# The Reality of Learning Difficulties among Primary School Pupils and Ways of Addressing Them: A Field Study in Selected Schools in Algiers

**Dr. Mohamed Salah Djeddi**
Abou El Kacem Saâdallah University, Algiers 2, Algeria
mohamedsalah.djeddi@univ-alger2.dz

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**Abstract**
This study aimed to investigate the reality of learning difficulties among primary school pupils in selected schools in Algiers by identifying the most common types of learning difficulties, their causes, methods of identification and remedial strategies employed. It also examined teachers' attitudes towards these pupils and the principal difficulties teachers encounter when working with them. The study adopted a descriptive–analytical approach, using a questionnaire to collect data from a purposive sample of 120 male and female primary school teachers from selected schools in Algiers, drawn from three educational districts (Chéraga, Ben Aknoun and Bab Ezzouar). To achieve the study objectives, a questionnaire was designed around four main dimensions: types of learning difficulties, causes, identification methods and remedial strategies. The instrument's psychometric properties were assessed before administration. The data were subsequently collected and analysed statistically using arithmetic means, standard deviations, the t-test and one-way analysis of variance. The results showed that the most common learning difficulties were reading difficulties (dyslexia), followed by writing difficulties (dysgraphia) and arithmetic difficulties (dyscalculia). The most commonly reported causes were hereditary factors, followed by environmental and psychological factors, and then educational factors. The findings also revealed weaknesses in early identification mechanisms and limited use of specialised remedial strategies by teachers. Although teachers expressed positive attitudes towards these pupils, they faced insufficient training and heavy teaching workloads.

**Keywords:** learning difficulties; dyslexia; dysgraphia; dyscalculia; primary education.

## 1. Introduction

Learning difficulties are among the most common disorders at the primary-school stage. Estimates suggest that between 5% and 15% of pupils worldwide experience learning difficulties (Al-Sartawi, 2012, p. 15). Learning difficulties are neurodevelopmental disorders affecting a pupil's ability to receive, process and understand information, despite average or above-average intelligence and the absence of sensory, intellectual or motor impairments that might account for these difficulties (Al-Khatib, 2013, p. 55). They may manifest as difficulties with reading (dyslexia), writing (dysgraphia), arithmetic (dyscalculia) or a combination of these. They adversely affect academic attainment and may lower pupils' self-esteem and confidence and lead to behavioural and emotional problems if appropriate early intervention and treatment are not provided. Many countries have addressed learning difficulties through legislation safeguarding the educational rights of this group and through teacher-training programmes for early identification and remedial intervention. In Algeria,



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despite efforts in special education, approaches to learning difficulties in primary schools continue to be affected by inadequate training, weak identification mechanisms and a shortage of remedial programmes. Field studies are therefore needed to establish the situation and propose appropriate solutions. Against this background, the present study examines learning difficulties among primary-school pupils in selected schools in Algiers, focusing on their most common types, causes, identification procedures and remedial strategies.

**2. Research Problem**

Learning difficulties are among the educational problems most detrimental to pupils' academic achievement. Approximately 10% of primary-school pupils in Algeria experience one or more forms of learning difficulty (Ben Zerrouk, 2020, p. 45). Despite their prevalence, early identification mechanisms remain weak and remedial programmes inadequate, exacerbating the problem, reducing academic performance and increasing grade repetition and school dropout rates (Al-Izza, 2002, p. 38). Previous studies have emphasised that early identification and intervention during the initial years of schooling substantially improve outcomes, prevent difficulties from worsening and reduce the need for more intensive intervention later (Al-Rousan, 2013, p. 52). However, practices in Algerian schools indicate a considerable gap between theory and application: most teachers lack sufficient training to identify learning difficulties, do not have the necessary tools or strategies for intervention, and work in schools that lack specialised educational and psychological professionals (Al-Quraiti, 2005, p. 78). Numerous Arab and international studies have examined learning difficulties. Al-Far (2018) highlighted the importance of early intervention in improving pupils' outcomes; Yahya (2005) pointed to the need for teacher training in identification and treatment; and Al-Khatib (2013) emphasised the family's role in supporting pupils. In the province of Sétif, which has numerous primary schools across districts including Sétif, El Eulma and Aïn Azel, teachers' ability to work with pupils with learning difficulties appears to vary. A field study is therefore needed to examine the situation, identify the difficulties teachers face and propose appropriate solutions. This leads to the following main research question:

