11	Knowledgeable of collaborating with SNS's parents/guardians	2 (0.49%)	32 (7.82%)	274 (66.99%)	101 (24.69%)

#### 4.3 Teachers' Attitude

Table 3 shows the descriptive analysis to identify the level of teachers' attitudes towards the ISEP implementation in schools. There were 18 items related to teachers' attitudes presented to the respondents. The data analysis shown that all 18 items were at a moderately high level with a mean score between 3.86 to 3.13. S1 item "Enjoy teaching ISEP (LD) special need

students" recorded the highest mean value (mean = 3.86 SD = 0.352) in which all teachers (409 respondents) agreed that they enjoyed teaching ISEP (LD) special need students in school. On the whole, the findings shown that the score of teachers' attitudes towards the ISEP implementation for SNS in schools was at a moderately high level (Mean = 3.66, SD = 0.338).

Table 3: *The level of teachers' attitude towards the ISEP implementation*

		<b>VL</b>	<b>L</b>	<b>H</b>	<b>VH</b>
<b>No.</b>	<b>Teacher's Attitude</b>				
A1	Enjoy teaching ISEP (LD) special need students	0	0	59 (14.4%)	350 (85.6%)
A2	Confident ISEP (LD) special need students can be independent and successful like the mainstream students	1 (0.2%)	14 (3.4%)	184 (45.0%)	210 (51.3%)
A3	Give a high commitment for the success of ISEP (LD) in school	0	2 (0.5%)	81 (19.8%)	326 (79.7%)
A4	Always strive to improve work quality	0	1 (0.2%)	81 (19.8%)	326 (79.7%)
A5	Strive to increase knowledge about the characteristics of learning problems for ISEP (LD) special needs students	0	0	105 (25.7%)	304 (74.3%)
A6	Strive to increase skills in the T&L of ISEP (LD)	0	0	94 (23.0%)	315 (77.0%)

A7	Strive to build your own teaching aids according to the capabilities of SNS	0	6 (1.5%)	147 (35.9%)	256 (62.6%)
A8	Discuss with other teachers to improve the T&L quality	0	6 (1.5%)	123 (30.1%)	280 (68.5%)
A9	Teach SNS with love	0	2 (0.5%)	69 (16.9%)	338 (82.6%)
A10	Appreciate the efforts shown by SNS during the TL process	0	0	77 (18.8%)	332 (81.2%)
A11	Give full attention to SNS during the T&L process	0	4 (1.0%)	74 (18.1%)	331 (80.9%)
A12	Strive to find information to help SNS master what is learned	1 (0.2%)	1 (0.2%)	108 (26.4%)	299 (73.1%)
A13	Motivate and encourage SNS to succeed	0	1 (0.2%)	80 (19.6%)	328 (80.2%)
A14	Willing to teach low-ability SNS with challenging behavior	0	5 (1.2%)	115 (28.1%)	289 (70.7%)
A15	Take the initiative to implement T&L activities outside the classroom	0	7 (1.7%)	139 (34.0%)	263 (64.3%)
A16	Take the initiative to implement T&L activities outside of school hours	12 (2.9%)	64 (15.6%)	177 (43.3%)	156 (38.1%)
A17	Take the initiative to share skills and knowledge about special education with other teachers	0	12 (2.9%)	148 (36.2%)	249 (60.9%)
A18	Take the initiative to conduct research/action research related to special education/SNS	6 (1.5%)	68 (16.6%)	203 (49.6%)	132 (32.3%)

## 5 Discussion

### 5.1 Teachers' Skills in the ISEP (LD) Implementation

Teachers' skills play a big role to ensure that the teaching and learning process can be carried out smoothly and effectively while maximizing achievement in producing competitive and successful SNS. The findings show that the level of teachers' skills in the ISEP (LD) implementation is at a moderately high level (Mean = 3.18). This shows that special education teachers still need continuous training and guidance to ensure that they have the

required skills to handle SNS with learning difficulties consisting of various disabilities.

Duthilleul (2005) reinforced this finding by stating that teachers need to prepare themselves with the latest skills, emphasize skills in the teaching and learning, take into account the individual learning needs and acceptance of the approach or skills implemented, promote student learning, work effectively in diverse environments and cultures, integrating students with special needs, implementing social responsibility and citizenship across curriculum and integrating ICT in teaching. Furthermore,



teachers need high skills to effectively address various issues as well as be sensitive to gender and cultural issues, promote social cohesion and meet the individual needs of students, including those with disabilities (Affizal & Rafidah, 2009; Olatunde, 2009; Park, 2007). In fact, the teacher's skill plays an important role in ensuring that T&L can be carried out smoothly and effectively while maximizing the student's achievement, especially students with special needs (Azahari et al., 2020).

The findings also show that teachers are not yet skilled to use ICT to attract the SNS interest, enhance SNS's acquisition of knowledge, and use ICT to improve the T&L quality. This finding is in line with previous studies in which teachers still lack ICT skills and are subsequently unable to integrate ICT in T&L (Johari & Siti Norazlina, 2010; Mee & Zaitun, 2006; Rosnaini & Ismail, 2010).

