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# Challenges of Implementing the Individualized Education Plan (IEP) for Special Needs Children with Learning Disabilities: Systematic Literature Review (SLR)

Syar Meeze Mohd Rashid  and Mei Ti Wong   
University Kebangsaan Malaysia  
Selangor, Malaysia

**Abstract.** This study identified teacher challenges in the implementation of the individualized education plan (IEP) for special educational needs (SEN) children with learning disabilities (LD). A systematic literature review (SLR) was conducted to identify and synthesize the literature on this topic. Twelve studies met the inclusion criteria and were included in the analysis. Most of the findings indicated that teachers face challenges in all three aspects of competency challenges, that is knowledge, skill, and attitude challenges. Lack of knowledge on criterion-referenced tests ( $f = 3$ ; 42%) can be considered as the biggest knowledge challenge faced by teachers. The biggest skill challenge was also found in the evaluation process, with teachers being less efficient in carrying out the evaluation process ( $f = 4$ ; 57%). In terms of attitude challenges, the lack of motivation ( $f = 4$ ; 66%) in implementing the IEP for LD children is the most common challenge encountered by teachers. Therefore, the results of the analysis and research carried out can serve as a guide and reference for educators, the Ministry of Education (MOE), and future researchers in an effort to solve teachers' competency challenges in the IEP implementation process. However, additional high-quality research or an empirical study should be conducted to verify the validity of the conceptual framework formed by conducting a survey study in Malaysia.

**Keywords:** challenges; IEP implementation; learning disabilities; systematic literature review (SLR); teachers

## 1. Introduction

The field of special education is one of the important branches of education (Lindqvist et al., 2020). Special education in Malaysia has grown rapidly since the 1920s, when the need for education for students with special educational needs (SEN) was recognized among Malaysians (Ghani & Ahmad, 2011). According to the Malaysia Education Blueprint 2013–2025 (Malaysia. Ministry of Education [MOE], 2012), the development of special education is aligned with the motto

“Education for All (EFA)”. Therefore, the MOE provides opportunities and rights for all children to receive a quality education regardless of their intelligence level or social background (Hana et al., 2022). In Malaysia, special education is divided into three categories: learning disability (LD), hearing impaired, and visually impaired. Based on the Malaysia Education Blueprint 2013–2025, there are three school systems that can be accessed by children with SEN: special education schools, the Special Education Integration Program (SEIP), and an inclusive education program that is provided at various stages, such as preschool, primary school, and secondary school.

According to the MOE (Malaysia, 2021), as many as 2586 schools implement the SEIP for the welfare of SEN children with LD. Therefore, LD students can be considered as the majority group in the special education system in Malaysia. Burr et al. (2015) specifically defined LD as “a neurological condition that interferes with an individual’s ability to store, process, or produce information” (p. 3). Therefore, LD can affect a student’s ability to read, write, speak, spell, do math computation, or reason and cause them to underperform in one or more of these skills. In addition, it can affect their attention, memory, coordination, social skills, and emotional maturity.

Most schools around the world have used the individualized education plan (IEP) as one of the most significant and main educational strategies in education that includes children with SEN (Elder et al., 2018; Timothy & Agbenyega, 2018). At the same time, Akcin (2022) also reported that a minority of teachers in their study, that is only 133 (13.3%) out of 1409, thought that the IEP was unnecessary. As such, this study can prove that the majority of teachers are aware of the importance and needs of the IEP for LD children. The IEP is a type of written document specifically designed to validate the results of decisions about educational needs and service programs that are required by children with SEN through the discussion among members of a multidisciplinary group (Tran et al., 2018; Walther-Thomas et al., 2000). Through the implementation of an IEP, children with SEN can benefit from the special education system and planned interventions or support (Kauffman et al., 2018). Groh (2021) also stated that the IEP can serve as a nucleus in providing free and appropriate public education (FAPE). This is because there is no other document that can function more comprehensively in ensuring the effectiveness of an educational program in terms of design, implementation, monitoring, and compliance with the established legislation when compared to the IEP (Rotter, 2014).

The importance of the IEP in the special education system is also evidenced by the Individuals with Disabilities Education Act (IDEA). Under IDEA, programs and services required by children with SEN will be determined through the IEP (Siegel, 2020). All IEP implementation processes are protected by the existence of this IDEA legislation. This means that the act can dictate the path or procedure for implementing this IEP service for children with disabilities from birth through 21 years of age. Moreover, IDEA can also ensure the right of SEN children to receive FAPE in the most “least restrictive” environment.