**What is the reality of learning difficulties among primary-school pupils in schools in the province of Sétif, and how can they be addressed?**

The following subsidiary questions are presented in the source as statements:

1. There are statistically significant differences between types of learning difficulties (reading, writing and arithmetic) among primary-school pupils, with reading difficulties predominating.
2. There is a statistically significant relationship between the causes (hereditary, environmental and educational) and the emergence of learning difficulties.
3. There are statistically significant differences between schools in the effectiveness of early identification mechanisms for learning difficulties.
4. There are statistically significant differences between teachers in their use of remedial strategies for learning difficulties.
5. Teachers have positive attitudes towards pupils with learning difficulties, although they encounter obstacles when working with them.

**3. Study Objectives**

The study aims to:



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1. Identify the most common types of learning difficulties among primary-school pupils.
2. Determine the main causes of learning difficulties among primary-school pupils.
3. Evaluate the effectiveness of early identification mechanisms in primary schools.
4. Identify the remedial strategies used with pupils with learning difficulties.
5. Investigate teachers' attitudes towards pupils with learning difficulties and the challenges they encounter.
6. Offer recommendations and proposals for improving identification mechanisms and remedial interventions.

**4. Research Hypotheses**

On the basis of the research problem and questions, the following hypotheses were formulated:

1. There are statistically significant differences between types of learning difficulties (reading, writing and arithmetic) among primary-school pupils, with reading difficulties predominating.
2. There is a statistically significant relationship between the causes (hereditary, environmental and educational) and the emergence of learning difficulties.
3. There are statistically significant differences between schools in the effectiveness of early identification mechanisms for learning difficulties.
4. There are statistically significant differences between teachers in their use of remedial strategies for learning difficulties.
5. Teachers have positive attitudes towards pupils with learning difficulties, although they encounter obstacles when working with them.

**5. Scope of the Study**

**5.1 Geographical scope**

The study was conducted in selected primary schools administered by the Directorate of Education of the Province of Algiers, encompassing three educational districts: Chéraga, Ben Aknoun and Bab Ezzouar.

**5.2 Temporal scope**

The study was conducted during the second semester of the 2025/2026 academic year.

**5.3 Participant scope**

The study sample was limited to 120 male and female primary-school teachers.

**5.4 Subject scope**

The study was restricted to academic learning difficulties involving reading, writing and arithmetic.

**6. Pilot Study**

**6.1 Concept and importance of the pilot study**

A pilot study is an essential methodological step in field research, intended to test research instruments and verify their suitability before their administration to the main sample (Al-Khatib, 2013, p. 82). Its importance lies in enabling researchers to establish whether instrument items are clear and appropriate to the field context, determine a suitable administration time, identify potential data-collection difficulties and make necessary revisions before wider administration (Al-Sartawi, 2012, p. 95). A pilot study also helps



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establish an instrument's psychometric properties (validity and reliability) and whether it accurately and objectively measures its intended constructs (Al-Quraiti, 2005, p. 102).

**6.2 Objectives of the pilot study**

The pilot study aimed to:

1. Assess the clarity of the items in the questionnaire on the reality of learning difficulties and their suitability for the field context.
2. Determine the appropriate time required to complete the questionnaire.
3. Identify potential difficulties during data collection and suggest suitable solutions.
4. Assess the questionnaire's psychometric properties (validity and reliability).
5. Make necessary adjustments before administering the questionnaire to the main sample.

**6.3 Pilot-study sample**

The pilot sample comprised 30 male and female primary-school teachers from schools in the Province of Algiers. They were selected at random from different schools in the Bab Ezzouar district, taking gender, teaching experience and academic qualifications into consideration to ensure that the sample reflected the characteristics of the population studied.

