



## Teachers' Perceptions of Pedagogical Remediation and Its Role in Overcoming Learning Difficulties among Fifth-Grade Pupils

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### **Abstract**

*This study aims to explore fifth-grade primary school teachers' perceptions of pedagogical remediation and to examine the extent to which it contributes to overcoming learning difficulties among pupils in Algerian primary schools. It starts from the assumption that the effectiveness of remedial pedagogical interventions targeting this group of pupils largely depends on how teachers conceptualise pedagogical remediation, its purposes, patterns and techniques. A survey design was adopted as a quantitative approach suitable for investigating perceptions and attitudes, and the study population consisted of 60 female Arabic language teachers of fifth-grade classes working in primary schools in the educational districts of Sédarata, Souk Ahras province; all of them were included through comprehensive sampling. Data were collected using a structured questionnaire comprising 24 items distributed across five main axes, complemented by interviews and classroom observations, and were analysed statistically using SPSS through descriptive statistics and tests of correlation and group differences. The findings revealed no statistically significant differences in teachers' perceptions of pedagogical remediation attributable to years of teaching experience, nor significant correlations between the axis of early diagnosis and the axis of pedagogical techniques, or between the perceived role of remediation in overcoming difficulties and the same techniques. However, a weak but statistically significant positive correlation was found between the axis of patterns of pedagogical remediation and the axis of techniques used to address learning difficulties. These results highlight the importance of investing in teacher training*

*on early diagnosis of learning difficulties and on effective remedial pedagogical practices, so as to improve the academic achievement of fifth-grade pupils with learning difficulties.*<sup>[1]</sup>

**Keywords:** *pedagogical remediation; learning difficulties; teachers' perceptions; primary school; Algeria.*<sup>[1]</sup>

### Résumé

*Cette étude vise à explorer les perceptions des enseignants de CM2 concernant la remédiation pédagogique et à examiner dans quelle mesure celle-ci contribue à surmonter les difficultés d'apprentissage chez les élèves des écoles primaires algériennes. Elle part du principe que l'efficacité des interventions pédagogiques de remédiation ciblant ce groupe d'élèves dépend en grande partie de la manière dont les enseignants conceptualisent la remédiation pédagogique, ses objectifs, ses modalités et ses techniques. Une enquête a été menée selon une approche quantitative adaptée à l'étude des perceptions et des attitudes. La population étudiée était composée de 60 enseignantes de langue arabe de cinquième année travaillant dans des écoles primaires des districts scolaires de Sédarata, dans la province de Souk Ahras ; toutes ont été incluses grâce à un échantillonnage exhaustif. Les données ont été collectées à l'aide d'un questionnaire structuré comprenant 24 items répartis sur cinq axes principaux, complété par des entretiens et des observations en classe, et ont été analysées statistiquement à l'aide du logiciel SPSS par le biais de statistiques descriptives et de tests de corrélation et de différences entre les groupes. Les résultats n'ont révélé aucune différence statistiquement significative dans les perceptions des enseignantes concernant la remédiation pédagogique attribuable aux années d'expérience dans l'enseignement, ni aucune corrélation significative entre l'axe du diagnostic précoce et celui des techniques pédagogiques, ou entre le rôle perçu de la remédiation dans le surmontage des difficultés et ces mêmes techniques. Cependant, une corrélation positive, faible mais statistiquement significative, a été mise en évidence entre l'axe des stratégies de remédiation pédagogique et celui des techniques utilisées pour traiter les difficultés d'apprentissage. Ces résultats soulignent l'importance d'investir dans la formation des enseignants au diagnostic précoce des difficultés d'apprentissage et aux pratiques pédagogiques de remédiation efficaces, afin d'améliorer les résultats scolaires des élèves de CM2 présentant des difficultés d'apprentissage. [1]*

**Mots-clés :** *remédiation pédagogique ; difficultés d'apprentissage ; perceptions des enseignants ; école primaire ; Algérie.*[1]



