

## Handwriting Difficulties among Primary School Pupils in Bechar

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Sent to publication 2018-11-26

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Accepted 2019-05-28

### Abstract:

Handwriting is an important skill that children need to acquire and master. Despite the efforts done to enhance this skill and frequent practical training during the course of study, it seems that primary school pupils and consequently most learners at higher levels are still having difficulties and confront barriers in acquiring the handwriting skill. This study attempts to investigate the difficulties that primary school pupils may face in the learning process of this essential skill. A case study is conducted to evaluate pupils of the third and fifth grade at MoumniLhadj primary school, based on two sets of activities, and classroom observations designed to both grades when French lessons, in addition to a questionnaire directed to teachers of French in different primary schools of Bechar.

**Keywords:** handwriting, difficulties, primary school, Bechar, remedial activities, French, psychomotor skills

الملخص :

الكتابة بخط اليد هي مهارة مهمة يحتاج الأطفال إتقانها والتمكن منها. على الرغم من الجهود المبذولة لتعزيز هذه المهارة والتدريب المتكرر والعملية خلال فترة الدراسة ، يبدو أن تلاميذ المدارس الابتدائية لا يزالون يواجهون صعوبات وحواجز في اكتساب مهارة الكتابة بخط اليد. تحاول هذه الدراسة التحقيق في هذه الصعوبات التي قد تواجه تلاميذ المدارس الابتدائية في هذه المهارة الأساسية. يتم إجراء دراسة حالة لتقييم تلاميذ الصف الثالث والصف الخامس بمدرسة مومني لادج الابتدائية بولاية بشار، بناءً على مجموعتين من الأنشطة ، وملاحظات أثناء حصص التدريس للمستويين ، بالإضافة إلى استبيان موجه لمعلمي اللغة الفرنسية في مختلف المراحل الدراسية بعدد من المدارس الابتدائية بشار.

**الكلمات المفتاحية:** الكتابة بخط اليد ، الصعوبات ، المدرسة الابتدائية، أنشطة علاجية، فرنسية، مهارات حسية حركية

### Introduction

Proficient handwriting is one of the scholastic skills that children need to acquire to meet the common demands in classroom work at primary school. Proficiency in handwriting is significantly correlated with academic achievement and is a predictor of general learning abilities. However, most people never consider the complexity and difficulty of the writing process and that graphomotor (handwriting) difficulties have a profound impact on a child's academic success and self-esteem. Unfortunately, handwriting difficulties (also commonly known as dysgraphia) are commonly observed in children at primary schools.

#### 1.1 Definition of Handwriting:

Handwriting, manuscript and cursive, has been given several definitions in several dictionaries. It is a style or manner of writing by hand, especially one that characterizes a particular person, i.e., different people have different handwritings. It is also a functional tool for writers to communicate, and for learners to acquire language in its graphic form. Most dictionaries define handwriting as writing done by hand with a pen, pencil, digital stylus, or other instrument used on different standard media like a slate, paper, etc. aiming at conveying thoughts or ideas through symbols.

#### 1.2 Types of Handwriting Activities for Beginners:

According to the pedagogical guide of 3<sup>rd</sup> year primary school teachers of French, learning handwriting is pivotal in the child's life. The first months of learning in the 3<sup>rd</sup> year primary school is devoted to the mastery of the Latin graphic system. Exercises on slates or the white board allow pupils to gradually come to the realization of the phoneme-grapheme relationship (what is heard-what is written). The copying of words and sentences precedes the written production activity. As a result, pupils are regularly trained to improve the graphic gesture. Cursive writing obeys rules of letter formation. Writing activities concern the observation of the plot of the letter as presented in a specific and visible place on the writing page. The graphical gesture of each letter is then broken down into parts in the workbook. The copying of the illustrated words makes it possible to go little by little towards copying sentences then a short text. Once the graphic gesture is mastered, automatisms favoring good writing are acquired after sufficient training. Children of 3 to 4 years old are trained to draw shapes (circles, squares...). Later (at the age of 4-5), they learn to write capital letters. Finally, from age 5, they are taught to write words in cursive script.

Throughout this phase of learning, the teacher encourages pupils to adopt the right posture, the best way to stand in front of the table, to tilt the body properly, and to position the arms and legs. During this phase, the teacher helps pupils, be they right-handed or left-handed, to readjust their posture to allow the writing hand to position itself under the line of writing because the inclination of the sheet in the axis of the arm allows the visual control of the progress of writing. The ability to place one's hand under the line of writing favors a more controlled layout.

The writing tool is also important in this area. The good writing of the tool depends mainly on its quality. The best way to hold the pen is called the tripod grip, Sophie Duprey in her book "Répertoire graphique à partir de 4 ans" described it as follows: the pencil is blocked between the thumb and the first phalanx of the middle finger, the index resting on the body of the pencil. This position has the advantage of releasing the phalanges for the drawing of cursive letters and reducing muscular effort. However, some pupils are uncomfortable with this posture, which prevents them from writing; in this case, it is better to let them hold their tool as they wish.

Usually, the first word that the child handles when he enters school is his/her first name. It is possible and even profitable sometimes to choose a collective word that allows a joint work in which the teacher can name the letters, and state the writing rules that are transferable to other words to be written later. It is better to suggest writing a word in its entirety rather than starting with learning isolated letters, which have no meaning for the pupil. This activity must be presented in an attractive way to engage the pupils to go beyond their possible inhibition. This is why the choice of a simple collective, meaningful, and short words referring to a common experience (such as the hero of a child story) seems appropriate.

When children understand that writing is a code that delivers messages, it is possible to encourage them to produce written messages. The teacher encourages them to write relying on the words displayed in the class, the known texts, and word collections. Pupils must formulate the word or phrase orally and write it down. The teacher rewrites the correct form of the word or phrase under the eyes of the pupils.

### **1.3 Types of Handwriting Difficulties Encountered by Primary School Pupils**

Rosemary Sassoon (2008) classified the most common handwriting problems that primary school children face into four main categories:

#### **1.3.1 Letter and Word Spacing Issues**

Since there are no specific rules for letter and word spacing, i.e., it should be a matter of common sense; infants are often told to use their thumb to measure the space between words. However, thumbs grow and writing gets smaller, so this concept will seem awkward for some older pupils.