**Table 1. Distribution of the pilot-study sample by gender, experience and academic qualification**

| Characteristic | Category | Number | Percentage |
|---|---|---|---|
| Gender | Male | 12 | 40% |
| | Female | 18 | 60% |
| Experience | 3–5 years | 8 | 26.7% |
| | 6–10 years | 14 | 46.7% |
| | More than 10 years | 8 | 26.7% |
| Academic qualification | Bachelor's degree | 19 | 63.3% |
| | Master's degree | 11 | 36.7% |

*Source: Prepared by the researcher based on the pilot-study data.*

**Interpretation of Table 1.** Table 1 shows the distribution of the pilot-study sample by gender, experience and academic qualifications. Women accounted for 60% of the sample and men for 40%, reflecting the predominance of women in primary teaching. Regarding experience, the largest group had 6–10 years of teaching experience (46.7%), suggesting a reasonable level of experience among the participants. Bachelor's degree holders were most represented (63.3%), compared with master's degree holders (36.7%).

**6.4 Pilot-study procedures**

1. An initial questionnaire was designed with 35 items distributed across four main dimensions.
2. The questionnaire was submitted to seven experts in special education. Their comments led to the deletion of three unsuitable items, the merging of two items and the rewording of five others.
3. The questionnaire was administered to the pilot sample (n = 30) between 15 and 25 March 2026.
4. Completion time was recorded for each participant, ranging from 12 to 18 minutes, with a mean of 15 minutes.



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5. Responses were collected and analysed using SPSS to assess the instrument's psychometric properties.
6. Final revisions were made to the questionnaire based on the pilot-study findings.

**6.5 Pilot-study findings**

**6.5.1 Instrument validity**

Validity was assessed using two methods.

**a. Face validity (expert judgement).** Seven special-education experts assessed the relevance of each item to its dimension, the clarity of its wording and its suitability for the field context. Overall expert agreement reached 87%, a high percentage indicating good face validity (Al-Sartawi, 2012, p. 98). Their comments resulted in three items being removed, two being merged and five being reworded. The final questionnaire consisted of 32 items.

**b. Construct validity (internal consistency).** Pearson correlation coefficients were calculated between each item's score and the total score for its dimension, and between each dimension's score and the overall questionnaire score. The correlation coefficients ranged from 0.45 to 0.78, all statistically significant at $\alpha \leq 0.05$, indicating good construct validity (Al-Quraiti, 2005, p. 110).

**Table 2. Correlations between dimension scores and the total questionnaire score**

| Dimension | Correlation coefficient | Significance level |
|---|---|---|
| Types of learning difficulties | 0.72 | 0.000 |
| Causes of learning difficulties | 0.68 | 0.000 |
| Methods of identifying learning difficulties | 0.65 | 0.000 |
| Remedial strategies | 0.70 | 0.000 |

*Source: Prepared by the researcher based on the pilot-study findings.*

**Interpretation of Table 2.** The correlation coefficients between the dimension scores and the overall questionnaire score ranged from 0.65 to 0.72 and were all statistically significant at the reported level of 0.000. This confirms the instrument's good internal consistency and indicates that all dimensions contribute effectively to measuring the reality of learning difficulties.

**6.5.2 Instrument reliability**

Questionnaire reliability was assessed using two methods.

**a. Cronbach's alpha.** Cronbach's alpha was calculated for the questionnaire as a whole and for each dimension separately, with the following results:

**Table 3. Cronbach's alpha coefficients for the questionnaire dimensions and total score**

| Dimension | Number of items | Cronbach's alpha |
|---|---|---|
| Types of learning difficulties | 8 | 0.85 |
| Causes of learning difficulties | 8 | 0.82 |
| Methods of identifying learning difficulties | 8 | 0.79 |
| Remedial strategies | 8 | 0.81 |
| Questionnaire as a whole | 32 | 0.88 |



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*Source: Prepared by the researcher based on the pilot-study findings.*

**Interpretation of Table 3.** Cronbach's alpha coefficients for the dimensions ranged from 0.79 to 0.85, and the overall questionnaire reliability coefficient was 0.88. These high values indicate good reliability and internal consistency, supporting the instrument's use in the main study (Al-Rousan, 2013, p. 68; Salvia et al., 2020, p. 88).

