

Ramallah and Al-Bireh High School Students' Exam Worry based on Students' Perspectives

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Abstract:

The study aims at revealing the level of exam worry and its relation with high school students' exam results in Ramallah and Al-Bireh District and how exam results are influenced by gender variation (case study). The study problem is represented in the following question : Is there a connection between exam worry and high school students' exam results in Ramallah and Al-Bireh District? The two researchers conducted this study through the analytical, descriptive methodology. The focused group of this study consisted of all male and female high school students in Ramallah and Al-Bireh District; the total number is (4393) divided into (1894) males and (2544) females. The case study consisted of (264) male and female students. The case study has been used to measure exam worry.

Keywords: worry, results, high school students, schools, Ramallah and Al-Bireh

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Introduction:

Worry or anxiety is regarded one of the common phenomena nowadays and it appears as a result of the surrounding life conditions, surprises and events that an individual encounters. It differs from one person to another in terms of their goals, ambitions and conditions. Nevertheless, a person can adapt itself and adapt to the surrounding environment, however, if the anxiety is extreme, this may lead to consequences affecting a person's life.

Exam worry is generally considered one of the critical topics in modern educational and psychological studies and researches. It has been defined as a psychological state or an emotional phenomenon affecting students before exams or during exams. This is as result from a fear from failure in the exam or a fear from not being able to get the results that satisfy others and what they expect from them. This situation may affect the mental operations such as attention, concentration, memory and thinking (Abu Saimeh, 1995). Besides, students' school results are mainly affected by various factors such as exam worry .

I. Study problem:

The disclosure of the level of exam worry, its manifestations and its relationship to academic achievement among high school students in Ramallah and Al-Bireh district schools, and the impact of gender on exam worry among the students of the study sample, are among the important issues affecting the core of the educational process. Based on this, the study tries to answer the Study Problem represented by the following question: is there a correlation between exam worry and academic achievement of high school students in Ramallah and Al-Bireh district schools? The study also seeks to answer the following questions:

- What is the level of exam worry and manifestations among high school students in schools in the Ramallah and Al-Bireh District?

- Are there statistically significant differences at the level of ($\alpha = 0.05$) in the level of test worry among high school students attributable to gender variables and academic achievement?
- Is there a statistically significant correlation at the level of ($\alpha = 0.05$) between exam worry and academic achievement among male and female high school students and at different levels of academic achievement?

I.1- Study hypotheses:

- The level of academic achievement decreases as the student of the exam becomes more anxious.
- There are statistically significant differences in exam worry among high school students attributable to the gender variable.
- There are statistically significant differences in the academic achievement of the students due to the gender variable.

I.2- Study objectives:

This measure seeks to:

- Reveal the level of exam worry and its relationship to academic achievement among high school students studying in schools in Ramallah and Al-Bireh District ‘
- Reveal the effect of gender variant on exam worry in the students of the study sample.
- Identify the factor honesty, discriminatory honesty, the honesty of arbitrators, associative honesty, and the consistency procedure by the Cronbach’s Alpha method.

1:3 Study limits:

Human limits: a sample of high school students studying in schools affiliated to the Directorate of Education in Ramallah and Al-Bireh District from the academic year 2023/2024

Time period limits: the measurement tools used represented by the exam worry scale will be applied at the end of the second semester of the year 2023/2024

Spatial limits: schools of the Directorate of Education of Ramallah and Al-Bireh District.

1:4 Study Terminology:

The scale statements were formulated as the following procedural definitions of scale fields:

2. Exam worry:

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Habib (1991) defined exam worry as a psychological condition or emotional phenomenon that affects the student before and during the exam, and arises from his fear of failure or failure in the test, or fear of not getting results that are satisfactory to others and their expectations from him, and this condition may affect mental processes such as attention, concentration, remembering, and thinking (Habib, 1991, Jacob, 1992). Exam or test anxiety is considered the psychological state, emotional phenomenon, or overall tension that an individual experiences when facing a test situation where his ability is being examined and evaluated. It is defined procedurally by the score that the student gets on the test anxiety scale (Jacob, 1992).

