

# The Support For Difficulties In Learning To Read And Write In Arabic Among Primary School Students Through Addressing Deficiencies In The Cognitive Psychological Processes Responsible For Them

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## Abstract:

From a viewpoint that combines educational practice with clinical psychological intervention, this study intends to offer a professional experience in therapeutic-educational intervention for reading and writing learning challenges in Arabic among elementary school students. A field experiment was done using a therapeutic approach based on correcting the cognitive processes linked to visual and auditory perception of letters and words across three different age groups—second, fourth, and fifth grades—given the central relevance of language acquisition in the evolution of academic knowledge and skills.

The therapeutic intervention was based on an integrative model that uses three specialized teaching strategies: (1) training deficient cognitive processes, (2) using the student's preferred cognitive process in learning, and (3) a balanced therapeutic intervention that strengthens strengths and addresses weaknesses in cognitive processes. With the involvement of both teachers and parents in supporting the therapeutic process, a series of exercises and practical activities carried out both inside and outside the classroom formed a corrective toolkit.

The findings confirmed the efficacy of this therapeutic approach and its possible generalization as an early intervention tool to assist students with learning challenges by showing a notable rise in reading and writing levels among the targeted students within a short time. The study advises more experimental research to confirm the efficacy of these strategies in several educational settings as well as broadening their use.

**Keywords:** Learning Difficulties; Therapeutic Intervention; Cognitive Processes; Reading; Writing; Elementary Education; Visual Perception; Auditory Perception.

## 1- Introduction:

The main school stage is seen as the foundation of the educational path of the student since it creates the first framework for developing fundamental linguistic and cognitive abilities that greatly influence academic and personal growth. Given their foundation on intricate cognitive processes involving symbolic and semantic representation via auditory and visual processing of letters and words, reading and writing are fundamental tools in the formation of intellectual identity and the growth of cognitive abilities in this regard. Effective learning of the Arabic language, meanwhile, calls for a proper educational setting and thorough pedagogical tools to guarantee the seamless and orderly growth of these abilities.

Some students, however, could struggle to develop reading and writing skills, which would harm their cognitive development and learning path. An integrated approach combining pedagogy with psychological clinical intervention is clearly

required in this respect to handle these issues by means of didactic and therapeutic ideas founded on a thorough knowledge of the mental processes connected to language acquisition.

Therefore, this study intends to present an intervention model built on a thorough scientific method that aims to improve the language performance of primary school children by means of therapeutic educational strategies grounded in the most recent theories in cognitive psychology and educational science. The study wishes to offer a methodological framework that helps to support the work of professionals in the field of learning disabilities and teachers, therefore improving the prospects of success for students in their academic path.

## 2- Study problem:

A basic tool for communication and thought, language helps to create mental images and the structure of knowledge. Complex cognitive processes—including symbolic and semantic

representation—underlie the development of reading and writing abilities; hence, any disturbance in these processes hinders the appropriate cognitive growth of students. In this regard, the challenges experienced by primary school children in learning to read and write in Arabic constitute both an educational and psychological one since they could influence their general academic performance. Dealing with these challenges calls for an intervention strategy emphasizing correcting the cognitive processes connected to linguistic abstraction and restructuring symbolic representations both phonologically and visually within an integrated framework combining pedagogy and cognitive psychological therapy.

Therefore, the key concern of this study is the efficacy of psychological-therapeutic intervention in reducing reading and writing problems among primary school children by means of correction of the cognitive pathways underlying language acquisition. The following two queries help to frame this problem:

-To what extent does correcting cognitive processes related to reading and writing acquisition help reduce difficulties in learning them among students?

-How well does the psychological-cognitive intervention, which focuses on enhancing the mental processes that produce linguistic abstraction and the phonological and visual representation of linguistic symbols, help primary school pupils become better readers and writers?

## **2-1- Sub-questions:**

### **4- Study objectives:**

Through the following goals, this study intends to examine and interpret Arabic language teaching practices in Algerian elementary schools from the viewpoint of clinical psychological approaches:

- To investigate the effects of abstract and symbolic cognitive representations on learning Arabic, as well as the cognitive processes linked to learning challenges in reading and writing.

- To assess how well classroom and extracurricular activities enhance reading and writing abilities by means of educational strategies founded on correcting cognitive psychological processes.

