

NEED FOR EDUCATIONAL ENGINEERING TO ENHANCE READING COMPREHENSION SKILLS

Y. Laajan F.Z. Lotfi B. Nachit

Multidisciplinary Laboratory in Educational Sciences and Training Engineering (LMSEIF), Higher Normal School, Hassan II University, Casablanca, Morocco, laajan.youssef@gmail.com, fz.lotfi@enscasa.ma, nachitbrahim@yahoo.fr

Abstract- The study aimed to assess the performance of secondary school learners in reading comprehension skills and its impact on their language use, whether in the Arabic language subject or other subjects taught in school. This was done through a sample study that included practicing educators and educational supervisors in the field. They responded to a structured questionnaire that gathered their opinions and perspectives on the subject, based on their observations and daily experiences. The study concluded that learners struggle with mastering necessary skills in reading comprehension, directly affecting their language use. The majority of the study sample affirmed the significant relationship between comprehension and language, considering it a fundamental connection based on the alignment of linguistic expression with learners' needs to convey their opinions, attitudes, and desires in various contexts. Therefore, this calls for urgent intervention to engineer learners' cognitive processes, enhance their performance, and refine their skills, taking into account the critical stage at which they are studying. This stage is considered transitional and decisive in their academic trajectory, as they are approaching the certification exams and transitioning to higher education or professional fields. These require specific qualifications to help them continue learning or ensure positive engagement in it.

Keywords: Language Proficiency, the Relationship Between Language and Comprehension, Reading Comprehension Skills, Development of Abilities and Skills, Improvement of Linguistic Performance.

1. INTRODUCTION

The teaching and learning of language are considered important issues that have occupied the attention of many educators and researchers in the field of education. These issues have been the target of numerous studies and research papers due to the diverse problematics they raise. The use and application of language are central concerns, as possessing language skills is fundamentally linked to the ability to utilize them in reception and achievement.

As long as language is used in real communicative contexts, whether academic or practical, its connection to expressing individual needs and desires makes comprehension its fundamental element. Understanding ensures the appropriate use of language in the communication context, thanks to the comprehension of discourse and interaction with it. The process of linguistic reception precedes speaking or writing, where linguistic reception progresses ahead of linguistic production. We cannot conceive of the interaction between the sender and receiver using only linguistic encoding; rather, the connection between the two involves the sender's purposefulness and the receiver's ability to comprehend it.

Therefore, language is contingent on the learners' ability to understand, which is their means of building knowledge and developing various competencies. Their connection to language is based on self and collective benefit, manifested in creativity, innovation, and active engagement in social and economic activities, contributing to the development of individuals who possess linguistic skills. These individuals can leverage their language skills in various contexts, using language as a tool for positive expression and communication, whether directly with individuals and groups or indirectly through written and auditory media.

To illustrate this relationship between comprehension and language, this study attempted to describe the reality of the use of the Arabic language by learners in secondary school and the true relationship between the language and comprehension skills. We specifically focused on reading comprehension and its skills, considering reading as a linguistic performance that reflects learners' mastery of comprehension skills. Reading exhibits various aspects and forms that practicing teachers can exploit to measure and assess learners' performance, apart from the fact that this group of learners is expected to possess high-level skills. They are at a critical stage in their educational path, ready to transition to higher education or engage in a professional field.

In light of all this, the goal of our study is to open up teachers in secondary education regarding learners' ability to read comprehension and the extent of their mastery of these skills. Additionally, we aim to understand the relationship between these skills and their ability to use the Arabic language, opening the door to understanding their linguistic reality and addressing the difficulties and challenges they face.

2. LITERATURE REVIEW

2.1. Reading and Comprehension

What may come to mind for some is that reading is simply a process of decoding and pronouncing written words. However, it goes beyond that to be "more than just capturing the words and sentences written in the text, as it is a process of activating the pre-existing knowledge in our minds. When we read a text, we use our knowledge of the world to understand the text" [1] and grasp its extended and multiple meanings. This means that the process of reading is essential for building the meaning of the text, extracting its information and ideas, and forming a bridge between it and the vast world in which we live.

On this basis, it is a "complex mental process that involves interpreting the symbols received by the reader through their eyes. These symbols require an understanding of meanings and connecting personal experience with these meanings." [2] meaning finding the link between spoken language and written symbols, which "is no different from all the complex scenes, sounds, smells, and tastes" [3].

