

## Research Article

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# Identifying Learning Disabilities in Bilingual and English Language Learners: Insights from the Saudi Context

Aeshah Alsarawi

**Abstract**

**Background/purpose.** Students with learning disabilities (SLDs), bilingual learners (BLs), and English language learners (ELLs) represent heterogeneous groups. With the rising number of SLDs and the expansion of English as a second language instruction in Saudi elementary schools, a critical challenge emerges: How can learning disabilities (LDs) be accurately identified in students who are also BLs or ELLs? In alignment with Saudi Vision 2030 and inclusive education goals, schools must effectively address diversity by considering both disabilities and linguistic backgrounds. This study examines perspectives from specialized LD teachers, general educators in English and Arabic, and assessment experts on current identification practices, challenges, and recommended strategies.

**Materials/methods.** This phenomenological qualitative study gathered insights through 12 semi-structured interviews and seven artifacts. Thematic analysis was conducted using qualitative coding to identify key patterns and concepts.

**Results.** Findings highlighted common identification practices, including teacher observations, standardized assessments, distinguishing between native and second-language assessments, curriculum-based measurements, and progress-monitoring tools for at-risk students. Key challenges included language imbalances causing misidentification, cultural bias, and insufficient professional training. Participants recommended using diverse assessment tools, conducting evaluations in both native and second languages, involving families, enhancing teacher training, and raising parental awareness.

**Conclusion.** The study underscores the need for rigorous assessment processes to ensure appropriate support for BLs and ELLs with LDs. Strengthening assessment frameworks and professional development can enhance identification accuracy and promote inclusive education.

## 1. Introduction

Learning disabilities (LDs) in Saudi education are defined as follows: a heterogeneous group of disorders (a) related to attention, perception, thinking, and how the brain processes information and (b) impacting students' abilities to gain this information efficiently, ultimately affecting their academic skills (e.g., reading, writing, math, reasoning, comprehension) as compared to their peers at the same grade level (Ministry of Education [MoE], 2023). In 2023, the General Authority for Statistics in Saudi Arabia released the Disability Survey, reporting approximately 2.1% of children aged 5 to 17 were classified under the LD category. The survey found students with learning disabilities (SLDs) make up the sixth-largest proportion of those with disabilities nationwide and were the most overrepresented group in general education (GE) compared to the other disability groups. These students originally learn with their peers in regular schools, but they also receive, as needed, special education services in the Learning Disabilities Program one-on-one or in a small group as a pull-out support system. However, SLDs should share at least 80% of their school day with their peers in GE classrooms (MoE, 2001).

LDs represent one of the highest-incidence disabilities at the Saudi elementary school level, and data refer to 1 SLD per 10 students in each GE classroom. However, language disabilities are the most prevalent among SLDs (Abunyan, 2019). Students have LDs in language that are intricate and multifaceted, involving challenges in listening, processing thoughts, speaking, writing, and reading (Akdeniz & Argün, 2021). Specific LDs in language are neuro-linguistic disorders affecting how the brain processes language, regardless of the language type. Therefore, these problems appear in both the native language and any second language (L2) the student is learning.

In addition to emphasizing Arabic language proficiency for students with specific language LDs as a governmental priority and a cornerstone of national identity, it is important to recognize that learning English as a second language (ESL) is no longer optional or restricted to private and international schools. Teaching and learning English have become an urgent necessity for academic and professional success to achieve the developmental goals of Saudi Vision 2030 (Al-Seghayer, 2023a). Since the 2021–2022 academic year, English language teaching has become mandatory at the elementary level in public schools starting from the first grade. This decision came as part of the efforts to enhance English language skills among students from an early age within the Saudi Vision 2030 framework. On the one hand, bilingual schools, which provide educational opportunities combining Arabic and English (as an L2), have spread in Saudi Arabia since the late '90s of the last century, as some international and private schools have appeared since the '70s, and interest in them has increased significantly with Saudi Vision 2030 to support foreign language (mostly English) instruction. Currently, according to the Saudi MoE (2023), English language learners (ELLs) and bilingual learners (BLs) represent a growing segment of the population, in addition to SLDs, specifically at the elementary level.

On the other hand, the increasing emphasis on ESL in Saudi education presents a growing challenge in meeting the needs of all students. With the introduction of ESL in public elementary schools and the increase in private bilingual schools, there is an increasing likelihood that students will have LDs in the two languages simultaneously. This intersection of linguistic diversity and LDs requires rigorous methods for identifying LDs in BLs and ELLs. It does not attribute it to language-learning difficulties in providing appropriate support in inclusive education.

Within this context, concerns regarding LDs and foreign language LDs, including the debated concept of Foreign Language Learning Disability, have gained significance. As Sparks (2016) argued, such difficulties exist on a continuum rather than constituting a distinct disorder, highlighting the need for research-driven approaches to address language-learning challenges. Sparks acknowledged that it is assumed SLDs will have significant difficulties in learning a foreign (second) language, even

when this is not explicitly stated. However, Sparks believed proponents supported their view with anecdotes, personal opinions, and case studies but that there was not enough empirical evidence. Proponents of this view ignored evidence showing there is no special relationship between LDs and learning L2 and that there is no unique disability in learning an L2.

The identification of LDs among BLs and ELLs in elementary schools has challenged educational systems for years for several reasons (McCardle et al., 2005). For instance, SLDs who are developing their language skills in more than one language may face unique barriers that are not necessarily obvious to their monolingual counterparts (Piazza et al., 2015). Additionally, the difficulty lies in distinguishing between the challenges arising from the process of learning an L2 and those from actual LDs (Burr et al., 2015; Haas & Brown, 2019). Moreover, cultural and linguistic differences arising from learning a foreign (second) language may obscure assessments of academic performance and make it difficult to determine whether the learning challenges are the result of insufficient language proficiency or intrinsic LDs (Piazza et al., 2015). These risks include ignoring the needs of students who have real LDs or misclassifying them, depriving them of the support they need to succeed (Haas & Brown, 2019), or, in turn, increasing misguided LD referral programs.

The special education field has faced a significant challenge in recent years, particularly concerning the identification of LDs and the complexities arising from the interaction between language and learning (Sparks, 2016). This challenge questions long-held assumptions about the identification and efficiency of interventions for individuals with LDs. However, adding consideration for identifying SLDs who are BLs or ELLs would confuse an already complicated situation. Indeed, challenges must be overcome for effective identification of ELLs with LDs (Burr et al., 2015). The field of bilingual special education is complicated by inconsistencies that lead to a severe underrepresentation of BLs with LDs. According to Martínez-Álvarez (2017), this deficiency is mainly the result of global educational systems that are not adequately equipped to meet children's educational needs due to a lack of linguistic and cultural understanding of the factors influencing learning. It is believed that adopting educational methodologies addressing cultural and linguistic aspects may lead to unexpected and more effective learning methods for these children.

It is essential to develop accurate evaluation strategies assessing students' cultural and linguistic backgrounds (Fenner et al., 2015; Piazza et al., 2015). Additionally, an appropriate evaluation approach leads to developing linguistically appropriate, individualized education plan goals in dual-language programs for students eligible to receive special education services (Brown & Turner, 2016). This requires understanding current practices and new strategies for overcoming the challenges in identifying LDs in BLs and ELLs. The aim of this study is to examine the perceptions of LD teachers, GE teachers, and evaluation specialists, recognize their practices, identify challenges they face, and suggest strategies related to identifying LDs in this unique body of students. The participants' insights may enhance awareness of this issue, in addition to building a more inclusive educational system that values diversity and meets each student's needs.

### **1.1. Research Purpose**

The purpose of this research was to study the perceptions of a sample of teachers and specialists regarding the identification of LDs in BLs and ELLs in terms of:

1. recognizing the current practices in identifying LDs in BLs and ELLs;
2. exploring the challenges faced within the Saudi educational system regarding the identification process and
3. Recommend strategies that can improve the identification process.

## 2. Literature Review

### 2.1. LDs: Prevalence, Types, and Identification

LDs are not limited to a specific language, culture, or geographic location, but there is a difference in their prevalence rates between countries due to how they are identified and measured, in addition to the fundamental differences in languages (Abunyan, 2019). Globally, the prevalence of LDs varies across countries that speak their native language in addition to an L2 (whether English or another foreign language), ranging from 5–to 15% (Kormos, 2020). For instance, regarding the prevalence of LDs and other neurodevelopmental disorders among children and adolescents in North America, in the United States, the prevalence of LDs was estimated at 6.4% in 2019–2020 (Yang et al., 2022) and 7.45% in 2018–2021 (Li et al., 2023). According to the US Department of Education (National Center for Education Statistics, 2023), approximately 15% of public school students in the United States aged 3 to 21 were receiving special education services under the Individuals with Disabilities Education Act in the 2020–2021 school year, and 32% of them had LDs (reading, math, writing, etc.). One study in Morocco found a 12% prevalence of LDs among elementary school students, with dyslexia being the most common at 11.6% (Lequouider et al., 2021). In India, an analytical study estimated the prevalence of LDs in general at 8% (Scaria et al., 2022), whereas one in Kerala reported a higher rate of 16.49% (Chacko & Vidhukumar, 2020). Reading and writing disabilities were observed in 12.57% and 15.6% of students, respectively (Chacko & Vidhukumar, 2020). However, in Pakistan, a study of public and private schools revealed higher rates, with 39% of students showing symptoms of SLDs, including 33% with dyslexia (reading disabilities) and 48% with dysgraphia (writing disabilities; Ashraf & Najam, 2020). Another research indicated that 20.7% of elementary school children in Pakistan showed symptoms of LDs, including 7.5% diagnosed with reading or math (Kausar et al., 2021).