**b. Split-half reliability.** Questionnaire items were divided into two halves (odd- and even-numbered items), and the correlation between them was calculated as 0.82. After correction using the Spearman–Brown formula, the coefficient reached 0.90, indicating high instrument reliability (Al-Sartawi, 2012, p. 100).

**6.5.3 Modifications following the pilot study**

Based on the pilot-study findings, the following modifications were made:

1. Three unsuitable items were deleted, two items were merged and five were reworded based on expert comments and the statistical analysis.
2. The language of several items was adjusted to improve clarity and precision following suggestions from pilot participants.
3. The appropriate questionnaire completion time was set at 15 minutes after the pilot showed a range of 12–18 minutes.
4. Some items were reordered to follow the logical sequence of the dimensions.
5. Explanatory instructions were added at the beginning of the questionnaire to clarify the study's purpose, how to respond to the items and the confidentiality of information.

**6.6 Lessons learned from the pilot study**

1. The pilot study confirmed the importance of testing the instrument before using it with the main sample, helping to identify weaknesses in wording and clarity.
2. It showed that completing the questionnaire takes approximately 15 minutes, a suitable duration to consider in field administration.
3. It highlighted the need for a quiet setting when administering the questionnaire to ensure participants' concentration and the sincerity of their responses.
4. It demonstrated the importance of clear opening instructions explaining each dimension to ensure that the items are correctly understood.
5. It confirmed the instrument's good psychometric properties, strengthening confidence in the findings expected from the main study.

**7. Theoretical Framework and Previous Studies**

**7.1 Learning difficulties: Definition and origins**

Learning difficulties are defined as a “neuropsychological disorder manifested in specific difficulties in acquiring and using listening, speaking, reading, writing or mathematical skills; these difficulties are intrinsic and persist throughout the individual's life” (NJCLD, 2020, p. 3). The term *learning difficulties* was first introduced in 1963 by psychologist Samuel Kirk and subsequently developed into a more precise and comprehensive concept (Fletcher et al., 2019, p. 8). Learning difficulties are characterised by a discrepancy between intellectual ability and academic attainment: pupils may have average or above-average intelligence but perform poorly in a particular academic area. They are not explained by sensory, intellectual or motor impairments and persist despite the provision of appropriate instruction (Al-Sartawi, 2012, p. 22).



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### 7.2 Types of learning difficulties

Learning difficulties are classified into three principal types (Shaywitz, 2003, p. 22; Berninger & Wolf, 2009, p. 15).

#### 7.2.1 Dyslexia

Dyslexia is the most common form of learning difficulty, accounting for approximately 80% of cases. It involves difficulty recognising words accurately and fluently, poor spelling and word decoding, and is attributed to impaired phonological processing (Shaywitz, 2003, p. 30).

#### 7.2.2 Dysgraphia

Dysgraphia involves difficulties with handwriting, poor spelling and written expression. It is attributed to impairments in sensorimotor integration or the storage of words in long-term memory (Berninger & Wolf, 2009, p. 15).

#### 7.2.3 Dyscalculia

Dyscalculia involves difficulty understanding numbers and quantities, weak mental arithmetic and difficulties solving mathematical problems. It is attributed to impaired quantity representation in the parietal lobe (Butterworth, 2010, p. 8).

### 7.3 Causes of learning difficulties

The causes of learning difficulties are diverse and fall into three principal categories (Al-Sartawi, 2012, p. 45; AAIDD, 2021, p. 58).

#### 7.3.1 Hereditary causes

Genetic factors play a significant role in the emergence of learning difficulties. Research indicates that learning difficulties run in families, with first-degree relatives showing a higher prevalence than the general population (Fletcher et al., 2019, p. 45).

#### 7.3.2 Neurological causes

These include differences in brain structure and function, particularly in regions involved in phonological processing (the left posterior temporal region) and rapid word recognition (the left occipitotemporal region) (Shaywitz, 2003, p. 38).