Reading, in this sense, becomes a complex and intricate process that combines two intertwined paths: one automatic, decoding and pronouncing the symbols correctly, and the other analytical, involving the dissection of meanings, searching for relationships and extensions. In other words, it is "a binary, structural, interactive analytical process that involves comprehending the text, recalling the meaning, inference, critical thinking, and interpreting and evaluating the content of the text..." [4]. This generally means that it combines both reading and analytical interpretive actions: decoding symbols and constructing meaning.

As far as reading is concerned, based on the latter conclusion, it combines decoding symbols and constructing meaning; it cannot be separated from the process of understanding, as "the goal of all reading is to understand the meaning" [5] and interpret it within the specific context that imposes a precise and accurate interpretation on the reader. Thus, reading comprehension is the main point in the reading activity, where the reader builds an understanding of the text by combining logical thinking with collecting letters, words, and sentences in the text [6].

If reading is one of the most important language skills in an individual's life, as it is the main tool for acquiring knowledge and experiences, then understanding is the core of this process, making it an "active mental process that involves the reader's interpretation of the text and its modification to fit their cognitive background" [7]. It

to the perspectives and opinions of a sample of practicing leads to a higher degree of awareness and the ability to understand the text more precisely.

Therefore, we conclude that reading cannot be separated from understanding, as they are two intertwined processes that generally enable the reader and learner to benefit from the material they read. Thus, they engage in a complex process that requires special skills to respond appropriately to the reading, providing an accurate interpretation of what is read, answering questions related to the text, issuing judgments and opinions based on the meanings in the written text, and solving problems or adding something new that complements the reading. This raises awareness of personal and collective issues or the transformations the world is undergoing.

2.2. The Importance of Comprehension and its Role in Enhancing Linguistic Performance

If comprehension is a mental activity that forms the basis of reading processes, it is an inevitable result of language use, whether in reception (such as reading or listening) or in production (such as speaking and writing). This is because language serves as a mediator between the individual and their thoughts, a point affirmed by studies such as the one conducted by El Jurdi (2012) on first-year university students, which emphasized "the significant impact of language on participants' response and thinking on issues, due to its ability to influence people's thoughts and perceptions" [8]. Additionally, Anastasiia Skichko's study highlighted that "the relationship between language and thoughts is a methodical relationship based on realistic formulation and the sequence of ideas. Moreover, each verbal expression passes through the mind and is subject to the logical meaning transfer process due to the mind. Thus, there is no doubt that the basis of words relies entirely on the internal reflection of ideas" [9].

Although scholars and researchers may have different views on the relationship between language and thought, whether they are independent or interconnected, it is undeniable that they are fundamentally linked. Even though it can be acknowledged that "language and thought are completely independent, but thought has a huge impact on language. Therefore, the preferred relationship between them should be that they are independent but interactive or interrelated" [10]. This means that each has its path, but a meeting point between them makes them harmonious elements that cannot be separated, creating controversy among researchers in the field.

In general, thinking is based on understanding because mastering language and using it to express needs and purposes directly requires comprehension skills and their essential mechanisms. The more an individual possesses these skills, the more control they have over language for their benefit, thanks to their ability to logically articulate ideas through words and sentences. This conclusion may explain why "several Western thinkers insist that due to the inability of animals to speak, their mental life suffers from a significant deficiency or even nonexistence" [11].

Therefore, the possession of comprehension skills is generally essential for improving linguistic performance and enhancing it in various contexts and situations. This is achieved through the strong and close connection between comprehension skills and language, both of which are important elements for academic success [12]. Furthermore, these skills contribute to raising linguistic potential, aiding critical and creative thinking.

3. METHOD

3.1. Participants

The study included a sample consisting of 126 male and female teachers practicing in secondary education. Among them, 27% were women, and 73% were men. These educators have experience in the educational field, ranging from a minimum of 5 years to a maximum of over 25 years. The dominant group falls within the range of 5 to 15 years of experience, followed by a group with up to 25 years of experience in the field of education and training. It is noteworthy that they are distributed across various regions of the Kingdom of Morocco. Among them, 71.4% teach the Arabic language, while 28.6% of teachers use it to teach other subjects.

It is worth noting that ethical considerations were adhered to throughout the entire survey period. All participants were informed of the study's objectives, purpose, and voluntary nature before its commencement, and they provided informed consent. They were informed of their freedom to withdraw from the study at any time without consequences. Additionally, they were informed that they could request the deletion of their participation in the survey whenever they wished. It is important to highlight that they were made aware of our reliance on a special coding system that conceals their identities, prioritizing their utmost privacy.