#### **1.3.2 Poor Body Posture and Pencil Grip**

Incorrect pencil grips can contribute to a lack of control and the child's ability to hold the pencil. Pupils may be concentrating so hard on holding the pencil grip that they forget to focus on letter

formation. On the other hand, placing too much pressure on the pencil will cause holes in the paper. There are many signs of poor core strength, the pupils may slouch across the table, support their chin using hands or lay their head and arm on the table. They could lean close to the paper or unconsciously put their non-dominant hand on the chair.

### 1.3.3 Reluctance and Poor Writing Speed:

When pupils have handwriting problems, they are frequently called “lazy”, “unmotivated” and/or “oppositional” because they avoid writing. At times, they are able to produce neat handwriting but only at a very slow pace. They are often accused of writing neatly “only when they want to”. When required to write, pupils who have handwriting problems often engage in avoidance behaviors such as taking trips to the bathroom, sharpening their pencils or getting hankies from their backpacks.

### 1.3.4 Problems with Letter Formation:

Many pupils have difficulty remembering how to form the letter, or how to pull the formation of the letter from their memory or in general, they have poor letter formation. Letter reversal is easy to detect. Letter reversals happen especially with letters that are mirror image of each other and are therefore more likely to lead to confusion. Such letters as *b* and *p*, *p* and *d*, *p* and *q*, *n* and *u*. Luckily enough, the majority of letters have different shapes, so if those letters are turned, they will not be confused with other letters.

Moreover, capital letters confusion is a dominant problem, since children are either unable to form capital letters correctly or do not know exactly when to use them, or in other situations they use a large version of lower case letters. In some cases, pupils cannot even differentiate between letter sizes, so they end up writing them in the same size. In addition, the teacher can notice two kinds of a mixture, the first one is between upper and lower case letters in words, and the second one is between cursive and print letters in words also.

## 1.4 Dysgraphia, Types, Causes, and Remedial Activities:

Handwriting is a complex human activity that requires a blend of cognitive, kinesthetic, and perceptual-motor components. (Rosenblum, Sara & Weiss, Patrice & Parush, Shula. (2003))

### 1.4.1 Definition of Dysgraphia:

Richards (1999) defines dysgraphia as a problem with expressing thoughts in a written form. Meese (2001) on the other hand describes dysgraphia as handwriting problems, specifically, a partial inability to remember how to make certain alphabet or arithmetic symbols. Sue Ramin-Hutchison and Merri Domeragree that most individuals who have significant motor or sensory- motor handwriting challenges have a form of the neurological disorder known as Dysgraphia — with “Dys” meaning “difficulty” and “graphia” meaning “writing”.

Dysgraphia is a neurological disorder that impairs the writing process. It can involve difficulties with the physical aspects of writing (e.g. awkward pencil grip or bad handwriting), spelling, or putting thoughts on paper.

### 1.4.2 Types of Dysgraphia:

There are different types of dysgraphia, yet some children may have more than one type of Dysgraphia. The following types are the most common.

**-Dyslexic Dysgraphia:** With Dyslexic Dysgraphia a student’s spontaneously written work is illegible, copied work is pretty good, and spelling is bad. Finger tapping speed (a method for identifying fine motor problems) is normal. A Dyslexic Dysgraphic does not necessarily have Dyslexia. Dyslexia and Dysgraphia appear to be unrelated but can occur together.

**-Motor Dysgraphia:** Motor Dysgraphia is due to deficient fine motor skills, poor dexterity, poor muscle tone, and/or unspecified motor clumsiness. Generally, written work is poor to illegible, even if copied by sight from another document. Letter formation may be acceptable in very short samples of writing, but this requires extreme effort, an unreasonable amount of time to accomplish and cannot be sustained for a significant length of time. Writing is often slanted due to holding a pen or pencil incorrectly. Spelling skills are not impaired. Finger tapping speed results are below normal.

**-Spatial Dysgraphia:** Spatial Dysgraphia is due to a defect in the understanding of space. This

person has illegible spontaneously written work, illegible copied work, but normal spelling and normal finger tapping speed. Pupils with Spatial Dysgraphia often have trouble keeping their writing on the lines and difficulty with spacing between words.

**-Phonological Dysgraphia:** Phonological Dysgraphia is characterized by writing and spelling disturbances in which the spelling of unfamiliar words, non-words, and phonetically irregular words is impaired. Individuals with Phonological Dysgraphia are also unable to hold phonemes in memory and blend them in their appropriate sequence to produce the target word.

**-Lexical Dysgraphia:** Lexical Dysgraphia is evidenced when a person can spell but relies on standard sound-to-letter patterns with misspelling of irregular words. This is more common in languages such as English and French which are less phonetic than a language such as Spanish.

Feifer (2001) added other three types of Dysgraphia:

**-Surface Dysgraphia:** pupils who have trouble with orthographic representations of words, will rely too heavily on sound patterns.

**-Mixed Dysgraphia:** This type refers to pupils having trouble with mixing up letter formations and spelling tasks, a combination of phonological dysgraphia and surface dysgraphia.

**-Semantic/Syntactic Dysgraphia:** is a grammatical problem in which pupils have difficulty with how words can be joined to make complete and comprehensive phrases.

Moreover, children with dysgraphia usually have problems with automaticity that interferes with the retrieval of letter formation (Richards, 1999). The concentration on how to form the letter overwhelms the child to a degree that the letter is written poorly. Incorrect letter or word formation can also lead to exceeding the margins or lines. Letter formation is automatic for most pupils after initial skill attainment.

#### 1.4.3. Remedial Activities for Dysgraphic Pupils:

The International Dyslexia Association provided a range of activities to help Dysgraphic pupils:

##### - Forming Letter Activities:

Pupils with dysgraphia must learn how to form letters properly. Early activities include connecting dots to form letters, tracing letters with a finger or pointer tool, copying model letters and following explicit teacher instruction on step-by-step letter formation.

##### - Letter Writing Activities:

Pupils with dysgraphia benefit from letter writing activities, hence providing pupils with the opportunity to create letters from memory and giving them the chance to write dictated letters with or without the help of a step-by-step letter writing guide is a good idea.