Locally, studies have shown the prevalence of LDs among students in Saudi Arabia is 7–9% of the total number of public education students (Alwatan, 2022). Another study demonstrated LDs represent about 9% of public education students in the elementary stage (Al-Anzi, 2020). Research on LDs and related issues in Saudi Arabia has indicated dyslexia affects 5.86% of elementary school students, with a higher prevalence among males (Aldakhil et al., 2023). The Saudi MoE has adopted the types of LDs based on this definition: disorders in one or more of the basic psychological processes, which refer to the developmental disability types involved in understanding and using written or spoken languages that appear in disorders of listening, thinking, speaking, reading, writing (e.g., spelling, expression, handwriting) and mathematics, referred to as academic disabilities; additionally, they are not due to causes related to mental, hearing, and visual impairment or other types of disabilities, learning conditions, and family care (Aljuwayhir, 2024; Alnaim, 2023; MoE, 2020). SLDs include several main types: dyslexia, which affects the ability to read and understand written words; dyscalculia, which involves difficulty learning mathematics; and dysgraphia, which affects writing and written expression. They also include expressive and receptive language disorders, which result in difficulty using and understanding language effectively. These difficulties affect specific aspects of learning, whereas performance in other areas usually remains normal.

Regardless of the LD type, they are influenced by several factors. Lequouider et al. (2021) found linguistic backgrounds and genetics impact LDs, even though they are not considered major social and economic factors. However, Yang et al. (2022) showed there is a variation in the diversity of LDs according to demographic factors, with higher rates in males, individuals from low-income families, and those with mental health problems or experiencing stressful life events. Kormos (2020) added LDs have been found to impact L2 acquisition, making early intervention and consideration of linguistic background in education vital to academic progress. These facts draw attention to possible

challenges in the identification process of LDs among heterogeneous students who could also be classified as BLs and ELLs.

## **2.2. Identification of LDs in Saudi Arabia**

According to MoE (2001), to identify SLDs in Saudi schools, first, an initial screening based on students' achievement level should be conducted through teachers' and parents' observations for referral. Then, the school committee must apply a set of evaluation tools to assess academic and behavioral abilities. The criterion of variance in assessment is considered one of the basic identification methods, as it shows the difference between students' actual and academic abilities using standardized tests of intelligence; then, it compares the results with those of their peers based on the expected performance according to their age and academic level. In this context, a case study is used in a complementary manner, as comprehensive information is collected about students' medical, educational, psychological, and social health history to understand the root of the problem. Additionally, personal interviews with teachers and parents are necessary to collect details about a student's behavior in different environments, which helps to provide a comprehensive picture of their needs. The exclusion criterion is an important part of the evaluation process, as it ensures LDs are not caused by other factors such as intellectual disabilities and behavioral problems. Special education is considered a basic criterion for supporting SLDs, as the student's condition indicates they do not benefit from GE only, which prompts schools to design educational programs addressing their special needs.

## **2.3. BLs and ELLs**

In the field of learning and teaching languages, a large body of specialized knowledge recognizes that learning an L2 is different from bilingualism. L2 learners are defined as individuals who learn a different language for academic or professional purposes after having mastered their native language (Lee, 2022). English is one of the most widely spoken L2s globally, with over 1 billion non-native speakers. It ranks third in native speakers but dominates as a global lingua franca in various fields, including education (Statistics & Data, 2021). ELL refers to students who are learning English as their primary language of instruction, even though it is their L2 (Matthews, 2021), whereas bilinguals are fluent in two languages, one of which can be English. Their acquisition of these languages results from living in a multilingual environment and early exposure to both languages (Windasari, 2021). Another view suggests there is an overlap in the classification between ELLs and BLs according to the degree of proficiency; ELLs are classified into subgroups that include balanced bilinguals, unbalanced bilinguals, and those at risk of LDs (Swanson et al., 2020). This classification indicates that BLs are originally ELLs but with varying degrees of proficiency.

Currently, the 21st century is witnessing an expansion of bilingual education programs and ESL instruction across countries (Dorner & Cervantes-Son, 2020). This expansion has reflected on Saudi education, whether by increasing the number of BLs and bilingual programs in private and international schools or by inserting English as a required subject during early elementary in public schools (Al-Seghayer, 2023b). This expansion, besides the differences between BLs and ELLs and the possibility of classifying them as students at risk of LDs, raises questions about the most appropriate age for language acquisition and whether the language systems in the brain are separate or interconnected (Amayreh, 2021). Research has shown that the process of acquiring an L2, including English, involves various stages, starting with the explicit stage and ending at the automatic stage, where language use is spontaneous (Bukhmis & Ben Younes, 2022). Therefore, understanding the variability between the characteristics of these groups is critical.

Studies refer to the distinct characteristics and developmental curves between ELLs and BLs. For instance, it is typical for ELLs to initially show lower executive functioning skills than their BL peers, but they make significant progress over time, improving their performance on tasks such as



multidimensional card sorting and number reversal (Castillo et al., 2020). In contrast, BLs may have higher executive functioning than monolinguals, as assessed by their teachers (Castillo et al., 2020). Moreover, research on interventions has shown promising results regarding using evidence-based teaching methods to improve early English literacy skills with both BLs and monolingual learners, as well as ELLs (Liu & Hoare, 2023). However, identifying LDs in BLs remains a challenge due to variations in how language exposure is assessed and differences between simultaneous and sequential BLs (Liu & Hoare, 2023).

Research in Saudi Arabia has revealed diverse experiences of English language learning at the elementary level based on the types of schools. For instance, Al-Jarf (2022) found most parents prefer their children to learn English in kindergarten or the first grade, but their views on language proficiency are varied based on school type. Al-Jarf explained that English instruction is limited to 1 to 2 hours per week at elementary public schools, which parents consider insufficient, whereas private and international schools offer intensive English instruction, using English as the primary language of instruction or providing bilingual educational programs. Another research perspective indicated linguistic awareness is positively associated with language dominance among Saudi BLs. Almarshedi (2022) stated that Saudi BLs exhibit varying levels of bilingualism. For example, some learners exhibit high bilingual proficiency, and others exhibit English bilingual dominance. Interestingly, multilingual students experience less foreign language anxiety but lower self-confidence compared to their BL peers when learning English (Bensalem & Thompson, 2022). These findings highlight the complex interplay between language exposure, proficiency, and other psychological considerations in English language education.

#### ***2.4. LDs in BLs and ELLs: Insights From Research Findings***

Research on LDs in ELLs and BLs has shown complex challenges in classifying and supporting these learners. Some studies have found distinct latent categories among ELLs, classified as balanced BLs, unbalanced BLs, and BLs at risk of LDs, with prevalence estimates of 10–20% (Swanson et al., 2020). Moreover, ELLs who are considered at risk are referred to special education at higher rates (Kangas, 2021). Other studies have considered ELLs and BLs separately, noting that ELLs tend to be behind their BL peers in reading performance (Mancilla-Martinez, 2020).

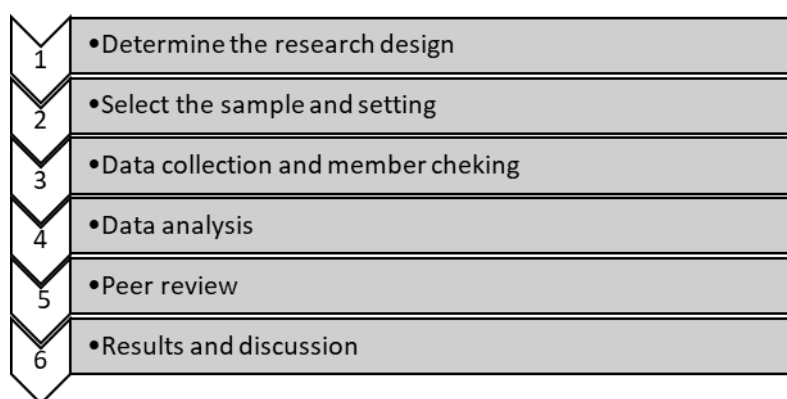
Cognitive measures, particularly naming speed and working memory, are used as critical aspects for predicting the risk of LDs (Swanson et al., 2020). However, research findings indicate bilingualism is not a risk factor for LDs or academic underachievement; also, the impact of bilingual education on ELLs' cognitive development and academic achievement remains controversial, with some studies suggesting potential benefits. For instance, Jaafari and Kaya (2023) stated bilingualism does not exacerbate language difficulties in children with developmental disorders (e.g., dyslexia) and may even contribute to cognitive and language benefits. Bilingual children exhibit similar difficulties to their monolingual peers with the same disorders, with bilingualism improving their cognitive flexibility and language skills. Thus, there is a need to shift the direction of research in the field of students acquiring English in school and focus on their linguistic and academic assets rather than on achievement gaps (Jensen et al., 2018). To support ELLs, researchers have emphasized a focus on language comprehension (Mancilla-Martinez, 2020) and various instructional approaches, including bilingual programs that promote content knowledge and English proficiency (Matthews, 2021).