3.2. Study Instrument

The study stood out through the utilization of a digital questionnaire (Google Forms) comprising 19 questions that focus on the experiences and unique situations of the sample. These questions are broadly classified into four fundamental axes, aiming to scrutinize the issue from various perspectives allowing for a broad approach and examination. The first axis involves participants' awareness and prior knowledge of the topic of reading comprehension skills, while the second axis reflects their opinions on the learners' possession of reading comprehension skills based on their daily experiences and practices. The third axis explores the learners' need for these skills, with the fourth and final axis dedicated to questions addressing participants' views on the nature of the relationship between comprehension skills and language use in different contexts.

It is worth noting that the questionnaire included a mix of open-ended and closed-ended questions. This questionnaire was widely disseminated through social media pages and groups dedicated to practitioners in the educational field. It was also shared with groups specifically for teachers on WhatsApp, all to extract

authentic data reflecting the reality of reading comprehension skills among secondary school students and their relationship with the use of the Arabic language.

Regarding closed questions, participants were prompted to answer by choosing one or more options based on their positions or experiences concerning reading comprehension skills and their observation or assessment of learners' performance in the classroom. As for open-ended questions, participants from the study sample were occasionally asked to express their opinions, and at other times, to justify their closed-ended answers. This approach contributes to understanding the true possession of reading comprehension skills by learners and reality of their relationship with difficulties in using Arabic language in various educational learning contexts.

4. RESULTS

In this phase, we propose transcribing and describing study results through 4 integrated main axes, as follows:

4.1. The First Axis: Teachers' Awareness of the Term "Reading Comprehension Skills"

The study results revealed that the majority of the study sample members, comprising 71.4%, demonstrated an understanding of the term "Reading Comprehension Skills" and its levels. In contrast, 28.6% of teachers were not familiar with it. The first group justified their awareness and knowledge through self-education by reading articles or attending training courses organized by educational inspection services or other entities. Some also mentioned training at regional centers for education and training.

Participants in the questionnaire provided varying responses regarding the incorporation of this term into the secondary education Arabic curriculum. About 44.4% expressed uncertainty about its inclusion, while 31.7% of teachers answered "yes". On the other hand, 23.8% denied its existence altogether.

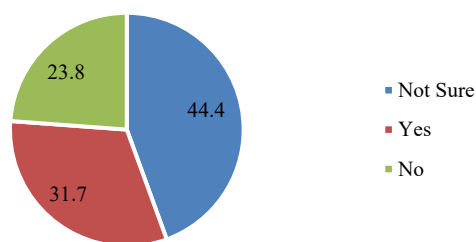


Figure 1. Teachers' responses regarding the mention of the term "reading comprehension skills" and its levels in the curriculum of Arabic for secondary education

Hence, the diversity in responses suggests that we can categorize teachers who denied the existence of the term in the Arabic curriculum alongside those who expressed uncertainty in the same group. All of them, in one way or another, indicate the absence of the term in various curriculum documents. As practicing teachers in the field, they are obligated to implement educational guidelines and integrate them into their teaching practices.

Regarding the teachers who answered "yes" and confirmed its presence, they justified their response by citing curriculum programs and educational guidelines. Upon reviewing these documents, it becomes apparent that they do not explicitly mention reading comprehension or detail its skills and levels. This implies that these teachers might not have thoroughly examined the document, or the term may have been confused with the didactic understanding phase in systematic reading, along with the general notion of comprehension mentioned in some sections.

4.2. The Second Axis: The Extent of Secondary School Students' Possession of Reading Comprehension Skills

This axis delves into the reality of secondary school students' possession of reading comprehension skills, as reflected in Figure 2.

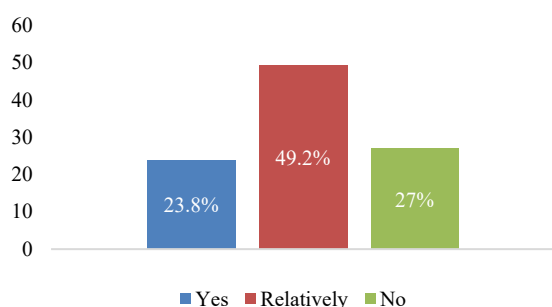


Figure 2. The extent of secondary school students' possession of reading comprehension skills

Figure 2 indicates through its data that secondary school students often struggle with or lack reading comprehension skills. Only 23.8% of the study sample answered "yes," believing that a significant number of students possess reading comprehension skills based on their practices. The remaining participants, comprising 76.2%, disagreed. Among them, 27% of teachers believed that students did not possess these skills at all, while 49.2% considered their skills to be relatively weak.