##### - Handwriting Activities:

According to the Reading Rockets website, handwriting activities may include teaching pupils to use cursive writing, as many pupils with dysgraphia find cursive easier to write. Other activities, such as giving pupils a short period of time to write on a specific topic, with a focus on handwriting, and dictation lessons can help pupils with dysgraphia to practice their letter formation and handwriting skills.

##### - Writing Stages Activities:

Activities for pupils with dysgraphia should include instruction on writing a composition or research paper. Pupils should be taught to break their writing into several stages to avoid becoming overwhelmed. Instructors can break composition writing into stages such as brainstorming, outlining, draft writing, editing, rewriting and proofreading and allow pupils to work on each step individually. Simple abbreviations or marks used in editing to reduce the amount of writing necessary are advisable. Also pupils should be allowed to take part in peer writing reviews and spell checking to help them see their writing from another person's perspective and gain insight into how to find misspelled words.

#### 1.5 Overview of Writing Activities in the Official Textbook (3<sup>rd</sup> & 5<sup>th</sup> Grade):

The 3<sup>rd</sup> grade official textbook of French is rich with writing activities which enable the pupils to

master the mechanisms of writing, starting with learning how to write the models of letters then; those letters are joined up together making the content of another level of activities that are words writing. After that, pupils start to connect words with each other making meaningful short sentences; the following step in the manual is learning how to write the graphemes in cursive and script along with exercising capital and lowercase letters in both cursive and script writing.

The official 3<sup>rd</sup> grade French textbook comprises the following types of exercises.

#### -Letter Writing Exercises:

- **Word Writing Exercises**
- **Sentence Writing Exercises**
- **Cursive and Script Exercises**
- **Capital and Lower Case Letter Exercises**

On the other hand, the 5<sup>th</sup> grade official French textbook does not include sufficient writing exercises except for the written expression drills at the end of each sequence and some other few writing exercises found in the final part of the exercise book. It is worth mentioning that exploring the writing mechanisms is not the main objective of such activities at this level.

#### 2.1 Target Population and Research Tools:

In this research, three tools have been implemented to collect data. The first is a questionnaire addressed to teachers of twenty primary schools in the area of Bechar, observation sessions, and activities administered to third and fifth grade pupils. The choice of these two levels is justified by the fact that third-grade pupils are experimenting handwriting using Latin letters for the first time, and have never experienced this type of writing. Fifth-grade pupils; however, constitute the outcome of two years of experience with writing using Latin letters (French) and the quality of their writing enables to assess the efficiency of the teaching they have received.

#### 2.2 Participants:

Participants of the questionnaire are teachers from ten primary schools in Bechar namely: MoumniLhadj, LarbiTebessi, Yahia Mahmoud, Rahal Ayoub, Chakroun Omar, WahabiElghazi, HartaniHoussein, Makhloufi Muhammed, BenahmedLahcen, and HamzaouiMiloud, which are located in varied districts of the town for the sake of data accuracy. The number of teachers involved is twenty

(20), sixteen (16) females and four (4) males, and the participants of the handwriting activities whose papers were studied and analyzed are a class of third grade consisting of twenty-five (25) pupils; seventeen (17) females and eight (8) males. As for the fifth-grade, a class composed of twenty-three (23) pupils', thirteen (13) females and eleven (11) males was chosen.

#### 2.3 The Teachers' Questionnaire:

Here you should describe the questionnaire or just remove this title.

#### 2.4 Writing Activities Description:

- **Third Grade Activities:** Four different activities were set up; the first one is about writing the letters (a, b, c, d, e, f, g, h, i) in cursive, and an example of each one is written under the activity instruction. The second activity is about writing the word Thursday (Jeudi) for three times following the degradation of the word form from the bigger to the smaller one; the first and the second activities were chosen to evaluate pupil's letters formation skill and investigate letters reversals.

The third activity is actually a festoon practice where pupils start to draw continuous semicircles and the purpose of this activity is to measure their control of the writing tool. The fourth and the last activity is about separating the words of a joined sentences, noting that the first letter of every sentence is capitalized for the sake of assessing the capitalization use. These activities were arranged in the order of letter, word, sentence for the in-depth study of the possible problems when handwriting.

- **Fifth Grade Activities:** As for this level, four other activities were used. The first one is about rewriting four sentences with capitalizing the proper nouns in each sentence. The second activity consists of a short text that contains nouns, the pupils here were asked to rewrite the nouns under the paragraph. Both the first two activities were arranged to assess the practicability of capitalization,

The third activity is the same as the fourth activity given to level three which is separating sentences, this one evaluates the spatial application. The final activity given to this level contains similar sentences with some grammatical differences where the pupils were asked to rewrite these sentences then turn the page and write the same sentences; this activity aims at evaluating the pupil's capacity to memorize letters.

For both grades, activities that are similar to those of the copybook were provided so that the pupils can practice the activities easily and for the purpose of evaluating their ability follow the lines.

#### **2.4.1 Results of Writing Activities for Pupils:**

The upcoming result tables for both third and fifth grade are conducted on the basis of a set of observed handwriting difficulties during the analysis of activities and also the observation sessions, taking into consideration the aims of the activities used since we made sure to collect and extract as many handwriting difficulties as possible and to notice the unfamiliar ones as well.

#### **2.5 Classroom Observation:**

Two observation sessions were carried out with third and fifth-year pupils and both sessions were at Moumni Lhadj primary school.

During these two observation sessions, researchers had the opportunity to observe real handwriting difficulties, and meet little innocent faces that some of them were struggling with their handwriting and some balancing between dysgraphia and other areas of handwriting problems. As the day of the observation came, we came in time, sat at the back of the classroom, and started taking notes based on the organization of the lecture and the interaction between teachers and their pupils.