-In order to teach Arabic, a therapeutic-psychological intervention model that stimulates the cognitive processes that lead to linguistic abstraction and the visual and auditory representation of linguistic symbols should be developed.

- To offer a useful tool for teachers and educational professionals meant to improve therapeutic teaching techniques by increasing the efficacy of current educational activities and so lowering learning challenges in reading and writing.

## **5- Importance of the study:**

-To what extent does correcting cognitive processes related to reading and writing acquisition help reduce difficulties in learning them among students?

-How well does the psychological-cognitive intervention, which focuses on enhancing the mental processes that produce linguistic abstraction and the phonological and visual representation of linguistic symbols, help primary school pupils become better readers and writers?

### **3- Hypotheses:**

Drawing on the above-mentioned factors, one may create the general hypothesis as follows:

- Improving integrated training in both oral and written production helps to reduce the challenges of acquiring spoken and written Arabic language activities by correcting inadequate cognitive processes during their learning.

- Reading and writing skills are enhanced when weak cognitive processes are strengthened through extracurricular Arabic language activities.

- The activation of both auditory and visual symbolic representations is increased when reading and writing in Arabic activities are taught in accordance with the student's preferred cognitive processing patterns. This improves reading and writing performance.

- Reading and writing challenges can be lessened by combining techniques to analyze cognitive processes related to spoken and written Arabic. This improves abstract and symbolic cognitive representations.

By means of the correction of cognitive processes connected to acquiring the Arabic language, this paper offers an integrative model for solving challenges in learning reading and writing among primary school children, therefore holding both scientific and practical relevance.

### **5-1- Scientific Importance:**

By means of a method that combines educational sciences and cognitive psychology, the study helps to deepen knowledge on learning challenges. It also offers a methodological framework for comprehending the function of abstract and symbolic cognitive representations in acquiring the Arabic language, therefore allowing researchers to create evidence-based educational strategies.

### **5-2- Practical Importance:**

Aimed at enhancing remedial teaching techniques, the study offers an applied model for educators and practitioners in the field of education meant to improve remedial teaching techniques without the need to develop new educational activities. Rather, it emphasizes on maximizing current classroom and extracurricular activities and making them more

efficient and useful. This helps to provide teaching techniques that improve outcomes in strengthening students' reading and writing abilities by lowering effort and time.

## **6- Operational Definitions of Study Variables:**

### **6-1-Extracurricular Arabic Language Performance Activities:**

Group projects, cooperative work, reading and reviewing stories, watching animated movies, theater, role-playing, and artistic and musical activities are among the interactive activities that rely on performance, movement, and verbal expression included in these activities. Operationally, these activities are evaluated by their effect on developing reading and writing skills and improving the cognitive processing of letters and words.

### **6-2- Symbolic Arabic Language Activities:**

These include exercises that deal with the symbolic representation of the Arabic language in writing or reading, like reading comprehension, dictation, oral and written production practice, memorization, and spoken language comprehension. Their ability to improve the cognitive processes involved in language acquisition and to stimulate symbolic representations of the language serve as operational metrics for these.

### **6-3-Visual and Auditory Perception of Letters and Words, and Their Sensory-Motor Performance in Oral and Written Forms:**

This refers to the cognitive processes that allow one to interact with the Arabic language through abstract knowledge of letters and words, sensory perception, auditory and visual processing, and sensory-motor skills that enable one to perform both vocally and in writing. Psychometric tests that evaluate sensory-motor, visual, auditory, and memory processing as well as the neurological and cognitive processes associated with language acquisition are used to operationalize it.

### **6-4- Mental Process:**

The semantic representations of letters and words are created by cognitive psychological processes that are impacted by the learner's emotional and personal experiences. It is operationally measured using assessment instruments for working memory, visual, auditory, and sensory-motor processing cognitive processes, as well as their influence on the creation of mental images of letters and words.

### **6-5- Short-Term Weak Process:**

In order to improve sensory-motor perception and represent language in particular spatial and temporal contexts, this refers to reactivating cognitive linguistic representations during the teaching of

letters and words. It is operationally assessed by

monitoring how well students remember and represent letters and words in writing, reading, and sound.

### **6-6- Teaching through the Preferred Psychological Process of the Student:**

This refers to the use of instructional strategies that suit the learner's cognitive and representational style, whether those strategies are kinesthetic (dough, wax, clay), auditory (memorization and repetition, listening to stories, audio recordings), or visual (scenes and images, coloring). It is operationally measured by evaluating the students' answers in light of the instructional strategy employed.

