



Psychological Stress and Academic Achievement Among Primary School

Pupils in a Bilingual Context: A Descriptive Study in Constantine

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Abstract

This study explores the relationship between psychological stress and academic achievement among third-year primary school pupils in the city of Constantine, within a bilingual educational context. The research is guided by how stress influences pupils' academic performance and whether this relationship varies according to gender, age, and level of achievement. Adopting a descriptive analytical approach, the study was conducted on a sample of 80 pupils selected using an appropriate sampling method.

Data were collected using the Perceived Stress Scale, alongside students' academic results as indicators of achievement. Statistical analysis was performed using SPSS (version 21), with non-parametric tests applied due to the non-normal distribution of the data. The main findings revealed a strong negative correlation between psychological stress and academic achievement, indicating that higher stress levels are associated with lower academic performance.

However, the results also showed that there are no statistically significant differences in stress levels based on gender, age, or academic achievement categories. This suggests that psychological stress is a shared experience among pupils, regardless of their demographic or academic characteristics, although its impact on performance may differ.

The study highlights the importance of considering psychological well-being as a key factor in educational success, particularly in bilingual contexts where cognitive demands are increased.



It emphasizes the need for supportive teaching practices and learning environments that help reduce excessive stress while maintaining student engagement. Ultimately, the findings contribute to a better understanding of how emotional and cognitive factors interact in shaping pupils' academic experiences.

Keywords: Psychological Stress, Academic Achievement, Primary Education, Bilingual Education, Constantine, Perceived Stress, Educational Psychology, Student Performance

1. Introduction

The relationship between **psychological stress** and **academic achievement** has become a central concern in educational psychology, particularly in contexts where learning conditions are cognitively and emotionally demanding. In primary education, this relationship takes on a deeper significance because children are still in the early stages of developing their cognitive abilities, emotional regulation, and learning strategies. School, at this level, is not merely a place for acquiring knowledge—it is an environment where pupils begin to form their attitudes toward learning, success, and even their own self-worth. When stress enters this equation, it can subtly reshape how children engage with school, sometimes enhancing their motivation, but often hindering their ability to perform effectively.

In the Algerian context, and more specifically in the city of **Constantine**, the situation becomes even more complex due to the presence of **bilingual education**. Pupils are required to navigate between Arabic and French, often at an age when they are still consolidating basic linguistic and cognitive skills. This dual demand can create an additional layer of difficulty, as learners must not only understand academic content but also process it through a language that may not be fully mastered. As highlighted by **Cummins (2000)**, language proficiency plays a critical role in academic success, and any gap in this area can translate into learning difficulties and increased psychological pressure. For young pupils, this can lead to confusion, hesitation, and a growing sense of academic insecurity.

Psychological stress, as defined by **Cohen, Kamarck, and Mermelstein (1983)**, refers to the extent to which individuals perceive their lives as unpredictable, uncontrollable, or overwhelming. In a school setting, these feelings may emerge from various sources: academic workload, fear of evaluation, teacher expectations, or difficulties in understanding lessons. Importantly, stress is not solely determined by external factors—it is shaped by how pupils interpret and respond to these challenges. According to **Lazarus and Folkman (1984)**, stress results from a process of cognitive appraisal, where individuals assess whether a situation exceeds their coping abilities. This means that two pupils in the same classroom may experience entirely different levels of stress, even when facing identical conditions.



At the same time, **academic achievement** remains one of the most widely used indicators of educational success. It reflects not only the acquisition of knowledge but also the ability to apply skills and meet institutional expectations. However, achievement is influenced by a wide range of factors beyond intellectual ability, including motivation, teaching methods, family support, and psychological well-being. Among these, stress plays a particularly ambiguous role. While moderate levels of stress may enhance concentration and performance, excessive stress can lead to anxiety, disengagement, and lower academic outcomes. This dual nature makes it essential to examine the relationship between stress and achievement carefully, rather than assuming a simple cause-and-effect link.