When identifying LDs in the context of bilingualism, there are calls for an integrated approach that responds to cultural, linguistic, and disability challenges that promote inclusive education. Kangas (2021) criticized the traditional language or disability approach, as it reinforces negative perceptions and reflects monolingualism and discrimination against people with disabilities. Kangas advocated focusing on systemic factors to improve interventions rather than categorizing ELLs with LDs based on language or disability alone. This is also recommended through a multitiered system of

support represented in response to intervention model (RTI) that includes strict instructions for all students and interventions that vary in intensity, density, and duration for at-risk groups (Alahmari, 2019), emphasizing the importance of a collaborative approach between general, special, and bilingual education teachers, as well as the use of systematic language intervention strategies that support language and reading skills (Cárdenas-Hagan, 2018). These practices are consistent with the philosophy of integrating language intervention using a universal design for learning that provides inclusive environments (Alahmari, 2021), in addition to adopting a sociocultural approach reflected in individual education plans (Ferrell et al., 2024). In conclusion, although significant strides have been made in understanding the intersection of bilingualism, L2 acquisition, and LDs, continued efforts are needed to ensure these students receive fair and accurate assessments, as well as the support necessary to thrive academically.

### 3. Methods

I selected the qualitative approach, specifically the phenomenological design, as a suitable research design for this study. This design focuses on examining phenomena through individuals' lived experiences, aiming to understand how people perceive and experience a particular phenomenon from their own perspectives (Creswell & Poth, 2018). I used in-depth, individual semistructured interviews to provide a better understanding of participants' perceptions regarding their real experiences in identifying LDs in BLs and ELLs (Merriam & Tisdell, 2017). I used the available artifacts as a supplementary data source to enhance research quality. By studying artifacts and incorporating the lessons learned into the research design, data collection, and analysis, researchers can improve the validity and interpretability of their findings (Creswell & Poth, 2018). After selecting the research design, I began the phase of selection sample and preparation, followed by the data-collection phase. Then, I analyzed the data according to Braun and Clarke's (2021) thematic analysis model. I used participants' responses, in addition to the available artifacts, to answer the research questions without additional prodding. Figure 1 shows the phases of the research methodology used in this study.



**Figure 1.** The Research Methodology Phases Used in This Study

#### 3.1. Participants

In the second phase, I decided on the participant selection. The target population included LD teachers, Arabic and English GE teachers from public, private, and bilingual schools, and evaluation and assessment specialists from a special education services center located in the eastern region of Saudi Arabia. I gathered detailed and relevant data by focusing on the real experiences of participants who could offer the most significant insights (Creswell & Poth, 2018). In this context, I adopted purposive sampling according to specific selection criteria so that I could ensure an accurate representation of the target group, starting with a recommended list of participants provided by the Special Education Department's field training committee coordinator. If some participants declined

or data saturation was not reached, I used the snowball technique to recruit additional participants based on nominations from previously selected individuals.

### **3.2. Selection Criteria**

I used the following criteria to select participants:

- Experience: Individuals with 5+ years' experience in the field of evaluation, teaching, and/or intervention of SLDs.
- Exposure to the phenomenon: Those who have direct experience identifying SLDs.
- Professional diversity: Considering occupational diversity to ensure comprehensiveness; thus, the participants included
- LD teachers with experience working with BLs and ELLs;
- GE teachers, including Arabic and English language teachers who participated in the identification process of LDs in BLs and ELLs; and
- those involved in the evaluation processes in the field of LDs.

Table 1 shows the demographic characteristics of 12 participants (3 LD teachers, 3 Arabic GE teachers, 3 English GE teachers, 1 LD evaluation specialist, and 2 psychologists).



**Table 1.** Participants' Demographic Profile

Pseudonym	Gender	Job Title	Specialization	Academic Qualification	Experience	Years of Experience
1. Dareen	F	LDs evaluation specialist	Special Education (LD)	Master's degree in Special Education	Teaching Evaluation In public schools	20 years
2. Amal	F	Psychologist evaluation specialties	Psychology	Bachelor's degree in psychology	Evaluation in education department	15 years
3. Zinah	F	Psychologist evaluation specialties	Psychology	Master's degree in Psychology Consultation	Evaluation in education department	21 years
4. Nora	F	LDs teacher	Special Education (LDs)	Master's degree in Special Education	Teaching Evaluation	11 years
5. Yasmeen	F	LDs teacher	Special Education (LDs)	Master's degree in Special Education	Teaching Evaluation	10 years
6. Sami	M	LDs teacher	Special Education (LDs)	Master's degree in Special Education	Teaching Evaluation	10 years
7. Abdullah	M	General Education English Teacher	Teaching English as a Second Language (TESL)	Bachelor's degree in teaching English as a Second Language	Teaching in public schools and Bilingual schools	17 years
8. Shereen	F	General Education English Teacher	English	Bachelor's degree in English	Teaching in private international schools	7 years
9. Raul	M	General Education English Teacher	Teaching English as a Second Language (TESL)	Bachelor's degree in education and diploma in teaching English as a Second Language	Teaching in private bilingual schools	10 years
10. Fahdah	F	General Education Arabic Teacher	Arabic	Bachelor's degree in education	Teaching In government and private bilingual and international schools	12 years
11. Amar	M	General Education Arabic Teacher	General education teaching Arabic	Bachelor's degree in education	Teaching in private bilingual schools	20 years
12. Khalid	M	General Education Arabic Teacher	Education	Bachelor's degree in Arabic	Teaching in public schools	15 years

*Note.* \* Referring to gender, "M" is for males, "F" is for females, and "multiple" includes both males and females.

### **3.3. Data Collection and Procedure**

In the third phase, I received ethical approval from the Institutional Review Board of the University of Imam Abdulrahman Bin Faisal. I recruited the potential participants based on the criteria, collected the data, and completed the member-checking technique. I sent an invitation to the participants via e-mail and WhatsApp. The email included an introduction to the study's purpose and the value of their contribution to the research. After agreeing to participate, the participant could use my contact information to schedule the online interview at a convenient time. Then, I sent each participant a private Zoom link with a unique passcode. During the first part of the scheduled time, I explained the study's purpose and signed consent forms (Appendix A). The consent form included a description of the study and an explanation of the risks and benefits of participation (i.e., the opportunity to reflect on current practices and barriers they have faced, as well as reflect on strategies that improve the identification process). I asked the participants if I could audio record their answers for later transcription. They were also given the right to opt-out at any time during or after an interview and to reschedule.

Each interview lasted 45–60 min. After the interviews were completed, I asked the participants to forward the invitation to any colleagues interested in participating. After each interview, I transcribed the audio recordings. All participants could read over their transcribed responses to confirm they correctly reflected their words and thoughts. Participants were informed the audio recordings would be destroyed after completing the study, and they were asked to share any relevant documents supporting the research purposes and their practices regarding identifying LDs in BLs and ELLs.

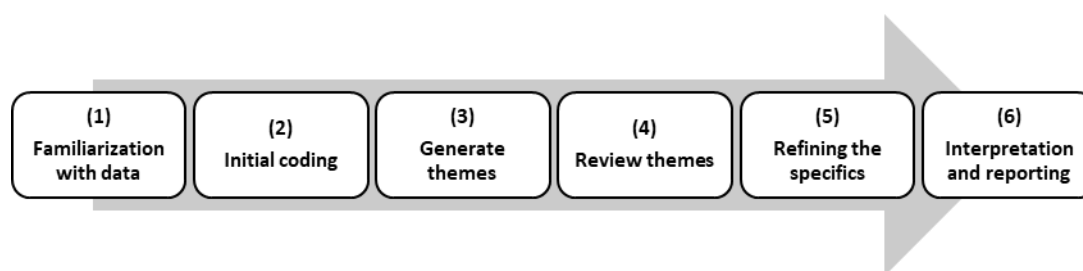
After following Lincoln and Guba's (1985) instructions, I noticed that after the 12th interview, the data showed saturation. Important aspects of the saturation criteria used in this study revealed that no new insights were found, comprehension of the subject was attained, and a diverse range of viewpoints was achieved.

### **3.4. Trustworthiness**

To establish the study's trustworthiness, a researcher must try to ensure credibility, transferability, and confirmability (Merriam & Tisdell, 2017). I used the member-checking technique during the data-collection phase to confirm the participants' responses aligned with their intentions. Then, I provided details about the research process to enhance the opportunity for replication and transfer of the results across various conditions and contexts (Merriam & Grenier, 2019). I used the audit trail of the research steps and the transcripts to avoid any possible bias. Finally, I followed peer review to check the results and ensure I reached saturation, reduced bias and confirmed the emergent themes (Merriam & Grenier, 2019).

### **3.5. Data Analysis**

Data analysis started after completing the member-checking technique, and the participants did not request any additional changes. I used Braun and Clarke's (2021) thematic analysis model. The themes generated by the views of the participants. Figure 2 shows the first step, which was familiarization with data; I read over each manuscript and artifact to develop a general sense of data. I started the initial coding step by highlighting the keywords, phrases, and concepts appearing in the raw data so that I could observe the similarities and discrepancies and generate labels of the important data features. Next, I identified broader patterns across the data to generate themes. Another expert researcher conducted the review themes step to validate the themes and ensure they adequately represent the data. Additionally, he refined the specifics of each theme and gave them clear names. Finally, in the interpretation and reporting step, I wrote up the analysis with a clear narrative.



**Figure 2.** The Steps of the Thematic Analysis Model According to Braun and Clarke (2021)

### **3.6. Peer Reviewer**

To ensure I reached saturation and validated the data analysis, I worked with a PhD research expert specialized in qualitative research to review the coding, memos, phrases, and generated themes, as well as interpret the findings. This reviewer was a researcher in the LD field and was not involved in data collection. He examined the dataset, read each transcript and report word for word, and reviewed the codes and generated themes. I discussed all findings with the peer reviewer, identified differences in their viewpoints, and reviewed the results to determine the final themes emerging from the analysis.