In addition, teachers and parents play an important role in influencing the development of children with SEN (Matheis et al., 2017; Subotnik et al., 2011). According to Fu et al. (2018), teachers can be considered as the key to success in IEP implementation. This is because as an educator, special education teachers should plan an IEP based on needs as well as implement the IEP in the daily life of children with SEN, especially during school hours. Fu et al. (2018) also stated that the teacher's perspective on the IEP implementation process greatly affects the quality of the constructed IEP. This statement is in line with Bae's study (2018), which proved that the quality of teachers at the school level can have a major impact on student performance. This is because, as educators, teachers have placed high hopes on developing an IEP based on the needs of children with SEN by implementing routinely planned interventions in the classroom.

Through a review of research on the effectiveness of IEP implementation for LD children, we found that several studies conducted during the first decade of the 21st century reported difficulties in using IEPs in schools. For example, studies conducted by Andreasson et al. (2013) and Giota and Emanuelsson (2011) have shown that the IEP has become a fairly common practice in schools. However, both studies found that the IEP is not implemented on a quarter of SEN children in the schools. Meanwhile, Kritzer (2011) also reported that the difficulty of implementing the IEP in China is due to a special education system that is not consistent between schools, cities, and states, respectively.

Since the IEP is very important to every LD child, the challenges in the IEP implementation process should be identified early so that various efforts can be made in overcoming the challenges encountered. Teachers face various IEP implementation challenges in practicing the IEP for all children with SEN in the school. These challenges include lack of separate and adequate time for preparation of an IEP, not knowing how to prepare an IEP, and lack of a variety of materials in IEP implementation (Akcin, 2022). With this background, this systematic literature review (SLR) is conducted with the aim of analyzing articles related to the challenges of IEP implementation for SEN children with LD. The analysis was carried out to identify the most common competency challenges that educators face in the IEP implementation process. Through the main results established, a conceptual framework can be developed based on the conducted analysis. At the same time, the results of the analysis and research carried out can be used as a guide and reference for educators, the MOE, and future researchers in an effort to solve problems or challenges in IEP implementation faced by teachers, whether special education or mainstream teachers, so that LD children can truly benefit from the IEP implementation process.

## **2. Methodology**

This study was conducted using the SLR method. The goal with conducting an SLR is to identify all empirical evidence that meets established article selection criteria in answering a particular research question or hypothesis (Moher et al., 2009). This is because the SLR requires use of explicit and systematic methods when searching and reviewing evidence and thus allows analysis of information. In this study, the preferred reporting items for systematic reviews and meta-

analyses (PRISMA) flowchart was also used in the process of selecting articles that are relevant to the research question presented (Moher et al., 2010, 2015; Page et al., 2021). The four stages of article selection based on the PRISMA flowchart include identification, screening, eligibility, and inclusion of articles in the conducted SLR study (Page et al., 2021). Therefore, this SLR study included five key aspects for the articles obtained: search strategy, selection criteria, selection process, data collection, and data analysis.

## 2.1 Article Search Strategy

Two leading databases, namely Google Scholar and Educational Resources Information Center (ERIC), were consulted and used in the article search process for the SLR conducted. According to Joklitschke et al. (2018), the most important aspect in the article search process is the search term or keyword used. Two sets of keywords were used in this study. The first set consisted of keywords related to IEP, such as “Individualized Education Plan (IEP)”, “IEP process”, and “IEP implementation”. The second set was themed around educators’ challenges using the keywords “teachers’ challenges” and “teachers’ barriers”. Both sets of keywords were combined with a Boolean search (AND, OR) in the article search process. Using the keywords, the articles displayed on the database were related to the challenges faced by teachers in the IEP implementation process for LD children.

## 2.2 Article Selection Criteria

According to Xiao and Watson (2019), survey research which involves the comparison of a group of literature sources needs a clear and robust process for establishing criteria in article selection. Therefore, this study set certain criteria to facilitate the literature search process. The four specified selection criteria for accepting or rejecting articles included year of publication, language, type of reference material, and study field of journal articles, as shown in Table 1.

