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citation.***Exam Anxiety Among Fourth-Year Middle School Students: A  
Field Study in One of the Middle Schools in the City of M'sila,  
Algeria****ISAMIRA BENAÏSSI \**, Psychological and Social Research Laboratory, Yahia  
Fares University Médéa (Algeria) [benaissi.samira@univ-medea.dz](mailto:benaissi.samira@univ-medea.dz)<https://orcid.org/0009-0004-9085-3142>*2DihiaMouffok*, Psychological and Social Research Laboratory, Yahia Fares  
University Médéa (Algeria) [mouffok-dihia10@outlook.fr](mailto:mouffok-dihia10@outlook.fr)<https://orcid.org/0009-0002-3288-0922>***Abstract:****The study aims to identify the level of exam anxiety experienced by fourth-year middleschool students, and to explore differences in anxiety levels based on gender. Gender (male and female). A descriptive method was employed in this study.**The Exam Anxiety Scale developed by Dr. OuizahSherikwas used to collect data. The sample included 61 students (23 males and 38 females) who were selected through purposeful sampling from one of the middle schools in the city of M'sila. Statistical treatments (mean, standard deviation and T-test) were employed via SPSS, revealing the following results:*

- *A high level of exam anxiety among fourth-year middle school students.*
- *Significant gender differences in exam anxiety levels favouring females.*
- *Significant differences in exam anxiety levels for repeaters.*

SAMIRABENAÏSSI

### **Introduction:**

Exam anxiety is a significant psychological and educational challenge faced by Many students at various stages of their education experience it. General anxiety arises temporarily.

During exam periods and is accompanied by multiple cognitive, emotional and physical symptoms. It is a major cause of academic failure and its intensity varies among students and educational stages. It tends to increase as students experience it as they advance in their education due to the increasing complexity of academic tasks and heightened awareness of increasing responsibilities. This anxiety becomes evident during official exams such as the Middle School Certificate and

Baccalaureate exams, which determine students' future academic paths.

Recognising the importance of this issue, researchers and mental health professionals strive to develop guidance, therapeutic and preventive programmes to alleviate exam anxiety among students and their parents. Several effective approaches exist in counselling and psychotherapy to address this problem. These include:

Various scales can be used to assess students' levels of exam anxiety and identify individual needs.

### **Study Problem:**

Learning is a fundamental process in everyone's life, particularly for students. It serves as the foundation upon which learners rely to gain Experiences are gained through learning, enabling growth and development. Learning begins from an individual's inception, progressing through organised educational stages from one phase to another. Therefore, every learner must pass an exam to determine their true abilities and cognitive level. However, we often find that students, in general, and middle school students, in particular, develop fear and anxiety when the term "exam" is mentioned. Exams are seen as a mandatory passage to higher academic or training levels. The Middle School Certificate exam is a crucial step towards achieving future goals, making many students and parents equally interested in this decisive exam. It is a gateway to high school, allowing them to achieve their future objectives, leading them to exert their utmost efforts to succeed.

**Freud, in 1962, in Farouk Al-Sayed Othman's book**, describes anxiety as a state of severe, vague fear that grips an individual, causing much harm, distress, and pain. Anxiety means discomfort, and the anxious person always expects the worst, appearing pessimistic and nervous. The anxious person loses self-confidence (**Osman, 2001, p. 18**).

**Rafida Al-Hariri** defines exam anxiety as externally originating anxiety, a state that individuals experience before and during exams, whether they are

achievement tests, psychological, or professional exams. Exam anxiety is a psychological state characterized by fear and anticipation. It is an emotional state that affects some students before and during exams, accompanied by tension, emotional intensity, and negative thoughts that interfere with the required concentration during the exam, negatively impacting mental tasks during the exam(**Al-Hariri, 2011, pp. 257-259**).

Many studies have been conducted to understand exam anxiety, attempting to find solutions.