## **4. Results**

### **4.1. RQ1**

The following themes summarize the participants' responses regarding the practices used to support the identification process of LDs in BLs and ELLs, considering the types of schools (public, private, international, or bilingual), the assessment type used, and participants' backgrounds.

#### **4.1.1. Teacher Observations as an Initial Step**

The pattern in participants' responses referred to the logical sequence of steps in the identification practices used in their schools. They frequently used phrases such as "first," "initially," and "first step" when discussing observation as an initial step. Additionally, they made frequent references to informal assessments (e.g., "our observations," "teacher observations," and "teachers' observations"), reflecting their emphasis on guidance and assessment as essential components of the process. According to the participants, there is no mandated practice of using a formal, specialized assessment in English to identify LDs in BLs or ELLs in public, private, and international and public schools, unlike bilingual schools. However, regardless of the school type, there is a consensus that the initial procedure for identifying LDs in BLs and ELLs does not differ as compared to the practices for identifying monolingual LDs (regardless of language) using teacher observations. It was noted that teacher observations are conducted as informal assessments in real time within the classroom. Teachers note behaviors, participation, interaction, and learning progress during everyday activities. These observations provide a direct understanding of how a student performs academically in the educational setting. Shereen shared her experience as an English teacher in private and international schools for 7 years:

Many cases in my schools were recognized first based on the teachers' observations;

*the student is transferred from the international to the general section and vice versa [referring to Arabic education] based on many data . . . But it turns out they are LDs regardless of the language because we notice the student cannot keep up with his peers in both languages.*

Yasmine, who holds a master's degree in LD instruction, with 10 years' experience teaching SLDs in public schools, confirmed Shereen's point. She said, "teachers' observation of students in structured and unstructured learning environments helps capture how students interact with their peers, complete tasks, and respond to challenges in the learning environment." She noted, "parents returning from scholarships abroad tend to prioritize the quality of their children's education as bilinguals, which encourages me to consider parents disclose their children's need for formal referral and support compared to other parents." Although observation is the primary approach schools use to identify LDs among BLs and ELLs, standardized tests reinforce this insight by providing clear criteria for comparison and evaluation.

#### **4.1.2. Standardized Tests Are Administered as a Formal Assessment**

When asked how they identify LDs in ELLs and BLs in a formal way, psychologists and teachers in international and bilingual schools responded, "by administering standardized tests." The psychologists from the Evaluation and Diagnosis Center, Amal and Zinah, indicated the formal referral procedures for these students are no different from monolingual students. Based on the school referrals, regardless of the school type, psychologists are obligated to (a) receive the suspected cases and administer "cognitive standardized tests focusing on intelligence scores such as Stanford-Binet or Wechsler" and (b) use the result as a "criterion to exclude the intellectual disability and as an indicator of proving LDs." However, they agreed on the importance of using formal and informal assessments together to identify SLDs while considering their linguistic backgrounds. Amal indicated, "If this group were diagnosed in a manner consistent with the regulations and systems while considering their linguistic backgrounds, the cases of their over- and under-representation in LD programs would decrease."

None of the public, private, and international school teachers mentioned standardized tests, except for instructors in bilingual programs. For instance, according to Raul and Ammar, academic standardized tests are used at the beginning of the school year as a screening and identification tool, as well as at the end of the school year to measure the effectiveness of teaching interventions. These tests measure the grading of academic skills in both languages (Arabic and English). Ammar explained that practices have evolved in his school over the past 20 years thanks to professional development; one of the outcomes of which was the combination of formal and informal assessments. It is worth noting that the school in which Ammar works is one of the leaders in the Eastern Province and in the Kingdom of Saudi Arabia. Ammar shared his school's practices with enthusiasm:

*We evaluate students' performance holistically across Arabic, English, and mathematics, considering potential learning difficulties as a bilingual school. We use standardized measures in Arabic and English based on the required grade level skills. There is the Test of Arabic Language Arts (TALA), which is a neutral test, meaning that it is added from outside the school to identify the student's level in the Arabic language, in addition to some tests that specify English language skills, such as Measures of Academic Progress (MAP).*

TALA test, which is an online assessment for Arabic reading, writing, and vocabulary, was launched in 2016 and based on international standards. It is widely used across the Middle East and North Africa region and has evolved through updates, including the 2021 TALA 2, which improved its framework and reporting. TALA assesses students from Grades 3–11, with online reading and paper-based writing tests, providing valuable data for student progress, curriculum alignment, and program effectiveness (Figure 3).



**Figure 3.** TALA

**Note.** Source: Diglossia (2024). TALA Test of Arabic Language Arts. For more information, please visit: <https://www.diglossia.net/>

Overall, the participants stated there is a “lack of standardized tests in the field of LDs” in the Saudi context regardless of the test language. Additionally, identifying LDs in ELLs and BLs often relies on using assessments in their native language.

#### **4.1.3. Native Assessment Versus L2 Assessment**

The participants from international and public schools indicated they use language assessment based on the student’s native language (Arabic), which helps to determine whether the difficulties are purely linguistic or result from LDs. The majority agreed these practices may be a result of the school’s emphasis on the nature of the language. Some participants, despite their application of monolingual assessment (using the native language), acknowledged the importance of considering the assessment in the L2, as LDs exist regardless of the language; however, the nature of the language requires considering the nature of the assessment for suspected cases and thus making informed decisions to intervene in both languages based on students’ needs. Abdullah shared his experience in teaching ELLs and identifying those with learning difficulties over 15 years in public schools:

*There was no evaluation tool for identifying LDs in ELLs. Quizzes and the final exams were the only tools used, in addition to some participation within the classroom . . . and if it is found, it is in Arabic. Most students are discovered by the teacher, and, through them, the appropriate procedure is determined later.*

Nora, an LD teacher for 11 years, shared the following:

*We need more standardized tests in Arabic and English. I kept asking myself, “Do these students have LDs or not?” Should we target both languages in our identification process, or should I focus on their native language? Frankly, it is confusing.*

These teachers believe multiple assessments will help determine whether difficulties stem from genuine LDs or are the result of insufficient knowledge of the L2. Raul explained,

*My school uses an approach to identify BLs and ELLs with LDs and begins with universal screening and language-proficiency standardized assessments in both languages to distinguish language-acquisition challenges from LDs. Students who need support receive interventions and are monitored through an RTI framework under the student support unit.*

Psychologists indicated that despite their application of monolingual assessment (using the native language), they also acknowledge the importance of considering the assessment in the L2. Zinah, who has 21 years of experience in the field of LDs, said,

*There is no bilingual standardized diagnostic tool to reveal LDs. When I get the intelligence result, whether I used Arabic or English, I start to see two areas of diagnosis: working memory and quantitative substitution. If I find a decrease in them, I know this category may have learning difficulties. We always come to early intervention or awareness programs, and we recommend to parents that the mother tongue be the primary language. The second language (English) is not the primary language because, when I speak and measure the communication item, it is related to the Arabic language the child is supposed to speak in his familiar environment, and it may be related to customs and traditions. If the child has a deficiency in it, all the results of the field are disturbed—and thus the validity of the scale—because even the standardized versions of Arabic may not be linguistically and culturally responsive.*

Amal agreed with Zinah:

*I see the basic problem as comprehension regardless of the language. I use the instructions in English, but the verbal aspect is standardized in Arabic, so I use a scale. . . . I bring a foreign version—English—and apply the verbal aspect.*

#### **4.1.4. Use of Curriculum-Based Measurement**

Curriculum-based measurement was the most frequently used response pattern among participants working in public and private schools. Participants expressed concerns about resorting to this pattern due to the scarcity of bilingual standardized tests assessing the nature of differences in linguistic structure and, thus, appropriate interventions for each language. Abdullah compared his experience in public schools and bilingual schools:

*In public schools, my colleagues and I relied on short quizzes and final tests based on the curriculum to assess strengths and weaknesses of ELLs at risk of LDs due to the lack of standardized diagnostic tools in English. Thus, most students were identified by the teachers, who tried to take appropriate action. . . . In bilingual schools, a greater variety of assessments, including standardized tests in both languages, were used, which I found more effective.*

Amr confirmed Abdullah's thoughts about bilingual schools' use of standardized tests in both languages, stressing the importance of "drawing a comprehensive view" to identify suspected cases of LDs in BLs: "We administered standardized tests in Arabic and English . . . and nonstandardized tests prepared by the English and Arabic teacher." Fahda stated, based on the practices she witnessed as an Arabic and classroom teacher in two different contexts (private and international schools), that the recognition practices are based on "teacher efforts and curriculum-based measurement." When I asked her what she meant by teacher efforts, she answered, "Before the beginning of the year, I know about some cases through interviews or parents, so I distribute the curriculum and adapt my tools based on them, and sometimes I discover them while teaching the curriculum during the year."

Even Yasmine, as an LD teacher in a public school, confirmed that personal efforts in preparing assessment tools based on the curriculum represent "practice and challenge," and when I asked her how and why, she said because they are "personal efforts of teachers"; in her words, "These efforts, despite their importance, may be right or wrong." According to participants, one of the most popular curriculum-based measurements used in public schools is "Diagnostic Tests for LDs in Arabic and Mathematics Subjects at Elementary Stage," which aims to assess students' strengths and weaknesses and detect LDs based on the curriculum content. This helps in directing appropriate educational interventions that support students' learning individually (Figure 4).





**Figure 4.** Diagnostic Tests for LDs in Arabic and Mathematics Subjects at Elementary Stage

Note. Retrieved from MoE (2024). [الاختبارات التشخيصية لصعوبات التعلم.pdf](#)

It became clear from this theme that regardless of the type of school and teachers' backgrounds, the teachers have an important role in using curriculum-based measurement as a part of the identification process of LDs among BLs and ELLs.