**Table 1: Article acceptance and rejection criteria**

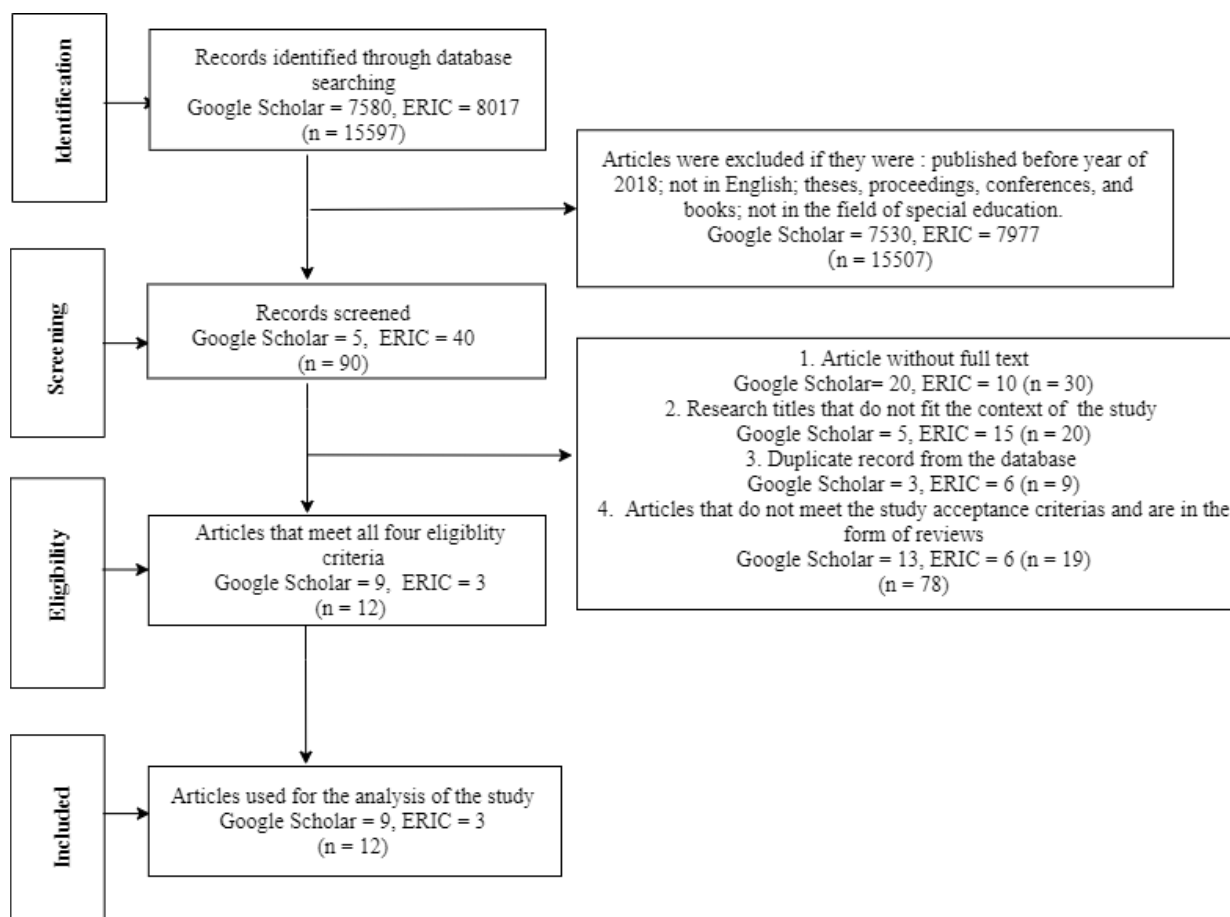
Criterion	Acceptance	Rejection
Year of publication	Publication of journal articles within the last five years (2018 to 2022).	Publication before 2018.
Language	English.	Malay, Indonesian, Chinese, and other languages.
Type of reference material	Journal articles.	Theses, proceedings, conference papers, and books.
Field of journal article study	The field of special education services for SEN students with LD in the school context.	Any fields apart from the field of special education or the field of special education services for SEN students with LD in the school context.

In terms of the criteria for the year of publication, only articles published within the last five years were accepted, that is from 2018 to 2022. Selection of articles limited to the last five years can be considered as a period of search topics that are still hotly discussed and include current affairs or issues. Second, regarding the

language of the articles, only articles in English were selected from the two popular databases and included in this study. Third, in terms of the criterion for selecting the type of reference material, only journal articles were used in this study. Theses, proceedings, conference papers, and books were excluded as sources in this study. This is because journal articles can be considered as reference materials that have complete and detailed reporting. Since LD students are the majority group in the special education system, this study only accepted articles in the field of special education services for SEN students with LD in the school context only.

### 2.3 Article Selection Process

The article selection process for the SLR was conducted in July 2022. Figure 1 shows the flowchart of the article selection process adapted from the PRISMA flowchart (Tawfik et al., 2019).



**Figure 1: Flowchart of article selection process**

As seen in Figure 1, this study included four main stages in the article selection process. At the identification stage, 15,597 articles were identified using the two databases. The next step involved screening the articles using the acceptance criteria listed in Table 1 before the articles were included in the eligibility stage for a more thorough and detailed screening.

At the eligibility stage, there were four additional criteria for article exclusion before the article was included in the SLR study. These were: articles without full text (n = 30), study titles that did not fit the context of the study (n = 20), identical articles from the two databases (n = 9), and articles that did not meet the criteria for acceptance of the study and that were in the form of a review (n = 19). On the other hand, four additional acceptance criteria included: articles that have full text; articles with titles that fit the context of the study; articles that are not duplicated; and articles that meet the acceptance criteria of the study, such as articles that have empirical data and are not in the form of reviews.