#### **2.5.1 Description of Classroom Observation:**

The first observation session was on March, 15<sup>th</sup> 2018, with the third- grade, it started at 8 AM and finished at 9. The pupils seemed fresh and active, but they were talkative until the moment the teacher arrived, they all stood up and greeted the teacher and the lesson started directly. The teacher wrote the title of the unit that was about creating a tree chart to present it at the World Tree Day exhibition on March 21<sup>st</sup>, and the sequence title was the green corner (le coin vert). After that, she turned to the pupils and asked them to revise with her the previous studied graphemes (s, z, x) in script, cursive, upper and lower case forms by using their slates and then writing the letter form in the air using their fingers. This part of the lesson was considered as a warming up exercise. Next, the teacher asked the pupils to open their books on page (38) and copy down on their slates the words (picorer, graine, champ, dans, encore) she was writing on the whiteboard. Later on, the pupils passed to the board and decomposed the previous words into syllables. At this point, most of the pupils interacted enthusiastically. After they finished, the teacher and her pupils started a discussion to extract the letters (phonemes) of the day that were (c, k, q, g) and then write them on slates as followed by letter writing in the air, using their fingers. Finally pupils were given about 15 minutes to write down the words, their syllables decomposition, and the new letters acquired on their copybooks.

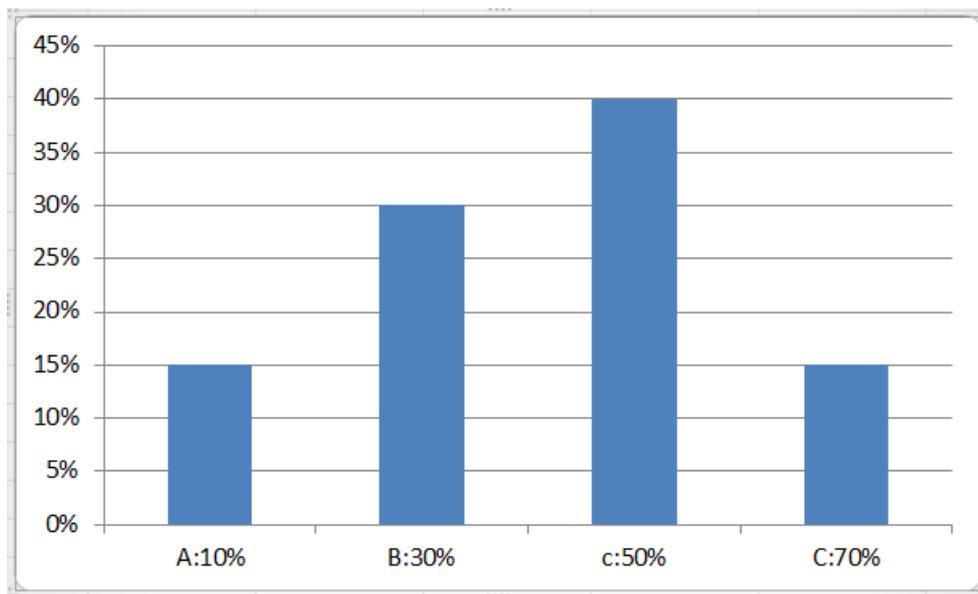
The second observation session was on March 18<sup>th</sup> 2018, with a fifth grade class; it started at 2 pm and finished at 3 pm. The first 15 minutes of the lesson were spent on refreshing the pupil's memory by asking them to remember the transition words learned in the previous lesson. After that, the teacher wrote the title of the lesson after the sequence and the unit titles, while she was going to the back of the classroom to bring dictionaries from the bookcase she asked them to open their exercise books on page (16) and requested two pupils to distribute the dictionaries to their friends. Then, she read the first activity instruction that was about circling the first letters of the words written and then to order the words alphabetically on their slates. The instruction was clear enough for all the pupils and this activity was allotted about 5 minutes to be completed and corrected. Some of the pupils who forgot their slates were ordered to use paper. Once the correction began pupils answers were checked by the researcher, to take notes of eventual difficulties. The teacher started to correct pupils' writing as well as the activity itself (ordering words alphabetically). Later, one of the pupils wrote the correct answer on the board. Next, the teacher moved to the second and final activity; she read the activity instruction that was about searching for the definitions of five words in the dictionary and then

writing them down on copybooks. After that, she read the words mentioned and once she announced the time given for this activity, the pupils started searching for the definitions of the words in dictionaries. Some of the pupils did not know how to find a word in the dictionary, so the teacher intervened to make it easier for them, she explained that it was not the first time they used dictionaries. After about 15 minutes, correction started and each pupil was asked to read the definition found. Then, the teacher wrote the correction on the board and let them write the correct definitions on their copybook. Finally, the teacher gave another five words to search for as homework practice to accustom them more to the use of dictionaries.

**2.1 Teachers’ Questionnaire Analysis:**

In this part the teacher’s questionnaire will be analysed in the form of graphs.

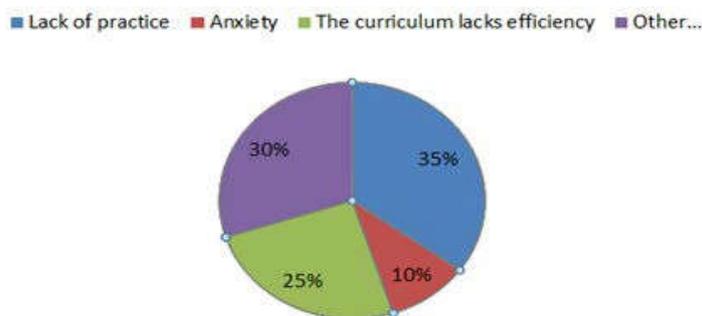
**Question1:** How many pupils have writing problems?



**Figure1: Percentage of Pupils with Handwriting Problem.**

From the bar chart above, one can notice that half of the teachers questioned said that 50% of their pupils are having handwriting problems, while 15% of the teachers went with answers (A) and (C) which represent the fewest and the largest category of the class respectively, meanwhile 30% of teachers went with answer (B).