### **6-7- Concurrently Addressing the Strengths and Weaknesses in Psychological Processes:**

This refers to the use of instructional techniques meant to strengthen and correct deficiencies in the auditory or visual cognitive and symbolic representations of the Arabic language. Tests that evaluate how well students perform in reading and writing exercises following the use of integrated intervention strategies are used to measure it operationally.

## **7- Literary Review:**

### **7-1- Studies on Diagnosing Reading and Writing Difficulties in the Arabic Language:**

- (Khouja, 2019) Study: Focusing on primary school children in certain M'sila city schools, this paper tackled the challenges of learning to read and found gender differences in the frequency of reading problems, with girls experiencing less than boys. Biological and cultural reasons—such as delayed maturation in males compared to females—as well as academic pressures families placed on males helped to explain this outcome. The study advised early diagnosis and the creation of suitable teaching techniques and therapeutic programs to help to lower these challenges, so helping to lower school dropout rates (Khouja, 2019, pp. 125-126).

- (Ben Jakhdal & Kandouz, 2021) Study: With an eye toward the historical evolution of diagnostic tests and differential diagnostic criteria, this paper sought to offer a thorough theoretical framework for identifying writing problems. The study underlined the need of differentiating between permanent writing problems and transient ones that surface in children at the start of learning. It also looked at five key diagnostic tools: the E-A test and the thorough evaluation scale for handwriting speed among others (Ben Jakhdal & Kandouz, 2021, pp. 16-24).

- (Al-Maghrawi, 2017) Study: Weak phonological awareness is shown in this paper to be one of the

key elements affecting the development of reading and writing skills in relation to writing and reading challenges and academic performance. It also made

clear that a student's phonological awareness in the early stages of learning predicts their future success in acquiring reading and writing. The study advised improving phonological awareness among students by using modern techniques depending on early intervention (Al-Maghrawi, 2017, pp. 18-26).

## **7-2- Studies Addressing the Treatment and Handling of Reading and Writing Difficulties.**

- (Hamzah, 2008) Study: Based on the "Davis" approach, which comprises focus exercises, alphabet mastery techniques, and learning dictionary search skills, this paper offered remedial strategies for reading challenges. It also looked over the tools and resources used in training, including letter cards and clay boxes, and advised using these techniques in schools to improve reading abilities among children with learning challenges (Hamzah, 2008, pp. 90-91).
- (Jaber, 2002) Study: Emphasizing that teacher monitoring of students' work during written expression lessons and offering direct feedback help to improve their self-confidence and inspire them to strengthen their writing abilities, this paper concentrated on the teacher's role in handling writing challenges (Jaber, 2002, p. 255).
- (Ashour, 2005) Study: This study underlined the need for teachers to devote extra lessons to explaining typical writing errors made by students and to employ remedial teaching strategies, like hands-on activities and direct applications, which enhance students' writing abilities (Ashour, 2005, p. 78).

## **7-3- Commentary on Previous Studies:**

While some studies concentrated on diagnosis (Ben Jakhdal & Kandouz, 2021) (Khouja, 2019) (Al-Maghrawi, 2017), others looked at how to manage and treat the reading and writing problems (Hamzah, 2008) (Jaber, 2002) (Ashour, 2005). A review of these studies shows that most stress the need of early diagnosis and suitable therapeutic intervention, which fits the objectives of the present study seeking to apply the clinical psychological approach in tackling reading and writing challenges among primary school students.

## **8- Theoretical Framework of the Study:**

### **8-1- Writing and Writing Difficulties:**

#### **8-1-1- Definition of Writing:**

Writing is the representation of letters and visual or tactile symbols that express sounds, therefore enabling the transmission of ideas and meanings to others (Ibrahim, p. 124). Students use it as a functional and creative language tool to explicitly

communicate chosen themes as well (Oweidat, 2011, p. 61). Writing, according to Tompkins, is a difficult

process with several stages whereby the writer uses language to investigate meaning, compile ideas, and restate them (Oweidat, 2011, p. 62).

