

Supporting Inclusive Literacy Development: A Differentiated Intervention for Primary School Students with Learning Difficulties

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Received: July 18, 2026
doi: 10.65343/erd.v2i3.126

Accepted: August 23, 2026
URL: <https://doi.org/10.65343/erd.v2i3.126>

Published: August 28, 2026

Abstract

Contemporary educational settings increasingly require individualized and differentiated instructional practices capable of addressing the diverse learning needs of all students within an inclusive framework. This case study presents the implementation of a targeted literacy intervention designed for *Giannis*, a second-grade primary school student experiencing mild learning difficulties. The intervention incorporated a structured instructional program aimed at strengthening reading and writing skills through the systematic use of multisensory materials, educational technology, positive reinforcement, and carefully sequenced learning activities tailored to the student's individual profile. Continuous formative assessment, emotional support, and the student's active participation constituted key components of the intervention, enabling ongoing adaptation of instructional practices throughout the learning process. The findings indicate that individualized and differentiated teaching approaches can substantially enhance both academic achievement and learner engagement. More broadly, the study illustrates how evidence-informed pedagogical innovation can foster inclusive classroom environments that promote participation, confidence, and meaningful learning opportunities for students with learning difficulties.

Keywords: inclusive education, differentiated instruction, learning difficulties, individualized intervention, multisensory learning

1. Introduction

Contemporary classrooms are increasingly characterized by diversity, bringing together students with different cultural backgrounds, learning profiles, abilities, and educational needs. This evolving educational landscape challenges schools to move beyond traditional, uniform models of instruction and adopt teaching practices that ensure meaningful participation and equitable learning opportunities for every student. Within this context, differentiated instruction and individualized educational planning have become fundamental components of inclusive education, enabling teachers to respond effectively to learner diversity (Ainscow, 2020; Eadyburn, 2010; Panteliadou, 2000; Tafa, 1997).

Growing evidence from both international and Greek scholarship highlights the importance of designing flexible instructional programmes that facilitate the meaningful inclusion of students with mild learning difficulties in mainstream educational settings (Fernández-Batanero et al., 2022; Polychronopoulou, 2003). Instructional interventions tailored to individual learning characteristics not only promote academic achievement but also contribute substantially to students' emotional well-being, engagement, and confidence within the learning environment (Bouck & Long, 2021; Sideri-Zoniou, 2000). Consequently, adapting instructional practices to learners' unique strengths, needs, and developmental profiles is widely regarded as a defining feature of effective inclusive pedagogy (Polychronopoulou, 2001).

Beyond academic development, emotional factors play a pivotal role in shaping learning outcomes. Experiences of acceptance, encouragement, and successful participation within the school environment foster positive self-perceptions and strengthen the psychological resilience of students with learning difficulties (de Klerk & Greeff, 2019; Sakkas, 2002). In parallel, the pedagogical use of digital technologies, particularly multisensory resources and computer-assisted learning environments, has emerged as an effective means of enhancing student

participation, motivation, and sustained engagement throughout the instructional process (Fichten et al., 2009; Matoušek et al., 2020; Christakis, 2002).

Against this background, the present study reports the implementation of an individualized literacy intervention designed for *Giannis*, a second-grade primary school student experiencing mild difficulties in reading and writing. The intervention was structured around clearly defined long-term and short-term instructional objectives and incorporated systematically planned learning activities, instructional materials, reinforcement strategies, and ongoing monitoring procedures. Particular attention was also devoted to documenting the instructional conditions under which each activity was implemented, together with explicit performance criteria used to evaluate the student's progress. This comprehensive approach allowed both academic development and behavioural engagement to be monitored throughout the intervention.

The primary objective of this study is to demonstrate the educational value of an individualized and differentiated instructional model that integrates pedagogical, emotional, and technological support in order to enhance the literacy development of students with learning difficulties. More broadly, the study seeks to illustrate how carefully designed instructional interventions can facilitate meaningful participation in classroom learning while strengthening students' confidence and long-term educational inclusion.