2.1- Academic Result:

Ibrahim (1995) defines academic result as the extent to which students assimilate what they have learned from cognitive or skill experiences in school courses, and it is measured by the degree obtained by the student in the tests of the end of the year (Ibrahim, 1995). Similarly, Abdel Moneim (1999) believes that academic achievement is the ability to recall absorbed information and quantified by the total grades of all subjects studied, and it is made evident through standardized school tests or other means of evaluation (Abdel Moneim, 1999).

Academic result is defined as a specific level of competence or performance in school work. It is measured procedurally by the students' grades at the end of the academic year as the total sum of the subjects, which is achieved through the official records of the schools.

2.2- Literature review

The study of Rahmani and Fattal (2023) aimed to find out the relationship between exam worry and the level of mental toughness among secondary school students. To achieve the purposes of the study, the exam worry scale prepared by Ashraf Abdulkader and Ismail Badr (1999) and the mental toughness scale (Mukhaimer, 2002) was applied to a sample of Secondary School students consisting of 160 students (Rahmani, 2023).

A study by Budali, Amina, Ballash, Saliha, and Haboush, and Souad Aiat (2019) was conducted on a group of average fourth-year students who were distributed in a simple random way (by drawing lots) into two groups; an experimental group and a control group, in order to identify the effectiveness of the cognitive-behavioral program in reducing the degree of exam worry using the Spielberger scale. The members of the experimental group received a cognitive-behavioral therapy program consisting of 12 sessions (Budali, 2019).

Sispan study (2019). This study aimed to reveal the relationship between exam worry and academic achievement among students of the first year of Secondary School - a descriptive study - in the city of Mostaganem for the academic year 2014-2015. The study sample consisted of 60 students, and to achieve the objectives of the study, the researcher used the exam worry scale of Professor Dr. Bashir Maamriya. After presenting and discussing the results of the study, the researcher came to the following conclusion: there is an inverse relationship between exam worry and academic achievement among first-year high school students (Sisban, 2019).

Al-Otaibi Study (2018). The problem of studying has crystallized into the following main question: What does test anxiety have to do with academic achievement in light of some demographic variables (gender, specialization, academic level, GPA) The focus group of this study was a sample of male and female students of the Faculty of Education in Afif, one of the colleges affiliated to Shaqra University, and the study sample amounted to 216 students, the number of males in it was 151 compared to 65 females (Al-Otaibi, 2018).

3: Study Procedures :

In this part, the researchers deal with: society, sample, psychometric tools and characteristics, procedures for applying study tools, variables, and statistical processing.

3:1 Methodology:

The descriptive-analytical approach will be relied on, as this research approach is concerned with describing the relationship between psychological phenomena in educational

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reality, and then interpreted through quantitative and qualitative data.

3:2 Study community:

The study community consists of all high school students in the schools of Ramallah and Al-Bireh district, amounting to 4393 students, including 1894 male students and 2544 female students.

3:3 Study sample:

The researcher selected the study sample in a random way from the original study community, by numbering all high classes in the schools of the study community, and then choosing the individual numbers to form the study sample distributed by gender. The sample number reached (264) students from the high school classes in the Directorate of Education in Ramallah and Al-Bireh district.

3:4 Study Tools:

To achieve the objectives of the study, the researcher referred to the theoretical literature, previous studies and measures related to test anxiety in order to build the study tool and relied on two measures:

Sarson's exam worry scale which was codified by Abu Sabha in 1974. The researcher has added or amended some paragraphs in proportion to what he seeks to measure, taking into account the amendments of the arbitrators (Abu Fouda, 2011).

Test Anxiety Inventory (TAI) developed by Spielberger et al. (1980) and translated into Arabic by Nabil Zahar and referred to by Othman in his book Anxiety and Stress Management (Othman, 2001).

