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The Relationship between Achievement Motivation and Academic Achievement among Learners Preparing for the Middle School Certificate in Algeria (Field Study)

## The Relationship between Achievement Motivation and Academic Achievement among Learners Preparing for the Middle School Certificate in Algeria (Field Study)

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### Abstract:

This study aims to shed light on the concept of motivation in general, and achievement motivation in particular, and its relationship to academic achievement among pupils preparing for the middle school certificate exam, for the academic year (2021-2022).

250 pupils contributed to the completion of this study, including (125 males) and (125 females), who were randomly selected from two middle schools in the state of Bechar (Algeria).

Data on the aforementioned variables were collected using the (Hermans) achievement motivation scale, in addition to the middle school certificate exam rates, as the results of the study concluded that:

- Achievement motivation is positively related to achievement in the middle school certificate exam.
- There are statistically significant differences in achievement motivation between successful and failed pupils in the middle school certificate exam.

Finally, we concluded the study by addressing the most important methods used by the teacher to arouse motivation in the learner.

**Keywords:** Motivation, learning motivation, achievement motivation, academic achievement, learner.

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### **Introduction:**

Many specialists and researchers in psychology and educational sciences have been interested in the topic of academic achievement, as many factors have been identified, which the applied scientific research has proven to have a positive or negative role in academic achievement, including motivation.

In this context, this study came as an attempt to contribute to clarifying the role of motivation in general, and achievement motivation in particular, and the extent of its association with academic achievement, considering that the concept of achievement motivation is one of the variables frequently raised in social and educational studies in particular, and this concept is also considered one of the topics that has received great attention from researchers.

### **First: The theoretical aspect:**

#### **1. The problem:**

The topic of motivation is of great importance to researchers in many social, educational, and other fields, due to its important role (motivation) played in the teaching and learning process.

Travers (Travers, 1979) believes that motivation contributes to creating natural, emotional, and cognitive changes in the individual, whether in terms of understanding, attention, remembering, and forgetting, or through its impact on thinking and learning, as the concept of motivation helps explain individual differences in academic achievement among learners, when these differences are due to factors other than intelligence and academic readiness.

We often find pupils who are distinguished by high academic achievement despite their low ability, and in contrast, other pupils with high intelligence, but whose academic achievement is low, meaning that our expectations for achievement differ negatively or positively from what happens, and the responsible factor in such cases is often the high or low level of achievement motivation.

Touq and Adas (1984) distinguished between motivation and learning motivation, considering that motivation is an internal or external state of a living being, which moves its behavior and directs it toward achieving a specific goal or purpose, and maintains its continuity until that goal is achieved, while learning motivation is a special case of motivation, indicating an internal state in the learner, which prompts him to pay attention to the educational situation and to approach it with directed activity, and to continue in it until it is achieved.

As for achievement motivation, according to what (Fathi Al-Zayat, 1996) extracted from Atkinson's theory, it is a complex motivation that directs the individual's behavior to be successful in activities that are considered standards of excellence, and in which the standards of success and failure are clear and specific, such as competitive activities, whether they are cognitive activities such as excellence, intelligence, or innovation, or motor activities such as individual sports, or social activities such as leadership. (Bahi and Chalabi, 1998, pp. 22-24).

### Study Questions:

Based on what was previously discussed in the introduction, the following questions can be raised:

- What is meant by each of motivation, learning motivation, and achievement motivation?
- Is there a correlation between achievement motivation and academic achievement?
- Are there differences in achievement motivation between successful and failed pupils in the middle school certificate exam?

#### 1. Hypotheses:

- **Hypothesis 1:** There is a positive correlation between achievement motivation and academic achievement.
- **Hypothesis 2:** There are statistically significant differences in achievement motivation between successful and failed pupils in the middle school certificate exam.

#### 3. Definition of concepts:

##### 1.3 Definition of motivation:

**Linguistic definition:** The word "motivation" is derived from the Latin language and means "move", and refers to the force of movement that stimulates behavior, as motives can not be observed directly, but arise from behavior.

**Terminological definition:** Many scientists have addressed the topic of motivation, and tried to define its concept from multiple perspectives, as they indicated that motivation is a future expression affected by the results that will lead to behavior, and Atkinson viewed motivation as the excitement to move toward work to achieve one or more results, while Maslow sees that motivation is a general characteristic that distinguishes all living beings.

Feldman, (Feldman,1990) indicates that motivation is a concept that includes all motives, as motivation is the force that stimulates and drives the individual to perform activities, and he indicated that there are two types of motivation:

**a. Intrinsic motivation:** pupils are driven internally by factors that are personal or included in the task they are performing.

**b. Extrinsic motivation:** pupils are driven externally, as a result of factors outside themselves, to obtain reinforcement from performing some activities.