The present study is guided by how psychological stress relates to academic achievement among third-year primary school pupils in Constantine within a bilingual educational context. More specifically, it seeks to determine whether a relationship exists between these two variables and whether this relationship varies according to factors such as gender, age, and level of academic achievement. By adopting a **descriptive analytical approach** and relying on empirical data collected from pupils, the study aims to provide a grounded and context-sensitive understanding of this issue.

What makes this research particularly relevant is the relative scarcity of studies focusing on **young learners in Algerian bilingual settings**. Much of the existing literature has concentrated on older students or different educational systems, leaving a gap in understanding how primary school pupils experience academic stress in environments characterized by linguistic duality. By focusing on Constantine, this study not only addresses this gap but also contributes to a more nuanced understanding of how global psychological concepts operate within local educational realities.

Ultimately, examining the link between psychological stress and academic achievement is not just an academic exercise—it has practical implications for improving educational practices. A better understanding of this relationship can help teachers create more supportive classroom environments, assist policymakers in designing more effective curricula, and enable parents to better support their children's learning experiences. In this sense, the study goes beyond measuring variables; it seeks to shed light on the **human experience of learning**, where emotions, challenges, and achievements are deeply interconnected.

2. Literature Review

2.1 Psychological Stress

Psychological stress is a multifaceted concept that has been widely explored across psychology, education, and health sciences. At its core, stress is not merely a reaction to external pressure but a dynamic interaction between the individual and their environment. One of the most



influential frameworks in this area is proposed by Lazarus and Folkman (1984), who conceptualize stress as a process of cognitive appraisal. According to this perspective, individuals evaluate situations based on whether they perceive them as threatening and whether they believe they have the resources to cope. This means that stress is inherently subjective—what overwhelms one pupil may be manageable for another.

In educational settings, particularly at the primary level, psychological stress often manifests through academic demands, evaluation pressure, and classroom dynamics. Young learners may experience stress when faced with tasks they perceive as difficult, when they fear failure, or when they struggle to meet expectations set by teachers or parents. Cohen, Kamarck, and Mermelstein (1983) further refined this understanding by introducing the concept of perceived stress, emphasizing that it is the individual's perception of unpredictability and overload that determines the intensity of stress, rather than the objective situation itself.

Importantly, stress is not always detrimental. A moderate level of stress—often referred to as “eustress”—can enhance alertness, motivation, and performance. However, when stress becomes excessive or chronic, it may lead to anxiety, reduced concentration, and avoidance behaviors. Zeidner (1998) highlights that in academic contexts, high stress levels are often associated with test anxiety, which can impair memory retrieval and problem-solving abilities. For primary school pupils, who are still developing coping mechanisms, the negative effects of stress can be particularly pronounced, influencing not only academic outcomes but also long-term attitudes toward learning.

2.2 Academic Achievement

Academic achievement is commonly understood as the measurable outcome of the learning process, often expressed through grades, test scores, or teacher evaluations. However, reducing achievement to numerical indicators alone overlooks its broader meaning. In reality, academic success reflects a combination of cognitive abilities, motivation, learning strategies, and environmental influences. It is shaped not only by what pupils know, but also by how they engage with learning tasks and how they respond to challenges.

Research in educational psychology has consistently shown that achievement is influenced by both internal and external factors. Internally, elements such as motivation, self-efficacy, and emotional stability play crucial roles. Bandura (1997) emphasizes that students who believe in their ability to succeed are more likely to persist in the face of difficulty, demonstrating higher levels of engagement and performance. Similarly, Dweck (1986) highlights the importance of motivation and mindset, suggesting that pupils with a growth-oriented perspective are more resilient and better equipped to handle academic challenges.