After reviewing and examining the 90 journal articles that we downloaded, only 12 were identified for use. This means that all 12 articles successfully met all the selection criteria and were included in the SLR.

#### **2.4 Data Collection and Data Analysis**

The data collection process was carried out using the 12 journal articles obtained from the two databases, namely Google Scholar and ERIC. Table 2 shows the 12 articles, along with the publication year, country, and purpose of the study. All the selected articles met the acceptance and rejection criteria that were set. Data were collected for each article by abstracting the title, name of author(s), year, study purpose, and teacher challenges in implementing the IEP into a table built using Microsoft Excel 2019 software. Meanwhile, data analysis was carried out by using a table and by categorizing the teacher challenges found in each article. The results of the data analysis are also presented in the form of tables.

According to Kumar (2011), an SLR study also aims to develop a conceptual framework based on the findings of previous studies. This is because the conceptual framework that was built can be used as a reference that can contribute to the literature section of the study in the future. Therefore, the results of the data analysis of this SLR study concerning the challenges of teachers in implementing the IEP for LD children that were most often found in literature were used in developing a conceptual framework.

Table 2: List of reviewed research articles

No.	Author and year of publication	Country	Study title	Journal name	Study purpose
1	Fu et al. (2018)	China	A social-cultural analysis of the IEP practice in special education schools in China	<i>International Journal of Developmental Disabilities</i>	To identify the perspective of special education teachers about the use of the IEP and how they implement the IEP.
2	Ruble et al. (2018)	United States	Special education teachers' perceptions and intentions toward data collection	<i>Journal of Early Intervention</i>	To identify internal and external factors related to special education teachers' views on the data collection process in the IEP implementation process by using the theory of planned behavior (TPB).
3	Al-Shammari and Hornby (2019)	Kuwait	Special education teachers' knowledge and experience of IEPs in the education of students with special educational needs	<i>International Journal of Disability, Development and Education</i>	To identify the level of knowledge and experience of special education teachers in Kuwaiti primary schools who implement inclusive education in the process of preparing IEP reports and implementing and evaluating the IEP.
4	Baglama et al. (2019)	Turkey	Special education teachers' attitudes towards developing individualized education programs and challenges in this process	<i>Near East University Online Journal of Education (NEUJE)</i>	To identify the attitudes of special education teachers working in special education centers in the Turkish Republic of Northern Cyprus (TRNC) as well as the challenges faced in the IEP implementation process.
5	Senay and Konuk (2019)	Turkey	Evaluating parent participation in individualized education programs by opinions of parents and teachers	<i>Journal of Education and Training Studies</i>	To identify the opinions of parents and special education teachers in the involvement of parents in the IEP implementation process.

6	Karaca et al. (2020)	Turkey	An investigation of the Turkish preservice teachers' attitudes towards individualized education program development process	<i>Journal of Education and Practice</i>	To identify the attitudes of trainee teachers in Turkish universities about the IEP implementation process.
7	Almoghyrah (2021)	Saudi Arabia	The challenges of implementing individualised education plans with children with Down syndrome at mainstream schools in Riyadh, Saudi Arabia: Teachers' perspectives	<i>International Journal of Disability, Development and Education</i>	To identify the challenges of teachers in implementing the IEP for Down syndrome children who study in mainstream classes in Riyadh, Saudi Arabia.
8	Hott et al. (2021)	North America	Lessons learned from a descriptive review of rural individualized education programs	<i>The Journal of Special Education</i>	To evaluate the level of academic performance and functionality during the IEP report, IEP goals as well as the IEP implementation monitoring process through examining 133 sets of IEP reports from seven schools in the rural areas of eastern North America.
9	Akcin (2022)	Turkey	Identification of the processes of preparing individualized education programs (IEP) by special education teachers, and of problems encountered therein	<i>Educational Research and Reviews</i>	To identify the problems or challenges faced by special education teachers in the process of preparing IEPs.
10	Goodwin et al. (2022)	United States	Examining the quality of individualized education plan (IEP) goals for children with traumatic brain injury (TBI)	<i>Communication Disorders Quarterly</i>	To identify the quality of IEP goals set for children with traumatic brain injury (TBI).
11	Kozikoğlu and Albayrak (2022)	Turkey	Teachers' attitudes and the challenges they experience concerning individualized education program (IEP): A mixed method study	<i>Participatory Educational Research (PER)</i>	To identify the attitudes and challenges of teachers in the IEP implementation process.
12	Shao et al. (2022)	China	Investigation and research on the current situation of IEP formulation and implementation in Guangxi special education schools	<i>Adult and Higher Education</i>	To identify the phenomenon of IEP implementation in schools.