The scale that was prepared by the researcher initially consisted of 30 paragraphs distributed in three areas. The scale was presented to five arbitrators. Each arbitrator expressed his observations on the instrument, after which the paragraphs were modified. The final scale instrument consisted of 27 paragraphs and five possible answers, of which only one answer should be chosen. The scale consists of paragraphs that measure physical and psychological manifestations and their impact on achievement, and they express the concerns of high

school students in the exam period. These concerns are divided into three areas as follows: the first area: anxiety and physical indicators during the examination period and includes paragraphs (1-10), the second area: anxiety and emotional state and includes paragraphs (11-18) and the third area: anxiety and its impact on achievement and includes paragraphs (19-27).

3:5 Stability of the test anxiety scale:

To achieve the stability of the scale, the researcher ensured the stability of the test anxiety scale, by applying it to a survey sample from the study community itself and outside the study sample, and the stability coefficient of the scale was calculated through the test method and Retest-Test, and the internal consistency method.

3: 6 Scale variables:

The scale included the following variables:

Test anxiety and its manifestations.

Academic achievement: it has three levels;

High; marks over 75

Average; marks ranging from 60-75

Low; marks lower than 60.

Gender: two distinctions; male and female.

3:7 Statistical processing:

To answer the questions of the scale, the following statistical methods were used:

A. Calculation of averages and standard deviations in answer to the first question: What is the level of exam worry and its manifestations among high school students in Ramallah and Al-Bireh district schools?

From 1 - 2.33 low score

From 2.34-3.67 average score

From 3.68-5 high score.

Analysis of the bilateral discrepancy to answer the second question: What is the level of exam worry and its manifestations among high school students in schools in Ramallah and Al-Bireh district.

Calculation of the Pearson correlation coefficient in answer to the third question: is there a statistically significant correlation at the level of ($\alpha = 0.05$) between test anxiety and

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academic achievement among male and female high school students and at different levels of academic achievement

The results of the values (sig) have shown that they are not a statistical function, that is, there is no statistically significant correlation at the level of ($\alpha = 0.05$) between the test anxiety and academic achievement among male and female students of high school and at different levels of academic achievement.

4: Statistical Analysis:

4 :1 personal and public data:

The following table shows the characteristics of the study sample by variables (gender, grade, achievement level, school supervisor).

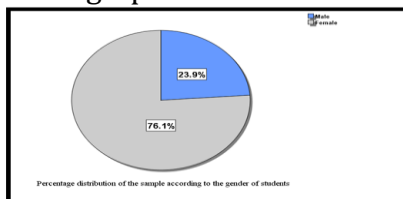
Table (1) Characteristics of the study sample

Variable	characteristics of the individuals of the study sample by variable frequency ratio	Frequency	atio
Gender	Male	63	23.9
	Female	201	76.1
Class	Tenth grade academic	67	25.4
	Tenth Vocational	15	5.7
	Eleventh Scientific	33	12.5
	Eleventh Literary	57	21.6
	Eleventh Management and Leadership	17	6.4
	Eleventh Industrial	20	7.6
	Twelfth Scientific	33	12.5
	Twelfth Literary	22	8.3
Achievement level	less than 60%	22	.3
	60 % and less than 75%	50	18.9
	76% and less than 85%	83	31.4
	85% up	109	41.3
School Supervisor	government	259	8.1

	Private	5	1.9
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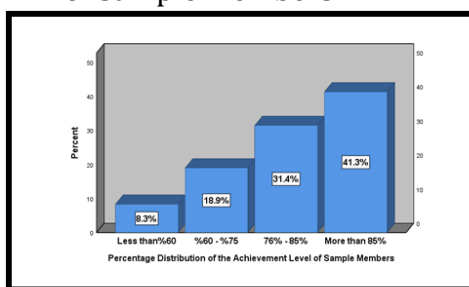
The following figures show the relative distribution of the sample members according to demographic variables:

Fig.1. Percentage Distribution of Sample Members by Demographic Variables



The study sample consisted of 201 females, or 76.1%, and 63 males, or 23.9%

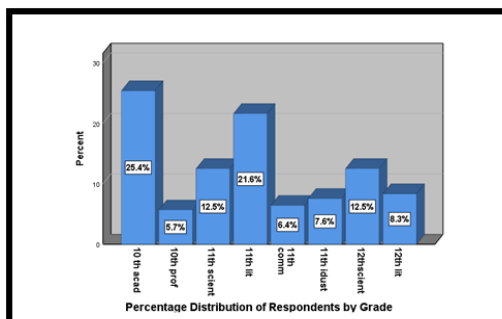
Fig.2 Percentage Distribution of the Achievement Level of Sample Members



The relative distribution of the achievement level of the sample members is as follows: 41.3% of the students have very high achievement in school, i.e. more than 85%. Another 31.4% of the sample members achieved between 76%-85%. A total of 18.9% attained between 60%-75%, and 8.3% have low achievement, i.e. less than 60%.

Fig.3 Percentage Distribution of Respondents by Grade

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As for the relative distribution of the sample members, the sample included students from different grades of the secondary stage, as shown in the figure above.

4:2 questionnaire paragraphs:

The coefficient of honesty and constancy in the paragraphs of the resolution:

The coefficient of honesty in the paragraphs of the questionnaire was examined by examining the consistency of the paragraphs in each field and their consistency with each other by presenting the questionnaire to the reviewers and judging it.

The coefficient of total stability of the resolution paragraphs (Cronbach Alpha) was calculated = 0.950 (the coefficient of stability of the resolution is strong), the coefficient of stability of the resolution paragraphs in the first domain was calculated =0.886, the coefficient of stability of the paragraphs of the second domain =0.865, and the coefficient of stability of the paragraphs of the third domain =0.889, as the following table shows.

Table 2. Reliability Statistics

Section	N of Items	Cronbach's Alpha		
Stability coefficient for the vertebrae of the first field	10	0.886		
Stability coefficient for the vertebrae of the second field	8	0.865		
Stability coefficient for the vertebrae of the third field	9	0.889		
Stability coefficient for the vertebrae of	27	0.95		

the fourth field				
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4:3 Answering study questions:

The arithmetic averages, standard deviations and the degree of approval for each paragraph in the questionnaire were used to determine the relative importance of the study variables and paragraphs, where the following scale was adopted for the study tool for analyzing the results:

Table 3. Arithmetic averages, standard deviations, and corresponding score

Arithmetic	Average Score
From 1 - 2.33	Low Score
From 2.34 - 3.67	Medium Score
From 3.68 - 5	High score

To answer the first question "What is the level of exam worry and its manifestations among high school students in Ramallah and Al-Bireh district schools?" The averages and standard deviations were calculated as the following tables show:

First Area: Anxiety and Physical Indicators during exam period

Table 4. First Area: Anxiety and physical indicators during exams

Item No	Items	Number of values	The arithmetic average	Standard deviation	Arrangement	Degree
1	The exam period is one of the most difficult times for me	264	4.01	1.026	1	high
2	Some of my pains go away as soon as I finish the exam.	264	3.88	1.149	2	High
3	I'm upset that some information interfered with me at the time of the exam	264	3.57	1.250	4	Medium
4	I find it difficult to control my thoughts while taking exams	264	3.17	1.428	6	Medium
5	I have difficulty sleeping on the night	264	2.36	1.405	9	Medium

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	of the exam					
6	I have difficulty swallowing and digesting food on the morning of the exam	264	3.10	1.475	7	Medium
7	I feel an upset stomach before the exam	264	3.58	1.340	3	Medium
8	My heart rate increases at the time of exams	264	2.67	1.468	8	Medium
9	I feel cold in my hands before receiving the exam paper	264	2.17	1.228	10	Low
10	I often go to the bathroom before the exam	264	3.50	1.425	5	Medium
Total grade of the first area (anxiety and physical indicators exam period)			3.20	1.319		Medium

The above table shows that the total score for the first area (anxiety and physical indicators during the exams) was average, with an arithmetic mean (3.20) and a standard deviation (1.319), and the scores of paragraphs ranged from high, medium and low, as paragraphs No. 1, 2 were high, and paragraphs No 7, 3, 5, 10, 4, 6, 8 were average, and Paragraph No. 9 was low.