Externally, factors such as teaching quality, classroom environment, and family support significantly affect academic outcomes. In structured educational systems, assessment



practices also play a key role. Frequent testing and performance-based evaluation can either motivate students or increase pressure, depending on how they are implemented. For young learners, these external influences are particularly impactful, as they are still forming their perceptions of success and failure.

In the context of primary education in Constantine, academic achievement must also be understood within the framework of bilingual instruction. The ability to comprehend and use multiple languages can influence how effectively pupils access and process information. As a result, achievement is not solely a reflection of intellectual ability but also of linguistic competence and adaptation to the educational environment.

2.3 Relationship Between Psychological Stress and Academic Achievement

The relationship between psychological stress and academic achievement has been the subject of extensive empirical investigation, yet findings remain nuanced and sometimes contradictory. On one hand, a large body of research suggests that high levels of stress are associated with lower academic performance. Stress can impair concentration, reduce working memory capacity, and lead to anxiety-driven behaviors that interfere with learning. For instance, Putwain (2007) found that test anxiety negatively affects students' performance by disrupting cognitive processes for effective problem-solving.

On the other hand, some studies indicate that moderate levels of stress may have a facilitating effect on achievement. This idea aligns with the concept of optimal arousal, where a certain degree of pressure can enhance focus and motivation. Yerkes and Dodson's law (often referenced in educational psychology) illustrates this relationship, suggesting that performance improves with arousal up to a point, after which it declines. In academic contexts, this means that a manageable level of stress may encourage students to prepare, engage, and perform better. Empirical findings also highlight that the relationship between stress and achievement is often mediated by other variables, such as coping strategies, motivation, and emotional support. For example, students with effective coping mechanisms may be able to transform stress into a motivating force, while those lacking such strategies may experience its negative effects more intensely. This variability underscores the importance of examining the relationship within specific contexts rather than assuming universal patterns.

In the present study, this relationship is explored among primary school pupils in Constantine, where additional factors—such as age and linguistic context—may influence how stress impacts achievement. The use of non-parametric statistical methods allows for a more accurate analysis of this relationship, taking into account the characteristics of the data.

2.4 Bilingualism and Learning in Algeria

Bilingual education is a defining feature of the Algerian school system, and it plays a significant role in shaping pupils' learning experiences. In cities like Constantine, pupils are required to



navigate between Arabic and French, often within the same academic environment. While bilingualism can offer cognitive advantages—such as enhanced flexibility and problem-solving skills—it can also introduce challenges, particularly for young learners who are still developing foundational language skills.

According to Cummins (2000), language proficiency is closely linked to academic success, especially when the language of instruction differs from the learner's first language. Pupils who have not yet achieved sufficient proficiency may struggle to understand instructions, engage with content, or express their ideas effectively. This can lead to frustration, reduced participation, and increased psychological stress. Similarly, MacIntyre and Gardner (1994) emphasize that language anxiety can negatively affect both comprehension and performance, particularly in classroom settings where participation is required.

In the Algerian context, the transition between languages is not always gradual, which may intensify the cognitive demands placed on pupils. For a child in primary school, this situation can feel like trying to solve a puzzle while simultaneously learning the rules of the game. The result is often a form of cognitive overload, where the effort required to process language reduces the mental resources available for understanding the subject matter itself.

Despite these challenges, bilingualism also offers opportunities. When properly supported, it can enhance cognitive development and broaden academic perspectives. The key lies in how the educational system manages this duality—whether it creates an environment that supports gradual language acquisition or one that unintentionally increases pressure on learners.

In this study, bilingualism is not treated as a separate variable but as a contextual factor that shapes the relationship between stress and academic achievement. By situating the research within the reality of Constantine's educational system, the study provides a more comprehensive understanding of how linguistic and psychological factors interact in shaping pupils' academic experiences.