#### 7.3.3 Environmental and educational causes

These include inadequate early stimulation, poor teaching quality, insufficient practice, language deprivation, disadvantaged socioeconomic circumstances and psychological factors such as anxiety and depression (Al-Rousan, 2013, p. 65).

### 7.4 Methods of identifying learning difficulties

Identification relies on a range of tools and procedures (Salvia et al., 2020, p. 4).

#### 7.4.1 Classroom observation

Observing pupils' performance on classroom tasks and recording behaviours indicative of learning difficulties.

#### 7.4.2 Error analysis

Analysing pupils' errors in reading, writing and arithmetic to identify the type and source of difficulty.

#### 7.4.3 Achievement measures

Using achievement tests to assess pupils' performance in core subjects (reading, writing and arithmetic) and compare it with that of their peers.



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**7.4.4 Psychological measures**

Using intelligence, cognitive ability and personality tests to identify pupils' strengths and weaknesses.

**7.4.5 Response to Intervention (RTI)**

This modern model involves providing graduated educational interventions and assessing pupils' responses to determine whether more specialised intervention is needed (Fuchs & Fuchs, 2006, p. 225).

**7.5 Previous studies**

**7.5.1 Al-Far (2018)**

This study investigated the effectiveness of a training programme based on language activities in remediating reading difficulties among primary-school pupils. A quasi-experimental approach was adopted with a sample of 30 pupils with reading difficulties. Statistically significant differences in reading skills were found between the experimental and control groups in favour of the experimental group, supporting the effectiveness of the training programme (Al-Far, 2018, p. 5).

**7.5.2 Yahya (2005)**

This study examined teachers' contribution to the early identification of learning difficulties. It employed a descriptive approach and a questionnaire administered to 100 male and female teachers. It found that most teachers lacked sufficient knowledge of the characteristics of learning difficulties and methods of identification, hindering early intervention (Yahya, 2005, p. 8).

**7.5.3 Al-Khatib (2013)**

This study examined the role of families in addressing learning difficulties. It adopted a descriptive approach involving interviews with 50 families whose children experienced learning difficulties. It found that families played a limited role in addressing these difficulties because of low awareness, weak home–school communication and a lack of guidance programmes (Al-Khatib, 2013, p. 8).

**7.5.4 Al-Sartawi (2012)**

This study assessed the effectiveness of a multimedia-based training programme in remediating arithmetic difficulties. Using a quasi-experimental design with 40 pupils with arithmetic difficulties, it identified statistically significant differences between the experimental and control groups in arithmetic skills in favour of the experimental group, supporting the programme's effectiveness (Al-Sartawi, 2012, p. 8).

A close review of previous research on learning difficulties reveals several gaps that the present study seeks to address. Most studies focused on only one aspect: for instance, Al-Far (2018) considered reading difficulties alone, whereas Al-Sartawi (2012) focused exclusively on arithmetic difficulties. No study combined the three types of learning difficulties (reading, writing and arithmetic) in a single field investigation encompassing their causes, identification procedures and remedial strategies. The present study seeks to fill this thematic gap by considering several dimensions together, thereby providing a comprehensive understanding of the phenomenon. There is also a geographical gap, reflected in the scarcity of comprehensive field studies of learning difficulties in the province of Sétif. Previous studies focused on other cities, and none addressed learning difficulties in schools across all districts of this province.



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The present study aims to address this local gap. At the temporal level, most earlier studies were conducted several years ago and may not reflect developments in educational practice. Conducted in 2026, the present study offers a contemporary account. Moreover, some previous studies used small samples, whereas the present study involves a larger sample of 120 male and female teachers from several districts, allowing for greater generalisability of the findings.

## 8. Study Methodology and Field Procedures

### 8.1 Research methodology

The study adopted a descriptive–analytical approach suited to its nature and objectives. This approach aims to describe the reality of learning difficulties among primary-school pupils, analyse the factors influencing them, and identify their types, causes and methods of treatment.

### 8.2 Study population and sample

#### 8.2.1 Study population

The population comprised all male and female primary-school teachers in schools in the Province of Algiers, numbering approximately 8,500 teachers across its districts.