**Question2:** Why do pupils have such problem?



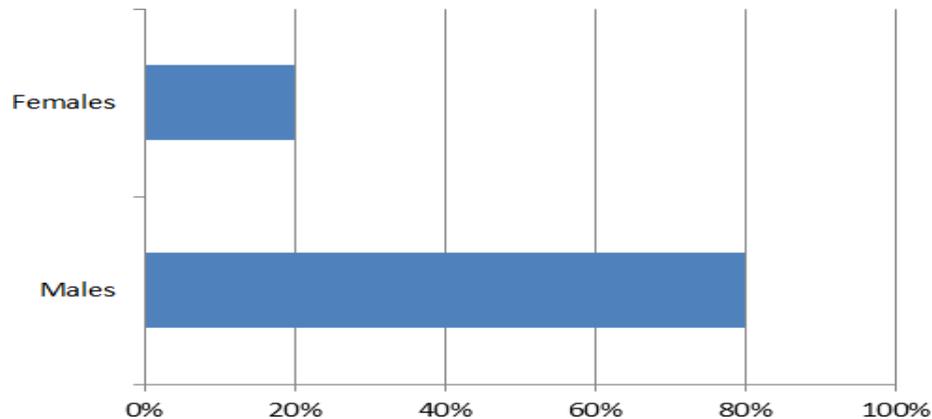
**Figure2: Causes of Handwriting Problems.**

From the figure above, some options were provided for the teachers to choose, and one open question

about the causes of handwriting problems. It shows that 35% of the teachers questioned agreed that the lack of practice is the common cause of handwriting difficulties, while 30% of the teachers mentioned other causes such as psychological problems, mental illness, hereditary causes and parent's ignorance...

However, 25% of the teachers claimed that the curriculum lacks efficiency and can be the principal cause of such a problem, and the remaining 10% went with the anxiety choice.

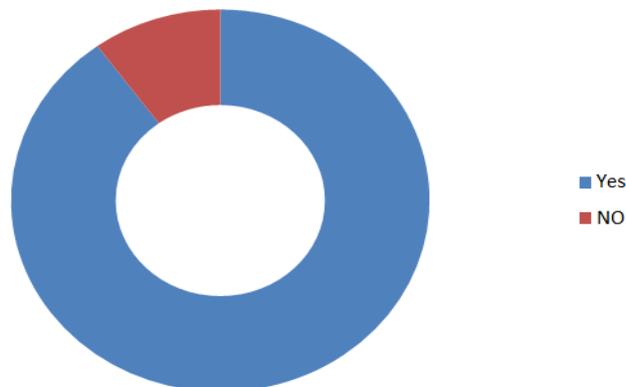
**Question3:** what gender do you think have more handwriting difficulties?



**Figure 3: Gender vs. Handwriting Problems**

In the bar chart above, 80% of the teachers agreed that males have more handwriting difficulties, while only 20% said that females struggle more with handwriting problems compared to males.

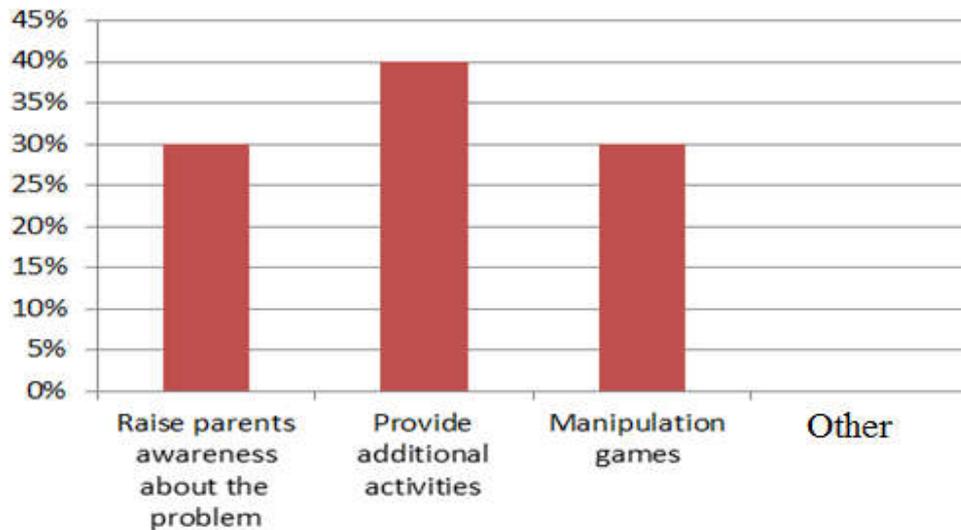
**Question4:** do you think pupils with dysgraphia should be diagnosed?



**Figure 4: Teachers' Opinion about Dysgraphia Diagnosis**

In the figure above (Figure 4), teachers were asked if the problem of handwriting should be solved at an early age, and 90% of the teachers said they agree with the idea of diagnosing this problem and finding a remedy to it. 10% of the teachers questioned, however, claimed that the problem would disappear with time, and therefore, early intervention is not priority.

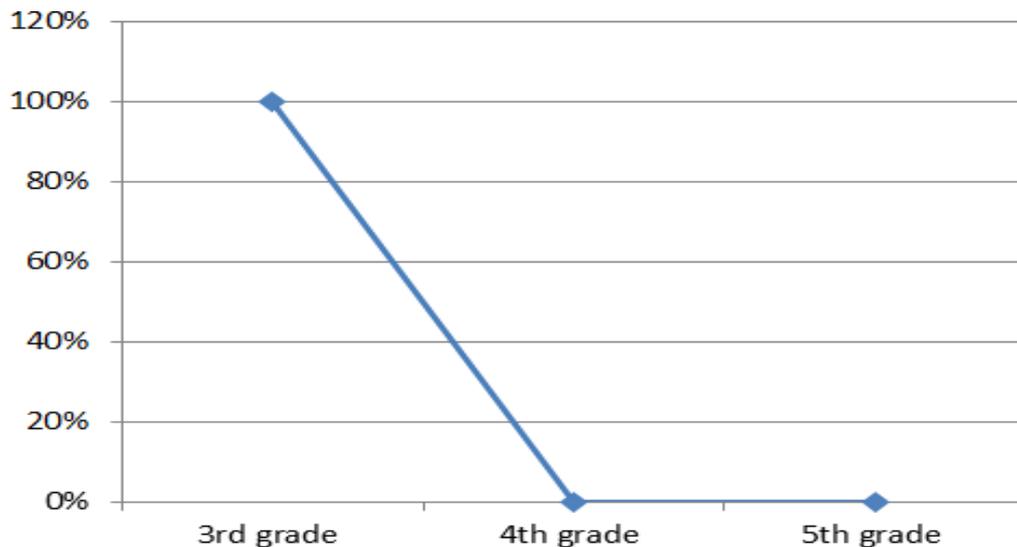
**Question5:** what solution do you suggest to overcome this phenomenon?