3. Methodology

3.1 Research Design

The present study adopts a descriptive research design, which is particularly suitable for exploring relationships between variables without manipulating them. This approach allows for an accurate depiction of the phenomenon as it naturally occurs within the educational environment. Rather than attempting to establish causality, the study focuses on identifying patterns, associations, and differences between psychological stress and academic achievement among primary school pupils. The descriptive method is widely used in educational and social sciences because it provides a structured way to collect, classify, and analyze data in real-world settings.



In this research, the descriptive approach is aligned with how stress interacts with academic performance in a bilingual context. It enables the researcher to capture the complexity of pupils' experiences without reducing them to overly simplified experimental conditions. As indicated in the study framework, this methodology involves organizing data systematically, applying statistical tools, and interpreting results in relation to the research questions. This makes it particularly appropriate for studies dealing with psychological and educational variables, where human behavior cannot easily be controlled or predicted.

3.2 Population and Sample

The target population of this study consists of primary school pupils enrolled in the third year of elementary education in the city of Constantine. This level was specifically chosen because it represents a *مرحلة* where pupils have already been exposed to the school system and are actively engaging with bilingual instruction, yet are still in an *مرحلة* of cognitive and emotional development.

The accessible population, however, is limited to pupils within selected primary schools, based on practical considerations such as time, accessibility, and available resources. This distinction between the general population and the accessible sample is essential in educational research, as it reflects the realities of fieldwork while maintaining methodological rigor.

To ensure representativeness, a sampling process was employed using the Robert Mason formula, which is commonly used to determine appropriate sample sizes in social sciences. Based on this calculation, the study sample consisted of 80 pupils, a number considered sufficient for statistical analysis within the scope of this research.

The characteristics of the sample can be summarized as follows:

Gender distribution: 40% male and 60% female

Age distribution: Majority aged 8 years (81.3%), with smaller proportions aged 7 and 9

Academic achievement: Average score of approximately 7.06, with variation across low, medium, and high levels

These characteristics provide a comprehensive overview of the sample and ensure that the analysis reflects a realistic cross-section of pupils in the selected *المدارس*.

3.3 Data Collection Instruments

To measure psychological stress, the study employed a Perceived Stress Scale (PSS), a widely recognized tool developed by Cohen et al. (1983). This instrument is designed to assess the extent to which individuals perceive situations in their lives as stressful, focusing on feelings of unpredictability, lack of control, and overload.

The scale used in this study consists of 30 items, each aimed at capturing different aspects of stress perception. Pupils respond to these items based on their personal experiences, allowing



the researcher to quantify stress levels in a structured and standardized manner. The use of such a scale is particularly important in psychological research, as it transforms subjective experiences into measurable data that can be analyzed statistically.

In addition to the stress scale, academic achievement was assessed using pupils' school grades, which provide an objective indicator of performance. By combining subjective (stress perception) and objective (academic results) measures, the study ensures a more balanced and comprehensive analysis of the relationship between the two variables.

3.4 Validity and Reliability of Instruments

Ensuring the validity and reliability of research instruments is a crucial step in any empirical study. In this research, reliability was assessed using Cronbach's Alpha, a statistical measure of internal consistency. The obtained value was 0.687, which, although slightly below the conventional threshold of 0.70, is still considered acceptable in exploratory studies, particularly those involving young participants .

Validity, on the other hand, was examined using the method of self-validity, which involves calculating the square root of the reliability coefficient. The resulting validity coefficient was approximately 0.82, indicating that the instrument provides a reasonably accurate measure of psychological stress.

These results suggest that the أدوات used in the study are sufficiently reliable and valid for the purposes of analysis, allowing for meaningful interpretation of the findings.

3.5 Statistical Analysis

The data collected in this study were analyzed using the Statistical Package for the Social Sciences (SPSS), version 21 . Given that the data did not follow a normal distribution—as confirmed by Shapiro-Wilk and Kolmogorov-Smirnov tests—the study relied on non-parametric statistical methods, which are more appropriate for this type of data.

