

Self-Efficacy and Its Relationship to the Level of Ambition Among Track and Field Athletes Under 20 Years

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Abstract

The problem of the research lies in the fact that the various conditions faced by track and field athletes demand that the athlete exert maximum physical abilities and tactical knowledge. This requires the athlete to organize and evaluate their thoughts, actions, and emotions. Low self-efficacy significantly affects performance, diminishing the athlete's sense of ability to progress and confront fears, which consequently affects motivation and behavior during competitions. Therefore, the research aimed to measure self-efficacy and investigate its relationship with the level of ambition among track and field athletes under 20 years.

The research variables were determined after reviewing numerous scientific sources and were presented to some experts and specialists who agreed upon them in line with the research problem. It was concluded through the objectives, hypotheses, sample characteristics, and the methodology used, along with statistical data processing, that:

1. The scale developed for measuring self-efficacy in athletes under 20 years is effective.
2. The ambition scale adapted for athletes under 20 years is effective.

Keywords: Self-Efficacy, Ambition, Track and Field.

1. Introduction

The athlete is considered effective whenever they are more aligned with the competition variables to ensure success and maintain existence and progress. An athlete characterized by high self-efficacy is one who seeks new adjustments in training and competition in any individual or team sport. They use good analytical thinking, which contributes to increased motivation for achievement and improves their behavior and ambition in sports competitions, where the athlete attempts to realize their abilities and

achieve creativity in skill and tactical performance to control the demands of training and competition. This requires them to have a high sense of self-efficacy since low self-efficacy significantly affects achieving any performance and impacts their ability to face difficult tasks, consequently affecting their motivation for athletic achievement and behavior in sports competitions.

To enhance the level of ambition among athletes under 20 years, it is crucial to study their behavior while striving to achieve their aspirations in practicing their sports specialties. The importance of this research emerges from the fact that the concept of self-efficacy plays an important role in the athlete's performance, as they encounter pressure situations during training and competition, requiring them to develop their self-efficacy through accumulated experiences to control these situations. Due to the importance of this concept, measuring it and understanding the relationship between self-efficacy and the level of ambition among track and field athletes under 20 years is essential.

1.2 Problem Statement

The problem of the research emerges as follows: the different conditions faced by track and field athletes under 20 years necessitate that the athlete exert maximum physical capabilities and tactical knowledge, which requires them to evaluate and organize their thoughts, actions, and emotions through self-organization. Low self-efficacy significantly affects performance, diminishing the athlete's feeling of ability to progress and face fears. They experience limited success perception, affecting their motivation and behavior during competitions. This necessitates measuring self-efficacy and understanding the relationship between self-efficacy and ambition among athletes under 20 years.

1.3 Research Objectives

The research aims to:

1. Build measures for self-efficacy and ambition among track and field athletes under 20 years for the year 2023-2024.
2. Identify the self-efficacy and ambition levels among track and field athletes under 20 years.
3. Explore the relationship between self-efficacy and ambition among track and field athletes under 20 years.

1.4 Research Hypotheses

A statistically significant relationship exists between self-efficacy and the level of ambition among track and field athletes under 20 years.

1.5 Research Scope

1. Human Domain: Track and field athletes under 20 years participating in the clubs' championship for 2023-2024.
2. Temporal Domain: From October 10, 2023, to April 1, 2024.
3. Spatial Domain: Stadium of the College of Physical Education and Sports Sciences, University of Sulaimani.

3. Research Procedures

3.1 Research Methodology

The nature of studying any problem in scientific research necessitates that the researcher chooses a suitable methodology to solve that problem. Therefore, the

researcher relied on the descriptive methodology, considering it the best and easiest for this study's nature to achieve the set goals and solve the existing problem.

3.2 Research Population and Sample

3.2.1 Research Population:

The current research population consists of athletes participating in the Iraqi clubs' championship under 20 years, with a total of 443 athletes for the 2023/2024 season.

3.2.2 Research Sample:

The researcher selected a random sample of athletes participating in the Iraqi clubs' championship under 20 years, totaling 140 athletes. The main experiment sample consisted of 120 athletes, and an exploratory study was conducted on a sample of 20 athletes from the same research population but outside the main sample.

3.3 Research Tools and Instruments Used

To obtain accurate data aligned with the goals of the research seeking to solve the current problem, the researcher used various research tools, meaning "all means and tools that the researcher will use at every stage of the research." The researcher believes that the research tools, instruments, and devices are all that the researcher uses to gather information that serves their research, as they are the means used by the researcher to obtain, organize, and analyze data to reach conclusions contributing to solving the research problem. The research tools,

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the devices, and tools that the researcher used in conducting the research procedures are as follows:

3.4 Field Research Procedures

After defining the research topic with the supervisor and collecting numerous relevant sources and studies, the researcher began accurately studying the concepts and theories that explain the research variables. This helped in formulating the scale items. The researcher also reviewed studies related to the research variables concerning self-efficacy and ambition levels among students and identified common traits.

