DOI:https://doi.org/10.61841/1yaqy385

Publication URL:https://nnpub.org/index.php/EL/article/view/2564

KINESTHETIC INTELLIGENCE AND ITS RELATION TO MOTOR SATISFACTION IN THE FENCING SKILL OF THRUST AMONG FEMALE STUDENTS OF THE FACULTY OF PHYSICAL EDUCATION AND SPORTS SCIENCES – AL-MUTHANNA UNIVERSITY

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To Cite this Article:

Abdul Rasool, M. D. (2025). KINESTHETIC INTELLIGENCE AND ITS RELATION TO MOTOR SATISFACTION IN THE FENCING SKILL OF THRUST AMONG FEMALE STUDENTS OF THE FACULTY OF PHYSICAL EDUCATION AND SPORTS SCIENCES – AL-MUTHANNA UNIVERSITY. International Journal of Advance Research in Education & Literature (ISSN 2208-2441), 11(1), 19-22. https://doi.org/10.61841/1yaqy385

ABSTRACT

The importance of this research lies in linking mental work (kinesthetic intelligence) with motor satisfaction in some offensive skills in fencing. The research problem, observed by the researcher through close monitoring, identified many instances of unsuccessful attacks, leading to the loss of winning opportunities in critical situations. This may be attributed to deficiencies in kinesthetic intelligence or the self-perception and satisfaction of individuals. Understanding this psychological phenomenon aids in developing an essential factor in successful attacks. The study aimed to identify the level of kinesthetic intelligence among female students of the Faculty of Physical Education and Sports Sciences at Al-Muthanna University, assess motor satisfaction with offensive skills, and explore the relationship between kinesthetic intelligence and motor satisfaction in fencing offensive skills. Chapter two reviewed theoretical studies, addressing intelligence, kinesthetic intelligence, motor satisfaction, and offensive skills in fencing. Chapter three outlined the research methodology and fieldwork. The descriptive method, utilizing survey and correlational techniques, was applied to a sample of 15 female students out of 20, randomly selected. The researcher also conducted a pilot study, primary experiments, and employed statistical methods. Chapter four presented, analyzed, and discussed the results. Chapter five concluded the findings, highlighting that kinesthetic intelligence significantly correlates with motor satisfaction in fencing offensive skills, and provided recommendations for enhancing psychological aspects in training programs to improve motor performance.

KEYWORDS: Kinesthetic, Intelligence, Fencing Skill and Physical Education.

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INTRODUCTION

Psychological factors are crucial for achieving excellent results in sports and accomplishing milestones. In recent years, sports have witnessed remarkable advancements due to the introduction of new sciences and knowledge, leading to a convergence in the physical, technical, and strategic levels of players. This development has been observed across all sports, benefiting from scientific research to create innovative methods for addressing challenges in sports through scientific inquiry and leveraging modern theories in physical education and sports sciences. Each sport features unique motor performance distinguishing it from others, and psychology plays a role in its development. Fencing, as one such sport, emphasizes kinesthetic intelligence as a cognitive-motor concept aimed at achieving goals efficiently. Kinesthetic intelligence encompasses an individual's expertise and proficiency in utilizing their body to express thoughts and movements, including balancing, strength, flexibility, speed, and body awareness.1 Motor satisfaction is also pivotal in fencing, especially in offensive actions, given the game's nature, speed, and strategic variety. Players must maintain high mental-motor operations for optimal performance, making psychological readiness integral to achieving skillful attacks.

RESEARCH PROBLEM

Failing to score during fencing attempts may result in lost opportunities critical for scoring, causing the team to switch from offense to defense and potentially leading to losses, especially when the opposing teams' levels are similar. Offensive skills are vital for determining match outcomes, making them a central focus for researchers. Intelligence is an essential element in fencing and other sports. The researcher observed many instances of failed attacks, attributed to deficits in kinesthetic intelligence or poor self-perception and satisfaction. Understanding these psychological phenomena aids in developing key success factors for attacks. Training often prioritizes physical, technical, and strategic aspects over psychological readiness, undermining its impact on player performance and behavior.

RESEARCH OBJECTIVES

- 1. To determine the level of kinesthetic intelligence among female students at the Faculty of Physical Education and Sports Sciences, Al-Muthanna University, in fencing.
- 2. To assess motor satisfaction in the thrust skill among female students.
- 3. To explore the relationship between kinesthetic intelligence and motor satisfaction in the thrust skill among female students.