#### **4.1.5. Use of Various Progress-Monitoring Tools for Tracking Students at Risk of LDs**

The participants mentioned “progress monitoring” as one of the school practices in recognizing ELLs and BLs at risk or suspected of possessing LDs. However, they cited different progress-monitoring tools based on their experience. Most of the participants, regardless of the school type, mentioned, “teacher records and teacher observations” allow them to notice changes in students’ performance and behavior within their natural learning environment as compared to their peers over time, “without pressure,” as Sami and Khalid said. “Progress conferences,” with families and/or multidisciplinary teams, came in second place after teacher records and observations. Yasmeen and Abdullah described these conferences as “face-to face meetings and WhatsApp or phone calls” to monitor students’ progress. What caught my attention was the practice in bilingual schools. For instance, Raul shared his school experience of using “standardized tests, curriculum-based measures, and teacher-made assessments” in addition to observations and conferences as a tool to track the growth of all students, including ELLs and BLs, suspected of having LDs. He explained,

*Determining whether a student has LDs requires close observation, teamwork, and continuous assessment. First, we look for indicators such as persistent difficulty in performing tasks despite effort, slower growth compared to peers, or clear deficiencies in reading, writing or mathematics. To get a more complete view of a student’s performance in various situations, we discuss with parents and other teachers. . . . Students who need support receive interventions and are monitored through the RTI framework within the student support unit.*

When I asked him about the tools used, he answered,

*My school uses the MAP test and the BAS suite to identify learning disabilities in ELLs or BLs. The MAP test measures academic progress and helps identify areas of reading struggle, differentiating between learning disabilities and language-acquisition issues. The BAS suite assesses reading behaviors and comprehension, providing detailed insights into students’ reading abilities. Together, these tools help teachers design support and interventions to meet students’ specific needs.(Figure 5)*

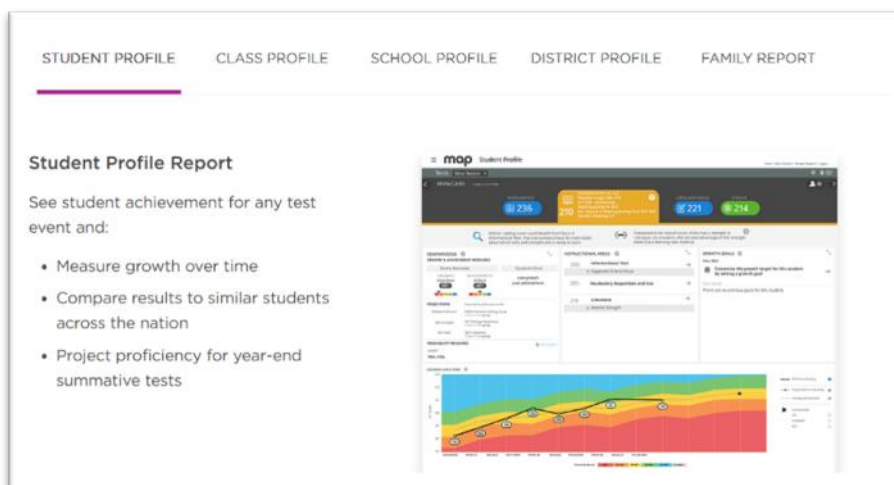


Figure 5. MAP

**Note:** Image taken from <https://www.nwea.org/map-growth/>. For more information about MAP, visit <https://www.nwea.org/map-growth/features/>, and to learn about Reading Fluency in action, visit <https://www.nwea.org/map-reading-fluency/>.

Ammar confirmed,

*Tests should not only be used for identification and screening purposes but also to monitor progress and provide appropriate intervention. We use them as a pretest at the beginning of the year and a posttest at the end of the year.*

Amr said, “technology can be a more efficient and data-driven approach to tracking student learning and growth, especially in reading and writing skills.” Amr explained technology is a useful tool for monitoring progress: “CENTURY is an academic standard and goal for Arabic language skills, which is the student can progress on the program alone without the influence of the father and teacher.” See figure 6.

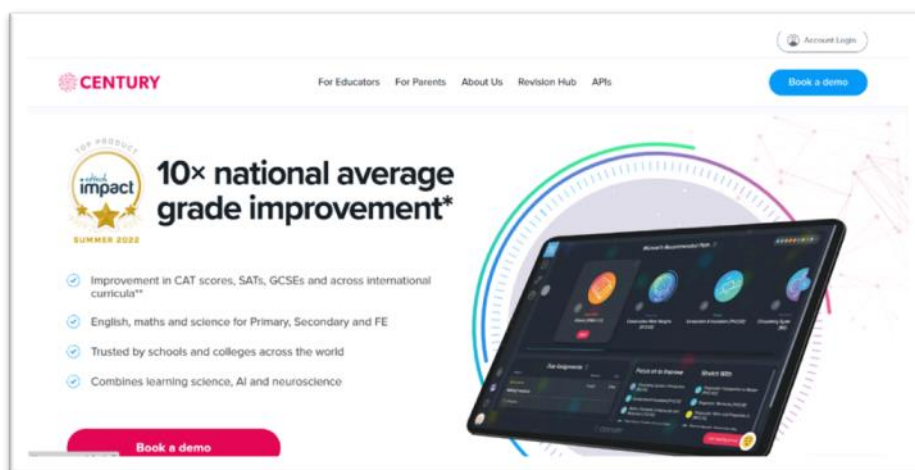


Figure 6. Screenshot From “CENTURY | Online Learning | English, Math and Science”

**Note.** Review CENTURY via the link: <https://www.youtube.com/watch?v=8S2d90k3d-0>

In addition, the Kutubee interactive reading platform involves evaluation tools that measure students’ reading skills and monitor their progress. The participants from international and private referred that they utilize several progress-monitoring tools to assess growth and help teachers to identify ELLs and BLs at risk of LDs. Also, there is no unified procedure that all schools follow. As shown in Figure 7, the Kutubee Platform is illustrated in the video (Kutubee Platform, 2021).



Figure 7. Kutubee Platform

**Note.** Kutubee Platform [Video]. For more information, visit <https://www.youtube.com/watch?v=MHkS3RbAHxg>.

## 4.2. RQ2

### 4.2.1. Imbalance in Language Leads to Confusion

This theme explores how linguistic imbalance can impact evaluation, leading to potential misdiagnoses and ineffective interventions. According to the participants, linguistic imbalance refers to the gap or difference in an individual's level of proficiency between Arabic and English languages, whether in comprehension or language production. It is a common challenge for BLs and ELLs and can affect their ability to learn and communicate in various ways. Confusion was the most frequent response pattern. Participants felt that ELLs and BLs may experience confusion when they are tested and diagnosed in a language, they may not be fully proficient in. Zeina noted, "If a student is learning two languages (such as Arabic and English) and is not fully proficient in either, this may negatively affect test results that may be in one language or both languages." However, Amal acknowledged expert specialists' ability to differentiate between language-learning difficulties and LDs, but she agreed with Zeina, based on her observations in some student cases, that the overlap between the two languages may lead to inaccurate assessments regarding language weaknesses and real learning difficulties. Citing cases of students referred from international and bilingual schools, she also highlighted the importance of aligning assessment methods with students' linguistic contexts:

*The imbalance between the two languages in students is sometimes misleading. When the tests are in Arabic and the bilingual knowledge is already there, it means the language is not 100% proficient in neither the mother tongue nor the second language; otherwise, he is an English language learner, and our focus is more on diagnosis in Arabic.*

Sami, an LD teacher, supported what Amal and Zaina said and shared the consequences of using monolingual assessment:

*If the student is diagnosed with a specific language (such as Arabic) and individual educational plans are developed based on it, the special needs for learning a second language (such as English) may be neglected. This creates an educational gap and affects the students' development in both languages.*

Yasmine, as an LD teacher, shared her confident opinion that language interference may appear in some BLs, particularly among those who have acquired English more than Arabic while writing. She continued by citing an example: "A student was referred to me who was confused in writing because Arabic starts from right to left, unlike English. . . . All she needed was simple support and linking strategies to excel while writing only." Thus, to ensure effective support, intervention requires careful

assessment, but using evaluation tools that ignore language imbalance may lead to inaccurate identification.

Participants shared their concerns about using assessment tools in the field that do not consider imbalance in BLs and ELLs; this increases the risk of bias that does not consider the multiplicity of languages and the students' level of proficiency in one of the two languages, thus inhibiting a more accurate picture of students' performance. Abdullah stated,

*I believe, as a bilingual teacher and learner, the biggest challenge we face is focusing on monolingual tools and neglecting to consider cases of confusion, ambiguity, switching code, and the differences in speed and accuracy levels in the two languages.*

Raul agreed with Abdullah's perspective:

*I have an experience teaching a student who was struggling significantly with reading and writing tasks despite being verbally fluent in both their native language and English. The primary challenge was distinguishing whether these academic struggles were related to language acquisition or indicative of a learning disability. The factors contributing to the challenge might be the assessment limitations, where the standardized tests initially used were not designed for bilingual students, leading to results that did not accurately reflect the student's abilities.*

Asmaa followed up with,

*LDs occur regardless of language . . . but even what is available in the field does not serve the child properly. We have a shortage of measures that can serve this area of LDs while also considering both languages to intervene effectively.*

Although language imbalance can lead to confusion in identifying LDs in BLs and ELLs, as well as in intervention, the challenge is compounded by the scarcity of measures available to accurately assess language abilities in Arabic and English.