In addition, the findings also show skills in teaching Basic Vocational Skills subjects (Basic Cooking, Basic Sewing, Basic Agriculture, Basic Aquaculture, Basic Multimedia, Basic Reflexology, and Basic Manufacturing for teachers who teach basic vocational skills subjects) show the skill level of teachers is at a moderately low level. The MOE needs to address this immediately to ensure that SNS get quality vocational education and further help them be independent. This is also confirmed by Azahari et al. (2020), which stated that all teachers should master skills extensively, not only in the ISEP implementation but also skills in the vocational implementation.

The findings of the study also shown a moderately low level of skill to attract interest and the contribution of external parties to help ISEP (LD). This shows that ISEP teachers still do not have the skills to expand the networks with outside parties. Networking needs to be expanded with external parties, especially the Ministry of Health and NGOs as well as the private sector to help SNS get better opportunities in terms of treatment, support services, and employment opportunities.

## 5.2 Teacher's Knowledge in the ISEP (LD) Implementation

Teachers' knowledge plays an important role in knowledge application as well as in producing competitive and successful students. In this study, the level of teachers' knowledge in the

implementation of ISEP (LD) is at a moderately high level. This shows that special education teachers still feel that they do not have the maximum knowledge in implementing ISEP (LD). This needs to be improved because teachers need to have the knowledge to create effective T&L and be able to deliver detailed lessons to students (Fathiyah et al., 2013; Ahmad Munawar, 2009; Ab. Halim et al., 2004; Zalmiza, 2004). This finding is in line with Chian and Mohamed (2021) that the lack of knowledge of teachers is due to a lack of exposure and unclear understanding thus affecting the teaching and learning process. Therefore, SNS teachers need to have strong pedagogical knowledge and content expertise to carry out their duties effectively.

The study also found teachers acknowledge their knowledge in planning and implementing co-curricular activities according to the SNS's level of ability, collaborating with special education professional support groups (3PK, MOE, NGO), collaborating with SNS parents, and knowledge related to the specialization subjects such as Basic Cooking, Basic Sewing, Basic Agriculture, Basic Aquaculture, Basic Multimedia, Basic Reflexology, and Basic Manufacturing (if teaching basic vocational skills subjects) are still at low and medium-low levels. Schools and the MOE need to give attention as the goal of ISEP (LD) is highly dependent on the teachers' knowledge, especially in terms of pedagogical content to teach effectively and subsequently produce learning outcomes that meet the aspirations of educational philosophy (Ahmad Yunus, 2011; Turner-Bisset, 2009), in addition to other environmental factors that support SNS learning. Indeed, good pedagogical content knowledge has a great impact on student learning and commitment (Creasy et al., 2012). This is also confirmed by Umar et al. (2010), who stated that teachers' field knowledge is directly proportional to student achievement and affects their teaching attitudes.

## 5.3 Teachers' Attitude in the ISEP (LD) Implementation

The attitude of teachers who are directly involved in the program implementation is important to determine the success of an educational program. This is supported by a study, which found that there is a positive relationship between the success of a program

and the attitude and commitment shown by those who run the educational program. (Zulkafli, 2008). On the whole, the attitude level of special education teachers who teach ISEP is at a moderately high level (Mean = 3.66). However, for certain sub-constructs, namely trying to create teaching aids according to the SNS capabilities, taking the initiative to implement T&L activities outside school hours, taking the initiative to implement T&L activities outside the school, and taking the initiative to conduct research related to special education, especially SNS, in short, is at a moderately low level.

## 6 Conclusion

In summary, the result of the study has provided valuable new insights regarding the assessment of human resource input to the implementation of ISEP (LD) in schools. In particular, this study reveals that the skills, knowledge, and attitudes of teachers have a significant effect on the implementation of ISEP (LD) in producing knowledgeable, skilled, and competitive SNS as well as improving the quality of special education programs. The study draws the following implications for practice. The findings of our study have important implications for the education system in Malaysia whether educator practices, students, school support system (principal), community, or government. These findings highlighted the importance of the skills, knowledge, and attitude of teachers in implementing ISEP (LD) to improve SNS so that they become independent, not drop out of learning, and can contribute to national employment. In addition, it will also assist policymakers in shaping more effective training with the right method of teaching and learning in line with the current industry, thus improving the quality of special education programs. The findings and conclusions of the present study must be considered in light of its limitations, to inform directions for future research. First, data in this study were obtained using only quantitative data collection through questionnaires that were distributed to the respondents. Therefore, this study suggests that researchers can use the focus group discussion in the future to explore more about ISEP (LD) assessment input needs, especially from the aspect of skills, knowledge, and attitudes of teachers in teaching implementation in schools. Second, this study only focuses on teachers who

implement ISEP for students with learning difficulties only. Thus, the data were collected and the findings of the current study may not generalize to the other ISEP. Future studies can also expand the scope of ISEP for the visually impaired and hearing impaired to measure and evaluate the ISEP implementation conducted in schools.

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