##### 3.2 Definition of learning motivation:

It is defined as the intrinsic force that drives an individual's behavior and directs him to achieve a specific goal, which he feels the need for or its moral (psychological) importance to him, and it is considered innate motivation for the pupil, as it is like the energy that stimulates his behavior towards achieving the goal, and from here the importance of motivations in the individual's behavior in general and his positions in school learning, in particular, becomes clear. (Zian, 2013, p. 112)

##### 3.3 Achievement motivation:

(McClelland) defined it as performance in light of a specific level of excellence and superiority, or it is simply the desire for success, while (Atkinson, 1964) defined it as a relatively

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stable readiness in personality, which determines the extent of an individual's striving and perseverance to achieve or reach success, which results in a type of satisfaction in situations that include performance evaluation, in light of a specific level of excellence.

Farouk Abdel Fattah (1987) also defined achievement motivation as the continuous desire to strive for success, accomplish difficult tasks, and overcome obstacles efficiently, with the least possible amount of effort and time, and at the best level of performance.

#### 4.3 Academic achievement:

(Hanfi Abdel Moneim, 1995) defines it as reaching a certain level of competencies in studying, whether in school or university, and this is determined by standardized achievement tests, or teacher assessments, or both.

Academic achievement can be defined procedurally as the general or specific rates that a pupil achieves after a semester or academic year, expressing the extent of his understanding, comprehension, and memory of the knowledge, experiences, and skills he has acquired from educational and teaching courses (without cheating).

As for the academic achievement in the middle school certificate exam, it is an official annual assessment that expresses the overall average achieved by the Pupil at the final level of the middle stage in this exam, as success in this exam allows the Pupil the opportunity to move from the middle school stage to the secondary school stage. To succeed in it, the pupil must obtain at least 10/20, as the points obtained during the school year are not taken into account.

#### 5.3 Definition of the learner:

**Linguistic definition:** The learner is an active participle, learner from learning, it is said learn, he learned, he is a learner, and he learned something, meaning he mastered it.

The Intermediate Dictionary defined it technically as follows: The learner is considered the target of the educational and teaching process, as education, with its various institutions and means, seeks to educate, raise, guide, and prepare the learner to participate in the life of society productively and fruitfully.

Learners differ in their abilities, readiness, and ability, as some achieve a high level of achievement when listening to the theoretical explanation by the teacher, and some of them increase their learning by using various educational means such as watching transparencies, shelves, pictures, posters, maps and educational films, while there is another category that needs another diversification in educational means to form correct concepts about the educational material, such as participating in educational trips, scientific seminars and acquired presentations and visiting museums and exhibitions, as there is a category that needs various teaching methods such as discussion, investigation or induction ..... etc.

#### 4. Research objectives:

This study aims to reveal the relationship of one of the factors (achievement motivation) that is most related to academic achievement, especially in fateful exams, such as the middle school certificate exam, as if achievement motivation is mentioned in the literature as one of the

stable readiness in personality, which determines the extent of an individual's striving and the extent of the relationship between achievement motivation and achievement.

### **5. Research importance:**

The importance of this study lies in its interest in shedding light on the importance of achievement motivation and its role in good achievement, and thus, it helps to enhance success and raise the level of pupils.

The importance of this study also lies in addressing the most important strategies for arousing motivation in the learner by all those in charge of and interested in the educational process, especially the teacher.

### **Second: The applied aspect of the study:**

#### **1. Study methodology:**

This study used the descriptive method, which is based on collecting, classifying, tabulating, interpreting, and analyzing data, to measure and know the impact or influence of factors on the events of the phenomenon studied, to extract results and know how to control these factors, and predict the behavior of the phenomenon in the future. (Saudi and Al-Khadiri, 1992)

#### **2. Research community and sample:**

The original community of the sample consists of pupils of the middle school certificate exam, where these pupils take a final exam, which is one of the most famous exams in Algeria, similar to the baccalaureate exam. The research sample was limited to 250 pupils (males and females) for the middle school certificate exam, as the successful pupil can move after obtaining a score of 10/20 or more from the middle stage to the secondary stage, where pupils study a unified program at the national level, within a unified educational system, which all educational institutions are committed to implementing its program.

The current study was conducted in two institutions in the state of Bechar, the first is Rahimi Mohamed Middle School, and the second is Makhloufi Mohamed Middle School.

More than 400 copies of the achievement motivation scale were distributed to pupils of these two institutions, and despite the precautions of the procedural methodological dimension, the number of answers retrieved reached 322 answers, then decreased to 250 in the end, which is the number whose validity and discipline were verified, and the reason for this is due to the following:

- Cancelling all answers in which the same answer was repeated to all or most of the questions.
- Cancelling all answers that did not meet the conditions, such as a pupil answering one question with two answers repeatedly, which is inconsistent with the nature of the scale.
- Cancelling all answers in which the result of the middle school certificate exam was not verified as a pass or fail.

