

Achievement Motivation among Students Preparing for Official Examinations A Field Study of Third-Year Secondary School Students in Relizane Province

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Abstract

This study aimed to determine the level of achievement motivation among third-year secondary school students and to examine whether it varied according to selected personal and academic variables. A descriptive-analytical design was adopted. The Achievement Motivation Scale developed by Ashraf Ahmed Abu Halima (2018) was administered to a randomly selected sample of 500 male and female students enrolled in secondary schools in Relizane Province. After the psychometric properties of the instrument had been verified, the data were analyzed using SPSS version 20. The findings showed that the students had a high level of achievement motivation, both overall and across its dimensions. Statistically significant gender differences were found in favor of female students. Significant differences were also observed according to academic stream.

Keywords: achievement motivation; third-year secondary school students; official examinations; Baccalaureate examination; academic stream

1. Introduction

Motivation is one of the most important and meaningful topics in psychology. It is also a major focus of educational research. Motivation acts as a primary driving force behind human and animal behavior. It may be understood as the combined influence of desires, needs, interests, and attitudes that directs behavior toward a desired goal. A motive therefore underlies purposeful behavior and generates a goal-directed response.

Achievement motivation is one of the basic motives that activates human behavior. It encourages individuals to perform tasks as effectively as possible. A strong achievement motive directs students toward study, academic attainment, and other indicators of successful performance.

2. Statement of the Problem

Achievement motivation is an important topic in the study of human motives within the social sciences and educational psychology. Interest in this construct extends beyond psychology to several practical and applied fields. Its growing importance in education, together with its relationship with many other variables, has encouraged extensive research.

Al-Omran (1994), in a study entitled “Achievement Motivation and Its Relationship with Academic Achievement and Selected Demographic Variables among Primary and Intermediate School Students in Bahrain,” found a relationship between achievement motivation and academic achievement. The study also reported differences associated with geographical area and gender, with female students showing higher achievement motivation than male students (Bani Younes, 2007, p. 164). Mahmoud Abdel Qader likewise found a significant positive association between end-of-

semester success scores and both ambition and perseverance. Academic success requires not only ambition, but also endurance and sustained effort (Abdel Latif Mohamed Khalifa, 2000, pp. 52–53).

A review of recent educational studies indicates that achievement motivation may decline among students, with a corresponding reduction in school performance. Given the importance of achievement motivation for academic outcomes and for the teaching-learning process as a whole, the present study addresses the following questions:

- What is the level of achievement motivation among third-year secondary school students?
- Are there statistically significant differences in achievement motivation according to gender?
- Are there statistically significant differences in achievement motivation according to academic stream?

3. Study Hypotheses

- Third-year secondary school students have a high level of achievement motivation.
- Achievement motivation differs significantly according to gender among third-year secondary school students.
- Achievement motivation differs significantly according to academic stream among third-year secondary school students.

4. Significance of the Study

The significance of the present study may be summarized as follows:

- It emphasizes the role of the human factor in improving academic performance, particularly among students preparing for the Baccalaureate examination. The third year of secondary school represents an important stage for evaluating students' performance and the cumulative outcomes of their schooling across the three educational cycles.
- It highlights the importance of an achievement-oriented personality in the classroom and the value of achievement motivation in predicting future performance.
- It may provide educational leaders and supervisors with information about achievement motivation among third-year secondary school students. Such information may support the design of counseling programs and targeted strategies to improve the performance of this group.

5. Objectives of the Study

- To determine the level of achievement motivation among third-year secondary school students.
- To examine the effect of gender and academic stream on achievement motivation in the study sample.

6. Definition of Terms

6.1. Theoretical Definition of Achievement Motivation

Atkinson (1958) defined achievement motivation as a relatively stable personality disposition that determines the degree to which an individual strives and persists in order to reach a goal or attain success that produces a particular form of satisfaction. This disposition becomes evident in situations where performance is evaluated against a defined standard of excellence (Majdi, 2006, p. 107).

Farouk Abdel Fattah described achievement motivation as the desire to perform well and attain success. It is a personal goal that activates and directs behavior and is considered an important component of school success (Mohamed Abdel Rahman, 2009, p. 155).

On the basis of these definitions, achievement motivation may be viewed as a hypothetical construct consisting of several factors. These factors reflect an internal force that is activated by the desire for success and by the effort to attain excellence and distinction.