#### **8-1-2- Writing Difficulties:**

Often regarded as one of the greatest forms of linguistic communication, writing calls for mastery of earlier abilities including listening, conversation, and reading. Student writing challenges show up in many different ways, including inaccuracy in drawing, spelling errors, and letter or syllable omission (Al-Bataina, 2007, p. 110). Among these challenges are misunderstanding of directions, wrong letter and syllable arrangement, uneven writing, too much or too little letter formation, wrong pencil grip, and neglect of punctuation marks (Jaddou, 2007, pp. 123-133). They also show up in inconsistent letter size, unclear handwriting, bad understanding of written content, and trouble managing writing speed (Obaid, 2009, p. 118).

### **8-2- Reading and Reading Difficulties:**

#### **8-2-1- Definition of Reading:**

Reading is an intellectual, human, and cultural activity since it is a complicated and interconnected process that enables one to access and engage with the ideas of others (Al-Bataina, 2007, p. 113).

Additionally, it involves translating symbols that have informational meanings, which calls for a combination of cognitive abilities (Sheppard & Mitchell, 2006, p. 11). Gibson and Lively claim that

reading is a cognitive process that starts with perception and concludes with comprehension (Saad, 2005, p. 79).

#### **8-2-2- Reading Difficulties:**

Reading problems are described as partial losses in the capacity to read and comprehend texts, either silent or spoken (Jaddou, 2007, p. 125).

Manifestations consist of omissions, additions, substitutions, repetition, poor fluency, and confusion between like letters (Jaddou, 2007, pp. 128-129). They also include issues with word perception, perceptual deficits, poor language abilities, and challenges adjusting to the material of several texts (Obaid, 2009, p. 103).

### **8-3- Teaching Methods:**

#### **8-3-1- Definition of Teaching Method:**

A teaching approach is a combination of activities and techniques carried out by the teacher to reach educational objectives and enhance students' cognitive, emotional, and skill-based capacities

(Lafi, 2012, p. 12).

### **8-3-2- Factors Affecting the Selection of Teaching Method:**

The selection of teaching strategy is affected by many elements including the type of the curriculum, the school resources, the subject matter, behavioral goals, and the skills of both the teacher and the students (Lafi, 2012, p. 13).

### **8-3-3- Prominent Teaching Methods:**

-Lecture Method: A verbal presentation of information to achieve the lesson's objectives (Lafi, 2012, p. 15).

- An interactive approach: using questions and answers between the teacher and students (Lafi, 2012, pp. 19-25).

-Inductive Method: This starts with examples, followed by deriving a general rule (Lafi, 2012, p. 26).

-Storytelling Method: The story is used as an educational tool to reinforce learning (Lafi, 2012, p. 28).

- Herbart's Method: Including stages like preparation, presentation, association, inference, and application, this approach is founded on generating interest and connecting past experiences to present ones (Lafi, 2012, p. 28).

- Role Play: This method allows learners to simulate real-life situations to enhance learning (Lafi, 2012, p. 31).

### **8-4- Psychological Processes in Learning Difficulties:**

#### **8-4-1- Theory of Psychological Process Disorder:**

According to this theory, one or more psychological processes, including perception, memory, attention, and concept formation, are disordered in students who struggle with learning (Al-Damati, 2000, p. 103). It implies that problems with sensory, perceptual, linguistic, and neurological processing are linked to learning challenges (Al-Damati, 2000, pp. 104-105).

#### **8-4-2- Teaching Methods According to the Theory of Disruption in Psychological Processes:**

-Training the Weak Process: Developing the affected cognitive functions through exercises (Al-Damati, 2000, p. 106).

-Teaching through Strengths: Utilizing the strongest cognitive channel of the student (Al-Damati, 2000, p. 106).

-A method that combines training on weak processes with utilizing the student's strong cognitive channels

is called "combining strengthening weak aspects with utilizing strengths (Al-Damati, 2000, pp. 106-107).

### **9- Study Methodology:**

#### **9-1- Research Method Used:**

Using descriptive, experimental, and comparative research methods, this study compares the different variables associated with the research problem in order to study and analyze the phenomenon under investigation.

#### **9-2- Exploratory Study:**

Beginning in a purely professional environment, this study ignored the clinical psychological practice inside the school setting. My background as a primary school teacher emphasized educational and pedagogical concerns. At first, I thought clinical psychology was restricted to purely psychological concerns, without a near link to academic and educational challenges. But, by means of observation and experience, it became obvious that the educational challenges experienced by primary school children—particularly in the last years of primary education (fourth and fifth grades)—require much more study.