One such study, titled 'Exam Anxiety and Its Relation to Academic Achievement', concluded that there is an inverse relationship between exam anxiety and academic achievement. first-year high school students. The research, titled “Exam Anxiety and Its Relation to Academic Achievement,” showed that first-year high school students with higher levels of exam anxiety tended to obtain lower grades. There is a statistically significant difference in exam anxiety among first-year high school students attributed to gender, favouring females, and a statistically significant difference in academic achievement attributed to gender, favouring males. Another study by **Mabrouk Wadayi and Tayeb Tomi** titled "The Level of Exam Anxiety Among Fourth-Grade Middle School Students (A Field Study)" found that the level of exam anxiety is moderate among fourth-grade middle school students, with statistically significant differences attributed to gender (males, females) in favour of females(**Saisban, 2019, p. 9**).

Undoubtedly, these studies aim to find solutions to reduce exam anxiety among students. Our study seeks to understand the level of exam anxiety among fourth-grade middle school students. Based on the above, three main questions can be posed as follows:

1. What is the level of exam anxiety among fourth-grade middle school students?
2. Are there statistically significant differences in exam anxiety level among fourth-grade middle school students attributed to gender?
3. Are there statistically significant differences in exam anxiety level among fourth-grade middle school students who are repeaters?

#### **Study Hypotheses:**

1. There is a moderate level of exam anxiety among fourth-year middle school students.
2. There are statistically significant differences in exam anxiety levels among fourth-year middle school students according to gender.
3. There are statistically significant differences in exam anxiety levels among fourth-year middle school students according to whether they are repeaters or not.

### **Study Objectives**

- To uncover the level of exam anxiety among fourth-year middle school students.
- To explore the differences in exam anxiety levels attributed to gender among fourth-year middle school students.
- To identify the differences in exam anxiety levels among repeaters in fourth-year middle school students.

### **Study Importance:**

The importance of this study lies in highlighting the significance of exams. Anxiety is a key emotional factor that contributes to academic failure. and educational issues.

Learning is an essential element of an individual's life, especially for students. A learner relies on learning as it provides experiences for growth, development, and advancement. The individual's inception is when learning starts, and it progresses through organized educational stages, from one phase to another. Therefore, every learner must pass an exam to determine their true abilities and cognitive level. However, we often find that students, in general, and middle school students, in particular, develop fear and anxiety when the term "exam" is mentioned. Exams are seen as a mandatory passage to higher academic or training levels. The Middle School Certificate exam is a crucial step towards achieving future goals, making many students and parents equally interested in this decisive exam. It is a gateway to high school, allowing them to achieve their future objectives, leading them to exert their utmost efforts to succeed.

### **Defining Concepts and Time Limits**

#### **Anxiety:**

#### **Operational Definition:**

Anxiety is a natural feeling experienced by everyone from time to time. It is a reaction to potential threats or challenges.

#### **Exam Anxiety:**

#### **Operational Definition:**

Exam anxiety is the feeling of discomfort and fear associated with taking exams, accompanied by various psychological symptoms that affect the individual's mental state.

#### **Fourth-Year Middle School Students:**

In this study, fourth-year middle school pupils refer to students enrolled in the fourth year of middle school education in one of the middle schools in the city of M'sila during the 2023–2024 academic year. They are pupils preparing to take the Middle School Certificate Examination (BEM) and were selected as the target sample for measuring exam anxiety levels.

#### **Limitations of the Study:**

**Time Limits:**

The study was conducted during the second semester, from April 14, 2024, to April 17, 2024.

**Spatial Boundaries:**

The study was conducted in one of the three middle schools in M'sila.