6.2. Operational Definition of Achievement Motivation

In this study, achievement motivation refers to a third-year secondary school student's desire to pass the Baccalaureate examination, which represents the culmination of the student's educational pathway, and to attain excellence in academic performance. It is measured by the total score obtained on the Achievement Motivation Scale developed by Ashraf Ahmed Abu Halima (2018). The scale includes eight dimensions: perseverance, work orientation, ambition, independence, fear of failure, social acceptance, time awareness, and competition. A high score indicates a high level of achievement motivation, whereas a low score indicates a low level.

7. Study Delimitations

- Spatial delimitation: The study was conducted in selected secondary schools in Relizane Province.
- Temporal delimitation: Data collection took place from October 2018 to May 2019.
- Human delimitation: The participants were third-year secondary school students.

8. Previous Studies

1. Al-Shurbaji (1987). This study, entitled "The Relationship between Family Cultural Level and Achievement Motivation," examined differences in achievement motivation between male and female students. The sample consisted of 300 male and 310 female students from a faculty of education. Statistically significant differences were found in favor of male students (Al-Nuaimi & Al-Obaidi, 2009, p. 167).

2. Al-Omran (1994). This study, entitled "Achievement Motivation and Its Relationship with Academic Achievement and Selected Demographic Variables among Primary and Intermediate School Students in Bahrain," examined the relationship between achievement motivation and academic achievement. It also investigated differences related to geographical area and family size. The sample included 377 students randomly selected from eight boys' and girls' schools at the primary and intermediate levels. An achievement motivation test was used. The findings showed gender differences in achievement motivation in favor of female students (Bani Younes, 2007, p. 164).

3. Nawal Al-Sayed (2008/2009). This study, entitled "Psychological Stress and Its Effect on Achievement Motivation among Students Preparing for the Baccalaureate Examination," was conducted with a sample of 180 students. The Hermans Achievement Motivation Questionnaire for Children and Adults was used. The findings showed no statistically significant gender differences in achievement motivation.

9. Methodological Procedures

9.1. Research Design

The study employed a descriptive design. This design was considered appropriate because it provides accurate quantitative and qualitative descriptions of the characteristic under investigation. Fraenkel and Wallen (1993) define the descriptive method as a form of systematic scientific analysis and interpretation used to describe a specific phenomenon or problem quantitatively through the

collection, classification, analysis, and close examination of standardized data and information (Melhem, 2000).

9.2. Study Instrument

The researchers used the Achievement Motivation Scale developed by Ashraf Ahmed Abu Halima (2018). The scale consists of eight dimensions: perseverance, work orientation, ambition, independence, fear of failure, social acceptance, time awareness, and competition. Responses are recorded using three options: agree, undecided, and disagree.

10. Psychometric Properties of the Instrument

To examine the validity and reliability of the Achievement Motivation Scale for secondary school students, the instrument was administered to a preliminary sample of 100 students. Internal consistency reliability was estimated using Cronbach's alpha. Construct validity was examined through item-dimension correlations and correlations between each dimension and the total scale score.

10.1. Reliability

Table 1. Cronbach's Alpha Coefficients for the Achievement Motivation Scale

Scale component	Dimension / Total scale	Sample size	Cronbach's alpha
Dimensions	Perseverance	100	0.59
Dimensions	Work orientation	100	0.47
Dimensions	Ambition	100	0.46
Dimensions	Independence	100	0.65
Dimensions	Fear of failure	100	0.69
Dimensions	Social acceptance	100	0.60
Dimensions	Time awareness	100	0.73
Dimensions	Competition	100	0.62
Total scale	Achievement motivation	100	0.78

Table 1 shows that Cronbach's alpha coefficients for the eight dimensions were 0.59, 0.47, 0.46, 0.65, 0.69, 0.60, 0.73, and 0.62, respectively. The coefficient for the total scale was 0.78. The researchers considered these coefficients acceptable and concluded that the participants' responses showed an adequate degree of internal consistency.

10.2. Validity Based on Internal Consistency**Table 2. Item-Dimension Correlations for the Perseverance Dimension**

Dimension: Perseverance					
Item	Correlation	Significance	Item	Correlation	Significance
01	0.41	$p < .01$	05	0.47	$p < .01$
02	0.52	$p < .01$	06	0.45	$p < .01$
03	0.48	$p < .01$	07	0.25	$p < .01$
04	0.45	$p < .01$	08	0.32	$p < .01$

All item correlations with the perseverance dimension were statistically significant at the .01 level. The coefficients ranged from 0.25 to 0.52, indicating that the items were positively associated with the dimension they were designed to measure.