#### **3. Data collection tools:**

The study used to collect data related to the various study variables:

stable readiness in personality, which determines the extent of an individual's striving and

The scale (Hermans, 1970) was prepared entitled: A questionnaire measure of achievement motivation, where Hermans relied when formulating this scale on a set of characteristics, which he saw as capable of achieving individual differences between individuals, and distinguishing between them in achievement, which are as follows:

High level of ambition; Behavior in which there is less adventure; The ability to move forward; Perseverance; The desire to rethink obstacles; Realizing the speed of time passing; Moving towards the future; Choosing competitive situations versus sympathetic situations; Seeking appreciation; The desire to perform better.

The scale consists of 28 incomplete sentences, each of which has 4 or 5 optional phrases to complete it as follows:

▪ **For school, I am...:**

A- Very enthusiastic

B- Very enthusiastic

C- Enthusiastic

D- A little enthusiastic

E- Not enthusiastic at all.

▪ **I usually do:**

A- Much more than I set out to do.

B- A little more than I set out to do.

C- A little less than I set out to do.

D- Much less than I set out to do.

The scoring is on the answers arranged positively (A-B-C-D-E) versus(5-4-3-2-1) respectively, while those arranged negatively (A-B-C-D-E) versus (1-2-3-4-5) respectively, and the same applies to the paragraphs that follow four answers.

On this basis, the maximum that can be obtained in this scale is 130 points, considering that there are (18) paragraphs of the test with a five-point scale, and (10) with a four-point scale, while the lowest score that the examinee obtains is (28) points, and the pupil's motivation to achieve increases with the increase in the scores he obtains, and also weakens accordingly. As for the time period that should not be exceeded, as is the case in some tests, especially intelligence tests, this scale has not been specified for a specific time period, but it has been proven that normal individuals take between 35 and 45 minutes to answer it.

▪ **Validity and reliability of the test:**

The scale was presented to eight arbitrators who are specialists in the field of educational psychology and psychological measurement, and they were asked to determine whether each paragraph of its paragraphs expresses achievement motivation, and whether it is negative or positive. The arbitrators' estimates indicated that all paragraphs of the scale belong to achievement motivation, as the percentage among them reached 87.5%, which is a sufficient

percentage, and the arbitrators also agreed that the scale includes 19 positive paragraphs and 09 negative paragraphs, as follows: 1-3-4-9-10-15-16-27-28.

As for the experimental validity, it was calculated on a sample of 200 male and female pupils, who were selected randomly, then the correlation coefficient was calculated between their annual academic achievement rates and their score on the achievement motivation scale, where the value of the correlation coefficient reached 67. In this regard, Farouk Abd Elfattah Mousa mentioned in his discussion of the procedures for calculating the validity of the scale that (Prawat, 1979) indicated that the correlation coefficient between individuals' scores on the achievement motivation scale and their academic achievement scores ranged between 64 and 86 on samples of pupils from the third primary school to the second secondary school. (Farouk Abd Elfattah Mousa,1981, pp. 7-12).

The researcher also used:

### 3.2 Middle School Certificate Examination rates.

#### 4. Statistical tools:

The SPSS program (Statistical Package for the Social Sciences) was used to analyze the results, to study the bilateral relationship between the study variables, and also the t-test to study the differences in achievement motivation between successful and failed pupils in the middle school certificate exam.

#### 5. Presentation and analysis of the results:

##### 5.1 Presentation and analysis of the results of the first hypothesis:

- **Hypothesis 1:** There is a positive correlation between achievement motivation and academic achievement.

**Table No. 01** shows the results of the correlation coefficient between achievement motivation and attainment, in the Middle School Certificate Examination.

Variables	Achievement Motivation	Achievement in the Middle School Certificate Examination
Achievement in the Middle School Certificate Examination	***	//

Correlation coefficient significant at the 0.001 level\*\*\*

The table No. (01) shows that the correlation between achievement motivation and attainment in the middle school certificate exam was positive and strong, as it reached  $r = 0.499$  at a significance level of 0.001, which means that there is a direct relationship between the two variables, and that the increase in achievement in the middle school certificate exam coincides with the increase in achievement motivation.

#### Discussion of the results of the first hypothesis:

The results of the current study (Table 01) showed that achievement motivation is one of the strongest factors related to achievement, especially in examination conditions (achievement in the middle school certificate exam). These results were contrary to the results of some studies,

such as the study (Gagné et St Pére, 2001) in particular, which almost completely denied the role of motivation in academic achievement, especially in contrast to mental abilities. On the other hand, it was in agreement with those studies that demonstrated the importance of achievement motivation for performance and achievement, including the study (2001 Robinson), which concluded that there is a statistically significant correlation between achievement motivation and achievement. (Ibid., p. 220-221).