Thus, these last two categories that answered "no" and "relatively," totaling 76.2%, justified the lack of possession or weakness in reading comprehension skills with various reasons, some of which are explained in Figure 3.

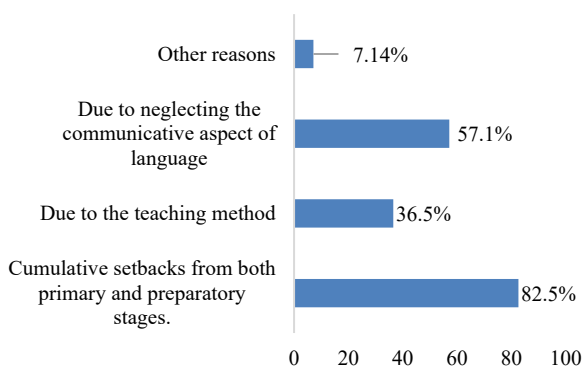


Figure 3. Reasons for the weakness of reading comprehension skills among secondary school students

Figure 3 confirms that the weakness in reading comprehension skills among secondary school students is primarily attributed to the cumulative difficulties and setbacks they face in the elementary and preparatory levels. This means that they transitioned to secondary education without ensuring they possess the minimum competencies and skills required to continue learning. This was expressed by the majority of the study sample, accounting for 82.5%. The second reason, chosen by 57.1%, is related to neglecting the communicative aspect of language in the learning process, considering it a fundamental element in owning and using language. Without it, language remains dry and incapable of fulfilling its functions and roles. The third reason, selected by 36.5% of practicing teachers, points to teaching methods as a factor contributing to the students' weak reading comprehension skills, along with other factors such as a lack of interest in reading and not training them in comprehension strategies.

In the same context that confirms the weakness of students' reading comprehension skills for various reasons, we also sought to provide further clarification by assessing the extent of students' performance in these skills. This was done by inviting study participants to express their opinions on each level of reading comprehension skills based on their field experience and professional practice, as reflected in the following table:

Table 1. Study sample opinion on the reading comprehension levels of secondary school students

	Absent	Weak	Average	Fair	Good
Literal Comprehension	0%	4.76%	33.33%	49.21%	12.70%
Inferential Comprehension	0%	36.51%	47.62%	15.87%	0%
Critical Comprehension	31.75%	53.97%	12.70%	1.59%	0%
Aesthetic Comprehension	30.16%	47.62%	17.46%	4.76%	0%
Creative Comprehension	44.44%	36.51%	17.46%	1.59%	0%

The above table clearly illustrates the perspective of the participating teachers in the survey, numbering 126. They expressed varying opinions regarding students' performance at each level of reading comprehension in secondary education. However, they unanimously agreed that students' skills decline more as they progress through the levels of comprehension, especially in the last three levels: critical, aesthetic, and creative. These levels indicate a profound weakness in students' reading comprehension skills, in contrast to the Literal and Inferential levels, which fluctuate between average and acceptable performance. Good performance was limited to literal comprehension, with 12.70% of participants considering it good compared to the other levels, all of which are rated below good.

4.3. The Third Axis: Students' Need for Reading Comprehension Skills

We asked participants in the survey about the need for secondary school students to develop and control their levels of reading comprehension skills as Figure 4.

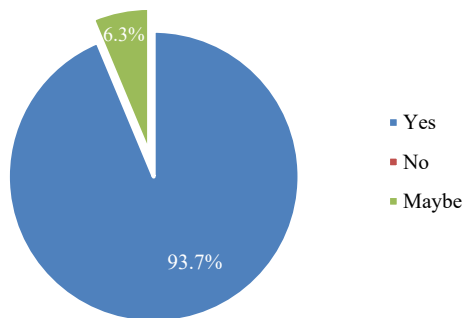


Figure 4. Do you believe that secondary school students need to develop and control their reading comprehension skills and levels?