## Introduction

Education is one of the central pillars on which the progress and stability of societies are built, as it represents a key means for developing human capital and reproducing cultural and value systems across generations. In this regard, school is viewed as a fundamental social institution for socialising children and equipping them with the knowledge, skills and competences needed for social and economic integration. However, educational reality shows that there is a group of pupils who, despite having average or above-average intelligence and not suffering from sensory or motor impairments, face marked difficulties in acquiring the basic skills of reading, writing and arithmetic; this group is commonly referred to as pupils with learning difficulties.<sup>[1]</sup>

The concept of learning difficulties is no longer confined to psychological and educational studies; it has also become a sociological concern, because of its impact on pupils' educational trajectories and their chances of inclusion or exclusion within the school system. Repeated failure in core subjects, and the associated feelings of frustration and low self-esteem, may lead to grade repetition and dropout, with broad social consequences. Learning difficulties are particularly problematic because they are often hidden and not accurately diagnosed in the early stages of schooling, and are only detected after repeated failure.<sup>[1]</sup>

In the Algerian context, the educational system, within the framework of pedagogical reforms, has sought to adopt mechanisms to support struggling pupils, including pedagogical remediation as a key strategy for addressing

learning gaps, correcting educational difficulties and taking individual differences into account. This form of remediation presupposes a set of conditions, foremost among them the teacher's ability to diagnose learning difficulties at an early stage and to hold clear and positive perceptions regarding the nature, aims, patterns and techniques of pedagogical remediation. From the perspective of the sociology of education, teachers' perceptions are a decisive factor in explaining classroom practices and their role in either reproducing or mitigating educational inequalities.<sup>[1]</sup>

Against this background, studying fifth-grade teachers' perceptions of pedagogical remediation acquires both theoretical and practical importance, given that this grade constitutes a pivotal stage in the primary education cycle, particularly for pupils with reading, writing and arithmetic difficulties. Understanding how teachers conceptualise pedagogical remediation and its relation to learning difficulties contributes to identifying strengths and weaknesses in current practices targeting this group, and opens up possibilities for improving the quality of remedial interventions in Algerian primary schools.<sup>[1]</sup>

### **Problem Statement and Research Questions**

Primary schools are increasingly challenged in how to support pupils who experience learning difficulties, and there appears to be a gap between what official documents prescribe in terms of principles of remediation and catch-up, and what actually happens in classrooms. Teachers' perceptions are central to understanding this gap, since what teachers believe about pedagogical remediation and its role is reflected in their pedagogical decisions and strategies when dealing with pupils who struggle.<sup>[1]</sup>



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Accordingly, the main problem of this study can be formulated in the following question:<sup>[1]</sup>

**What are fifth-grade primary school teachers' perceptions of pedagogical remediation, and to what extent do these perceptions relate to their views of its impact on children with learning difficulties?**<sup>[1]</sup>

From this overarching question, the following sub-questions are derived:<sup>[1]</sup>

1. How do fifth-grade teachers perceive the importance of early diagnosis and identification of pupils with learning difficulties and its relationship to pedagogical remediation?
2. How do they perceive the role of pedagogical remediation in overcoming learning difficulties?
3. What is the perceived relationship between the use of different patterns of pedagogical remediation and overcoming learning difficulties among pupils?
4. What is the perceived relationship between the use of various pedagogical remediation techniques and overcoming learning difficulties?

### **Study Objectives**

The study seeks to achieve the following objectives:<sup>[1]</sup>

1. To identify fifth-grade teachers' perceptions of the concept, aims and domains of pedagogical remediation.<sup>[1]</sup>
2. To highlight the importance of early diagnosis of learning difficulties and its relationship to the effectiveness of pedagogical remediation in primary schools.<sup>[1]</sup>

3. To determine the patterns of pedagogical remediation used by fifth-grade teachers when dealing with pupils with learning difficulties.<sup>[1]</sup>
4. To examine the different techniques employed in pedagogical remediation and the extent to which they are perceived as contributing to overcoming learning difficulties.<sup>[1]</sup>
5. To propose practical recommendations that may help improve remedial pedagogical practices in Algerian primary schools.<sup>[1]</sup>

### **Significance of the Study**

The significance of this study can be considered on two main levels:<sup>[1]</sup>