Table 3. Item-Dimension Correlations for the Ambition Dimension

Dimension: Ambition					
Item	Correlation	Significance	Item	Correlation	Significance
01	0.58	$p < .01$	04	0.44	$p < .01$
02	0.40	$p < .01$	05	0.57	$p < .01$
03	0.54	$p < .01$	06	0.55	$p < .01$

All item correlations with the ambition dimension were statistically significant at the .01 level. The coefficients ranged from 0.40 to 0.58, indicating that the items were positively related to the dimension they were intended to assess.

Table 4. Correlations between Scale Dimensions and the Total Achievement Motivation Score

Dimension	Correlation with total score	Significance
Perseverance	0.46	$p < .01$
Work orientation	0.57	$p < .01$
Ambition	0.34	$p < .01$
Independence	0.23	$p < .01$

Dimension	Correlation with total score	Significance
Fear of failure	0.58	$p < .01$
Social acceptance	0.50	$p < .01$
Time awareness	0.51	$p < .01$
Competition	0.58	$p < .01$

All correlations between the dimensions and the total scale score were statistically significant at the .01 level. Pearson correlation coefficients ranged from 0.23 to 0.58. These results indicate positive associations between the dimensions and the overall construct of achievement motivation.

11. Size and Characteristics of the Main Study Sample

The main sample consisted of 500 third-year secondary school students selected from secondary schools in Relizane Province. The distribution of the sample by gender and academic stream is presented below.

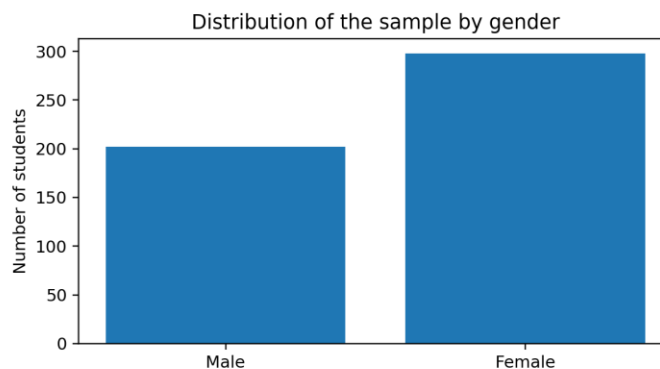
11.1. Distribution by Gender

Table 5. Distribution of the Main Sample by Gender

Gender	Number of students	Percentage
Male	202	40%
Female	298	60%
Total	500	100%

Female students represented 60% of the sample, whereas male students represented 40%. This distribution reflected the composition of the study population, in which female enrollment was higher than male enrollment.