### 3. Findings

The SLR revealed that the challenges identified in all reviewed research articles can be divided into three groups of teacher competency challenges in the IEP implementation process, namely the challenges of knowledge, skills, and attitudes.

#### 3.1 Teacher Knowledge Challenges

Three aspects of teachers' challenges with knowledge were identified in the reviewed studies (Table 3). These are criterion-referenced tests, IEP concept, and ability level of LD children.

**Table 3 : List of reviewed articles according to aspects of teacher knowledge challenges**

Reviewed study	Aspects of teacher knowledge challenges		
	Criterion-referenced tests	IEP concept	Ability level of LD children
Akcin (2022)	X		
Almoghyrah (2021)			X
Al-Shammari and Hornby (2019)	X		
Fu et al. (2018)		X	
Hott et al. (2021)	X		
Kozikoğlu and Albayrak (2022)		X	
Shao et al. (2022)			X
<b>Frequency (f)</b>	3	2	2
<b>Percentage (%)</b>	42	29	29

Four of the reviewed studies reported that teachers, especially special education teachers, lacked knowledge on how to collect data towards LD children's development process. These teachers also lacked awareness about the importance of using criterion-referenced tests in collecting information (Akcin, 2022; Al-Shammari & Hornby, 2019; Fu et al., 2018; Hott et al., 2021). As seen in Table 3, lack of knowledge about criterion-referenced tests (f = 3; 42%) can be considered the biggest knowledge challenge faced by teachers.

Regarding the aspect of IEP concept, studies by Fu et al. (2018) and Kozikoğlu and Albayrak (2022) showed that many teachers (f = 2; 29%) still do not understand the concept of IEP, thus affecting the IEP implementation process. The phenomenon of insufficient understanding of the IEP concept is directly linked to teachers' lack of knowledge about the support materials that are available for IEP learning and the activities that can be carried out to facilitate the IEP implementation process (Kozikoğlu & Albayrak, 2022).

For the last aspect, ability level of LD children, two articles addressed this challenge (Almoghyrah, 2021; Shao et al., 2022). Teachers will also directly

experience the challenge of lack of knowledge about the special education services required by an SEN child. However, Al-Shammari and Hornby (2019) found that there are also special education teachers (i.e., non-Kuwaiti special education teachers) who have a high level of knowledge, especially in the process of preparing IEP reports. Goodwin et al. (2022) also reported that teachers were knowledgeable in providing measurable IEP goals for SEN children with TBI.

### 3.2 Teacher Skills Challenges

Six of the reviewed articles reported that teachers are facing skill challenges in the IEP implementation process (Table 4). The three aspects involved here were IEP report preparation, collaboration, and evaluation process.

**Table 4: List of reviewed articles according to aspects of teacher skill challenges**

Reviewed study	Aspects of teacher skill challenges		
	IEP report preparation	Collaboration	Evaluation process
Akcin (2022)			X
Al-Shammari and Hornby (2019)			X
Hott et al. (2021)	X		X
Kozikoğlu and Albayrak (2022)			X
Shao et al. (2022)		X	
Senay and Konuk (2019)		X	
<b>Frequency (f)</b>	1	2	4
<b>Percentage (%)</b>	14	29	57

Regarding the process of preparing the IEP report, one study showed that teachers can be considered to lack the ability to prepare a complete report ( $f = 1$ ; 14%), especially in terms of the level of achievement and functionality of SEN children (Hott et al., 2021).

Considering the IEP implementation process, two articles showed that teachers still lacked the skills to collaborate with parents ( $f = 2$ ; 29%), hence the IEP carried out being less effective (Senay & Konuk, 2019; Shao et al., 2022).

Furthermore, teachers have also been assumed to experience big challenges in the IEP evaluation process ( $f = 4$ ; 57%). This is because teachers still lack skills in terms of monitoring to identify the effectiveness of the IEP conducted, such as not being skilled in using criterion-referenced tests and being less efficient in identifying the level of development of SEN children after the IEP intervention has been carried out (Akcin, 2022; Al-Shammari & Hornby, 2019; Hott et al., 2021; Kozikoğlu & Albayrak, 2022). However, the study of Shao et al. (2022) also found that special education teachers can be considered capable of coordinating IEP interventions by following the SEN children's ability level throughout the IEP implementation process.

### 3.3 Teacher Attitude Challenges

Four of the reviewed articles were related to the challenges of teachers' negative attitudes towards the IEP implementation process (Table 5). The relevant aspects identified here were lack of motivation, negative attitude towards collaboration, and lack of confidence.