To achieve the research objectives aligned with its methodology, the following procedures were established:

3.4.1 Construction of Psychological Scales

In order to achieve the research goals aimed at solving the existing problem, starting with the first objective, which is constructing measures of self-efficacy and ambition for the physical education and sports sciences students, the researcher needed to follow certain steps to ensure the scales were based on solid scientific foundations. These steps are as follows:

4.1.1 Define the Objectives of the Scales:

The researcher reviewed several general scales of self-efficacy and ambition concepts and their theoretical studies to determine the areas of the scales. Based on the theoretical definition of self-efficacy, six areas were defined for the scale. These areas were then presented to experts (Appendix 1), who agreed at a rate of 80% that the areas of the scale were the following: (Cognitive Self-Efficacy, Predictive Self-Efficacy, Emotional Self-Efficacy, Social Self-Efficacy, Physical Self-Efficacy, and Skill Self-

Efficacy). The goal of constructing the ambition level scale was to express the extent to which athletes aspire to achieve their near and far future goals.

4.1.3 Defining the Areas of the Psychological Scales:

The researcher reviewed several general scales related to self-efficacy and their theoretical studies to define the areas of the scales. Based on the theoretical definition of self-efficacy, six areas were determined for the scale, which were subsequently presented to experts (Appendix 1). The experts agreed at a rate of 80% on the following areas: (Cognitive Self-Efficacy, Predictive Self-Efficacy, Emotional Self-Efficacy, Social Self-Efficacy, Physical Self-Efficacy, and Skill Self-Efficacy). For the ambition scale, the researcher, upon reviewing the explanatory theories, found that Kurt Lewin's theory was the most comprehensive and detailed in interpreting the subject related to the field and comprehensiveness. This theory was adopted by the researcher in determining the scale areas as elements defining specific areas that encompass the meaning of the level of ambition in terms of (orientation towards specialization, orientation towards victory and competition, with the ability to identify self-confidence and optimism in achieving a better future among students in achieving their future goals in the sports field).

4.1.4 Creating the Preliminary Form of the Scales:

To prepare the psychological scales for application on the sample individuals and subject them to statistical processing to extract results contributing to solving the research problem, it was necessary to develop the preliminary form of these scales. To achieve this, several actions were taken, including:

4.1.4.1 Collecting and Preparing Scale Items:

To collect the items for the psychological scales and prepare their wording to align with the nature of each variable and suit the age group of the sample, the researcher reviewed numerous sources and related studies. The researcher was able to collect and formulate the items for the scales to serve the students, relying on the procedures and measures from the following studies:

1. Scale by Issa AL-Manssour et al. (1993).

2. Scale by Ahmed Ismail Al-Alusi (2001).

3. Studies relevant to self-efficacy and ambition, including:

- Adel bin Salah Al-Jiyar: Job satisfaction and its relationship to the level of ambition among a sample of female department heads and directors at King Saud University - Humanities and Social Sciences Journal - No. (42) - Faculty of Arts - Minia University (Cairo), 2001.

- Amoush Abdelkader Mahmoud Al-Zuhairi: Social interaction and its relationship with the level of ambition among Mosul University students - Master's thesis - Faculty of Education - University of Mosul, 2004.

- Ali Hussein Aaid: Feelings of inferiority and its relationship with the level of ambition among university students - Master's thesis - Faculty of Arts - University of Baghdad, 2005.

- Ahmad Malik Hamoud: Construction and standardization of the sports ambition scale for team game players aged 18-22 years in some Middle Euphrates provinces - Master's thesis - Faculty of Physical Education - University of Babylon, 2008.

- Ghaleb bin Mohammed Ali Al-Mashikhi: Future anxiety and its relationship with both self-efficacy and the level of ambition among a sample of Taif University students
- Doctoral thesis - Faculty of Education - Umm Al-Qura University, 2009.

- Olga Qandlaft: Vocational education and its relationship to the level of ambition and professional capabilities - Master's thesis - Faculty of Education - University of Damascus, 2002.

5.3 Exploratory Study

To form a preliminary image of the procedures for the main experiment and understand the details of the required work and how to deal accurately, as well as to follow the best approach in the applications, an exploratory study was necessary as a first step in revealing the work dynamics. The exploratory study is a "miniature experiment similar to the actual (main) experiment." Under the supervision of the researcher and with the assistance of the supporting team, the exploratory study was conducted from February 14, 2024, to Wednesday, February 28, 2024, on a sample of 20 athletes. The objectives of conducting the exploratory study were to:

- Ensure the appropriateness of the scale items for the sample.
- Assess the competency of the supporting team.
- Determine the appropriate timing for delivering the scales to the sample and receiving them back.
- Identify the physical conditions in line with the research procedures regarding temperature, lighting, and suitable timing.