-The study emphasized diagnosing these problems, investigating their causes, and then recommending solutions to solve them using field data. Considering their qualities and the obstacles they encounter, these results were also connected to the educational setting in Algerian schools. The exploratory study comprised the use of an initial diagnostic assessment at the beginning of each school year, immediately upon receiving the teaching group, via a series of assessment activities, which included the following:

-Reading and writing the daily date on the board or blackboard.

-Reading and writing the student's name and surname on the board or in the student's notebook.

#### **9-2-1- Conditions of the Exploratory Study:**

Diagnostic evaluations for Arabic language activities were based on professional experience spanning roughly seven years of teaching, and the exploratory study was conducted within a particular temporal and spatial framework. When the teaching group was assigned for the first week

of each school year, this assessment was used. An overview of the exploratory study's parameters, including its location, target audience, and the numerical distribution of the participants, is given in the following table.

**Table 1. Specifications of the Exploratory Study in Terms of Time, Location, and Learner Numbers, Distributed According to the Educational Level Taught:**

Number	1	2	3	4	Total learners
Governorate	Tiaret	Tiaret	Oran	Ouargla	
District	Madorosa	Madorosa	Sidi Bel Abbes	Rouissat	
Institution	Ain Tamattit "Si Foudhil"	Ain Tamattit "Si Foudhil"	Ben Allouche Ahmed"	"1 November 1954"	
Educational Level	4th grade	5th grade	2nd grade	4th grade	
Duration	3 years	3 years	2 years	2 years	
Number of Learners	32	52	/	60	144

### 9-2-2- Presentation of the Results of the Pilot Study:

Results of the pilot study, which sought to identify reading and writing challenges among fourth and

fifth-grade primary school children, are presented in this part. Examining their capacity to accurately read and write several fundamental components, including "daily date" and "full name and surname," helped to achieve this.

**Table 2: presents the results of the pilot study, representing an estimation of the diagnostic results for reading and writing difficulties in the Arabic language:**

Method of Diagnosing Difficulty	Tool	Percentage of Educational Difficulty	Percentage of Absence of Educational Difficulty
Writing the Date	Board	80%	20%
Reading the Date	Blackboard	70%	30%
Writing Name and Surname	Board	50%	50%
Reading Name and Surname	Class Notebook	40%	60%
Estimated Percentage of Diagnosing Reading Difficulty in Arabic		55%	
Estimated Percentage of Diagnosing Writing Difficulty in Arabic		70%	

### 9-2-3- Discussion of the Exploratory Study Results:

The outcomes of the exploratory study done on a sample of 144 fourth and fifth grade students from

the Tiaret and Ouargla areas raised worrisome issues about reading and writing challenges. The findings showed that more than 70% of the pupils could not accurately write the present date; more than 40% of

them could not read or write their first and last names. Moreover, 55% of the students struggled with reading Arabic; 70% found it challenging to write it.

Especially when a student cannot read or write their name or know the present date, these results highlight important issues regarding how well the Algerian school system meets its educational objectives. This shows a lack of basic skills development for them.

Given this, it is all the more important to review the current educational practices to make sure changes

extend to teaching techniques and strategies assuring students obtain the basic skills required in language, mathematics, and

informatics as well as offering all supporting resources and tools for this goal.

### 10- Main Study Sample:

Using a deliberate sampling technique, the primary study sample was chosen with an emphasis on students of all genders who struggle with reading and writing Arabic. 28 pupils from the "Fourth Grade D" class at the "1st November 1954 Sakhra" primary school, which is situated in the Rouissat neighborhood of Ouargla, made up the sample.

The specifics of this sample are shown in Table (5). During the 2022–2023 school year, 16 students, or 62% of the class of 28, were found to have reading and writing difficulties

**Table 03. presents the specifications of the sample used in the main study**

9 students suffer from difficulties in reading Arabic (4 males and 5 females)		
Number	Age	Gender
1	9	Male
2	9	Male
3	11	Male
4	9	Male
5	9	Female
6	9	Female
7	10	Female
8	11	Female
9	11	Female
7 students suffer from difficulties in writing Arabic (4 males and 3 females)		
Number	Age	Gender
1	9	Male
2	9	Male
3	9	Male
4	10	Male
5	11	Female
6	10	Female
7	9	Female

### 11- Tools Used in the Study:

#### 11-1-Diagnostic Assessment of Deficient Psychological Processes during the Learning of Reading and Writing:

The correct diagnosis of learning challenges and problems is a basic first step before any therapeutic or remedial program is carried out, therefore guaranteeing its efficacy in resolving the intended concerns.