Second Area: Anxiety and Emotional State:

Table 5. Second Area: Anxiety and Emotional State

Item No	Items	Number of values	The arithmetic average	Standard deviation	Arrangement	Degree
11	I feel nervous and confused when I hear the word exam	264	3.37	1.361	7	Medium
12	I feel psychological distress before exams	264	3.40	1.367	6	Medium
13	I get scared as soon as the exam starts	264	3.69	1.288	5	High

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14	I am worried about any influence in the family at the time of exams	264	3.16	1.475	8	Medium
15	I like to sit alone during the exam period	264	3.89	1.361	2	High
16	I feel bad when reviewing my answers after completing the exam	264	3.73	1.322	4	High
17	I feel anxious when I think about the consequences of my failing the exam	264	3.93	1.332	1	High
18	I remember the correct answer immediately after leaving the exam	264	3.82	1.235	3	High
Total grade of the Second Area: Anxiety and Emotional State			3.62	1.34		Medium

The above table shows that the total score for the second area (anxiety and emotional state) was average, with an arithmetic mean (3.62) and a standard deviation (1.34), and the scores of paragraphs ranged from high to medium, as paragraphs No 17, 15, 18, 16, 13 were high, and paragraphs No. 12, 11, 14 were average.

Third Area: Anxiety and its Impact on Achievement:

Table 6. Third area: Anxiety and its Impact on Achievement

Item No	Items	Number of values	The arithmetic average	Standard deviation	Arrangement	Degree
9	I feel hesitant in my	264	3.71	1.180	4	High

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	answers, which affects the organization of the answer on the exam paper					
0	I suffer from hasty and inaccurate answers	2 64	3. 53	1 .179	6	M edium
1	My achievement is affected by the inability to concentrate at the time of the exam	2 64	3. 56	1 .280	5	M edium
2	I am in doubt about answering some exam questions	2 64	3. 99	0 .981	2	H igh
3	My fear makes me unable to read the question paper accurately, which reduces my grades	2 64	3. 19	1 .347	7	M edium
4	I make involuntary movements when I sit on the exam bench, which leads to distraction and poor achievement	2 64	2. 76	1 .425	9	M edium
5	My fear of failing	2 64	3. 01	1 .486	8	M edium

	hinders my performance in the exams, so I don't achieve high grades					
6	At the beginning of the exam, I feel like I'm forgetting the information I was remembering	2 64	3. 90	1 .198	3	H igh
7	My motivation to succeed increases when thinking about the aftermath of the exam	2 64	4. 11	0 .998	1	H igh
Total grade of the Third Area (Anxiety and Its Impact on Achievement)			3. 53	1 .23		M edium

The above table shows that the overall score for the third area (anxiety and its impact on achievement) was average, with an arithmetic mean 3.53 and a standard deviation 1.23, and the scores for paragraphs ranged from high to medium, as paragraphs No. 27, 22, 26, 19 were high, paragraphs No. 21, 20, 23, 25, 24 were average.

To answer the second question: "Are there statistically significant differences at the level of $\alpha = 0.05$ in the level of test anxiety among high school students attributable to gender variables and academic achievement," the mono-variance analysis was calculated:

Table 7. Univariate Analysis of Variance Between-Subjects Factors

Between-Subjects Factors			
		Value Label	N
	1	Less than 60%	22

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average	2	Above 60% and below 75 %	50
	3	Above 76% and below 85%	83
	4	Higher than 85%	109
gender	1	Male	63
	2	Female	201