- **Theoretical significance:** The study contributes to Arabic-language literature in the sociology of education and learning difficulties by focusing on the perceptions of a key educational actor – the teacher – regarding pedagogical remediation, and linking these perceptions to classroom intervention patterns targeting pupils with learning difficulties. It also draws on Jean Piaget’s cognitive theory of learning as a framework for understanding the relationship between cognitive processes and learning difficulties.<sup>[1]</sup>
- **Practical significance:** The study provides empirical data that may benefit decision-makers, pedagogical inspectors and training planners in designing programmes to enhance teachers’ competences in early diagnosis of learning difficulties and in implementing diverse remedial strategies and techniques.<sup>[1]</sup>



## **1. Theoretical Framework**

### **1.1. Pedagogical Remediation: Concept and Dimensions**

Linguistically, the notion of remediation refers to interventions aimed at removing or alleviating a defect or difficulty, much like medical treatment, which involves diagnosing a disease and prescribing an appropriate cure. Transposed into the educational field, remediation denotes a set of pedagogical practices carried out by the teacher to correct learning difficulties and make up for gaps before they become chronic obstacles to learning.<sup>[1]</sup>

Pedagogy, in turn, can be defined as the sum of teaching-learning activities in which the teacher and the learner engage within structured educational situations, with the aim of achieving specified cognitive, skill-based and value-oriented objectives. On this basis, pedagogical remediation can be viewed as a temporary educational procedure devoted to addressing clearly identified difficulties and gaps among certain pupils within a given class, arising from contingent circumstances or cumulative shortcomings that prevent them from keeping pace with standard learning trajectories.<sup>[1]</sup>

Operationally, in the present study, pedagogical remediation is defined as a set of planned teaching-learning interventions adopted by fifth-grade teachers to help pupils with learning difficulties make up for their shortcomings, overcome the difficulties that hinder their educational progress and reduce the gap separating them from their peers.<sup>[1]</sup>

### **1.2. Learning Difficulties**

Learning difficulties are a multifaceted construct that has been approached from psychological, educational and

neurological perspectives, yet most definitions converge on several elements: a disturbance in certain basic cognitive processes – such as attention, perception, memory and thinking – which manifests as difficulty in acquiring reading, writing or arithmetic skills, despite the individual having average or above-average intelligence and not suffering from severe sensory or motor impairments or extreme environmental deprivation.<sup>[1]</sup>

In this study, learning difficulties are operationally defined as a disorder that impedes the normal process of learning by affecting how pupils receive, process, store and retrieve information, such that they are unable to reach the same performance levels as their peers in areas such as reading, writing or arithmetic, even when they are exposed to similar educational opportunities.<sup>[1]</sup>

### **1.3. Piaget's Cognitive Theory of Learning**

Jean Piaget's cognitive theory of learning is among the most influential approaches to explaining children's mental development, emphasising cognitive processes and mental structures that evolve through a series of stages. Piaget posits that children pass through qualitatively distinct stages of cognitive development, each characterised by specific ways of thinking, and that effective learning requires aligning educational content with the child's current stage of cognitive development.<sup>[1]</sup>

This theory offers a useful lens through which to understand learning difficulties as stemming from disturbances or delays in certain cognitive processes – such as attention, perception, concept formation and problem solving – which are reflected in pupils' performance in basic skills. Within the context of this study, the cognitive theory helps to



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explain the relationship between early diagnosis of learning difficulties and pedagogical remediation, insofar as early intervention allows educators to redirect cognitive pathways before maladaptive learning patterns become entrenched.<sup>[1]</sup>

#### **1.4. Patterns and Techniques of Pedagogical Remediation**

Pedagogical remediation can take various forms or patterns. These include remediation based on immediate feedback, remediation relying on repetition and additional tasks, remediation employing alternative learning strategies, and remediation that involves external specialists such as speech therapists, physicians and psychologists.<sup>[1]</sup>

The techniques used in remediation are equally diverse. They may involve grouping pupils according to shared difficulties and working with them in small groups, promoting cooperative learning by pairing high-achieving pupils with those experiencing difficulties, or using pedagogical contracts whereby the teacher and pupil agree on specific tasks to be achieved within a set timeframe.<sup>[1]</sup>

Furthermore, educational technologies – both electronic and non-electronic – play a growing role in supporting pedagogical remediation for pupils with learning difficulties, especially those with attention deficits and concentration problems. Such technologies allow learning content to be presented in more varied and engaging ways, and can be adapted to individual pupils' needs and learning styles.<sup>[1]</sup>