The following statistical techniques were employed:

Descriptive statistics (frequencies and percentages) to summarize sample characteristics

Spearman correlation coefficient to examine the relationship between stress and academic achievement

Mann–Whitney test to assess differences based on gender

Kruskal–Wallis test to evaluate differences across age groups and achievement levels

These methods were carefully selected to align with the nature of the data and the research questions. By using appropriate statistical tools, the study ensures that the results are both accurate and reliable, providing a solid foundation for interpretation and discussion.



4. Results

4.1 Descriptive Statistics

The first step in analyzing the data involved examining the descriptive characteristics of the sample, which provide an overall picture of the *الدراسة* population. These statistics are essential because they help contextualize the findings and ensure that interpretations are grounded in the actual composition of the sample.

Regarding gender distribution, the sample consisted of 80 pupils, with 60% females (48 pupils) and 40% males (32 pupils). This slight predominance of female participants reflects the natural distribution within the selected schools rather than a deliberate sampling bias. From an analytical perspective, this distribution allows for meaningful comparison between genders, particularly when examining differences in psychological stress levels.

In terms of age, the majority of pupils were 8 years old (81.3%), while smaller proportions were 7 years old (6.3%) and 9 years old (12.5%). This concentration around the age of 8 is expected, given that the study targets third-year primary pupils. The relatively narrow age range ensures a degree of homogeneity, which is beneficial for reducing *الناتجة عن* developmental differences.

When examining academic achievement, the data reveal that pupils' average score was approximately 7.06, with a standard deviation of 1.53, indicating moderate variability in performance. The lowest recorded score was 2.39, while the highest reached 9.6, suggesting a wide range of achievement levels within the sample. To facilitate analysis, achievement was categorized into three levels:

Low: 6.3%

Medium: 57.5%

High: 36.3%

This distribution shows that the majority of pupils fall within the medium achievement category, which provides a balanced basis for comparing stress levels across different performance groups.

Overall, these descriptive statistics highlight that the sample is relatively balanced and representative of the context, allowing for reliable analysis of the relationship between psychological stress and academic achievement.

4.2 Testing Data Normality

Before proceeding to hypothesis testing, it was necessary to examine whether the data followed a normal distribution, as this determines the appropriate choice of statistical methods. In this study, two widely used tests were applied: the Shapiro-Wilk test and the Kolmogorov-Smirnov test.

The results indicate that both tests yielded statistically significant values ($p < 0.05$) for the



psychological stress variable . This means that the data do not follow a normal distribution, and therefore, parametric tests—which assume normality—are not suitable for analysis.

This finding is not unusual in educational and psychological research, particularly when dealing with young participants. Pupils' responses are often influenced by individual differences, contextual factors, and subjective perceptions, which can lead to variability that deviates from normal distribution patterns.

As a result, the study adopts non-parametric statistical methods, which do not rely on strict distributional assumptions. This methodological choice ensures that the analysis remains robust and appropriate to the nature of the data. It also reinforces the reliability of the findings, as the statistical tools المستخدمة are aligned with the characteristics of the dataset.

4.3 Hypothesis Testing

4.3.1 Relationship Between Psychological Stress and Academic Achievement

To examine the relationship between psychological stress and academic achievement, the study employed the Spearman correlation coefficient, which is suitable for non-parametric data. The results revealed a strong negative correlation ($r = -0.896$) with a statistically significant p-value ($p = 0.001$).

This indicates that higher levels of psychological stress are associated with lower levels of academic achievement among pupils. In practical terms, as stress increases, students' performance tends to decline. This finding aligns with many theoretical perspectives suggesting that excessive stress can impair concentration, memory, and overall cognitive functioning.

The strength of the correlation is particularly noteworthy. A coefficient close to -1 suggests a very strong inverse relationship, highlighting the أهمية of psychological well-being in shaping academic outcomes. This result provides clear empirical support for the main assumption of the study.