**Figure5: Solutions Implemented to Overcome Handwriting Difficulties**

In the pie chart above we asked the teachers to select one of the solutions provided in the questionnaire, including an open option to suggest an additional solution if any. No suggestions were given, and the highest percentage went with (B) which is providing additional activities so they can practice handwriting in a form of studying. The remaining 60% were divided between raising parents awareness and manipulation games with 30% for each option.

**Question 6:** At what level must handwriting to be focused on?



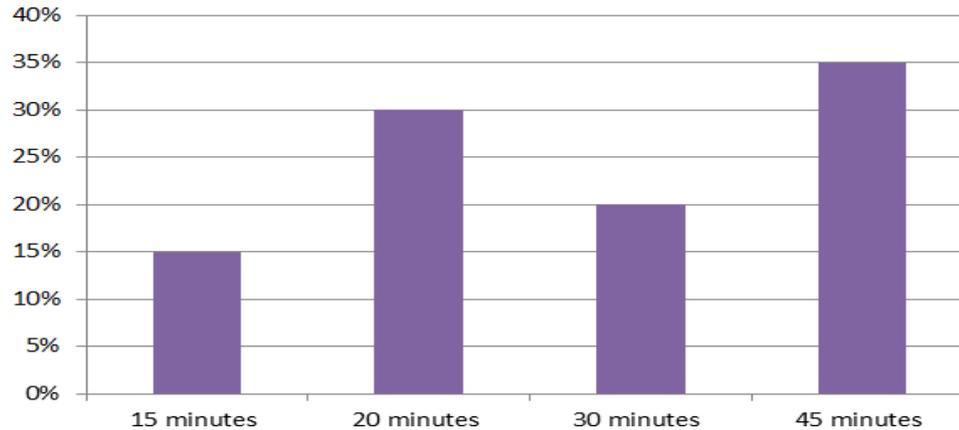
**Figure6: Level which Handwriting needs to be Focused on.**

In the graph above, we asked the teachers at which level handwriting should be focused on, and 100% of them stated that the third grade is the optimal grade and age for them to learn and grasp the basic handwriting skills.

**Question 7(Justifying answer to question 6):** why?

Since this question is connected to the previous one and seeks explanation to the teacher's choices, and because all the teachers questioned said that the third grade is the exact age that pupils need to practice handwriting, they had mainly the same reasons but with different explanations. The most used ones were "because it is the basis for studying the French language" and "it is their first encounter with writing a foreign language".

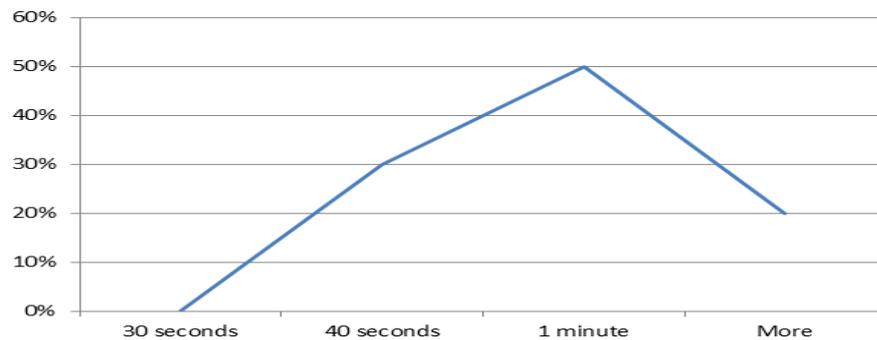
**Question 8:** How much time do you allot to writing in a session?



**Figure7: Time Allotted to Handwriting in Class.**

As the figure above illustrates, the teachers were asked if they provide much time for the pupils to practice writing in class. Results were close, with the highest percentage (35%) opting for 45 minutes, which is more than half of the time of a session. As many as 30% of them picked the second choice which is 20 minutes of writing, and 25% of the teachers said they devote 20 minutes to handwriting each session. The remaining 15% said that 15 minutes per session is enough for pupils to practice and enhance their handwriting.

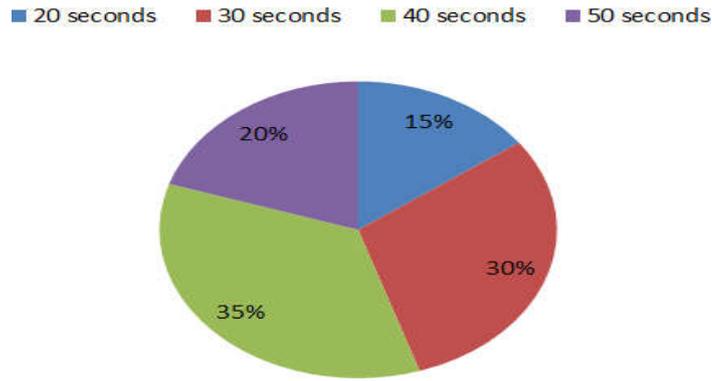
**Question 9:** How much time do you give your pupils to write a sentence?



**Figure8: Time Provided for Pupils to Write a Sentence.**

In the graph above, teachers were asked if they give enough time for pupils to write a sentence. Half of them (50%) claimed that they give one (01) minute as a medium time to write it, which is, according to them, quite enough for both high and low achievers. On the other hand, 30% of the teachers stated that a forty-second period is good and enough time to write a sentence. The other 20% went with the open choice, stating that even high-achieving pupils need more than one (01) minute to write it, while none of them went with choice (A) which is 30 seconds.

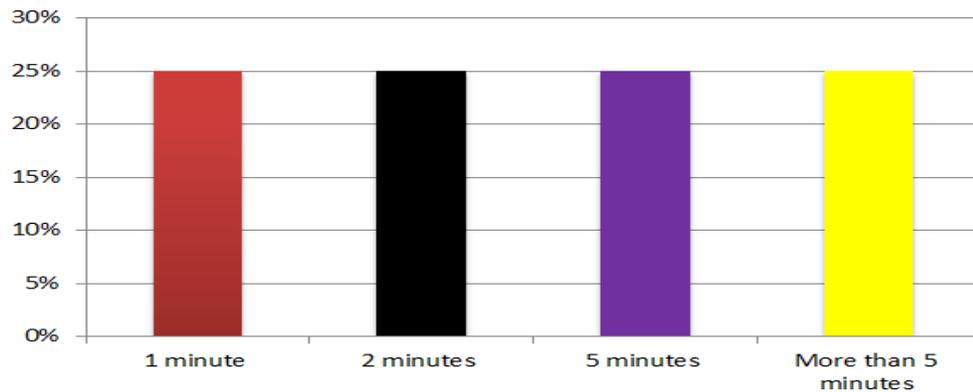
**Question 10:** How much time does it take high achievers to write a sentence?