A diagnostic test was carried out in this setting to find the lacking psychological processes among the study sample of students during their acquisition of reading and writing in Arabic.

Classifying student performance based on the presence (+) or absence (-) of deficient psychological processes before the application of the remedial program, this assessment offers exact projections. This enables a methodical assessment of the efficacy of the therapeutic intervention and a follow-up

tracking of their progress.

**Table 4: presents the results of the diagnostic assessment of deficient psychological processes among students with reading and writing difficulties, categorized by type**

Percentage of Deficiency in Psychological Processes (%)		Sample Elements in the Basic Study															
		Students with Reading Difficulty									Students with Writing Difficulty						
		1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7
Visual Processing of Written Letters and Words (1)	82	+	+	+	+	+	+	+	+	+	+	+	+	+	-	-	-
Auditory Processing of Spoken Letters and Words (2)	38	-	-	-	-	-	-	+	+	+	-	-	-	-	+	+	+
Sensory-Motor Processing of Words in Sound and Image (3)	100	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Auditory and Visual Memory for Letters and Words (4)	25	-	+	-	-	-	-	+	+	-	+	-	-	-	-	-	-
Underlying Linguistic Psychological Processes (5)	69	-	-	-	-	+	-	+	+	+	+	+	+	+	+	+	+
Potential Neurological Psychological Processes (6)	32	-	-	-	-	+	-	-	-	-	-	-	+	+	+	-	+
Total Distribution of Deficiency in Psychological Processes Based on Gender and Type of Educational Difficulty in Read and Written Arabic	58%	Males			Females						Males			Females			
		"1" + "3"			"1" + "2" + "3" + "4" + "5"						"1" + "3 "+"5" + "6"			"2" + "3" + "5" + "6"			

The findings of the pre-diagnostic assessment indicated that 58% of the students in the study sample struggle with reading and writing in Arabic, ascribed to deficiencies in the cognitive processes underlying these skills. Gender distribution of these challenges was as follows:

For male students:

The following cognitive process deficits were identified:

- Visual processing of written letters and words (+).
- Sensory-motor processing of words in terms of sound and image (+).
- Potential neuropsychological processes (+).

For female students:

The following cognitive process deficits were observed:

- Auditory processing of spoken letters and words (+).
- Sensory-motor processing of words in terms of sound and image (+).
- Latent linguistic cognitive processes (+).

These findings imply that reading and writing problems in both sexes are mostly caused by deficits in visual and sensory-motor processing of letters and words, as well as inadequate performance practice and training on possible neuropsychological

processes, such as mechanical writing (written) and mechanical memorization (read). Thus, it is crucial to create intervention programs aimed at improving the acquisition of reading and writing skills in students by means of these fundamental cognitive processes.

### **11-2- Development of the Intervention Toolkit for Deficient Cognitive Processes in Arabic Reading and Writing Learning:**

A comprehensive intervention toolkit comprising a series of exercises and training meant to excite and activate the lacking cognitive (mental) processes in students with reading and writing challenges was created. Applied over four weeks (a full month), this toolkit was used following the cognitive process theory approach to handle learning challenges. The emphasis was on the following points:

- Visual processing of letters and words.
- Auditory processing of letters and words.
- Sensory-motor processing of words in terms of sound and image.
- Auditory and visual memory of letters and words.
- Latent linguistic cognitive processes.
- Potential neuropsychological processes.

**Table 5. presents the field procedures followed in addressing reading and writing difficulties according to the cognitive process theory**