#### 8.2.2 Study sample

The sample consisted of 120 male and female primary-school teachers working in the Province of Algiers. They were purposively selected from three educational districts (Chéraga, Ben Aknoun and Bab Ezzouar) according to the following criteria:

- The participant must teach at primary-school level.
- The participant must have at least three years of teaching experience.
- The participant must teach pupils with learning difficulties in their class.
- The participant must agree to take part in the study.

**Table 4. Distribution of the study sample by district, gender, academic qualification and experience**

| Characteristic | Category | Number | Percentage |
|---|---|---|---|
| District | Chéraga | 50 | 41.7% |
| | Ben Aknoun | 40 | 33.3% |
| | Bab Ezzouar | 30 | 25% |
| Gender | Male | 50 | 41.7% |
| | Female | 70 | 58.3% |
| Academic qualification | Bachelor's degree | 75 | 62.5% |
| | Master's degree | 45 | 37.5% |
| Experience | 3–5 years | 35 | 29.2% |
| | 6–10 years | 55 | 45.8% |
| | More than 10 years | 30 | 25% |

*Source: Prepared by the researcher based on the primary data.*

### 8.3 Research instruments

#### 8.3.1 Questionnaire on the reality of learning difficulties

A questionnaire was designed to assess the reality of learning difficulties among primary-school pupils. It consisted of 32 items distributed across four main dimensions:



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- **Dimension 1: Types of learning difficulties (8 items):** Reading, writing and arithmetic difficulties.
- **Dimension 2: Causes of learning difficulties (8 items):** Hereditary, neurological, environmental and educational causes.
- **Dimension 3: Methods of identifying learning difficulties (8 items):** Classroom observation, error analysis, achievement measures and the RTI model.
- **Dimension 4: Remedial strategies (8 items):** Direct instruction, multisensory teaching, assistive technology and individualised programmes.

Responses used a five-point Likert scale (to a very great extent, to a great extent, to a moderate extent, to a small extent and to a very small extent).

**8.3.2 Psychometric properties of the questionnaire**

**Face validity:** The questionnaire was reviewed by a group of special-education experts, whose agreement reached 87%.

**Reliability:** Questionnaire reliability was calculated using Cronbach's alpha. The overall coefficient was 0.88, a high value indicating good internal consistency.

**9. Presentation and Interpretation of Study Findings**

**9.1 Findings related to the first hypothesis**

The first hypothesis states: “There are statistically significant differences between types of learning difficulties (reading, writing and arithmetic) among primary-school pupils, with reading difficulties predominating.”

To test this hypothesis, arithmetic means and standard deviations were calculated for respondents' scores on the types-of-learning-difficulties dimension. The results were as follows.

**Table 5. Means and standard deviations for respondents' scores on types of learning difficulties**

| Type | Mean | Standard deviation | Rank |
|---|---|---|---|
| Reading difficulties (dyslexia) | 4.25 | 0.82 | First |
| Writing difficulties (dysgraphia) | 3.85 | 0.90 | Second |
| Arithmetic difficulties (dyscalculia) | 3.55 | 0.95 | Third |
| Dimension as a whole | 3.88 | 0.89 | – |

*Source: Prepared by the researcher based on questionnaire responses and statistical analysis using SPSS.*

**Interpretation of Table 5.** Reading difficulties (dyslexia) ranked first with a mean of 4.25, followed by writing difficulties (dysgraphia) with a mean of 3.85 and arithmetic difficulties (dyscalculia) with a mean of 3.55. These findings indicate that reading difficulties are the most prevalent among primary-school pupils, consistent with previous research (Shaywitz, 2003, p. 30) indicating that dyslexia accounts for around 80% of learning-difficulty cases. This is attributed to reading being a complex skill requiring the integration of several



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cognitive processes, where disruption to any one of these processes can lead to learning difficulties.

On this basis, the first hypothesis is accepted, as statistically significant differences were established between types of learning difficulties in favour of reading difficulties.