4.3.2 Differences in Stress by Gender

To determine whether psychological stress differs between male and female pupils, the Mann–Whitney test was used. The results showed that the difference in stress levels between genders was not statistically significant ($p = 0.859$).

Although the mean ranks for males and females were slightly different, this variation was minimal and did not reach statistical significance. This suggests that both boys and girls experience similar levels of psychological stress within the studied context.

This finding is particularly interesting because it challenges some common assumptions that gender plays a decisive role in emotional experiences at early ages. Instead, it indicates that, at the primary level, stress may be more closely related to shared environmental factors, such as classroom conditions and academic demands, rather than gender-specific differences.



4.3.3 Differences in Stress by Age

The study also examined whether stress levels vary according to pupils' age using the Kruskal–Wallis test. The results indicated that there were no statistically significant differences ($p = 0.367$).

Although slight variations in mean ranks were observed—particularly with older pupils showing marginally higher stress levels—these differences were not significant enough to draw definitive conclusions. This suggests that age does not play a major role in determining stress levels within this range.

One possible explanation is that the age differences within the sample are relatively small (7 to 9 years), which limits the of developmental variation. At this stage, pupils may share similar cognitive and emotional characteristics, leading to comparable stress experiences.

4.3.4 Differences in Stress by Academic Achievement Level

Finally, the study explored whether psychological stress differs across levels of academic achievement using the Kruskal–Wallis test. The results showed no statistically significant differences ($p = 0.727$).

While there were slight variations in mean ranks—suggesting that pupils with lower achievement might experience somewhat higher stress—these differences were not statistically meaningful. This indicates that stress is not significantly differentiated by achievement level within the sample.

This finding may seem surprising at first, especially given the strong negative correlation observed earlier. However, it suggests that while stress and achievement are related, stress levels are distributed relatively evenly across achievement groups. In other words, stress affects all pupils, regardless of their performance level, but its impact on achievement varies.

Overall, the results provide a nuanced understanding of the relationship between psychological stress and academic achievement. While a strong negative correlation exists between the two variables, differences based on gender, age, and achievement level are not statistically significant. This highlights the complexity of the phenomenon and sets the stage for deeper interpretation in the discussion section.

5. Discussion

The findings of this study provide valuable insight into the complex relationship between psychological stress and academic achievement among primary school pupils in Constantine. At the center of these results is the discovery of a strong negative correlation between the two variables, indicating that higher levels of stress are associated with lower academic performance. This outcome aligns with a substantial body of research in educational psychology, which emphasizes the detrimental effects of excessive stress on cognitive



functioning. According to Lazarus and Folkman (1984), when individuals perceive demands as exceeding their coping abilities, stress can disrupt attention, memory, and problem-solving processes—key components of successful learning.

The strength of the correlation observed in this study ($r = -0.896$) suggests that stress is not a marginal factor but a central *عنصر* influencing academic outcomes. This finding reinforces the idea that learning is not purely an intellectual activity; it is deeply intertwined with emotional and psychological states. For young pupils, who are still developing their ability to regulate emotions, the impact of stress may be even more pronounced. This supports the argument made by Zeidner (1998), who highlights that academic stress, particularly in the form of anxiety, can significantly impair performance by interfering with cognitive efficiency.

Interestingly, while the correlation between stress and achievement was strong, the study found no statistically significant differences in stress levels based on gender, age, or academic achievement level. At first glance, this may seem contradictory, but a closer look reveals a more nuanced interpretation. The absence of gender differences suggests that, at the primary level, boys and girls experience similar academic pressures. This finding is consistent with studies such as Simpson (1991), which reported no substantial gender-based differences in stress responses among younger populations. It indicates that stress in this context is likely shaped more by shared environmental factors—such as classroom conditions and teaching methods—rather than individual demographic characteristics.

Similarly, the lack of significant differences across age groups can be explained by the relatively narrow age range of the sample. Pupils aged 7 to 9 are generally at similar developmental stages, both cognitively and emotionally. As a result, their responses to academic demands tend to be comparable. This suggests that developmental factors may not play a decisive role in stress variation within this range, although they might become more influential in later educational stages.