Exercises and Practical Field Training Directed to Students		Proposed Teaching Methods for Addressing Deficiencies in Psychological Processes		
		Training Methods for Weak Psychological Processes	Teaching Methods Based on Psychological Processes Preferred by the Student	Methods to Handle Both Strengths and Weaknesses in Psychological Processes Simultaneously
Prompt for Psychological Treatment Directions	Visual Processing Activities	Classroom Activity: Focused observation of letter, word, or sentence writing.	Home Activity: Memorizing the spelling of words such as days of the week, personal names, family names, or names of things the student likes (like "mama," "papa," sibling names, or names of animals or toys). This activity can be supported with pictures.	Home Activity: Writing reading texts, focusing on one letter at a time. Classroom Activity: Following the reading of peers, focusing on word-by-word reading, letter movements, and their elongations, using the same pen that was used to write the text at home, and placing it in the designated space on the reading page.
	Auditory Processing Activities	Classroom Activity: Auditory imitation of the teacher's orderly reading of letters.	Classroom Activity: Oral pronunciation of the written daily date, arranged letter-by-letter. Recitation of memorized verses and non-linguistic activities (e.g., Qur'an verses, Hadiths).	Classroom Activity: Correcting reading mistakes while following along with a peer's reading.
	Memory Prompt	Activity in the classroom: Reading the letter to be erased in an unorganized manner and focusing on recording it both audibly and visually.	Activity in the classroom: Writing the date daily on the board in each of the student's notebooks with individual dictation and referring back to the visual memory to draw the date learned at home from the individual dictation.	Activity at home: Memorizing reading texts automatically. Activity in the classroom: Writing, erasing, then dictating some simple paragraphs from the text and repeating reading them individually and collectively on the board.
	Sensory Motor Perception Prompt	Activity in the classroom: Actual dictation with sensory motor activity to write and pronounce the letter in each word or sentence after being asked to rewrite it in an organized manner.	Activity at home: Coloring written segments of words that are illustrated and fragmented based on topics the student enjoys, such as images of toys, animals, professions, and others.	Activity at home: Guiding students to memorize the remaining non-linguistic activities through writing. Activity in the classroom: Answering oral language questions in writing.
	Linguistic Cognitive Processes Prompt	Activity in the classroom: Identifying individual reading and writing mistakes and correcting them on the board.	Activity at home: Reading comic stories and watching animated cartoons in Arabic.	Activity at home: Listening to the musical chants and reading them simultaneously, focusing on understanding the spoken texts based on the expressive scenes represented. Activity in the classroom: Writing assignments on integrative situations according
During the Reading and Writing of Letters and Words				

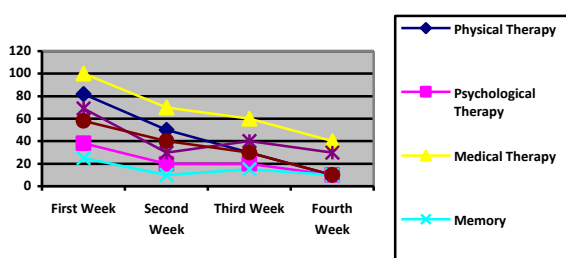
				to the collective teamwork and the project and story.
	Neuropsychological Processes Prompt	Activity in the classroom: Moving the mouth and jaw properly during pronunciation to perform correct articulation of letters, and practicing through group reading after corrections on the board, notebook, or for individual readings. Additional non-curricular activity: "Chewing gum and blowing out candles" exercise for oral movement practice, "playing with clay and dough to form letters manually," and finger exercises during physical education classes, practicing "manual movement exercises."		

## 12-Presentation, Analysis, and Discussion of Results:

### 12-1-Presentation of Results:

This section attempts to present the findings regarding the progressive improvement in psychological process deficiencies during the four weeks of the primary study when learning to read and write in Arabic.

**The developmental trend showing the slow decline over a period of four weeks in the deficiencies of the six psychological processes involved in learning to read and write is shown in Graph**



### 12-2-Analysis of Results:

The findings of the study suggested that encouraging abstract cognitive representations by means of extracurricular Arabic language activities—as indicated in Table (7)—via training on inadequate psychological processes, greatly helped to lower reading and writing problems among students in Algerian primary schools.

Stimulating symbolic representations both phonologically and kinesthetically, via activities centered on understanding and oral production training—as described in Table (7)—also helped to lower reading problems. Practicing the psychological process they chose helped students to read more smoothly and correctly.

With respect to writing, stimulating symbolic representations visually and kinesthetically via activities centered on reading comprehension and training in written production—as shown in Table (7)—helped to lower writing problems by strengthening students' abilities in handling written texts and enhancing their writing performance. These outcomes are especially noteworthy since they

fit with earlier research, especially the one done by (Abir Obaid Al-Shabeel, 2017, p. 121), which found that intensive reading and spelling training, together with the required writing standards, helps to lower the frequency of these challenges by raising awareness of spelling mistakes and correcting them during linguistic text processing (Shbeil, 2017, p. 121).