RESEARCH HYPOTHESES

• There is a significant correlation between kinesthetic intelligence and motor satisfaction in the fencing thrust skill.

RESEARCH FIELDS

- Human Domain: Female students of the Faculty of Physical Education and Sports Sciences, Al-Muthanna University.
- Time Domain: From November 1, 2023, to February 15, 2024.
- Spatial Domain: The sports hall of the Faculty of Physical Education and Sports Sciences, Al-Muthanna University.

RESEARCH METHODOLOGY AND FIELD PROCEDURES METHODOLOGY

The researcher employed a descriptive approach using survey and correlational methods, which best suited the study's objectives. The descriptive method provides an accurate depiction of relationships, preferences, and developments within a population, forming a basis for future predictions.2

RESEARCH COMMUNITY AND SAMPLE

The research population included 20 female students of the Faculty of Physical Education and Sports Sciences at Al-Muthanna University specializing in fencing. A random sample of 15 students was selected.

Research Tools

Research tools are mechanisms enabling researchers to solve problems, collect data, or test hypotheses.3

1. Devices and Tools Used in the Research:

- Kinesthetic Intelligence Scale.
- Motor Satisfaction Scale.
- 2. Information Collection Methods:
- Arabic and foreign sources.
- Personal interviews.

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• Tests and scales.

FIELD PROCEDURES

1. Kinesthetic Intelligence Scale:

The kinesthetic intelligence scale prepared by Khawla Ahmed Hassan (2006) and modified by Jabar Al-Jumaili (Kadhim, 2011) was used as a research tool.4 It was originally designed for individual and team sports players, suitable for fencing players, and demonstrated high validity, reliability, and objectivity. The scale consists of 36 items rated on a three-point Likert scale:5

- 1. Always applies to me (3 points).
- 2. Sometimes applies to me (2 points).
- 3. Never applies to me (1 point).

The scale was reviewed by experts in sports psychology, fencing, and sports assessment to ensure its relevance and validity for measuring kinesthetic intelligence in fencing players. Chi-square values were calculated to confirm the validity of selected items.

2. Motor Satisfaction Scale:

The researcher used the motor satisfaction scale for basic fencing skills as a research tool, prepared by Salami (2002) and Al-Rahim (2002) and applied in the Iraqi context. The scale, comprising 36 items divided into positive and negative performance statements, employs a five-point Likert scale:6

- 1. Very happy (5 points).
- 2. Happy (4 points).
- 3. Moderately happy (3 points).
- 4. Unhappy (2 points).
- 5. Very unhappy (1 point).
- 1. Scientific Basis for the Tests
- Validity: Validity ensures that a test measures what it is intended to measure (Mustafa, 1999). The validity of the scales was confirmed through face validity by presenting them to experts in sports psychology, testing, and fencing.7
- **Reliability**: Reliability implies consistent results when a test is repeated under similar conditions (Hesham, 2005). The researcher tested a sample of 10 students twice over 14 days, calculating Pearson correlation coefficients of 0.83 for kinesthetic intelligence and 0.87 for motor satisfaction, indicating high reliability.8
- 1. Pilot Study: Conducted on December 18, 2023, involving five students in the sports hall to determine test duration and confirm test reliability.
- 5. Main Experiment: Conducted on January 10, 2024, where the kinesthetic intelligence and motor satisfaction scales were distributed to the research sample, and data were statistically analyzed.

RESULTS AND DISCUSSIONS

• Results of the Relationship Between Kinesthetic Intelligence and Motor Satisfaction

 Table 1. Illustrates the mean, standard deviation, and correlation coefficient between kinesthetic intelligence and motor satisfaction in the thrust skill

Variables	Mean	Standard Deviation	R Value	Significance
Kinesthetic Intelligence	89.95	5.25	0.68	Significant
Motor Satisfaction	154.32	11.84		

The correlation coefficient (0.68) exceeded the table value of 0.59 at a 0.05 significance level, indicating a significant relationship.9 The researcher attributes this to students with high kinesthetic intelligence making quick, accurate decisions, enhancing their satisfaction and performance.10

CONCLUSIONS:

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• The results indicate a significant relationship between kinesthetic intelligence and motor satisfaction in the thrust skill among female students of the Faculty of Physical Education and Sports Sciences.

RECOMMENDATIONS:

- 1. Emphasize psychological aspects in fencing training programs to improve motor performance.
- 2. Use kinesthetic intelligence as a criterion for selecting fencing players.
- 3. Conduct further studies to explore relationships between kinesthetic intelligence and other activities or skills in fencing.

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