**5.2 Presentation and analysis of the results of the second hypothesis:**

- **Hypothesis 2:** There are statistically significant differences in achievement motivation between successful and failed pupils in the middle school certificate exam.

**Table No. 02:** Shows the difference in achievement motivation between successful and failed pupils in the middle school certificate exam.

pupils	N	X	SD	Calc t-	Tabul t-	Df	Signif. level
Successful pupils 10/20 and above	134	95.77	6.22	8.012	2.566	248	0.000
Failure pupils less than 10/20	116	88.97	7.18				

The table No. (02) shows the difference in achievement motivation between successful and failed pupils in the middle school certificate exam, and proves that pupils who achieved average academic grades (10/20 and above) during the final exam were more motivated to achieve than their peers whose grades during the final exam were weak (see Table No. 02), which reflects the difference between them in effort, interest, ambition, perseverance, determination and discipline to achieve the goal and succeed in the fateful exam (middle school certificate).

**Discussion of the results of the second hypothesis:**

The results of Table (02) showed that the pupil who has the ten characteristics measured by the scale used in the study to measure achievement motivation (Hermans, 1970), including: ambition, perseverance, orientation towards the future, and the desire to perform better (see the scale), is more likely to achieve success, compared to the pupil who recorded poor results in the intermediate education certificate exam.

The current study came in agreement with the results of the study (Mohamed Ramadan, 1987), which was about the relationship between achievement motivation and the level of academic achievement in a sample of 120 secondary school pupils in the United Arab Emirates, as the results concluded that there are fundamental differences in achievement motivation in favor of high-achieving pupils, who were more motivated to achieve. (Abd Ellatif Mohamed Khalifa, 2000, p. 53)

In contrast, the results of this study contradicted the results of the study (Gagné et St Pére 2001, ), which concluded that there is no role for achievement motivation in academic achievement.

such as the study (Gagné et St Pére, 2001) in particular, which almost completely denied the role of motivation in academic achievement, especially in contrast to mental abilities. On the other hand, it was in agreement with those studies that demonstrated the importance of achievement motivation for performance and achievement, including the study (2001 Robinson), which concluded that there is a statistically significant correlation between achievement motivation and value of  $t = 1.35$  was not significant, which means that there were no differences between outstanding and ordinary pupils in the level of achievement motivation.

## 6. General conclusion:

The results of the current study showed that there is a positive correlation between achievement motivation and academic achievement among pupils preparing for the middle school certificate exam, as we obtained a correlation coefficient of  $R = 0.499$ , and it also demonstrated that there are statistically significant differences in achievement motivation between successful and failed pupils.

## 7. Conclusion:

This study focused on the topic of motivation and its relationship to the academic achievement determined by the pupil's educational level, as it has been proven in many studies the importance of motivation for achievement, and despite the contradiction in the results of previous studies with the results of the current study, there are a significant number of studies that agreed with the results of our study.

This study reached a set of results that many researchers had reached in other research communities, as the study proved that achievement motivation is positively related to achievement in the middle school certificate exam, and the study also concluded that there are statistically significant differences in achievement motivation between successful and failed pupils.

## Suggestions:

Based on the results reached, we can put forward suggestions of importance to teachers, as follows:

- Maintaining a constant degree of achievement motivation among pupils since the beginning of the school year, by creating an appropriate educational environment, and highlighting the importance of academic success for the future of the learner and society. To increase achievement motivation among pupils, the teacher should:
- **Motivate pupils to formulate and achieve their goals:** The teacher can increase pupils' motivation to achieve by motivating them to formulate their goals by following many activities, such as training pupils to identify their educational goals, formulate them in their own language, and discuss them with them, as well as helping them choose the goals that they acknowledge

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their ability to achieve, in a manner that suits their readiness and efforts, and thus, helps them determine the appropriate strategies to follow when trying to achieve them.

- **Motivating pupils' needs for achievement and success:**The individual's need for achievement is available to everyone, at varying levels, but the level of these needs may not reach the level of some pupils for one reason or another that enables them to formulate their goals and make the necessary efforts to achieve them, therefore, the teacher must pay special attention to this category, especially when they show behavior indicating their unwillingness to perform their school duties, accordingly, assigning pupils with a low need for achievement and success relatively easy tasks can lead to stimulating the pupil's need for achievement and increasing their desire to make an effort and succeed, because success restores confidence in himself and his abilities, and motivates him to make more effort. (Tomlinson, 1993)
- **Feedback:** Providing feedback on the reasons for the learner's failure and success increases his expectations of achievement, for example, in the case of a pupil who finds it difficult to master long multiplication problems, the teacher can use the previous successes achieved by this pupil to build confidence in learning new tasks.

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