2. Methodology

The present study adopted a **case study** design to examine the implementation of an individualized literacy intervention for a second-grade primary school student experiencing learning difficulties. A case study approach was considered particularly appropriate, as it enables an in-depth exploration of instructional practices within authentic educational settings while providing detailed evidence regarding the effectiveness of individualized educational interventions. Consistent with previous research, individualized instruction constitutes a core component of differentiated teaching and reflects the fundamental principles of inclusive education (Bouck & Long, 2021; Edyburn, 2010; Polychonopoulou, 2003; Vasileiou, 1998; Stathis, 2002).

The intervention was implemented within the student's regular school environment over a ten-day period. Throughout the programme, *Giannis* attended both the mainstream classroom and the school's inclusion support programme. The overall instructional objective was to develop the student's ability to read and write simple sentences accurately. To achieve this goal, the intervention was organized into five sequential short-term objectives, each accompanied by carefully designed learning activities grounded in the principles of differentiated instruction and behavioural teaching approaches (Smith et al., 2009; Sideri-Zoniou, 2000).

Student performance was evaluated continuously through systematic observation of achievement across each instructional activity. For every short-term objective, three essential components were explicitly defined: the expected learning behaviour, the instructional conditions under which the behaviour should occur, and the performance criterion required for successful mastery, expressed as a percentage of correct responses. This structured evaluation framework enabled continuous monitoring of learning progress and informed instructional decision-making throughout the intervention.

Positive reinforcement represented an integral component of the instructional design. Verbal praise, immediate positive feedback, and opportunities for the student to engage in preferred activities were systematically incorporated to maintain motivation and encourage active participation, in accordance with contemporary evidence-based instructional practices (de Klerk & Greeff, 2019; Christakis, 2002). Prior to implementation, the student participated in selecting the reinforcement strategies, thereby promoting intrinsic motivation and fostering a greater sense of ownership of the learning process (Polychonopoulou, 2001).

Instructional materials included multisensory resources such as flashcards, coloured chalk, modelling clay, the official language textbook, and educational software. Integrating digital technology with multisensory instructional techniques enhanced learner interaction and sustained engagement, supporting previous findings that emphasize the educational value of technology-assisted instruction for students with diverse learning needs (Fichten et al., 2009; Matoušek et al., 2020).

3. Results

The intervention yielded encouraging outcomes regarding the student's literacy development, demonstrating gradual progress across the five sequential short-term instructional objectives. Together, these objectives supported the achievement of the overarching instructional goal: enabling the student to read and write simple sentences accurately. Learning progressed through a carefully structured sequence of increasingly complex linguistic units, beginning with syllables, advancing to words, and ultimately extending to sentence-level reading and writing.

Performance on the **first short-term objective** indicated a high level of proficiency in recognizing, producing, and reproducing simple syllables constructed from previously acquired letters. The student consistently demonstrated accurate phonological production, successfully combined letters to create new syllables, and reproduced them in writing, achieving perfect scores (10/10) across a wide range of instructional activities. Slightly lower performance was observed when syllables had to be identified within complete words or when they were presented in a random sequence; however, overall achievement remained satisfactory. The multisensory nature of the instructional materials appeared to facilitate learning, while the systematic use of positive reinforcement contributed substantially to maintaining the student's motivation and active engagement throughout the instructional process.

The **second short-term objective** focused on word recognition and construction using previously mastered syllables. The student demonstrated consistently high accuracy in reading and copying two-syllable words, attaining perfect performance (10/10) in activities involving word copying and syllable segmentation through rhythmic clapping. Nevertheless, performance declined when tasks required reading and writing three-syllable or multisyllabic words, with scores ranging from **5/10 to 6/10**. These findings suggest that the transition from simpler to more linguistically demanding structures required additional instructional support and practice, a pattern that is pedagogically expected for learners experiencing reading and writing difficulties.