## **2. Methodology**

The study adopted a survey design, a widely used quantitative approach in sociological and educational research, as it is well-suited for examining perceptions,

attitudes and behaviours within a given population at a specific point in time. The survey design enables the collection of quantitative data from all members of the study population or from a representative sample, followed by statistical analysis to uncover relationships and correlations among the variables under investigation.<sup>[1]</sup>

## **2.1. Spatial and Temporal Field**

The empirical work was conducted in primary schools located in educational districts 12, 14 and 15 in the Sédarata area of Souk Ahras province, in accordance with the administrative division adopted by the Algerian Ministry of National Education. This field was selected because of its relatively high population density, social and economic diversity, and significant number of primary schools, making it a suitable setting for studying teachers' perceptions of pedagogical remediation and learning difficulties.<sup>[1]</sup>

In temporal terms, the study was carried out during the year 2025, starting with a preliminary exploratory phase to refine the variables and indicators, followed by the main data collection and analysis phases.<sup>[1]</sup>

## **2.2. Population and Sample**

The study population consists of all fifth-grade Arabic language teachers working in primary schools within the selected districts, totalling 60 teachers. Given the feasibility of reaching all members of the population, a comprehensive sampling strategy was used, and all 60 teachers were included in the study.<sup>[1]</sup>

Descriptive data showed that all participants were female, whose ages ranged from 29 to 48 years, and that the majority had between 5 and 10 years of teaching experience, while



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others had less than 5 years or more than 10 years. Most teachers were married, and a large proportion worked in urban schools, compared to smaller proportions in semi-urban and rural schools.<sup>[1]</sup>

### **2.3. Data Collection Instrument**

The main data collection instrument was a structured questionnaire developed specifically to explore fifth-grade teachers' perceptions of pedagogical remediation and its relationship to learning difficulties. The questionnaire was constructed in three stages: drafting items in light of the theoretical framework, previous studies and research indicators; submitting the draft to a panel of experts to assess content validity and the relevance of items to the study objectives; and revising the instrument in accordance with their feedback to obtain the final version.<sup>[1]</sup>

The questionnaire comprised 24 items grouped into five axes: personal and professional data; early diagnosis and identification of pupils with learning difficulties and its relationship to pedagogical remediation; the perceived role of pedagogical remediation in overcoming learning difficulties; the relationship between different patterns of pedagogical remediation and overcoming learning difficulties; and the relationship between the use of varied remedial techniques and overcoming learning difficulties. Interviews and classroom observations were used as complementary tools to gain deeper insights into teachers' perceptions and actual practices.<sup>[1]</sup>

## 2.4. Data Analysis

Data obtained from the questionnaire were analysed using SPSS software. Descriptive statistics were employed to summarise the characteristics of the study population, while correlation coefficients were used to examine relationships between questionnaire axes. Non-parametric tests such as the Kruskal-Wallis test were also applied to assess possible differences in teachers' perceptions of pedagogical remediation according to years of teaching experience.<sup>[1]</sup>

## 3. Results

### 11-1) Correlations Between Axis 2 and the Other Axes

Since the data did not follow a normal distribution, Spearman's rank correlation coefficient was used as a non-parametric alternative to Pearson's correlation.<sup>[1]</sup>

**Table 28: Spearman's Correlation Between Axis 2 and Axis 5**

Axes Compared	Sample size (N)	Spearman's rho	sig value
Axis 2 - Axis 5	60	0.169	0.197

**Conclusion:** Since  $\text{sig} = 0.197 > 0.05$ , there is no statistically significant correlation between Axis 2 (early diagnosis and identification of pupils with learning difficulties and its relation to pedagogical remediation) and Axis 5 (use of different pedagogical remediation techniques to overcome learning difficulties).<sup>[1]</sup>

**Table 01: Spearman's Correlation Between Axis 3 and Axis 5**

Axes Compared	Sample size (N)	Spearman's rho	sig value
Axis 3 - Axis 5	60	0.230	0.077