**Sample Characteristics:**

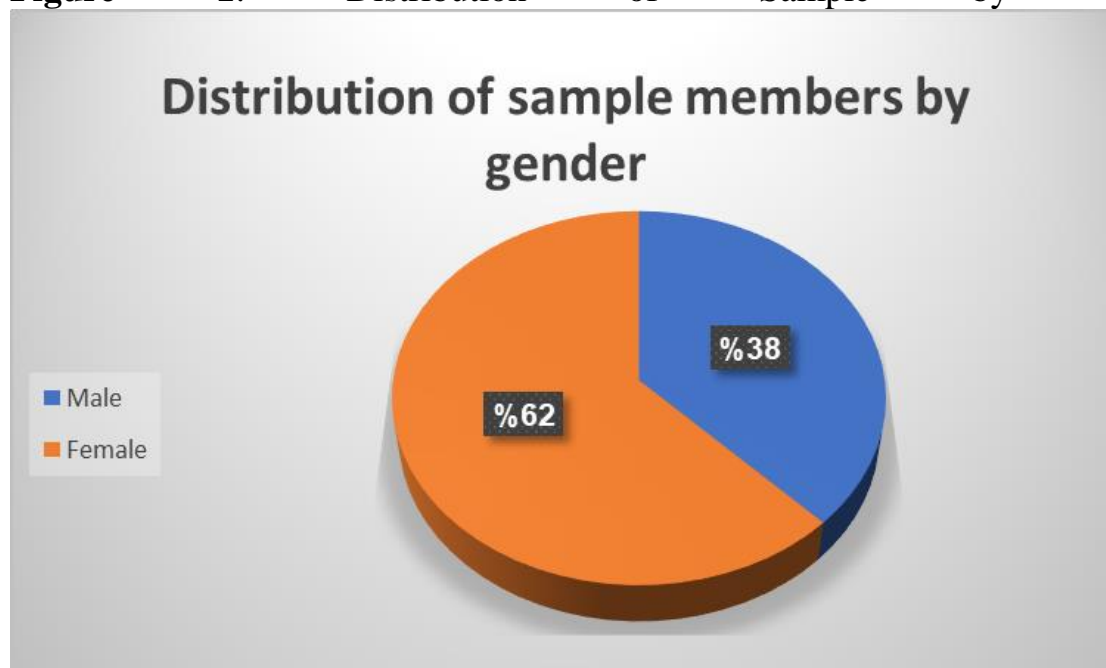
**Distribution of the Sample by Gender:**

**Table 1:** Distribution of the Study Sample by Gender

Gender	Frequency	Percentage (%)
Male	23	37.70
Female	38	62.29
Total	61	100

**From Table 1**, it is evident that the percentage of females (62.29%) is higher than that of males (37.70%).

**Figure 1:** Distribution of Sample by Gender



Graphical representation showing a higher percentage of female participants compared to male participants.

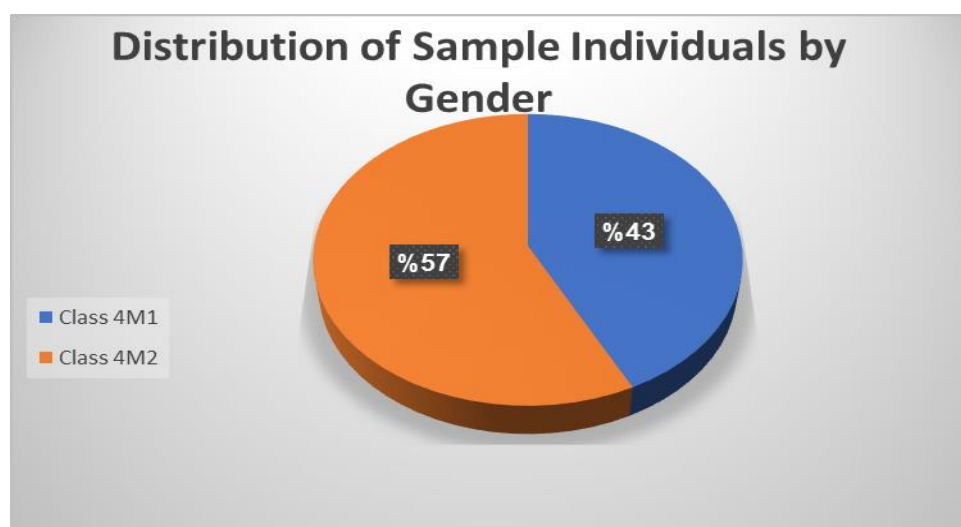
### Distribution of the Sample by Class Section:

**Table 2:** Distribution of the Study Sample by Class Section

Section	Frequency	Percentage (%)
Class 4M1	26	42.62
Class 4M2	35	57.37
Total	61	100

**Table 2:** shows that the highest percentage is for Section 2 (57.37%) compared to Section 1 (42.62%).

**Figure 2:** Distribution of Sample by Class Section



Graphical representation showing the distribution of participants across different class sections.