The **third short-term objective** addressed the acquisition of Greek vowel digraphs and the vowel combinations *av/ev* (*av/ev*). The student demonstrated satisfactory phonological discrimination and visual recognition of these orthographic patterns. Pronunciation accuracy and the production of corresponding syllables were particularly successful, while reading performance remained strong when vowel digraphs appeared at the beginning or in the middle of words. Greater difficulty emerged during dictation activities requiring the written production of words containing vowel digraphs, where performance reached **6/10**. Even lower achievement (**4/10**) was observed when the student was asked to distinguish the phonological transformations of *av* (*av/af*) and *ev* (*ev/ef*), indicating that these phonological alternations required further explicit instruction and systematic practice.

The **fourth short-term objective** concentrated on reading and writing words containing Greek consonant digraphs (*mp*, *nt*, *ng*, *gk*, *ts*, and *tz*). Once again, the student demonstrated strong phonological performance and accurately combined consonant digraphs to construct syllables. High levels of achievement were also observed in activities involving sound discrimination through rhythmic clapping and word copying. However, noticeable difficulties arose when identifying consonant digraphs embedded within words, particularly in distinguishing the phonologically similar combinations *γγ* (*ng*) and *γκ* (*gk*), where performance declined to **3/10**. These findings highlight the need for more targeted phonological instruction aimed at strengthening discrimination between acoustically similar consonant patterns.

The **fifth short-term objective** examined the student's ability to read and write simple sentences. Overall, the student demonstrated satisfactory progress in understanding semantic coherence and reading sentence-level material. More specifically, *Giannis* was asked to read and produce simple sentences using vocabulary that had already been mastered during previous instructional stages. Reading activities resulted in an achievement score of **8/10**, with the greatest challenges occurring in the decoding of words containing consonant digraphs such as *γκ* (*gk*) and *ντ* (*nt*). During dictated writing activities, the student achieved **6/10**, with most errors involving more complex phonological and orthographic structures. Independent sentence production remained relatively limited; nevertheless, clear progress was observed in the consistent use of capital letters at the beginning of sentences and full stops at the end. This development suggests that the student had begun to internalize the structural and communicative function of the sentence as a complete linguistic unit.

Table 1. Overview of the Intervention Outcomes

Objective	Instructional Objective	Performance / Key Findings	Areas Requiring Further Support
1st	Recognition, production, and reproduction of simple syllables	Excellent performance (10/10) in phonological production, letter blending, and syllable copying	Minor difficulty identifying syllables embedded within words or presented in random order
2nd	Word construction and recognition using familiar syllables	High accuracy when reading and copying two-syllable words (10/10)	Difficulty reading and writing three-syllable and multisyllabic words (5–6/10)
3rd	Acquisition of Greek vowel digraphs and $\alpha\upsilon/\epsilon\upsilon$ combinations	Successful phonological discrimination and word reading; strong pronunciation accuracy	Difficulty with dictated spelling (6/10) and distinguishing the phonological alternations of $\alpha\upsilon/\epsilon\upsilon$ (4/10)
4th	Reading and writing words containing Greek consonant digraphs ($\mu\pi$, $\nu\tau$, $\gamma\gamma$, $\gamma\kappa$, $\tau\sigma$, $\tau\zeta$)	Strong phonological performance, syllable construction, and copying skills	Difficulty distinguishing phonetically similar consonant digraphs, particularly $\gamma\gamma/\gamma\kappa$ (3/10)
5th	Reading and writing simple sentences	Reading accuracy: 8/10 ; dictated writing: 6/10	Difficulties decoding words containing consonant digraphs, spelling errors, and limited independent sentence production