- Assess the objectivity of responses (understanding the item meanings - uncovering the honesty of responses) when the sample responds to the scales.

- Establish the homogeneity of the sample.

After conducting the exploratory study, the researcher verified all the study's objectives and found the following:

- The scales were suitable based on the sample's responses to all items.

- A recurring issue was identified: some athletes struggled to read well, necessitating assistance from the supporting team to read the items to them.

- The ambient temperature was recorded between 37-39 degrees Celsius.

- The appropriate timing for the sample's response to the scale items was determined.

- The objectivity of responses was established through the repetition of certain items in each scale.

3.6 Application of the Scales

The research scales (self-efficacy and level of ambition) were applied to a standardization sample of 120 students. After organizing the scales and tabulating the students' responses, it became evident that a few of these scales were not fully completed by the students, despite emphasizing the need to respond to all items. To facilitate statistical transactions, an equal number of scales distributed for each variable of the research was relied upon. Thus, 120 copies of each research scale were used to represent the 120 students.

Due to the various steps involved in the research, particularly the procedures for constructing the scales and numerous statistical analyses required, along with the data entry and interpretation processes, significant time and effort were dedicated to organizing the field research procedures in sequential steps that ensure accuracy in the results. The period for conducting the standardization was set from March 7, 2024, to May 1, 2024.

3.7 Statistical Tools

To achieve the objectives of the current research, the following statistical tools were employed using the SPSS software:

4. Results and Discussion

The results will be presented and discussed in light of the statistical data obtained from the research sample, according to the research objectives.

Table 2: Statistical Indicators of the Application Sample

| Statistical Indicators | Sample | Mean | Standard Deviation | Mode | Skewness | Minimum | Maximum |
|------------------------|--------|--------|--------------------|------|----------|---------|---------|
| Self-Efficacy | 120 | 159.7 | 15.17 | 164 | -0.28 | 136 | 190 |
| Level of Ambition | | 192.73 | 13.86 | 198 | -0.38 | 29 | 68 |

4.1 Presentation and Discussion of the Research Goal Results: Construction of a Psychological Scale for Self-Efficacy Among Track and Field Athletes Under 20 Years

This was achieved through specific procedures for constructing psychological scales as detailed in Chapter 3, thus fulfilling the research objective.

4.2 Presentation and Discussion of the Results of the Other Research Goal: Construction of a Level of Ambition Scale for Track and Field Athletes Under 20 Years

The researcher adjusted the items of the scale as detailed in Chapter 3.

4.3 Presentation and Discussion of the Results of the Third Research Goal:

Understanding Self-Efficacy Among Track and Field Athletes Under 20 Years

To understand the self-efficacy of the research sample, the researcher calculated the hypothetical mean of the scale and compared it with the mean scores of the sample. The classification of self-efficacy is based on whether the sample mean exceeds the hypothetical mean of the scale significantly; a higher mean indicates high self-efficacy, while a non-significant value indicates low self-efficacy. This is illustrated in Table 3.

Table 3: Mean, Standard Deviation, Hypothetical Mean, and Calculated t Value of the Research Sample in the Self-Efficacy Scale

| Statistical Indicators | Sample | Mean | Standard Deviation | Hypothetical Mean | Calculated t Value |
|------------------------|--------|-------|--------------------|-------------------|--------------------|
| Self-Efficacy | 120 | 159.7 | 15.17 | 111 | 27.782 |

Significant at $p \geq (0.05)$, with 119 degrees of freedom, t-table value = (1.658) (Al-Rawi, 2000, p. 456)

This value is greater than the t-table value of (1.658) degrees, indicating that the difference is significant and in favor of the research sample, meaning that the athletes have a high level of self-efficacy.

The emergence of correlational relationships is attributed to the fact that athletes possess extensive field experiences in their sports, which enhances their personal convictions regarding their ability to perform all tasks assigned to them excellently. High performance is driven by strong desires, positive factors, and high motivation among these athletes. Bandura (1977) asserts that "the higher the self-efficacy level, the better the performance, which increases the likelihood of athletes making greater efforts until they succeed in their tasks."

Tessler and Schwartz's (1972) findings indicate that "athletes with high self-efficacy see themselves as capable of facing life's difficulties without needing to rely on others, and their motivation to win is stronger compared to those with low self-efficacy."

4.4 Presentation and Discussion of the Fourth Research Goal: Understanding the Level of Ambition Among Track and Field Athletes Under 20 Years

To understand the level of ambition of the research sample, the researcher calculated the hypothetical mean of the scale and compared it with the mean scores. The ambition level was classified into high ambition and low ambition based on whether the sample mean significantly exceeds the hypothetical mean of the scale, indicating high ambition. Conversely, a non-significant value indicates a low level of ambition. This is presented in Table 4.