### Distribution of the Sample by Repeat Status:

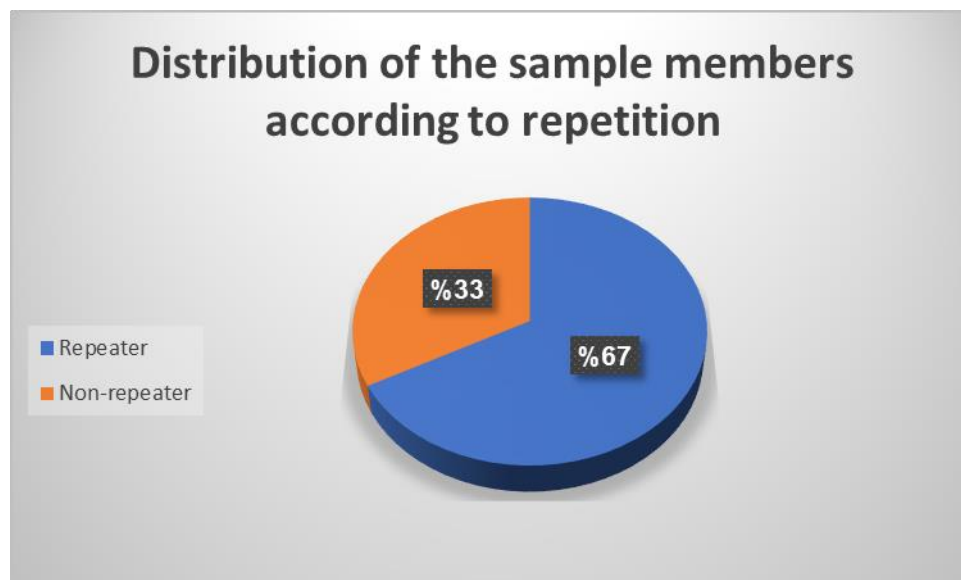
**Table 3:** Distribution of the Study Sample by Repeat Status.

Status	Frequency	Percentage (%)
Repeater	41	67.21

<b>Non-repeater</b>	20	32.78
<b>Total</b>	61	100

**From Table 3**, it is evident that the majority of the participants are repeaters (67.21%) compared to non-repeaters (32.78%).

**Figure 3:** Distribution of Sample by Repeat Status



Graphical representation showing a higher percentage of repeaters compared to non-repeaters.

#### **Study Tools and Their Psychometric Properties:**

The Examination Anxiety Scale developed by Dr.OuizahSherikwas selected for this study. This scale encompasses the primary symptoms of examination anxiety (psychological, emotional, social, physical, mental, cognitive) which are defined as the scale's dimensions. It consists of 48 items, all formulated positively.

#### **Examination Anxiety Scale:**

This scale was developed by a group of Egyptian researchers, including Mustafa Al-Senbati, Omar Ismail Ali, and Ahlam Abdul-Sami'a Al-Aqbaqi (2009).

This scale was developed by a group of Egyptian researchers, including Mustafa Al-Senbati, Omar Ismail Ali, and Ahlam Abdul-Sami'a Al-Aqbaqi (2009).

- The dimensions of the scale and their content are detailed in Table 4



**Table No. (4):** Distribution of Items on the Dimensions of the Test Anxiety Scale and Its Symptoms:

<b>Dimension</b>	<b>Content of the Dimension</b>	<b>Number of Items</b>	<b>Items</b>
<b>Psychological Affective</b>	Fear, anxiety, and confusion - anticipation of failure and disappointment - feeling of excessive nervousness - intense anger and increased aggression	12	1-12
<b>Social</b>	Feeling of isolation and introversion - lack of participation in social events - weak social relationships - lack of a supportive family environment for studying	12	13-24
<b>Physical</b>	Loss of appetite - stomach upset - desire to vomit - sweating - rapid heartbeat - trembling hands - feeling of fatigue and physical exhaustion - fainting during exams	12	25-36
<b>Cognitive</b>	Feeling of forgetfulness and inability to concentrate - difficulty in remembering - difficulty in thinking - inability to make correct decisions	12	37-48

**Source:** (Partner, 2019, p. 179).

**Correction Key:** The scale is directed at middle school students, who choose one of five alternatives for each question.:

**Table 5: Correction Key**

<b>Response</b>	<b>Score</b>
<b>Very High</b>	5
<b>High</b>	4
<b>Moderate</b>	3
<b>Very Low</b>	1

The scale is divided into three levels:

**- Dimension:**

- Low Level: 12-30.
- Moderate Level: 31-42.
- High Level: 43-60.