Clearly, from Figure 4, the majority of the participants believe that secondary school students need to develop their reading comprehension skills and thus control their lower and upper levels. This was affirmed by 93.7% of the participating teachers in the survey, while 6.3% expressed uncertainty by choosing "Maybe". None of the teachers answered "No" indicating an urgent need for students to develop their skills and improve their performance in reading comprehension. The study sample itself expressed varying opinions about the ability of the prescribed textbooks to develop reading comprehension skills at different levels of secondary education, as illustrated in Figure 5.

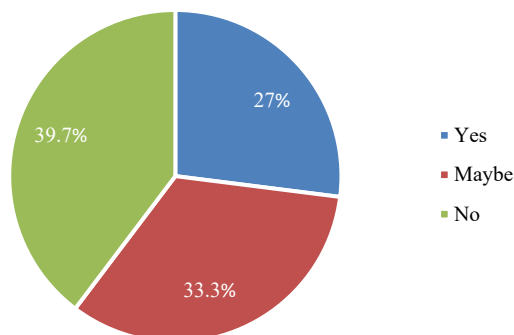


Figure 5. Does the curriculum for various levels of secondary education allow the development of students' reading comprehension skills?

Based on Figure 5, 73% of teachers chose to answer "no" or "maybe," while 27% opted for "yes" regarding the ability of the prescribed textbooks in secondary education to develop students' reading comprehension skills. This indicates that even if we honestly consider the last group, the 73% reflects the weakness of textbooks in developing students' reading comprehension skills and improving their performance, thus controlling their lower and upper levels.

In this context, participants presented several suggestions they find effective and suitable for developing students' skills and enhancing their performance in reading comprehension, including:

- Encouraging students to engage in free and guided reading by activating the role of school libraries and conducting training workshops to provide them with understanding mechanisms and strategies.

- Empowering students to formulate comprehension-oriented questions at various levels.
- Enhancing communicative proficiency and utilizing it to make students communicate in Arabic in various contexts and situations that can develop their ability to comprehend both spoken and written language, allowing them to express opinions and perspectives.
- Activating school clubs, such as reading and creativity clubs, as areas that encourage creativity and innovation.
- Issuing and revising course materials to consider contemporary issues and the latest developments, focusing on the qualitative aspect related to empowering students and enhancing their intellectual, expressive, and creative abilities.
- Organizing competitions in various fields of literary and scientific creativity, such as debating, poetry recitation, and others.

4.4. The Last Axis: The Relationship between Reading Comprehension and Language Use

Since the overall implication of the results confirms the weakness of reading comprehension skills among secondary education students, we invited the study sample itself to express its opinion and stance regarding the relationship between reading comprehension and language use, as highlighted in Figure 6.

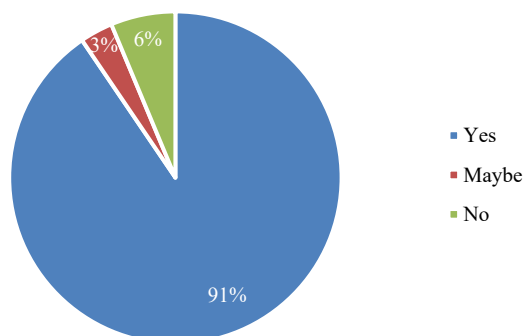


Figure 6. Study sample's attitude toward the relationship between reading comprehension and language use

As shown in Figure 6, 91% of the participating teachers in this study stated that there is a relationship between reading comprehension and language use. They justified this by considering language as a tool for understanding and communication, emphasizing a direct impact and influence between them. The remaining study sample members were divided into two categories: 6% chose to reject the relationship, while the other category, representing 3%, remained undecided and chose "maybe". To highlight this relationship more clearly, we asked them again about the possibility of the weak reading comprehension skills of students affecting their use of the Arabic language effectively. Their responses were as follows.

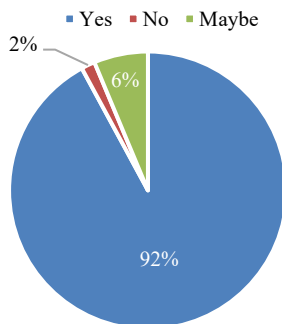


Figure 7. The impact of students' weak reading comprehension skills on the use of the Arabic language

Figure 7 confirms the same last conclusion, which is the impact of students' weak reading comprehension skills on their use of language, specifically the Arabic language, the subject of the study, with a percentage of supporters reaching 92%, compared to 2% of opponents, while 6% of teachers remained undecided about accepting or rejecting the influence. To highlight and assess this impact, we asked the study participants to evaluate the overall performance of secondary school students in the Arabic language on a scale from 1 to 5, and the results are as follows.