#### **4.2.2. Cultural Bias**

In this theme, cultural bias can be understood from two perspectives based on the participants' opinions. First, there is a risk that parents, teachers, and psychologists may hold cultural biases favoring one language over others, thus affecting their understanding of students' performance and leading to unfair assessments. For example, Khaled said,

*We, as Arab teachers, may face a bias by parents or teachers toward one language over another in a way that indicates a focus on a specific language in education or assessment at the expense of other languages, which leads to the marginalization of speakers of no recognized languages.*

When I asked Khaled to clarify, he replied,

*When a specific language, such as English, is favored without consideration for Arabic or vice versa, this may result in an educational and cultural gap that hinders students' academic and social progress and makes it difficult to differentiate whether they have real learning difficulties or not.*

Dareen shared her perspective on parents' cultural perception of language and how it affects intervention:

*My view is that many families tend to underestimate the need for help when a child has language difficulties. In recent years, parents have come to believe a child is not having a problem if he or she is weak in a certain language (such as Arabic) but speaks another language fluently (such as English). However, language is not just speech and fluency; it includes other expressions such as pauses and using language in different situations.*

According to psychologist Asmaa, it is not just teachers who have noticed the cultural bias toward one language:

*When they ask if children with English have learning difficulties, they tell you “No.” . . . If he has writing difficulties in Arabic, they will be present in English, and if he has them in the quantitative field, he will have difficulty in mathematics, whether it is in this language or that one.*

Fahda shared her concern about the bias toward the mother tongue, sometimes at the expense of the L2 in private schools:

*The truth is there are always learning difficulties in both languages in what is required in the treatment plans (for Arabic and English) because there is a disability. I expect cultural perceptions to be tolerant because English as a second language does not necessarily require high scores. The most important thing is their mastery or progress in their language (Arabic).*

The second perspective is cultural bias in measurement, which refers to the effects that arise when measurement instruments are culturally inappropriate for certain groups. These biases may appear in psychological or educational tests when instruments are designed based on the standards of a specific culture, leading to inaccurate or unfair results when applied to individuals from different cultures. This causes individual differences to be overlooked and reduces the assessment’s accuracy, as individuals from different cultural backgrounds may suffer from misunderstandings of questions or inconsistencies in their social and linguistic experiences. To overcome these biases, measurement tools must be designed that consider cultural and linguistic diversity and that are fair. Zeina described the current cultural context as follows:

*The presence of bilingual children has become inevitable, as they are no longer seen as a phenomenon or a problem that must be solved. Many families find that English is the dominant language, even if the parents are not from a foreign background. The biggest challenge lies in children who have difficulties in both languages (Arabic and English).*

Perhaps the support among participants regarding the bias of assessment tools was consistent with the practices observed in their opinions under the theme of “assessment using the mother tongue and the scarcity of standardized assessments in Arabic and English that consider the Saudi cultural context.” Raul shared his belief that the linguistic bias in the tool may hinder accurate identification: “In my opinion, schools face challenges in identifying LDs in BLs and ELLs due to assessment bias and cultural differences that may affect learning without indicating disabilities.”

Ammar acknowledged the challenge of having “culturally biased” measures, but he shared a successful experience in overcoming this challenge: “In our school, we acknowledge linguistic bias is a reality that cannot disappear, but its effects can be reduced! We must work with the student under the academic umbrella of Arabic and English: social, motor, and developmental.”

It can be concluded from the participants’ perceptions that linguistic bias, whether intentionally or unintentionally coming from families or teachers, in addition to bias in the tools used, constitutes a real challenge in the field. Therefore, it is important to develop professional practices that increase cultural and linguistic awareness among parents and teachers.

#### **4.2.3. Lack of Relevant Professional Training**

For teachers who are not specialized in LDs, participants believed there was a need for training related to identifying LDs in BLs and ELLs; however, everyone, whether specialized or not in the LD field, should understand the nuances between the two languages. Asmaa indicated a “Lack of training leads to a lack of qualified personnel to cooperate with such cases, whether Arabic, L2, or LD teachers.” Consequently, teachers are forced to rely on their own efforts and previous experiences, which may or may not be correct. In a tone lacking enthusiasm, Abdullah shared his experience in general school: “There was no specific program or training course for that. [The English teacher] relies



on his previous experiences and his experiences with students over the past years in discovering students.” He continued, “Although these efforts may help in some cases, the absence of scientific practices and appropriate training prevents achieving effective results, which adds to the challenges facing teachers in this field.” Shereen confirmed, “a specialized background is important for bilingual teachers. However, there is a need to provide basic training courses—in the basics of BLs and ELLs at risk of LDs—so that we can discover and evaluate more easily.”

It is worth noting that the lack of training opportunities in the field of differential evaluation between real LDs and learning difficulties constitutes an obstacle for both English language and LD teachers; Noura stated, “We need to have training for cadres . . . on how to use them, how to diagnose, or how to distinguish between linguistically different categories.” Khaled (an Arabic language teacher) addressed the need for relevant training from another perspective: “One of the most prominent difficulties is keeping up with technological developments and continuous changes in curriculum, which requires the continuous development of new skills. Providing effective training programs that suit the needs of different teachers is also complex.”

It seems that the need for appropriate training was not limited to participating teachers from public, private, or even bilingual schools. Raul said, “Overall, one of the challenges associated with identifying LDs in bilingual and ELLs is the need to adequately train teachers. Without developing the basic skills to use assessment and evaluation tools, essential elements may be overlooked.”

### **4.3. RQ3**

#### **4.3.1. Using Diverse Assessment Tools to Monitor Progress**

In this theme, the participants suggested using a set of varied assessment tools (e.g., “observations, language tests, and performance assessments”) to provide a “comprehensive picture of the student’s abilities,” as Ammar and Raul described. Additionally, Sami emphasized the following: “We need to rely more on the democratic and flexible assessments over the school year than relying on only one test by the end of the year.” Participants repeated the word flexibility in their responses when they were asked how they ensure effective progress monitoring, but Abdullah described flexibility in the context of diversity as, “Diversifying the assessment activities given for the progress monitoring, considering individual differences, and reinforcing tasks outside the classroom instead of being limited to them inside the classroom.” Zeina and Fahda explained flexibility as accommodating the use of assessment tools to be culturally and linguistically appropriate, which helps reduce bias. Zeina suggested, “In standardized tests, consideration should be given to the use of tangibles, quantitative assessment, writing, and time.” Fahda proposed, “Even if the same curriculum is given, it should be given according to the students’ levels of skills in which they are assessed, which differ from one student to another.”

Teachers believed that monitoring progress using different and flexible tools helps to better understand students’ behavior. Moreover, academic patterns facilitate the identification of problems and help measure the effectiveness of interventions. Raul confirmed,

*Implementing a system for continuous monitoring of students’ progress . . . leads to adjusting interventions as needed. This ensures they meet each student’s evolving needs and maintain open communication with families . . . addressing any cultural concerns about LDs.*

#### **4.3.2. Conducting Assessment in Native and Second Languages**

Participants noted the challenges they face in learners’ performance may differ in assessment depending on the language of the used assessment (i.e., whether they are learning in their native language or L2) due to an imbalance in language proficiency, linguistic bias, cultural perceptions, or the lack of bilingual standardized assessments. Accordingly, participants suggested conducting assessments that consider both languages. For example, Asma commented, “Currently, education



means a qualitative leap and targeted programs, but the field needs to work on measurements to provide real measures standardized in the environment.” Zina agreed with Asma and added,

*We need to conduct assessments in both languages, but we need to have a standardized Arabic test . . . but when it is a test or an achievement test from an educational perspective, I see it as better than other achievement tests.*

Nora’s opinion matched that of Zina and Asma, and she added the importance of positioning students’ translation tests side by side to provide training on how to use them: “The tests we use at the ministry are unofficial, not standardized. So, they should be translated into English to administer them in the native language.”

### **4.3.3. Family Involvement**

One of the proposed solutions to overcome the highlighted challenges was involving family in the evaluation process. Dareen emphasized the importance of the family role, starting from approving the evaluation to intervening: “I consider the role of the family to be essential, meaning that most schools do not have the authority to deal with a child, evaluate, or transfer him or her without the family’s approval.” Sherine believed parents are more aware of their children’s condition: “On the contrary, they are supporters. They are more careful than the school in that they participate in the process of identifying the student’s identity.”