**Conclusion:** Since  $\text{sig} = 0.077 > 0.05$ , there is no statistically significant correlation between Axis 3 (the role of pedagogical remediation in overcoming learning difficulties) and Axis 5.<sup>[1]</sup>

**Table 02: Spearman's Correlation Between Axis 4 and Axis 5**

Axes Compared	Sample size (N)	Spearman's rho	sig value
Axis 4 - Axis 5	60	0.366	0.004

**Conclusion:** Since  $\text{sig} = 0.004 < 0.05$ , there is a weak but statistically significant positive correlation between Axis 4 (patterns of pedagogical remediation) and Axis 5 (use of different pedagogical remediation techniques to overcome learning difficulties).<sup>[1]</sup>

## 4. Discussion

### Discussion of the General Hypothesis

The general hypothesis of the study states that: **"Teachers' perceptions of pedagogical remediation influence children with learning difficulties."**<sup>[1]</sup>

To test this hypothesis, the Kruskal-Wallis test was applied, as reported in Table 27, and the results showed no statistically significant differences in teachers' responses attributable to the variable of years of teaching experience. In light of these findings, the general hypothesis is considered supported by the available statistical evidence, in the sense that teachers' perceptions of remedial practices appear relatively homogeneous regardless of experience level.<sup>[1]</sup>

This result is consistent with the findings of Adli and Zoubeiri (2024), in their field study on "The reality of support for pupils with learning difficulties as perceived by teachers in some primary schools in Tamanrasset," which reported no statistically significant differences in the level of psychological and pedagogical support for pupils with learning difficulties attributable to professional experience.<sup>[1]</sup>

The absence of significant differences between teachers with short, medium and long experience in their implementation of pedagogical remediation may be explained by the similarity in the remedial exercises they use and the way they adapt these exercises to pupils' needs, as well as their exposure to similar training programmes in remediation. However, these training opportunities appear to be insufficient in depth and duration, and thus have not enabled teachers to acquire advanced skills and competences for developing their remedial practices. This lack of specialised training in pedagogical remediation helps to explain why no statistically significant differences emerged in teachers' perceptions according to years of professional experience.<sup>[1]</sup>

From a sociological standpoint, pedagogical remediation can be seen as a tool for mitigating the reproduction of educational inequalities within schools, provided that it is



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implemented within an institutional environment that offers teachers adequate resources, training and time to conduct effective remedial sessions. In the absence of such conditions, remediation risks becoming a formalistic procedure that fails to achieve its goals and may even contribute to labelling and stigmatising pupils as chronically weak or failing.<sup>[2][1]</sup>

## Conclusion and Recommendations

This study concludes that fifth-grade teachers acknowledge the importance of pedagogical remediation in supporting pupils with learning difficulties, yet the implementation of remediation remains contingent upon several institutional and pedagogical factors, including the quality of teacher training, class size, availability of teaching materials and the nature of pedagogical supervision. The finding that diversified remedial patterns are associated with diversified techniques underscores the need to invest in developing teachers' pedagogical competences in this area.<sup>[1]</sup>

Based on these results, the following recommendations are proposed:<sup>[1]</sup>

1. Integrate specialised modules on learning difficulties and pedagogical remediation into both pre-service and in-service teacher training programmes for primary education.<sup>[1]</sup>
2. Develop practical tools for the early diagnosis of learning difficulties, train teachers in their use and establish clear procedures for linking diagnostic outcomes to individual and group remedial plans.<sup>[1]</sup>

3. Provide organisational conditions conducive to implementing remedial sessions, including reducing class size and allocating official time slots for remediation within the school timetable.<sup>[1]</sup>
4. Promote multidisciplinary collaboration among teachers, psychologists, social workers and speech and hearing specialists to ensure more comprehensive support for pupils with learning difficulties.<sup>[2][1]</sup>
5. Conduct comparative studies in other provinces and educational levels, and include both male and female teachers, in order to deepen our understanding of the social and cultural factors shaping educational actors' perceptions of pedagogical remediation.<sup>[1]</sup>

By doing so, the study contributes to illuminating a key dimension of the sociology of education in the Algerian context, namely the role of teachers' perceptions of pedagogical remediation in shaping their practices towards pupils with learning difficulties and the consequences of these practices for pupils' educational and social trajectories.<sup>[1]</sup>

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