**Figure9: Time Spent by High Achievers to Write a Sentence.**

In the figure above, we asked the teachers if they allow high-achieving pupils a specific time to write a sentence. The largest number (35%) went with choice (C) (40 seconds), which they consider as the average time to write a sentence. However, 30% of the teachers claimed that they expect this category to finish such a task in half a minute. The other 20% went with choice (D) which is 50 seconds. The remaining 20% affirmed that 20 seconds is enough time for these pupils to write a sentence.

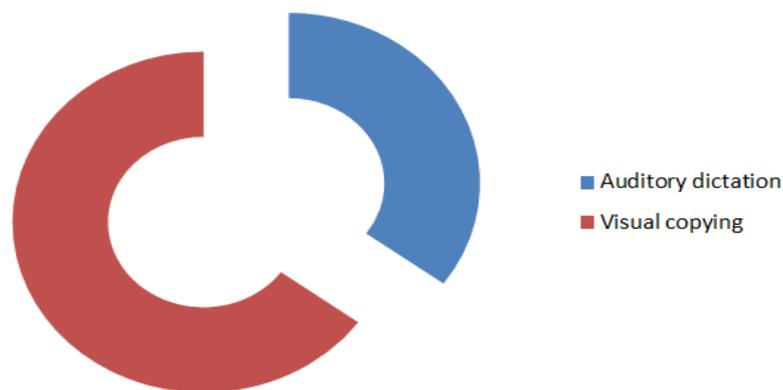
**Question 11:** How much time does it take low achievers to write a sentence?



**Figure10: Time Spent by Low Achievers to Write a Sentence.**

In the pie chart above we asked the teachers about the time spent by low achievers to write a sentence and results were pretty equal by 25% for each answer.

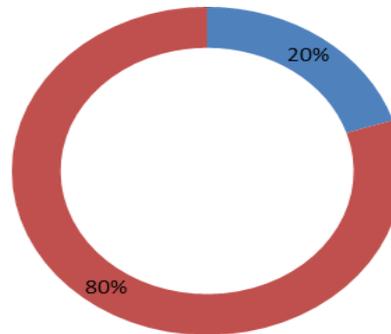
**Question 12:** what type of activity in your opinion can enhance pupil’s handwriting?



### Figure11: Teachers' Opinion of the Most Efficient Handwriting Activities

It was found that 65% of the teachers prefer to use visual copying as an activity to enhance and remedy the pupil's handwriting since the pupils will find it easier to copy what is written to avoid mistakes. The other 35% said that auditory dictation is more useful for the pupils to practice two skills at least, listening and writing (spelling) at the same time.

**Question 13:** Which one do they prefer?



### Figure12: Pupil's Favorite Activity in the Process of Writing

In the figure above, we asked the teachers if the pupils prefer one activity to another (visual copying or auditory dictation). The majority of the teachers said that the pupils prefer visual copying since it is easy to copy what is written on the board, while 20% said that their pupils prefer auditory dictation, but obviously, these were talking about high-achievers, because this category is more likely to express likes and dislikes at this age.

**Question 14:** Which one do you focus on?



### Figure13: Teachers' most Focused on Activity

Then we asked the teachers about which type of activity they focus on regardless of the pupils' opinion and the answers were pretty close to each other, 60% of them claimed that they focus on visual copying rather than auditory dictation, which was picked by 40% of the teachers.

**Question 15:** Do you think playing with clay should be extended to grades higher than the third one?

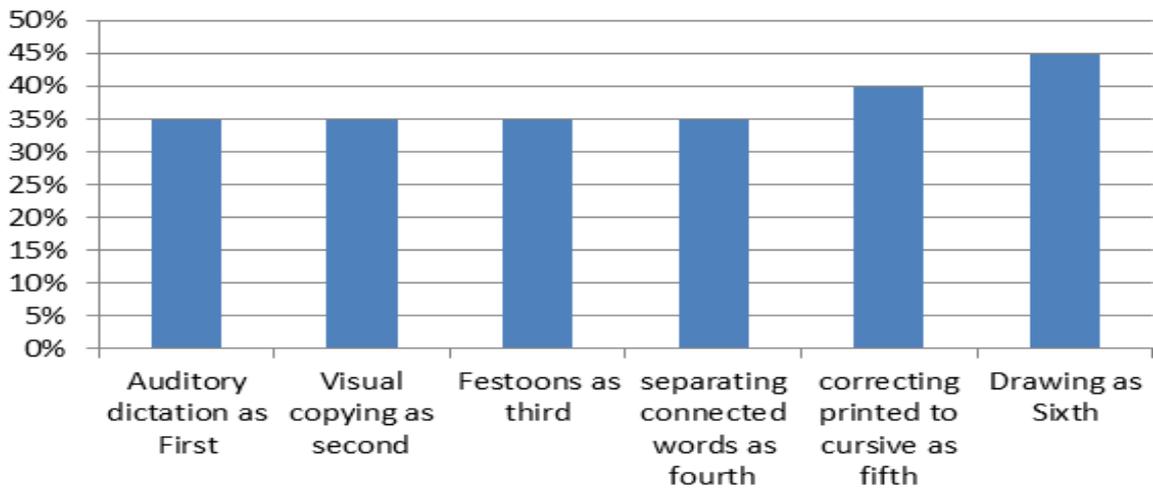


### Figure14: Teacher's Point of View of the Use of Clay after the Third Grade

In the figure above, we asked the teachers if they think playing with clay should be extended to higher grades so the children can be accustomed to using flexible objects and enhance their muscles ability to carry and use a pen with precision, as mentioned in the literature. Here, 60% of the teachers questioned agreed with idea, while 40% said that clay is not the only way to enhance the pupils'

writing ability.