Abdullah described the extent of parents’ responsibility compared to that of teachers and the importance of their cooperation with teachers in the early stages of the identification process:

*The closer they are to their children, the more there is cooperation between the teacher and the guardian. Notifying each other about existing difficulties, for example, difficulties in reading or writing—will make it possible to identify students faster in the subject.*

Ammar added that ongoing assessments and progress-monitoring tools present more value through the parents’ participation in the results:

*There was an effective partnership between the father and mother, and they were constantly informed of the student’s progress in all academic and industrial aspects, and vice versa . . . and if there is ambiguity and lack of clarification, it also reflects negatively on him and is a category requiring the most attention.*

Ammar believed parents have a vital role; however, some of them require education to better practice their roles: “First of all, the field of LDs needs a lot. Support and guidance for parents and education are the science of learning difficulties.” Ammar continued,

*As an Arabic teacher, I am responsible for developing an individual educational plan for BLs at risk of LDs, such as this before direct referral to formal diagnosis, and I must share the results with their families to support their Arabic skills and reduce language barriers and misdiagnoses [referring to Figure 8].*

Student Information			
Student Name			
Grade	4th Grade		
School Year	2024-2025		
Location	Yellow zone area in literacy skills & English language arts		

Zone Ranges	Skill	Score	Zone
Green Zone: 80% - 100%	Reading	70%	Yellow
Yellow Zone: 60% - 79%	Writing	65%	Yellow
Orange Zone: 40% - 59%	Listening	85%	Green
Red Zone: 0% - 39%	Speaking	60%	Yellow

Areas for Improvement	Test Results Analysis
<ul style="list-style-type: none"> <li>Working on vocabulary to expand linguistic repertoire and improve communication and reading.</li> <li>Training in reading and listening comprehension skills such as prediction, retelling, and summarization.</li> <li>Practicing and developing writing skills.</li> </ul>	<ul style="list-style-type: none"> <li>Vocabulary Development: Work on improving vocabulary to enhance communication and reading skills.</li> <li>Comprehension Skills: Training on reading and listening comprehension, including predicting, retelling, and summarizing.</li> <li>Writing Skills: Further training and practice in structured writing.</li> </ul>

At Home:	At School:	Action Plan
<ul style="list-style-type: none"> <li>Monitor homework completion and ensure tasks are completed.</li> <li>Encourage free reading and reinforce it.</li> <li>Ask the student to summarize a story orally and retell it in their own words while using formal Arabic as much as possible.</li> <li>Ensure the student is actively using the <b>Century Program</b> and encourage engagement.</li> <li>Access the Century Program for Arabic language and complete assigned tasks.</li> <li>Maintain continuous communication with the teacher to track the student's progress.</li> <li>Engage in Arabic conversations with the student at home.</li> <li>Share the test results with the student and their guardian to ensure awareness and collaboration.</li> </ul>	<ul style="list-style-type: none"> <li>Assign individualized reading levels on <b>Century Platform</b>.</li> <li>Increase individual assignments on the Century Program.</li> <li>Train on structured writing skills.</li> <li>Expand vocabulary through short, sequential texts (synonyms &amp; antonyms).</li> <li>Focus on comprehension skills at both basic and advanced levels, including analytical questions related to texts.</li> <li>Intensify work on diverse literary texts by reading relevant stories in various literary forms.</li> <li>Conduct Developmental Reading Scale Assessments.</li> </ul>	<p>The student will be supported and their Arabic language proficiency will be enhanced through continuous collaboration between the school and home as outlined.</p>

Figure 8. Presentation of Results to Parents of BLLs.

Also, Raul referred to the idea of importance of sharing individual plan in English with students' parents (Figure 9).

Individual Education Plan on Reading Text - First Semester- 2024-2025																									
<table border="1"> <thead> <tr> <th colspan="4">Student Information</th> </tr> </thead> <tbody> <tr> <td>Student Name</td> <td colspan="3"></td> </tr> <tr> <td>Grade</td> <td colspan="3">4th Grade</td> </tr> <tr> <td>School Year</td> <td colspan="3">2024-2025</td> </tr> <tr> <td>Location</td> <td colspan="3">Yellow zone area in literacy skills &amp; English language arts</td> </tr> </tbody> </table>						Student Information				Student Name				Grade	4th Grade			School Year	2024-2025			Location	Yellow zone area in literacy skills & English language arts		
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<p><b>Long-Term Goal:</b> By the end of the 2024-2025 school year, the student will achieve language proficiency skills for his grade level in the Green Zone area.</p>																									
<b>Objective</b>	<b>Description</b>	<b>Indicators for Monitoring Progress:</b>	<b>Strategies for Achieving the Objectives</b>	<b>Measurement Methods</b>	<b>Sources</b>																				
<b>Objective 1: Text Analysis &amp; Main Idea</b>	By the end of 3 months, the student will analyze texts and identify the main idea and supporting details in 4 out of 5 texts with 80% accuracy.	<ul style="list-style-type: none"> <li>The student can identify the main idea after one reading.</li> <li>Distinguish between the main idea and supporting details.</li> <li>Highlight relevant key information.</li> </ul>	<ul style="list-style-type: none"> <li>Use <b>graphic organizers</b> like concept maps.</li> <li><b>Read aloud</b> with discussions to clarify the main idea.</li> <li>Teach students how to find the main idea using <b>guided reading sessions</b>.</li> </ul>	<ul style="list-style-type: none"> <li><b>Quizzes and tests</b> on identifying main ideas and supporting details.</li> <li><b>Reading logs</b> to track daily reading habits.</li> </ul>	<ul style="list-style-type: none"> <li>Reading Comprehension: Strategies for Teachers' 101.</li> <li>"Building Vocabulary"</li> <li>Educational platforms like Common Core Standards for English Language Arts.</li> </ul>																				
<b>Objective 2: Vocabulary Development</b>	By the end of 2 months, the student will learn 15 new words and use at least 12 out of the 15 words correctly in context.	<ul style="list-style-type: none"> <li>The student uses new vocabulary words correctly in sentences.</li> <li>Show understanding of word meanings through context.</li> <li>Demonstrates improved vocabulary retention through quizzes and word usage.</li> </ul>	<ul style="list-style-type: none"> <li>Teach through <b>context clues</b> to infer word meanings.</li> <li>Use <b>interactive vocabulary games</b> like flashcards.</li> <li>Display a <b>word wall</b> in the classroom for frequent exposure.</li> </ul>	<ul style="list-style-type: none"> <li><b>Observation checklists</b> during group and independent reading sessions.</li> <li><b>Progress reports</b> every two weeks to assess the achievement of objectives.</li> </ul>																					
<b>Objective 3: Summarization Skills</b>	By the end of the first semester, the student will summarize a 2-3 paragraph text by identifying the main idea and supporting points, with 80% accuracy.	<ul style="list-style-type: none"> <li>The student can identify the main points and essence of a text without excessive detail.</li> <li>Can write a clear, concise, and accurate summary.</li> </ul>	<ul style="list-style-type: none"> <li>Teach the <b>"Somebody-Wanted-But-So"</b> technique for summarizing stories.</li> <li>Use <b>graphic organizers</b> like the "Story Elements" chart for text breakdown.</li> <li>Encourage <b>peer collaboration</b> for summarizing together.</li> </ul>																						
<b>Teacher's Role &amp; Responsibilities</b>	<ul style="list-style-type: none"> <li>Provide <b>individualized instruction</b> based on student needs.</li> <li>Continuously assess progress using <b>formative assessments</b>.</li> <li>Provide <b>frequent feedback</b> and re-teaching if necessary.</li> <li>Use <b>multisensory techniques</b> (auditory, visual, kinesthetic).</li> </ul>																								
<b>Family's Role &amp; Responsibilities</b>	<p><b>Description</b></p> <ul style="list-style-type: none"> <li>Encourage the student to <b>read daily</b> for 15-20 minutes.</li> <li>Help practice vocabulary by using new words in daily conversations.</li> <li>Support by reviewing <b>summaries</b> together.</li> <li>Regularly communicate with the teacher to track progress.</li> </ul>																								

Figure 9. Sample of English Individual Educational Support Plan Shared With Parent of BLS

Figures 8 and 9 show one of the practices in bilingual schools, as well as examples of family involvement in the intervention phase before identification.

#### **4.3.4. Providing Professional Development for Teachers and Increasing Awareness of Parents**

Participants stressed the importance of providing professional development and increasing awareness on how to identify LDs in the context of BLs and ELLs. Asmaa suggested,

*Cadres should be trained to detect the difficulties of bilingual children. Also, a group of specialists are being sent to study this particular field. If we took two people from each region and then narrowed it down, we would start to develop them as awareness programs because the field is very weak in detecting these cases.*

In Noura's opinion, training is no less important than Asmaa's point of view. She added, "qualifying and training cadres is the secret to the success of SLDs' support programs and addressing the shortage of cadres." She also shared the following concern:

*There is a significant shortage of LD teachers, with the current number insufficient to cover the needs of students. Schools have long waiting lists, and if screening were expanded to include BLs, each school would need at least three additional trained teachers.*

As an English language teacher, Abdullah holds decision-makers responsible for providing hybrid training between the fields of English language and LDs. He enthusiastically claimed, "Teacher training is very important as well as family awareness." When I asked him for further clarification, he said,

*Training should be supervised by the MoE or relevant departments, such as the English Department, in collaboration with special education, to ensure teachers are adequately prepared. This will help in early detection of students with learning difficulties, especially in primary school. Parents' awareness should be raised through awareness programs to ensure their cooperation with the school in identifying and supporting their children.*

Ammar also emphasized the importance of providing appropriate training opportunities according to the target group—LD teachers and GE teachers—as well as considering parental awareness:

*This means there could be training dedicated to specialists in two subjects: special education and LDs. There could be general training for teachers who work in the elementary and middle stages to learn about the field of LDs. The role of the media in general, whether written or audio, could help to make parents more aware of their children's needs and rights.*

Yasmine suggested training and spreading awareness in a modern way, saying, "I believe indirect training through awareness is a more powerful and advanced way than the electronic awareness method in any means of communication, whether through presentations, documentaries, etcetera."

*In conclusion, training teachers and raising parents' awareness are an essential step in improving the identification of LDs in BLs and ELLs. The hope is that a strong partnership between school and family can be built through meaningful training programs and awareness campaigns.*

## **5. Discussion**

Practices used in schools suggest that distinguishing between language-acquisition difficulties and LDs among ELLs and BLL could be difficult but possible, which is consistent with Swanson et al.'s (2020) findings. Regarding RQ1, participants' responses indicate that schools, whether public or private, international or bilingual, acknowledge the use of several assessment sources and measures. Schools of all types agree on the use of practices for identifying LDs in BLs and ELLs based on teachers' observations. As informal assessment in the context of identifying students at risk of LDs, teachers'

observations provide insight into student behavior and performance in the classroom environment, whether structured or not (Abunyan, 2019).