**- Overall:**



- Low Level: 48-120.
- Moderate Level: 121-168.
- High Level: 169-240.

**Psychometric Proper:**

The scale was applied in the main study after calculating its validity and reliability in the exploratory study. The validity was confirmed through experts. According to **OuizahSherik**, the validity coefficients were as follows:

- Psychological Dimension:
- Correlation values ranged from 0.347 to 0.810, significant at 0.01, except for item 5 which was significant at 0.05.
- Social Dimension:
- Correlation values ranged from 0.255 to 0.754, significant at 0.01, except for item 20 which was significant at 0.05.
- Physical Dimension:
- Correlation values ranged from 0.558 to 0.788, significant at 0.01.

**Scale Reliability:**

The reliability of the scale was calculated using Cronbach's alpha, resulting in a value of 0.93. This indicates a high level of internal consistency for the scale.

**Presentation and Discussion of Hypotheses:**

**Hypothesis1:**

The first hypothesis states that the level of exam anxiety is high among fourth-year middle school students. The results support this hypothesis, showing a high level of anxiety with a mean of 183.96, which is closer to the maximum level of 240.

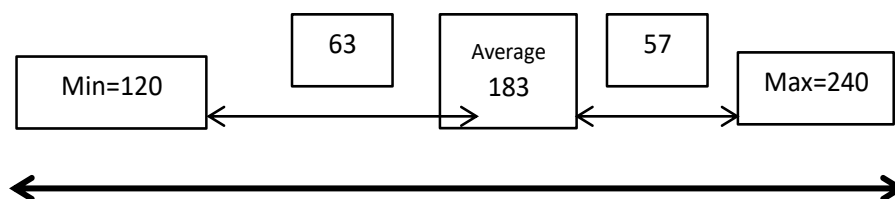
**Table 6:** Exam Anxiety Levels Among Fourth-Year Middle School Students

Minimum Level	Maximum Level	Mean Result	Standard Deviation
120	240	183.96	31.01

**Explanation:**

From Table 6, it can be observed that the minimum level of exam anxiety is 120, the maximum level is 240, and the mean level is 183.96 with a standard deviation of 31.01. This indicates that the exam anxiety level is above the average (183.96), closer to the maximum level (240) than to the minimum level (120). Therefore, we conclude that anxiety is high among the studied sample.

A chart showing the location of the average anxiety between the maximum (MAX) and minimum (MIN) values.



We notice from the chart that the level of anxiety is more than the arithmetic mean (183.96) and is closer to the maximum value than to the minimum value (120). Accordingly, we conclude that anxiety is high among the individuals in the studied sample.

### **Hypothesis 2:**

The second hypothesis posits that there are statistically significant differences in exam anxiety levels among fourth-year middle school students attributed to gender. The results, as shown in Table 7, do not support this hypothesis, as the difference in anxiety levels between males and females is not statistically significant:

**Table 7:** Differences in Exam Anxiety Levels by Gender

Gender	Number of Individuals	Mean	Standard Deviation	Difference in Means	T Value	Sig Value
Males	23	179.47	32.85	7.20	0.87	0.35
Females	38	186.68	29.96			

### **Explanation:**

From Table 7, the mean anxiety level for males is 179.47, and for females, it is 186.68, with a mean difference of 7.20. However, this difference is not statistically significant, as the significance level (Sig) is 0.35, which is greater than the reference significance level of 5%. Hence, there is no statistically significant difference in anxiety levels between males and females.