Figure 1. Distribution of the Sample by Gender



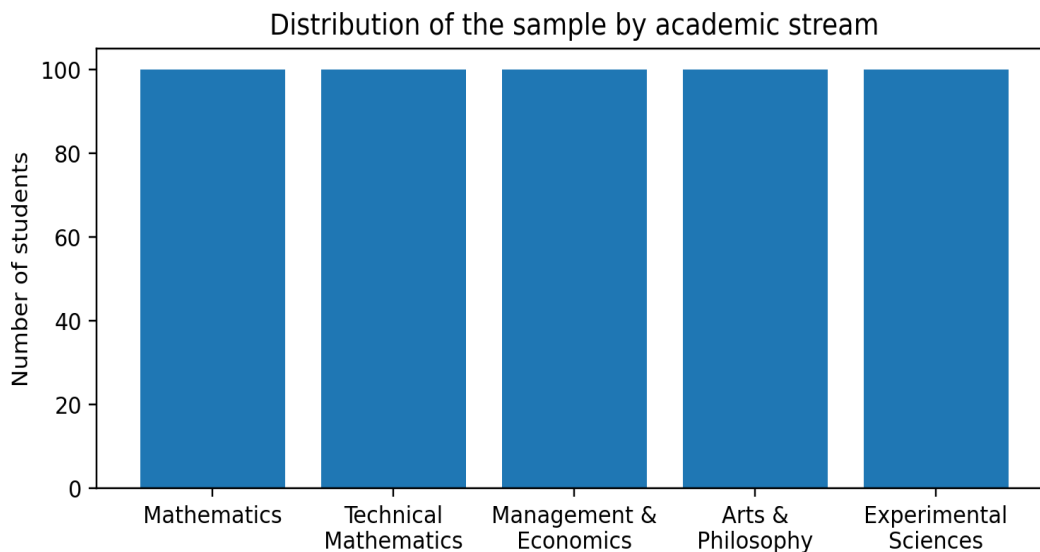
11.2. Distribution by Academic Stream

Table 6. Distribution of the Main Sample by Academic Stream

Academic stream	Number of students	Percentage
Mathematics	100	20%
Technical Mathematics	100	20%
Management and Economics	100	20%
Arts and Philosophy	100	20%
Experimental Sciences	100	20%
Total	500	100%

The sample was evenly distributed across five academic streams. Each stream included 100 students and represented 20% of the total sample.

Figure 2. Distribution of the Sample by Academic Stream



12. Statistical Procedures

The data were analyzed using the arithmetic mean, standard deviation, one-sample and independent-samples t tests, and one-way analysis of variance (ANOVA). Scheffé's post hoc test was used to identify the sources of significant differences among academic streams.

13. Presentation and Discussion of the Findings

13.1. Findings Related to the First Hypothesis

The first hypothesis stated that third-year secondary school students would have a high level of achievement motivation. A one-sample t test was used to examine this hypothesis.

Table 7. Descriptive Statistics for Achievement Motivation

Variable	N	Mean	Standard deviation	Standard error
Achievement motivation	500	152.75	15.70	0.70

Table 8. One-Sample t Test for the First Hypothesis

Variable	Observed mean	Hypothetical mean	df	t	Significance
Achievement motivation	152.75	134	499	26.70	$p < .01$

The observed mean score for achievement motivation was 152.75, which was higher than the hypothetical mean of 134. The t value was 26.70 and was statistically significant at the .01 level. The first hypothesis was therefore supported: third-year secondary school students demonstrated a high level of achievement motivation.

Discussion of the First Hypothesis

The strong achievement motivation observed among third-year secondary school students may be attributed to their desire to succeed in the Baccalaureate examination. This examination marks the culmination of three educational stages and plays an important role in students' academic and professional plans. It is a major incentive and a principal gateway to university education and future employment. Students therefore seek success, distinction, and excellence through organized and purposeful effort supported by teachers and educational supervisors.

13.2. Findings Related to the Second Hypothesis

The second hypothesis stated that achievement motivation would differ significantly according to gender. An independent-samples t test was used.

Table 9. Achievement Motivation Means and Standard Deviations by Gender

Variable	Gender	N	Mean	Standard deviation
Achievement motivation	Male	202	143.0495	17.69975
Achievement motivation	Female	298	159.3356	9.73460

Table 10. Independent-Samples t Test for Gender Differences

Variable	df	t	Significance
Achievement motivation	498	13.21	$p < .01$, in favor of females

The mean achievement motivation score for male students was 143.04, whereas the mean for female students was 159.33. The t value of 13.21 was statistically significant at the .01 level. The observed difference was therefore unlikely to be due to chance. Female students demonstrated higher achievement motivation than male students, and the second hypothesis was supported.

Discussion of the Second Hypothesis

The finding of significant gender differences in favor of female students is consistent with Al-Omran (1994), who also reported higher achievement motivation among females. It differs from Al-Shurbaji (1987), whose findings favored male students, and from Nawal Al-Sayed (2008/2009), who found no significant gender differences.

The authors interpret the higher achievement motivation among female students as reflecting their view of academic success as a means of educational and social self-realization within the family and society. Through perseverance and the pursuit of excellence, female students may seek to achieve their life goals, gain greater independence, and prepare for advanced occupational roles. The Baccalaureate examination serves as a particularly strong incentive. Male students may differ in their orientation toward schoolwork.

13.3. Findings Related to the Third Hypothesis

The third hypothesis stated that achievement motivation would differ according to academic stream. A one-way ANOVA was conducted, followed by Scheffé's post hoc test.