Participants acknowledge the importance of applying standardized tests as one of the formal methods to compare a student's level to specific standards. Psychologists in formal evaluation centers still administer cognitive ability tests (e.g., intelligence tests such as Wechsler and Binet) to students suspected of having LDs after educational interventions have failed. These test results are used as a criterion for excluding the presence of mental disability (MoE, 2001). However, these intelligence tests have limitations in general cognitive abilities when used due to cultural and linguistic biases affecting the accuracy of results (Alsarawi, 2023; Fuchs et al., 2003). Also, standardized tests may lead to English learners being misclassified as having LDs due to cultural and linguistic differences, consistent with previous studies' findings (e.g., Spinelli, 2008). Participants from bilingual schools specifically mentioned their commitment to using academic standardized tests in both languages, which have not been applied in public schools because all tests are based on the curriculum. It is recommended practice to provide multiple adapted versions considering language differences (Eveddy, 2023). Participants from bilingual schools seemed more likely to apply the RTI model as part of their practices for identifying students with LDs and to avoid immediate referrals to a diagnostic center unless interventions failed. This is because RTI includes strict instructions for all students and interventions varying in intensity, density, and duration for at-risk groups (Alahmari, 2019).

There was controversy about the usefulness of providing evaluation tests, whether standardized or academic, in the native language or both, if the LDs occurring in both languages originate in the brain. It may be difficult, but possible, to standardize tests in both languages. However, current practices indicate the importance of daily curriculum-based measurements where students' performance is monitored. Monitoring progress is an evidence-based practice supporting all students' learning without exception. Research findings indicate using curriculum-based measurement as a part of students' continued assessment has several advantages, such as helping teachers (a) make data-driven decisions to improve instruction and early intervention and (b) predict academic performance and enhance support for students in need (Alahmari, 2019; Alsarawi, 2023). This may be achieved through a systematic approach to supporting students via collaboration between GE and special education teachers (Cárdenas-Hagan, 2018). RTI is an effective model in this context, as it allows teachers to monitor students' progress and identify the best strategies (Alahmari, 2019).

It is worth noting that the mentioned practices (observation, use of standardized tests, curriculum-based measurement, and monitoring progress) are consistent with the MoE's organizational guide for identifying students at risk of LDs. However, the difference lies in the guide's failure to define how to deal with BLs and ELLs (i.e., considering linguistic differences despite the prevalence of BLs and ELLs). This raises two questions: Has the absence of an explicit reference in the guide reflected in-field practices? Also, should the guide be updated to be consistent with students' diverse needs and Saudi Vision 2030's trend toward comprehensive learning?

The challenges mentioned by the participants can be summarized as an imbalance in language proficiency, cultural bias, and lack of adequate and relevant teacher training. Imbalance in language proficiency means learners do not have equal linguistic proficiency, such as when one language dominates the other; this may be reflected in their ability to express their ideas, understand academic content, and respond to assessments, which may lead to misleading results. This definition aligned with the classification of ELLs, according to language proficiency, into subgroups that include balanced bilinguals, unbalanced bilinguals, and those at risk of LDs (Swanson et al., 2020). Linguistic inequality refers to a problem of proficiency that may confuse the diagnosis process if teachers or specialists do not consider it. The challenge of unequal proficiency in the two languages is an obstacle,

as the difference between proficiency levels may provide an inaccurate picture of the student's abilities. Cultural bias, which can be explained as a tendency toward one language over the other, whether by parents or teachers, also leads to an objective assessment. As a result, students' linguistic needs are ignored in both languages. Poor training in identifying LDs in BLs and ELLs results in confusion between delayed language acquisition and actual difficulties, which produces inaccurate diagnosis. Therefore, specialized training is essential to ensure fair and effective education.

According to the participants, to overcome these challenges, it is important to use more flexible scales assessing students' linguistic and cultural specificities. Both languages should be used to ensure fair assessment of students' real skills without linguistic constraints. This is consistent with recommendations from previous research, such as providing multiple adapted versions acknowledging language differences (Evenddy, 2023) and offering modifications in content and the administration of standardized tests (Goh, 2003). Involving parents in the educational and assessment processes is an essential step, as they can provide valuable insights into the child's behavior at home and their overall development. Finally, teachers should receive continuous training on the use of diverse and integrated assessment tools, as it is one of the most important factors contributing to improved accuracy of assessment and early diagnosis of LDs in ELLs and BLs. This training helps develop their skills in monitoring performance and choosing appropriate assessment tools, which leads to better support for students and the timely application of appropriate educational interventions.

## 6. Limitations

Although the results show understanding of sample perspectives regarding the relevant practices and challenges in the field of identifying LDs in BLS and ELLs and provide insightful suggestions, some limitations require consideration. The first limitation is the nature of the study context. The results may be affected by the educational context (public, private international, and bilingual schools); the sample was from one region in Saudi Arabia, which does not necessarily reflect the Saudi context in general. In other words, focusing on a single geographic and administrative area in this research may limit the comprehensiveness and accuracy of the results, especially in a large country such as Saudi Arabia with geographic and cultural diversity. This is because schools in other areas may follow different educational policies and practices, making it difficult to generalize the results from one area to all schools in the country. Even though data saturation was reached, the second limitation was the lack of documents and participants' difficulties accessing some of them. The difficulty in accessing documents due to confidentiality and privacy restrictions (e.g., students' data, scores, educational needs...etc.) may have limited the availability of essential data reflecting school practices, as the study relied solely on the documents that were permitted for sharing. Additionally, some documents were protected by laws safeguarding personal data or maintaining the confidentiality of the educational institution, which could result in a lack of information and complicate research procedures, ultimately affecting the accuracy and reliability of the findings. When the data derived from documents are limited, only certain viewpoints may be represented, which increases the possibility of unintended bias in the results. This bias can exclude important aspects of the phenomenon studied, which makes the study less comprehensive. Therefore, analyses from documents are limited to incomplete information, which may lead to conclusions that do not fully reflect reality.

## 7. Recommendations for Practice

Below are some recommendations for improving practices in identifying LDs in BLs and ELLs, based on the participants' most prominent suggestions:

1. Conduct a comprehensive assessment that includes language and cognitive skills, considering the first and second languages.
2. Collaborate with families to collect information about the child's performance at home, as well as any helpful observations.
3. Use multiple and adaptable assessment tools (e.g., standardized and nonstandardized tests, classroom observations, interviews) to obtain a comprehensive picture of the student's ability.
4. Provide professional training for teachers and specialists on how to identify LDs, while considering their linguistic backgrounds, to provide a regular evaluation and relevant intervention.
5. Increase family involvement and awareness to enhance the transparency and objectivity of identification procedures and the effectiveness of interventions.

These recommendations can help address the challenges in identifying and addressing LDs in BLs and L2 learners.

## 8. Research Recommendations

This study recommends the development of identification and intervention strategies targeting LDs in BLs and ELLs, with an emphasis on comprehensive assessment tools considering students' linguistic and cultural backgrounds. The RTI model is an effective tool in this context, as it allows teachers to monitor students' progress and identify the best strategies. The diagnostic process should include accurate assessment tools that include formal and informal tests, performance-based assessments, and classroom observations, which help to accurately identify LDs and provide appropriate support, considering the importance of professional development and family involvement. Therefore, it is recommended to adopt research methodologies addressing the current study's limitations and supporting the proposed practices. For example, conducting quantitative research to collect measurable data on students' performance and assessments may help to evaluate the effectiveness of diagnosis and educational interventions. It is recommended to use a mixed-methods research practice combining quantitative and qualitative methods, which provides a deeper understanding of the field's challenges and how to improve practices. Also, the bilingual category can be allocated as a comparative study to understand the differences in language development and the nature of challenges compared to other categories in the context of learning difficulties, which contributes to identifying improved educational strategies.

Given the importance of professional development from the participants' perspective, it may be useful to investigate the effectiveness of professional development and its relationship to the quality of detection, support, and performance around LDs for BLs and ELLs. Another point of emphasis is to involve family members as a sample in future studies, as they have a role in ensuring the provision of a supportive and inclusive educational environment. These recommendations aim to improve learning outcomes and enhance the experience of students facing challenges in this context.

## 9. Conclusion

Identifying LDs in BLs and ELLs requires a deep understanding of the challenges faced by practitioners in the field. Linguistic, cultural, and professional development aspects overlap, impacting the ability to make informed decisions for evaluation and intervention. To achieve this, it is important to use diverse measurement tools and implement bilingual tools (e.g., customized language-proficiency tests, observations) assessing multiple aspects of learning. Continuous assessment is essential to determine students' progress, allowing for the adjustment of teaching strategies based on their individual needs. From the perspective of this study's participants, these challenges require diverse assessment strategies reflecting students' diverse backgrounds, helping to create an inclusive learning environment. This is a fertile area for further research, as more



techniques can be explored that enhance these students' identification and intervention. Therefore, collaboration between teachers, parents, and researchers is essential to ensure improvement of students' language and academic skills.

## Declarations

**Author Contributions.** All authors have read and approved the published on the final version of the article.

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## Declaration of generative AI and AI-assisted technologies in the writing process

During the preparation of this work the author used ChatGPT to improve language and readability. After using this tool/service, the author reviewed and edited the content as needed and take full responsibility for the content of the publication.

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