### **Hypothesis 3:**

The third hypothesis suggests that there are statistically significant differences in exam anxiety levels among repeaters. The results, as shown in Table 8, do not support this hypothesis, as the difference in anxiety levels between repeaters and non-repeaters is not statistically significant:

**Table 8:** Exam Anxiety Levels Among Repeaters

Repeater Status	Number of Individuals	Mean	Standard Deviation	Difference in Means	T Value	Significance Level (Sig)
Repeaters	41	183.15	32.05	7.20	0.14	0.88
Non-repeaters	20	184.36	30.88			

**Explanation:**

From Table 8, the mean anxiety level for repeaters is 183.15, and for non-repeaters, it is 184.36, with a mean difference of 7.20. This difference is not statistically significant, as the significance level (Sig) is 0.88, which is greater than the reference significance level of 5%. Therefore, there is no statistically significant difference in anxiety levels between repeaters and non-repeaters.

**Presentation, Interpretation, and Discussion of Hypotheses:**

**Presentation and Interpretation of the First Hypothesis:**

The first hypothesis states: The level of exam anxiety among fourth-year middle school students is average. This study was verified by calculating the arithmetic mean and standard deviation. The study aligns with that by **Mabrouk, Wadayi and TayebToumi**, titled 'The Level of Exam Anxiety Among Fourth Year Middle School Students'. Wadayi and TayebToumi, titled 'The Level of Exam Anxiety Among Fourth-Year Middle School Students'. The study sample consisted of all fourth-year middle school students, totalling 63. The study concluded that the level of exam anxiety among fourth-year middle school students was average. statistically significant differences in exam anxiety levels were attributed to gender (i.e. male versus female), favouring females (**Wadayi, 2023, pp. 42-55**).

This aligns with OuizahSherik's study titled 'The Level of Exam Anxiety Among Adolescent Students: A Field Study in Some Middle Schools in Boumerdes Province. inBoumerdes Province'. The study sample consisted of 97 students. The study produced the following results: The level of exam anxiety is average among the study sample, and there are no statistically significant differences in exam anxiety levels based on gender or repetition (**Ouizah, 2017, p. 242**).

**Presentation and Interpretation of the Second Hypothesis:**

The second hypothesis states: 'There are statistically significant differences in [...] exam anxiety levels among fourth-year middle school students, which can be attributed to gender. This was verified by calculating the arithmetic mean and standard deviation. The findings of this study align with those of Saisban's study titled 'Exam Anxiety and Its Relationship to Academic Achievement'. The study

sample consisted of 60 students from the first year of secondary school in Mostaganem for the academic year 2014-2015. The results showed:

- There is an inverse relationship between exam anxiety and academic achievement among first-year secondary students.
- There are statistically significant differences in exam anxiety among first-year secondary students attributed to gender, favouring females.
- There are statistically significant differences in academic achievement among first-year secondary students attributed to gender, favouring males (**Saisban, 2019, p. 9**).

#### **Presentation and Interpretation of the Third Hypothesis :**

The third hypothesis states: There are differences in exam anxiety levels among fourth-year middle school students who are repeaters. This study was verified by calculating the arithmetic mean and standard deviation. The study aligns with the study by **FaizaBoutara** and Zahra Al-Aswad titled "Exam Anxiety and Its Relationship to Some Variables Among Third-Year Secondary Students." The study sample consisted of 200 students. The results showed:

- The level of exam anxiety is very high.
- There are gender-based differences in exam anxiety levels, favouring females.
- There are also differences in exam anxiety levels attributed to academic specialisation, favouring literary subjects.
- There are no differences in exam anxiety levels attributed to repetition.

(**Boutara, 2020, p. 242**).

#### **Recommendations and Suggestions:**

- Raising awareness among parents and teachers of the dangers of exams.
- Anxiety, its symptoms and how to manage it.
- Providing guidance programmes to help students cope with exam anxiety, including:
  - relaxation techniques;
  - time management skills;
  - boosting self-confidence.
- Creating a supportive educational environment that reduces academic
- Reducing academic pressures on students.
- Conducting further studies on exam anxiety across different educational levels.

Future research could explore additional factors that may influence exam Anxiety, such as students' academic preparedness, the level of family support, and teacher support. Understanding the role of these variables could provide a more comprehensive picture of exam anxiety among middle school students.

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