### 12-3- Discussion of Results:

The findings of the study highlight the need of encouraging lacking psychological processes during the instruction of spoken and written Arabic language exercises. By participating in integrated training for both written and oral production, as well as understanding both spoken and written texts, these processes help to considerably lower the difficulty of acquiring language skills. These activities are applied via two parallel tracks intersecting in common objectives, therefore improving the integration between verbal and written components.

These activities comprise practical tasks (like homework, classroom activities, and extracurricular activities), group cooperation, ongoing practice, and repeated training. Focusing on raising practice in memorization and mechanical writing, these exercises help to improve visual processing, memory, and neuropsychological processes. Furthermore, the relationship between auditory and visual processing via dictation and concurrent writing helps to balance the auditory and visual components, therefore improving the learning process and lowering its challenges.

These findings support the study hypothesis since they show that "stimulating deficient psychological processes during the teaching of spoken and written Arabic language activities reduces the difficulty of learning them," hence confirming the results. The study's findings lead to the conclusion that learning reading and writing in Arabic may be made much easier by training on abbreviated psychological processes and using them in the context of Arabic language activities.

## 13- General Conclusion:

-Training on Abbreviated Psychological Processes: During Arabic language exercises, training on weak (deficient) psychological processes promotes

abstract cognitive representations, which are essential for forming linguistic perceptions of letters and words. These illustrations are essential for comprehending Arabic and aiding in language acquisition.

-Teaching Using the Preferred Psychological Process: During reading and writing activities in Arabic, teaching based on the psychological process that the student prefers stimulates both visual and auditory symbolic representations. These representations improve the student's comprehension and grasp of the Arabic language by providing both visual and aural representations of letters and words.

-Addressing Strengths and Weaknesses: One important way to lessen the difficulty of reading and writing Arabic is to address the psychological processes' strengths and weaknesses when teaching spoken and written Arabic activities. Learning challenges are lessened by assessing abstract and symbolic cognitive representations (visual and auditory).

#### 14- Conclusion:

By focusing on the fundamental cognitive processes connected to Arabic letters and words, this study sought to provide an applied method for resolving reading and writing challenges in elementary school pupils. Thus, the study was successful in offering a useful tool that can help elementary school teachers meet the Ministry of National Education's final competencies, especially in the area of Arabic language activities.

The approach taken in this paper emphasizes on rectifying the mental pathways of visual and auditory cognitive processes connected to Arabic letters and words. Employing performance strategies combining sensory and motor components throughout the student's learning process helps to achieve this. A required and integrated stage is linking reading instruction via phonemic awareness and then transcribing it in writing. Following phonemic and visual awareness, copying and writing help to guide the mental pathways in charge of reading and writing Arabic.

Repetition was found by the study to be quite important in both auditory and written registration since it is seen as a vital integrative step to activate motor processing and self-learning. Moreover, finding and fixing spelling mistakes helps to balance the mental pathways in charge of reading and writing. As the link between reading and writing strongly suggests the need for interaction between auditory and visual processes, this study has shown that learning to read must be accomplished via writing.

#### 14-1- Teaching Approaches:

Aimed at correcting shortcomings in the psychological processes underlying learning to write

the Arabic language, this paper offered three teaching strategies:

-Training the deficient perceptual process.

-Teaching the student according to their preferred cognitive style.

-A thorough method that tackles both strengths and weaknesses in psychological processes.

In order to address the cognitive pathways causing problems with reading and writing Arabic, this study offers a specialized psychological therapeutic intervention. In order to improve the cognitive processes involved in learning, these methods first correct cognitive abstraction before re-stimulating the symbolic representation of letters and words through visual and auditory means.

#### 14-2-Study Recommendations:

The study suggests the following given the frequency of problems in reading and writing Arabic in Algerian primary schools and the need of early intervention to handle them:

-Widely using the approach in this study because of its efficacy in raising students' reading and writing performance and streamlining the educational process in line with the goals of educational reform.

-Encouraging young people to enroll in Quranic schools since these institutions emphasize writing, erasure, and repetition strategies to help students memorize the Quran. Our research has shown the need of exciting the mental psychological skills driving reading and writing, which are abilities suited to the character of learning the Arabic language, the language of the Quran.

-As highlighted by researchers in prior studies, especially in the field of learning to read and write Arabic, a future study on the influence of enrollment in Quranic schools on general academic performance would be useful (Gouarah, Mohamed, Tabli, Mohamed Taher, 2012).

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