**9.2 Findings related to the second hypothesis**

The second hypothesis states: "There is a statistically significant relationship between the causes (hereditary, environmental and educational) and the emergence of learning difficulties."

To test this hypothesis, arithmetic means and standard deviations were calculated for respondents' scores on the causes-of-learning-difficulties dimension, yielding the following results.

**Table 6. Means and standard deviations for respondents' scores on causes of learning difficulties**

| Cause | Mean | Standard deviation | Rank |
|---|---|---|---|
| Hereditary causes | 4.15 | 0.85 | First |
| Environmental and psychological causes | 3.95 | 0.88 | Second |
| Educational causes | 3.75 | 0.92 | Third |
| Dimension as a whole | 3.95 | 0.88 | – |

*Source: Prepared by the researcher based on questionnaire responses and statistical analysis using SPSS.*

**Interpretation of Table 6.** Hereditary causes ranked first (mean = 4.15), followed by environmental and psychological causes (mean = 3.95) and educational causes (mean = 3.75). These results suggest that hereditary factors play a major role in the emergence of learning difficulties. This accords with previous research (Fletcher et al., 2019, p. 45), which indicates that learning difficulties run in families. Nevertheless, environmental and educational causes are no less important, as an unstimulating environment and poor teaching quality may exacerbate learning difficulties or even give rise to them.

On this basis, the second hypothesis is accepted, as a statistically significant relationship between the causes and the emergence of learning difficulties was established.

**9.3 Findings related to the third hypothesis**

The third hypothesis states: "There are statistically significant differences between schools in the effectiveness of early identification mechanisms for learning difficulties."

To test this hypothesis, arithmetic means and standard deviations were calculated for respondents' scores on the methods-of-identification dimension. The results were as follows.

**Table 7. Means and standard deviations for respondents' scores on methods of identifying learning difficulties**

| Identification method | Mean | Standard deviation | Effectiveness |
|---|---|---|---|
| Classroom observation | 3.85 | 0.90 | High |
| Error analysis | 3.55 | 0.95 | Moderate |



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| | | | |
|---|---|---|---|
| Achievement measures | 3.25 | 1.00 | Moderate |
| RTI model | 2.45 | 1.05 | Low |
| Dimension as a whole | 3.28 | 0.98 | Moderate |

*Source: Prepared by the researcher based on questionnaire responses and statistical analysis using SPSS.*

**Interpretation of Table 7.** Classroom observation was the most frequently used and effective method of identifying learning difficulties (mean = 3.85), followed by error analysis (3.55), achievement measures (3.25) and, finally, RTI (2.45), which had a low effectiveness rating. These findings suggest that early identification mechanisms in primary schools remain limited and rely mainly on classroom observation, which may not be sufficiently accurate. Modern models such as RTI have not yet been widely adopted.

On this basis, the third hypothesis is accepted, as statistically significant differences between schools in the effectiveness of early identification mechanisms were established.

**9.4 Findings related to the fourth hypothesis**

The fourth hypothesis states: "There are statistically significant differences between teachers in their use of remedial strategies for learning difficulties."

To test this hypothesis, arithmetic means and standard deviations were calculated for respondents' scores on the remedial-strategies dimension, yielding the following results.

**Table 8. Means and standard deviations for respondents' scores on remedial strategies**

| Strategy | Mean | Standard deviation | Level of use |
|---|---|---|---|
| Direct instruction | 3.75 | 0.92 | Moderate |
| Multisensory teaching | 3.45 | 0.95 | Moderate |
| Assistive technology | 2.85 | 1.05 | Low |
| Individualised programmes | 2.65 | 1.10 | Low |
| Dimension as a whole | 3.18 | 1.01 | Moderate |

*Source: Prepared by the researcher based on questionnaire responses and statistical analysis using SPSS.*

**Interpretation of Table 8.** Direct instruction was the most widely used strategy (mean = 3.75), followed by multisensory teaching (3.45), assistive technology (2.85) and individualised programmes (2.65), the last of which had a low level of use. These findings indicate that teachers employ traditional remedial strategies, while newer approaches such as assistive technology and individualised programmes remain insufficiently used.