Table 8. Tests of Between-Subjects Effects

Tests of Between-Subjects Effects					
Dependent Variable:					
Sig.	F	Mean Square	df	Type Sum Squares	III of Source
0.000	5.952	3.893	7	27.250a	Corrected Model
0.000	2042.896	1336.201	1	1336.201	Intercept
0.013	3.673	2.402	3	7.207	average
0.000	17.978	11.759	1	11.759	gender
0.005	4.338	2.837	3	8.512	average * gender
		0.654	256	167.442	Error
			264	3311.296	Total
			263	194.693	Corrected Total
a. R Squared = .140 (Adjusted R Squared = .116)					

By the binary variance test we observe that:

1. The first table (between-Subjects Factors) indicates the distribution of samples by gender variables and the level of achievement.
2. The second table (Tests of Between-Subjects Effects) shows the analysis of binary variance and the testing of null hypotheses related to it.
3. Rejection of the null hypothesis, which states that "there are no statistically significant differences in the level of test anxiety among secondary students attributable to the gender variable at the significance level of 0.05, " as

the test value sig =0.000 is less than 0.05, that is, there are statistically significant differences at the level of $\alpha = 0.05$ in the level of test anxiety among secondary students attributable to the gender variable.

4. Rejection of the null hypothesis, which states that "there are no statistically significant differences in the level of test anxiety among high school students attributable to the academic achievement variable at the significance level of 0.05, " as the test value sig=0.013 is less than 0.05, that is, there are statistically significant differences at the level of $\alpha = 0.05$ in the level of test anxiety among high school students attributable to the academic achievement variable.
5. Rejection of the null hypothesis, which states that "there are no statistically significant differences in the level of test anxiety among high school students attributable to gender variables and academic achievement at the significance level of 0.05," as the test value sig=0.005, which is less than 0.05, that is, there are statistically significant differences at the level of $\alpha = 0.05$ in the level of test anxiety among high school students attributable to gender variables and academic achievement.

To answer the third question: "Is there a statistically significant correlation at the level of $\alpha = 0.05$ between the test anxiety and academic achievement among male and female high school students and at different levels of academic achievement?", the Pearson correlation coefficient (Pearson) was calculated to examine the correlation, as in the following table:

Table 9. Correlations

Correlations				
anxiety	average	gender		
.186**	-.233- **	1	Pearson Correlation	anxiety
0.002	0.000		Sig. (2-tailed)	
264	264	264	N	
0.042	1	-.233- **	Pearson Correlation	average
0.495		0.000	Sig. (2-tailed)	

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264	264	264	N	gender
1	0.042	.186**	Pearson Correlation	
	0.495	0.002	Sig. (2-tailed)	
264	264	264	N	
**. Correlation is significant at the 0.01 level (2-tailed).				

Conclusion:

According to the correlation matrix represented in the table above, we conclude the following:

1. The value of the correlation coefficient between the two variables (anxiety level, school achievement level) is equal to -0.233, and the test significance level = 0.000, which is less than 0.05, and this means rejecting the null hypothesis, that is, there is a statistically significant inverse linear relationship between the anxiety level of high school students and their academic achievement level.
2. The value of the correlation coefficient between the two variables (anxiety level, student's gender) is equal to 0.186, and the test indication level = 0.002, which is less than 0.05, this means rejecting the null hypothesis, that is, there is a statistically significant linear relationship between the anxiety level of high school students and the gender variable.

Discussion and interpretation of the results:

- The arithmetic mean of the test anxiety level and its manifestations among high school students in Ramallah and Al-Bireh district schools was 3.27 with a standard deviation of 1.22, which means that the overall score of the test anxiety level and its manifestations among high school students in Ramallah and Al-Bireh district schools is average.
- According to the results of the binary variance test, it was concluded that there are no statistically significant differences at the level of ($\alpha = 0.05$) in the level of test anxiety among high school students due to gender variables and academic achievement.
- By calculating the Pearson correlation coefficient (Pearson) to examine the correlation relationship, it was concluded that

there is no statistically significant correlation at the level of ($\alpha = 0.05$) between test anxiety and academic achievement among male and female students of high school and at different levels of academic achievement.

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