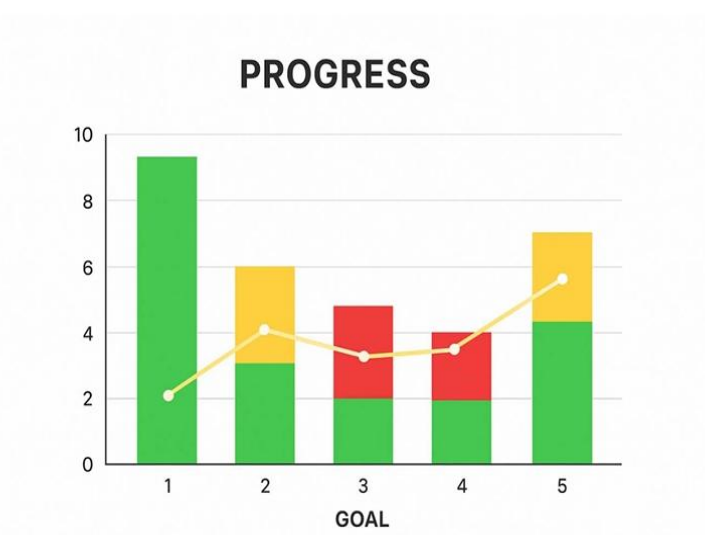


Figure 1. Learning Progress Across the Five Instructional Objectives

Figure 1 illustrates Giannis' progress across the five instructional objectives implemented during the intervention. Green bars indicate high levels of achievement, yellow bars represent moderate performance, and red bars highlight areas requiring additional instructional support. The visual representation provides a concise overview of the student's strengths and the instructional domains in which further improvement is warranted.

4. Conclusions

The findings of the present intervention demonstrate that a systematically designed, individualized literacy programme can effectively support the development of reading and writing skills in primary school students experiencing learning difficulties. The positive outcomes observed throughout the intervention validate both the instructional objectives and the pedagogical framework upon which the programme was developed. The sequential organization of learning objectives enabled the gradual acquisition of increasingly complex linguistic skills, allowing the student to consolidate competencies that had previously presented significant challenges.

Although the student achieved consistently high levels of performance in recognizing and producing syllables and words, the introduction of more demanding phonological structures, including vowel and consonant digraphs, revealed specific areas requiring continued instructional support. These findings reinforce existing evidence suggesting that literacy instruction for students with learning difficulties should progress systematically while allowing sufficient opportunities for repetition, reinforcement, and differentiated practice.

The intervention also highlighted the inseparable relationship between academic achievement and students' emotional well-being. The student's sensitivity to failure, together with the need to strengthen self-confidence and academic self-perception, underscored the importance of integrating emotional support into everyday instructional practice. This positive impact became particularly evident upon completion of the programme, when the student enthusiastically stated, *"Now I can write by myself!"* Likewise, the classroom teacher reported that *"Giannis participated more willingly in revision activities and demonstrated greater confidence when working at the board."* These observations further emphasize that fostering emotional security constitutes an essential prerequisite for meaningful learning and sustained academic engagement.

An additional finding concerns the student's strong preference for visually supported instructional materials and activities that promoted successful learning experiences. This observation highlights the importance of adapting teaching practices to individual learner characteristics, interests, and educational needs rather than relying on standardized instructional approaches.

The educational significance of the present intervention extends beyond the individual case presented in this study. The findings illustrate the potential of differentiated, multisensory, and systematically structured instructional strategies to enhance literacy development among students experiencing language-related learning difficulties. Consequently, the proposed instructional framework may provide a practical reference for both mainstream and special education settings, supporting teachers in designing individualized interventions that promote meaningful participation, reduce the risk of school failure, and strengthen students' self-esteem regardless of their cognitive profile or cultural background.

Overall, the present case study provides further evidence that educational practices aligned with students' individual learning characteristics can generate meaningful improvements not only in academic performance but also in psychosocial development and classroom participation. When inclusive pedagogy is implemented through carefully planned, evidence-informed instructional practices, it creates learning environments in which all students are given genuine opportunities to succeed.

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