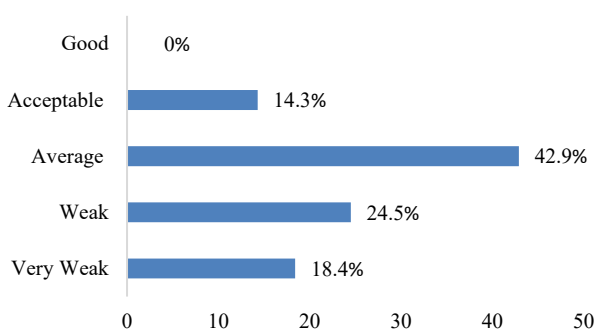


Figure 8. Evaluation by participating teachers of the use of secondary school students in Arabic

Based on this last Figure 8, it is confirmed that the performance of Arabic language learners ranges from very weak to acceptable, but the most prominent level remains at a moderate level. This was affirmed by 42.9% of the participating teachers in the study, while none of them rated the learners' performance as good. This indicates that a broad category of learners faces several difficulties in using the Arabic language, which we attribute to their weak reading comprehension skills and levels. The previous results seem to clarify and reinforce this conclusion.

5. DISCUSSION

The purpose of this study is to monitor the attitude of teachers and educational inspectors regarding students' performance in reading comprehension skills in secondary education. It aims to assess their awareness of the challenges students face due to their weakened skills, leading to difficulties in using and mastering the Arabic language for their benefit in various situations and contexts.

This study, thanks to the participation of a large sample of practitioners in the teaching field, concluded that secondary education students suffer from a weakness in their reading comprehension skills. Approximately 93.7% of teachers recognize the need for students to enhance their skills. While the remaining 6.3% of the study's sample remained indecisive, they, in general, did not deny the reality of students' weaknesses and the challenges they experienced. This is particularly significant as these challenges impact their use and command of the language. This was affirmed by 92% of the teachers, who acknowledged that the weakness in reading comprehension skills negatively affects language usage. Furthermore, in the same context, teachers assessed students' use of the Arabic language to be between weak and moderate, emphasizing the necessity of enhancing comprehension skills to improve their language performance.

Therefore, these results strongly endorse what several national and international studies, including PISA, PIRLS, and PNEA, have found. These studies have described students' understanding of the language as weak. 73% of students lack basic comprehension skills, while "only 27% have achieved the minimum proficiency level in reading comprehension. The average proficiency in OECD countries is 77%. Notably, 21% of the previous percentage did not surpass the minimum level of proficiency in understanding the text, and only 6% reached the third level. Additionally, 0.5% of students were within the fourth level, while none of them managed to reach the fifth and sixth levels" [13].

As long as students do not possess the minimum reading comprehension skills, it is certain that this will affect their command of the Arabic language and its appropriate use in various contexts and situations, particularly in educational settings. This is corroborated by a national report from the Higher Council of Education, Training, and Scientific Research, which highlighted that "students in the common core curriculum/standards for literature and human sciences in public education have not acquired the required linguistic competencies outlined in the official curriculum at its minimum level. In reality, the national achievement rate in the Arabic language does not exceed 39%" [14]. This category represents students in the first year of secondary education, which consists of three years. This implies that they transitioned from the preparatory track to the qualifying track without possessing the necessary specifications and control over their basic competencies.

So, it appears that "an examination of the reality of schools reveals a noticeable weakness among students in the Arabic language in general, and in reading in particular. This weakness is manifested in students' inability to achieve reading goals, comprehend the text, and grasp meanings and ideas" [15]. The lack of reading comprehension skills among learners undoubtedly hinders their ability to control and use the language effectively or comprehend it without difficulties and obstacles. This is because "language requires an understanding of the cultural contexts in which the

language is used, not just mastery of vocabulary and grammar. Through learning these contexts, learners can understand the ideas and opinions of others"[16], considering understanding "is the basic structure of the mind and perception" [17] that constantly manifests through the roles and functions of language.