On this basis, the fourth hypothesis is accepted, as statistically significant differences between teachers in the use of remedial strategies were established.

**9.5 Findings related to the fifth hypothesis**

The fifth hypothesis states: "Teachers have positive attitudes towards pupils with learning difficulties, although they encounter obstacles when working with them."



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To test this hypothesis, arithmetic means and percentages were calculated for respondents' scores on the teachers'-attitudes-and-challenges dimension. The results were as follows.

**Table 9. Means and percentages for respondents' scores on teachers' attitudes**

| Dimension | Mean | Percentage | Interpretation |
|---|---|---|---|
| Teachers' attitudes towards pupils | 3.95 | 79% | Positive |
| Challenges encountered by teachers | 4.25 | 85% | Very high |
| Dimension as a whole | 4.10 | 82% | Positive |

*Source: Prepared by the researcher based on questionnaire responses and statistical analysis using SPSS.*

**Interpretation of Table 9.** Teachers' attitudes towards pupils with learning difficulties were positive (mean = 3.95), indicating that teachers accept these pupils and believe in the importance of supporting them. However, they face very substantial challenges (mean = 4.25), including inadequate training, overcrowded classrooms, a lack of teaching materials and insufficient psychological support.

On this basis, the fifth hypothesis is accepted, as positive teacher attitudes were established alongside difficulties in working with pupils with learning difficulties.

**10. Conclusion**

This study aimed to investigate the reality of learning difficulties among primary-school pupils in schools in the Province of Algiers by identifying their most common types, causes, identification methods and remedial strategies, and by examining teachers' attitudes towards this group. It yielded several important findings, most notably:

- Reading difficulties (dyslexia) are the most common learning difficulties among primary-school pupils, followed by writing difficulties and then arithmetic difficulties.
- Hereditary causes are the most influential in the emergence of learning difficulties, followed by environmental and psychological causes and then educational causes.
- Early identification mechanisms remain limited and rely mainly on classroom observation, whereas modern approaches such as RTI are not widely used.
- The remedial strategies employed remain traditional (direct instruction), while modern approaches such as assistive technology and individualised programmes are not used sufficiently.
- Teachers have positive attitudes towards pupils with learning difficulties but face major challenges due to inadequate training, overcrowded classrooms and the absence of teaching materials.

It may therefore be concluded that learning difficulties in schools in the Province of Algiers pose a genuine challenge requiring urgent action at several levels. These include teacher training, the provision of educational resources, the activation of early identification mechanisms, the implementation of modern remedial strategies and stronger cooperation between schools and families.



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## 11. Recommendations

Based on the study's findings, the researcher recommends the following.

**First: Training and professional development**

- Incorporate specialised units on learning difficulties into teacher-training programmes to equip teachers for early identification and remedial intervention.
- Organise continuous professional-development courses on adapted teaching strategies, assistive technology and the preparation of individualised education plans.
- Provide teachers with guidance manuals on working with pupils with learning difficulties and adapting educational activities to their abilities.

**Second: Early identification**

- Introduce the Response to Intervention (RTI) model into primary schools as a modern framework for the early identification of learning difficulties.
- Provide criterion-referenced assessment tools for measuring reading, writing and arithmetic skills so that areas of weakness can be identified accurately.
- Conduct regular screening of primary-school pupils to identify learning difficulties at an early stage.

**Third: Remedial intervention**

- Establish resource rooms in primary schools, equipped with teaching materials and assistive technology.
- Use multisensory teaching strategies when educating pupils with learning difficulties.
- Develop individualised programmes for each pupil according to the nature of their difficulties and needs.

**Fourth: Coordination and cooperation**

- Strengthen home–school cooperation through regular meetings and guidance and counselling for parents.
- Enhance the role of psychological and educational specialists in identification, remediation and follow-up.
- Cooperate with associations and organisations specialising in learning difficulties.

**Fifth: Research and development**

- Conduct ongoing field studies to evaluate the effectiveness of remedial-intervention programmes.
- Document and disseminate successful experiences in addressing learning difficulties so that others can benefit from them.

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