Table 11. Descriptive Statistics for Achievement Motivation by Academic Stream

Academic stream	N	Mean	Standard deviation
Mathematics	100	159.4600	9.58789
Technical Mathematics	100	158.8700	10.16992
Management and Economics	100	159.7300	9.41829
Arts and Philosophy	100	152.9800	11.55486
Experimental Sciences	100	132.7400	16.97926

Table 12. One-Way ANOVA for Achievement Motivation by Academic Stream

Source	Sum of squares	df	Mean square	F	Significance
Between groups	53,165.172	4	13,291.23	94.18	p < .01
Within groups	69,881.060	495	141.174	—	—
Total	123,046.232	499	—	—	—

The ANOVA yielded an F value of 94.18, which was statistically significant at the .01 level. Achievement motivation therefore differed according to academic stream. Scheffé's post hoc comparisons were conducted to identify the location of these differences.

Table 13. Scheffé Post Hoc Comparisons for Achievement Motivation

Stream 1	Stream 2	Mean difference	Interpretation
Mathematics	Technical Mathematics	0.59	Not significant
Mathematics	Management and Economics	-0.27	Not significant
Mathematics	Arts and Philosophy	6.48*	$p < .05$, in favor of Mathematics
Mathematics	Experimental Sciences	26.72*	$p < .05$, in favor of Mathematics
Technical Mathematics	Mathematics	-0.59	Not significant
Technical Mathematics	Management and Economics	-0.86	Not significant
Technical Mathematics	Arts and Philosophy	5.89*	$p < .05$, in favor of Technical Mathematics
Technical Mathematics	Experimental Sciences	26.13*	$p < .05$, in favor of Technical Mathematics
Management and Economics	Mathematics	0.27	Not significant
Management and Economics	Technical Mathematics	0.86	Not significant
Management and Economics	Arts and Philosophy	6.75*	$p < .05$, in favor of Management and Economics
Management and Economics	Experimental Sciences	26.99*	$p < .05$, in favor of Management and Economics
Arts and Philosophy	Mathematics	-6.48*	$p < .05$, in favor of Mathematics

Stream 1	Stream 2	Mean difference	Interpretation
Arts and Philosophy	Technical Mathematics	-5.89*	$p < .05$, in favor of Technical Mathematics
Arts and Philosophy	Management and Economics	-6.75*	$p < .05$, in favor of Management and Economics
Arts and Philosophy	Experimental Sciences	20.24*	$p < .05$, in favor of Arts and Philosophy
Experimental Sciences	Mathematics	-26.72*	$p < .05$, in favor of Mathematics
Experimental Sciences	Technical Mathematics	-26.13*	$p < .05$, in favor of Technical Mathematics
Experimental Sciences	Management and Economics	-26.99*	$p < .05$, in favor of Management and Economics
Experimental Sciences	Arts and Philosophy	-20.24*	$p < .05$, in favor of Arts and Philosophy

Note. * Statistically significant at the .05 level.

The post hoc results showed no statistically significant differences among Mathematics, Technical Mathematics, and Management and Economics. Each of these streams had significantly higher achievement motivation than Arts and Philosophy and Experimental Sciences. Students in Arts and Philosophy also scored significantly higher than students in Experimental Sciences. Thus, the third hypothesis was supported.

Discussion of the Third Hypothesis

The finding of differences according to academic stream is consistent with Aref (1987), who examined the relationship between achievement, affiliation, and academic excellence among third-year secondary school female students in scientific and literary streams in Jeddah. That study found significant relationships among achievement motivation, academic attainment, and specialization. Scientific-stream students obtained higher scores on risk-taking, whereas literary-stream students obtained higher scores on fear of failure.

The authors consider academic stream an important factor in shaping an achievement-oriented personality, particularly in relation to school performance. Some streams correspond closely to students' preferences, whereas others may not. Individual differences also affect students' orientation toward achievement behavior and their efforts to attain goals in life and in education. The authors further suggest that patterns of competition and perseverance may vary between scientific and literary streams.

14. Conclusion and Recommendations

The study examined the level of achievement motivation and its dimensions among third-year secondary school students. The statistical findings showed that students preparing for the official Baccalaureate examination had a high level of achievement motivation. Gender and academic stream were also associated with significant differences in achievement motivation.

On the basis of these findings, the following recommendations are proposed:

- Develop counseling programs designed to strengthen achievement motivation among third-year secondary school students.
- Give greater attention to material and moral incentives that stimulate achievement motivation among students preparing for official examinations.
- Conduct field studies with larger and more diverse samples.
- Encourage researchers and practitioners to examine additional variables relevant to students preparing for official examinations.

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