**Question 16:** Order the following types of activities in matter of efficiency.



**Figure15: Teacher’s Classification of the six given Activities in Terms of Importance**

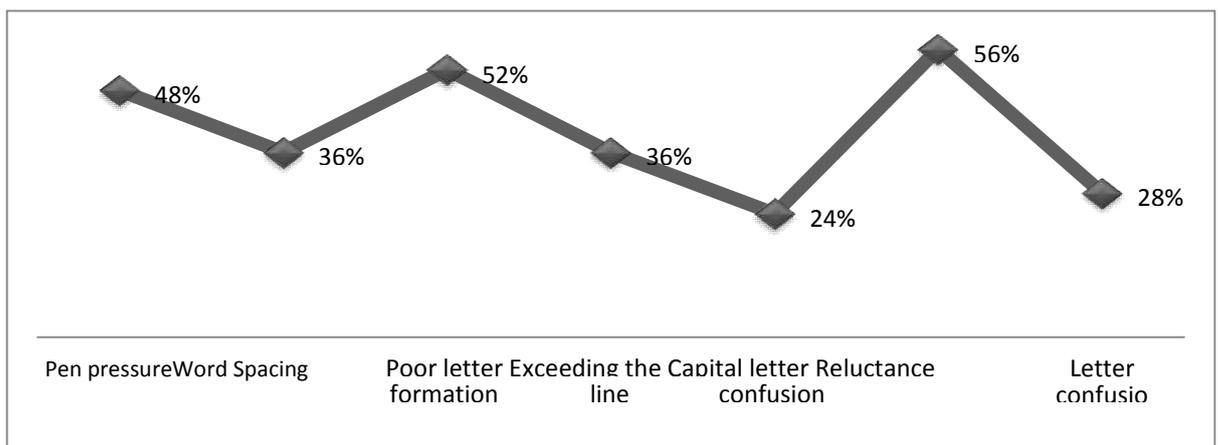
Since the question above was to order 6 types of activities according to their importance, we had to classify each option’s percentage by its rank.

In the pie chart above 35% of the teachers said that auditory dictation should be the first because of its high importance and beneficial outcomes, the second one according to the teachers was the visual copying, and 35% of the teachers claimed that auditory dictation is the second activity in importance to them. The third choice by 35% was festoons since it is more like a drawing activity for pupils’ so they can have fun and practice their writing abilities at the same time. Separating connected words activity came fourth by 35%, and the following activity that the teachers selected as fifth was converting printed to cursive with 40%. Finally, the highest percentage was given to the drawing activity as the sixth and the final one with 45%.

**3.2 Handwriting Activities Analysis**

In the following figures, we will show the handwriting problems that pupils face in both third and fifth year according to the activities given.

**3.2.1 Third Year Pupils’ Handwriting Problems:**

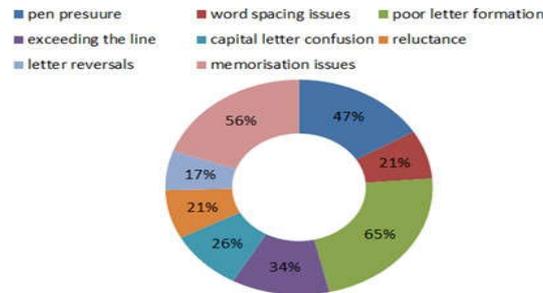


**Figure 16: The Difficulties that third-Grade Pupils suffer from.**

In the figure above, we as observers noticed that the majority of the pupils have reluctance issues which is the highest percentage by 56%, the other noticeable issue was poor letter formation, 52% of the third grade pupils have confusion and bad letter formation specially with the two letters ‘k, B’. Another problem we observed is the pen pressure or probably the grip of the pen, since they are third grade pupils they are still new to the process of writing (from left to right), and how to write full

sentence that is why it was noticed that 48% of the pupils do not know how to hold a pen. Meanwhile 36% of the pupils had word spacing issues and exceeding the line problem, we also noticed that letter reversal problem is pretty common between the pupils by 28%, and only 24% of the pupils seem to have the capital letter confusion issues.

### 3.2.2 Fifth Grade Pupil's Handwriting Problems:



*Figure 17: The Difficulties that Fifth Grade Pupils Encounter*

In the figure above, we notice that 47% of the pupils have an incorrect pen grip, which makes them apply so much pressure on their pens and hence, have a bad handwriting. Another major problem we noticed is the memorization issues by 56%, while the majority of the pupils have poor letter formation and that is the highest percentage by 65%. It is worth noting that 34% of them have a problem with exceeding the line. Another remark is that 21% of the pupils have both reluctance and word spacing issues, and 17% of the pupils reverse letters especially one that are mirror image of each other (p, b), and finally 26% of the pupils misuse the capitalization.

### 3.3 Analysis of Classroom Observation:

Based on the classroom activities and the procedure followed by the teacher, one of the most important remarks was that pupils were barely given the initiative to produce words of their own. Activities were mostly guided by the teacher, or teacher-centered, which is considered as a negative point. However, variety of the activities enables pupils to improve their handwriting in a more or less efficient way.

Individual correction of pupils is also a positive point, since it enables teachers to have an idea about the weaknesses of each pupil on the one hand, and makes the pupils feel that the teacher is paying attention to him/her, which is very motivating for them.

Another important observation was that both teachers did not try to correct pupils' posture or grip of the writing tool. The unawareness or neglect of the importance of such an early intervention this is very probably an important cause of handwriting difficulties.

### Conclusion

Handwriting difficulties that pupils face in primary school is a study conducted to reach all causes and incentives that lead to bad handwriting.

Handwriting is a spiritual designing, even though it appears by means of a material instrument. Results from this work show that pupils of the third and fifth grade face many handwriting difficulties and that is caused by the lack of remedial activities and the wrong procedures adopted by both teachers and parents. The results displayed in this research shows that pupils who are in their first encounter with a language and pupils who have three years' experience with the language can face several handwriting problems. The handwriting difficulties or as they are known as dysgraphia cannot be avoided 100% by any kind of remedies, yet it can be improved with the efforts of both teachers and parents at the same time if the right techniques and procedures proposed by experts in the field are known and adopted by all .

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