Table 4: Mean, Standard Deviation, Hypothetical Mean, and Calculated t Value of the Research Sample in the Level of Ambition Scale

| Statistical Indicators | Sample | Mean | Standard Deviation | Hypothetical Mean | Calculated t Value |
|------------------------|--------|--------|--------------------|-------------------|--------------------|
| Level of Ambition | 120 | 192.73 | 13.86 | 150 | 35.408 |

Significant at $p \geq (0.05)$, with 119 degrees of freedom, t-table value = (1.658) (Al-Rawi, 2000, p. 456)

From Table 4, the mean score of the research sample's responses on the level of ambition scale items was (192.73) degrees, with a standard deviation of (13.86) degrees. Testing the significance of the differences between the mean scores of the sample and the hypothetical mean of the ambition scale (150) degrees, the calculated t value was (35.408) degrees, at a significance level of $p \geq (0.05)$. This value exceeds the t-table

value of (1.658) degrees, indicating a significant difference favoring the research sample, meaning the athletes have a high level of ambition.

This study demonstrates that individual ambition is not only about setting goals but also actively pursuing those goals. The researcher proposed a concept for the level of ambition as striving to realize an individual's future aspirations.

4.5 Presentation and Discussion of the Relationship Between Self-Efficacy Among Track and Field Athletes Under 20 Years and Its Relation to the Level of Ambition

To understand this goal, the researcher calculated the correlation coefficient between the research variables using Pearson's correlation coefficient between the scores of the research sample in self-efficacy and the level of ambition. Table 5 illustrates this.

Table 5: Mean, Standard Deviation, and Correlation Coefficient of the Research Sample in the Self-Efficacy and Level of Ambition Scales

| Variables | Sample | Mean | Standard Deviation | Calculated r Value |
|-------------------|--------|--------|--------------------|--------------------|
| Self-Efficacy | 120 | 159.7 | 15.17 | 0.666 |
| Level of Ambition | | 192.73 | 13.86 | |

Significant at $p \geq (0.05)$, with 118 degrees of freedom, table r value = (0.165)

From Table 5, it is evident that the mean score of the research sample's responses on the self-efficacy scale was (159.7) degrees, with a standard deviation of (15.17) degrees, while the mean score of the responses on the level of ambition scale was (192.73) degrees, with a standard deviation of (13.86) degrees. To determine the nature of the relationship between self-efficacy and the level of ambition, Pearson's correlation coefficient calculated a value of (0.666). When compared to the table r value at 118 degrees of freedom and a significance level of (0.05), the calculated value is significant. Here's the continuation and completion of the translation, maintaining all content, tables, and details as you requested:

Moreover, there is a relationship between self-efficacy and the level of ambition among athletes, indicating that both are interrelated. As noted in previous research, "one of the factors affecting the level of ambition is self-efficacy." Studies have indicated that "ambition is relative for individuals in terms of the goals they aspire to achieve and the suitable limits for them personally, as well as their attempts to challenge obstacles and pressures to attain a realistic level of ambition consistent with their capabilities and positive traits."

This emphasizes that the level of ambition among athletes remains high regardless of the nature of sports or the interactions between the athlete and their competitors in these games. This finding aligns with the concept of ambition described in research, stating that "ambition is the level of advancement or success that an individual wishes to reach in any area they desire based on their abilities and capacities while benefiting from their previous experiences."

This suggests that the level of ambition among athletes is not solely about goal-setting but also about striving to achieve those goals. The researcher has proposed a concept for the level of ambition, defined as the effort to realize an individual's future image.

5.1 Conclusions

1. The scale constructed to measure self-efficacy among track and field athletes under 20 years is effective.
2. The ambition scale adapted for track and field athletes under 20 years is effective.

3. Students in the College of Physical Education at the University of Kufa generally possess a high degree of self-efficacy.
4. Track and field athletes under 20 years generally exhibit a high level of ambition.
5. There is a statistically significant positive relationship between self-efficacy and the level of ambition among track and field athletes under 20 years.

5.2 Recommendations

1. Coaches should utilize the self-efficacy scale adapted for the sports environment developed by the researcher.
2. Administrators and those responsible for developing sports in clubs in Najaf should establish a psychological support center or include a sports psychologist in the training staff at every sports club in Najaf.
3. Develop psychological programs aimed at building and enhancing self-efficacy and ambition due to their significant impact on athletic excellence and performance.
4. Athletes should receive information related to developing psychological traits, identifying their strengths and weaknesses, and monitoring their progress while providing methods and strategies for emotional regulation.
5. Further studies should explore self-efficacy and ambition across different age categories and sports disciplines beyond those covered in the current study.

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