**Table 5: List of reviewed articles according to aspects of teacher attitude challenges**

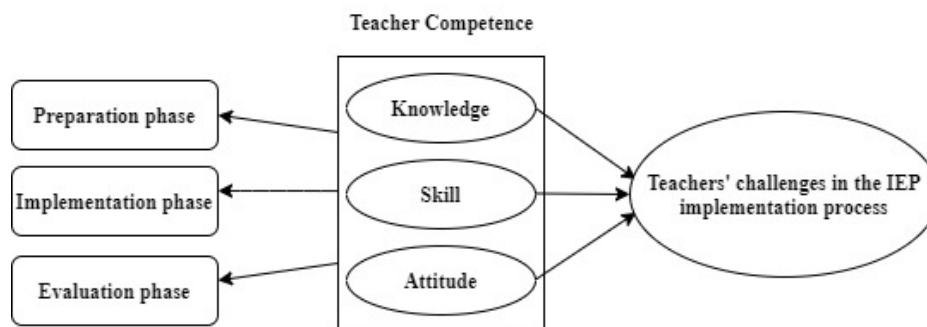
Reviewed article	Aspects of teacher attitude challenges		
	Lack of motivation	Negative attitude towards collaboration	Lack of confidence
Akcin (2022)	X	X	
Baglama et al. (2019)	X		
Shao et al. (2022)	X		
Fu et al. (2018)	X		X
<b>Frequency (f)</b>	4	1	1
<b>Percentage (%)</b>	66	17	17

Table 5 shows that among the biggest challenges of teacher attitudes was lack of motivation ( $f = 4$ ; 66%) (Akcin, 2022; Baglama et al., 2019; Fu et al., 2018; Shao et al., 2022). It was also found that teachers have a negative attitude towards collaboration ( $f = 1$ ; 17%) (Akcin, 2022) and lack of confidence ( $f = 1$ ; 17%) (Fu et al., 2018) to implement the IEP.

However, three of the reviewed articles contradicted the findings of teacher negative attitudes towards the IEP implementation process. The three studies found that teachers showed a positive attitude towards all stages in the IEP implementation processes (Karaca et al., 2020; Kozikoğlu & Albayrak, 2022; Ruble et al., 2018).

### 3.4 Conceptual Framework

Teacher challenges in the IEP implementation process as identified in the reviewed articles can be grouped into three main themes, namely challenges of teachers' knowledge, skills, and attitudes, respectively. We designed a conceptual framework (Figure 2) of teacher challenges in the three phases of the IEP implementation process for LD children, namely the preparation, implementation, and evaluation phases.



**Figure 2: Conceptual framework of the study**

Teacher competency has been used as a determinant of the challenge of implementing the IEP in schools. Among the factors that are taken into account to identify teacher challenges are knowledge level, skill level, and attitude. The components of teacher competency considered in determining the challenges teachers face in the IEP implementation process are consistent with Spencer and Spencer's (1993) Iceberg Competency Model. Referring to Spencer and Spencer's Competency Model, there are seven categories of competencies which can be divided into two groups. The first group includes the competencies above the water level, which comprises knowledge and skills. The second group includes the competencies below the water level, that is values, social roles, self-image, traits, and motives. The five components below the water level have been combined to make up one of the teacher competency components, that is in terms of attitude. Using this conceptual framework as a guide, we can clearly identify the challenges teachers face in implementing the IEP in terms of teacher competency, that is their level of knowledge, skill level, and attitude.

#### **4. Discussion**

The purpose of this SLR study was to identify the most common challenges faced by teachers in the IEP implementation process for LD children. At the same time, the findings of this study were used to develop a conceptual framework based on the challenges of teachers most often found in past empirical studies. Twelve research articles were included in the SLR based on the acceptance criteria that were set.

The IEP was first introduced in the United States by the Education for All All Handicapped Children Act of 1975 (Sacks & Halder, 2017). However, the IEP has grown considerably so that most countries in the world are willing to implement it in their education systems. This is because the elements in the IEP are very appropriate and meet the needs of children with LD. Moreover, the special education system in Malaysia has also grown rapidly since 1990. According to Jelas and Mohd Ali (2012), a pre-service special education teacher training program was started through the collaboration of three universities in England in 1993. In October 1995, the Department of Special Education (now known as the Special Education Division or Bahagian Pendidikan Khas [BPK]) was established to coordinate the responsibilities of various stakeholders for the success of Malaysia's special education system (Lee & Low, 2014). In implementing the special education curriculum, as per the Education (Special Education) Regulations (Malaysia. R. 3[4], 1997), teachers may modify the teaching or learning methods or techniques, the sequence of and time for activities, the subjects, and the teaching and learning resources in order to achieve the objectives and aims of special education. Collaboration can be seen as an essential element in effective IEP implementation (Groh, 2021). According to Al-Natour et al. (2015), effective collaboration requires effort, perseverance, training, and a willingness to share responsibility among the team members when making decisions. The special education teacher can clearly be considered the most significant individual in developing and building positive relationships with all the stakeholders so that the IEP can be implemented effectively.