Consequently, the learners' need to develop their reading comprehension skills and levels stems from it being their most significant challenge in learning and using the language, despite studying it for a long period, which can extend to more than nine years [18]. This implies that developing their understanding skills has become crucial and necessary to enhance their performance and improve their language use, as it is their only means to achieve an appropriate response to linguistic readings, where "merely recognizing the words on a page does not make a successful reader. When words are understood and opinions and ideas are clear in the reader's mind, the reading process becomes correct. Therefore, understanding is the ability to comprehend opinions and ideas and apply what has been read in other situations" [19].

Possessing a good ability to understand reading helps learners in taking exams and tests, in addition to "developing their abilities and diverse responses to various educational learning situations"[20]. This also prepares them well for a successful academic path that opens up various social, economic, or professional opportunities. thus, enabling them to continue lifelong learning simultaneously. This is because "the crucial goal of modern education is to develop sustainable hard and soft skills and foster lifelong learning motivation" [21].

6. CONCLUSIONS AND SUGGESTIONS

In conclusion, the study affirmed that the difficulties and obstacles that secondary school students face in using or comprehending the Arabic language, whether in written or spoken contexts, are primarily attributed to their weak performance in reading comprehension skills. This underscores the need for direct intervention to enhance their performance, urging them to develop their competencies and skills. Considering the critical stage at which they are studying, this intervention becomes crucial as they approach the certification exams and transition to university or vocational education. These stages require specific qualifications to facilitate their continued learning or ensure positive engagement.

The alarming aspect of this study's findings is that the group experiencing weaknesses in reading comprehension and Arabic language usage includes learners who are expected to have linguistic proficiency and the ability to harness it without difficulties. They are at an educational stage that necessitates an expert and critical reader, not a struggling learner who is still unable to overcome the basic levels of language performance or reading comprehension.

Therefore, urgent reform is necessary to enable learners to overcome their stumbling blocks and challenges through engineering learning processes and competencies in favor of their language needs and

reading comprehension skills, aiming to improve their performance and ensure they possess the qualifications of a secondary school learner, as well as those transitioning to higher education or professional fields.

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BIOGRAPHIES



Name: Youssef

Surname: Laajan

Birthdate: 26.09.1989

Birthplace: Beni Mellal, Morocco

Bachelor: Arabic Studies, Specializing in Arts and Humanities, Faculty of Arts and Humanities, Sultan Moulay Slimane

University, Beni Mellal, Morocco, 2012

Master: Arabic Language Didactics, Faculty of Education Sciences, Mohammed V University, Rabat, Morocco, 2016

Doctorate: Student, Multidisciplinary Laboratory in Educational Sciences and Training Engineering, Higher Normal School (ENS), Hassan II University of Casablanca, Casablanca, Morocco, Since 2021

The Last Scientific Position: Lecturer, Arabic Language, High School, Morocco, Since 2016

Research Interests: Didactics Sciences, Teaching and Learning the Arabic Language, Analysis of Teaching Practices, TICE, Language Computing

Scientific Publications: 10 Papers

Scientific Memberships: ABHATH Center for Training and Studies



Name: Fatima Zahra

Surname: Lotfi

Birthdate: 18.09.1981

Birthplace: Casablanca, Morocco

Bachelor: French Studies, Specializing in Teaching, Faculty of Arts and Humanities Ain Chock, Hassan II

University, Casablanca, Morocco, 2014

Master: Training and Framing Professions, Higher Normal School (ENS), Hassan II University, Casablanca, Morocco, 2016

Doctorate: Educational Sciences, Faculty of Education Sciences, Mohammed V University, Rabat, Morocco, 2021

The Last Scientific Position: Assist. Prof., Higher Normal School (ENS), Hassan II University, Casablanca, Morocco, Since 2023

Scientific Publications: 3 Papers

Research Interests: Teaching Practices, Professional Development, Training, Professionalization, Learning, Assessment



Name: Brahim

Surname: Nachit

Birthdate: 23.02.1972

Birthplace: Casablanca, Morocco

Bachelor: Applied Mathematics, Faculty of Sciences Ben M'sick, Hassan II University, Casablanca, Morocco, 2004

Master: Training Engineering and Didactics of Sciences, Faculty of Sciences Ben M'sick, Hassan II University, Casablanca, Morocco, 2017

Doctorate: Didactics of Mathematics, Hassan II University, Casablanca, Morocco, 2014

The Last Scientific Position: Prof., Didactics of Mathematics, Higher Normal School (ENS), Hassan II University, Casablanca, Morocco, Since 2019

Scientific Publications: 40 Papers

Research Interests: Didactics Sciences, Training Engineering, Pedagogy