One of the more intriguing findings concerns the absence of significant differences in stress levels across academic achievement categories. Despite the strong negative correlation between stress and achievement, pupils with low, medium, and high performance levels did not differ significantly in their reported stress levels. This indicates that stress is a shared experience across all *الطلاب*, regardless of their academic standing. However, its impact appears to vary—affecting some pupils' performance more than others. This observation highlights the importance of mediating factors, such as coping strategies, motivation, and self-efficacy.

In this regard, the work of Bandura (1997) becomes particularly relevant. His theory of self-efficacy suggests that individuals who believe in their ability to succeed are better equipped to manage challenges and maintain performance under pressure. This could explain why some pupils maintain high achievement despite experiencing stress, while others do not. Similarly,



Dweck (1986) emphasizes the role of motivation and mindset, suggesting that pupils with a growth mindset are more resilient and better able to cope with academic challenges.

Another important dimension of the discussion relates to the bilingual context in which the study was conducted. The requirement to learn and perform in both Arabic and French introduces additional cognitive demands that may contribute to stress. As noted by Cummins (2000), language proficiency is closely linked to academic success, and difficulties in this area can increase cognitive load and hinder comprehension. In this sense, stress may not only stem from academic content but also from the process of accessing that content through a second language. This dual challenge can create a learning environment where pupils must constantly balance understanding and expression, potentially increasing psychological pressure.

From a practical perspective, these findings carry important implications for educational practice. If stress significantly impacts academic achievement, then addressing it should be a priority for educators. This does not necessarily mean eliminating all forms of stress, as moderate levels can be motivating. Rather, it involves creating a classroom environment where stress remains manageable and constructive. Strategies such as supportive teaching methods, clear instructions, gradual language integration, and positive reinforcement can help reduce unnecessary pressure and enhance students' confidence.

Additionally, the results suggest that interventions should not be limited to specific groups (e.g., based on gender or achievement level), since stress appears to affect all pupils in a relatively similar way. Instead, a holistic approach is needed—one that considers the overall learning environment and addresses the experiences of students.

In essence, this study highlights the importance of viewing education through a psychological lens. Academic success is not determined solely by what pupils know, but also by how they feel, how they cope, and how they interpret the challenges they face. By understanding the role of stress in this process, educators and policymakers can take meaningful steps toward creating learning environments that support both achievement and well-being.

6. Conclusion

This study set out to explore the understanding the relationship between psychological stress and academic achievement among third-year primary school pupils in Constantine within a bilingual educational context. The findings provide clear evidence that psychological stress plays a significant role in shaping academic outcomes, revealing a strong negative correlation between stress levels and academic performance.

At the same time, the study found no significant differences in stress levels based on gender, age, or academic achievement categories. This suggests that stress is a common experience among pupils, rather than a phenomenon limited to specific groups. However, its effects on



performance vary, likely influenced by individual differences such as coping mechanisms, motivation, and self-efficacy.

These findings highlight the need for a more balanced and student-centered approach to education, particularly in bilingual contexts where cognitive demands are higher. Reducing excessive stress while maintaining a level of challenge that promotes engagement is essential for fostering both academic success and psychological well-being.

Despite its contributions, the study is not without limitations. The sample size, while adequate, remains relatively small, and the focus on a specific geographical area (Constantine) may limit the generalizability of the results. Future research could expand the sample, include additional variables, or adopt longitudinal designs to better understand how stress and achievement evolve over time.

In practical terms, the study underscores the importance of integrating psychological support into educational practices. Teachers, parents, and policymakers all have a role to play in creating environments where pupils feel supported, confident, and capable of overcoming challenges. By addressing psychological stress as a central component of the learning process, it becomes possible to improve not only academic outcomes but also the overall educational experience.

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