Kozikoğlu and Albayrak (2022) found that the knowledge of teachers, whether special education or mainstream teachers, is very significant in each stage of IEP implementation, that is the report preparation, implementation, and evaluation stages. Kozikoğlu and Albayrak (2022) discussed the elements that are related to the knowledge level of special education teachers in the IEP implementation process. These include having information about the IEP implementation process, knowing the support materials that can be used to learn the proses of IEP implementation, and knowing how to obtain support materials. Other elements involve knowing one's own responsibility in implementing the IEP, knowing how to identify the current performance level of LD children, knowing how to determine annual goals, as well as knowing the activities that can be implemented. Kozikoğlu and Albayrak (2022) also found that teachers have insufficient knowledge about the IEP concept. Directly, teachers also lack knowledge of activities or materials that can be used in enriching the IEP implementation process. The lack of understanding of the IEP concept is also reflected in teachers' differing views on the definition of IEP (Fu et al., 2018).

The challenge of teachers' knowledge in the process of implementing the IEP cannot be seen only in terms of understanding the concept of IEP but also in terms of identifying the ability level of Down syndrome (DS) children (Almoghyrah, 2021; Shao et al., 2022). Results from Almoghyrah's study (2021) showed that teachers did not show a high awareness of the characteristics of DS children. This unawareness attitude can cause teachers to not take into account DS children's attitude factor in the process of preparing the IEP report. This phenomenon has directly affected the IEP implementation process because the IEP goals provided are not in line with the knowledge level of SEN children. In addition, Shao et al. (2022) stated that the reason for less relevant IEP goals is because special education teachers still lack a basic understanding of the actual ability and knowledge level of SEN children. The phenomenon of mismatch between SEN children's needs and IEP support services or interventions is common in special education systems (Musyoka & Clark, 2017). Bateman (2011) likened a difficult-to-measure IEP target to "if you don't know where you are going, you may not get there" (p. 106). Therefore, Goodwin et al. (2022) strongly encouraged IEP stakeholders, especially teachers, to set IEP goals that are relevant to SEN children's needs, namely goals that are not only measurable but also of high quality.

One of the biggest knowledge challenges for teachers is the lack of knowledge about data collection, especially in terms of the use of criterion-referenced tests. A study by Hott et al. (2021) found that the majority of the IEP goals provided include several important goals, such as improving functionality in terms of behavior and academic skills of LD children. However, the main source indicating IEP goal measurement is too dependent on teacher opinions and observations, not providing any quantitative measurements that can prove the effectiveness of an intervention (Hott et al., 2021). This phenomenon is caused by insufficient knowledge of teachers in developing a criterion-referenced test in making a detailed assessment (Akcin, 2022; Al-Shammari & Hornby, 2019). The findings of this SLR study are consistent with those of previous studies. These have shown

that the content and implementation steps of support services or interventions are often described in IEP reports, but that the measurement steps are not described properly (Raty et al., 2018; Ruble et al., 2018; Sanches-Ferreira et al., 2013).

In addition, teachers not only need to be knowledgeable about the types of assessment instruments that can be used but also skilled in using those assessment instruments in the right context. For example, they need the ability to collect and interpret data based on the instruments used (McLeskey et al., 2017). In terms of IEP reporting, we found that teachers struggled to plan and create IEP reports according to individual differences between LD children. Next, regarding IEP implementation, Groh (2021) stated that for LD children to be successful, a positive collaborative relationship should be established between teachers and LD children's families. In Senay and Konuk's (2019) study, more than half (76%) the parents were unaware of the purpose of IEP implementation, and some parents misunderstood IEP as a kind of diagnostic report. A similar phenomenon was also found in the study of Shao et al. (2022), showing that only 14.29% of parents are actively involved in the IEP implementation process. Furthermore, Kozikoğlu and Albayrak (2022) found that the lack of effective communication, sharing, and collaboration among all stakeholders of the IEP team can make it difficult for special education teachers throughout the IEP implementation process. Clearly, the teacher can be seen as the most important agent in building a positive working relationship with all members of the IEP team for the IEP to be effectively implemented.

The most common skill challenge faced by teachers is in the assessment process. Service quality refers to how the special education services provided to SEN children determine the success of these children (Groh, 2021). The evaluation process therefore plays a significant role in determining how an IEP has been implemented. However, Akcin (2022) found that as many as 61% of teachers indicated that their biggest challenge in the IEP implementation process was developing measurement tools, especially developing criterion-referenced tests in determining the development of SEN children. The same findings were made by Al-Shammari and Hornby (2019) and Kozikoğlu and Albayrak (2022), who reported that teachers showed a relatively low level of skill in the assessment process. Monitoring and evaluation procedures that are not clear and not objective will hinder the IEP implementation process (Hott et al., 2021).

Since emotional factors are the driving force of the learning process (Kasap & Peterson, 2018; Kasap, 2021), teachers need to adopt a positive attitude towards the IEP implementation process to implement the IEP effectively. According to Vaz et al. (2015), one of the factors that can influence the attitude practiced by a teacher is self-efficacy in educating SEN children. Self-efficacy can be related to the degree to which a teacher feels that they are able to educate SEN children effectively (Vaz et al., 2015). Among the biggest challenges of teacher attitudes is the lack of motivation or enthusiasm to implement the IEP for LD children (Akcin, 2022; Baglama et al., 2019; Fu et al., 2018; Shao et al., 2022). This is due to the implementation process of the IEP, which involves various administrative tasks that can directly increase the workload of teachers (Akcin, 2022; Fu et al., 2018;

Shao et al., 2022). Hannah et al. (2019) also found that a shortage of qualified teachers in special education systems makes it difficult to implement programs related to special education. At the same time, Baglama et al. (2019) showed that in-service training duration of teachers on IEP implementation can influence their attitudes towards IEP. Their study showed that teachers who underwent longer service training displayed more positive attitudes and were more motivated to implement the IEP. The atmosphere of a teacher's work environment and the length of time for which they receive in-service training on IEP can thus clearly influence their attitudes towards the IEP implementation process.

Furthermore, Akcin (2022) also reported that most teachers have a negative view of collaboration in the IEP implementation process. This is because SEN children's parents who have too high and unrealistic expectations for their children's development have directly increased the pressure on teachers when discussing all the IEP implementation processes. In this regard, teachers always show fear of collaborative activities, especially when having discussions with parents. Not only that, the study of Fu et al. (2018) showed the challenge of teacher attitudes in terms of lack of confidence. Teachers are often considered to lack confidence in implementing the IEP goals for each LD child in the classroom context. This is due to teachers still lacking confidence to manage and educate each LD child in a different way in the same classroom (Fu et al., 2018).

However, not all findings from the 12 reviewed articles indicated that teachers face challenges in all three aspects of competency challenges. For example, Al-Shammari and Hornby (2019) found that special education teachers have different levels of knowledge and experience, and that some teachers consider themselves to have good skills in implementing the IEP. In addition, some teachers feel less competent to implement the IEP. Therefore, after examining various studies that have been carried out, it was determined that the challenges of teachers in the process of implementing the IEP need to be identified so that various improvement efforts can be carried out to ensure that high-quality IEP services are provided to LD children.

## **5. Limitations of the Study**

This study had several limitations. First, even though the SLR conducted could reduce biased selection, there is still a high probability that other databases contain articles that meet the selection criteria. This is because, in this SLR study, articles from only two databases were involved.

The second limitation is the use of keywords or a small data set, which led to some articles not being included in this SLR study. This situation occurs because there are articles that discuss the challenges of teachers in the IEP implementation process but are labeled using different names or keywords.

The third limitation is that only full-text articles were selected for review. Articles that are similar but did not have the full text were thus excluded. Some databases require payment for full-text articles, which thus led to the exclusion of several articles related to SLR research.

To strengthen this SLR study, the procedures of the study can be improved. In this regard, an empirical study should be conducted to verify the validity of the conceptual framework formed by conducting a survey study in Malaysia. Moreover, systematic and organized research and examination also needs to be conducted to examine whether the challenges identified are the greatest challenges for teachers in implementing the IEP or whether there are yet other challenges that have not been explored. This is because if there are other challenges, the conceptual framework developed needs to be modified or refined based on the latest research findings. The improvements made can thus allow for more robust and reliable research findings in the future.

## 6. Conclusion

This SLR study sought to identify the most common competency challenges faced by educators in the IEP implementation process and to develop a conceptual framework based on the conducted analysis. This study was conducted by using articles from two leading databases, namely ERIC and Google Scholar. Based on the screening conducted, a total of 12 articles that meet all the criteria were identified. The results of the analysis showed that the phenomenon of insufficient knowledge in criterion-referenced tests is the biggest knowledge challenge faced by teachers. In terms of skill challenges, the biggest challenge experienced by teachers is doing the assessment process. Insufficient knowledge and skill in the evaluation process will result in difficulty measuring the effectiveness of an intervention or the development of an LD student. In terms of attitude challenges, teachers were found to lack motivation in implementing the IEP for LD children. However, several articles showed totally opposite results, namely that teachers have sufficient knowledge and skills and are positive in implementing the IEP. As such, to strengthen the research conducted, researchers need to use more general keywords so that all categories of articles related to the study to be conducted can be included in the study.

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