

ISSN: 2392-5442 ESSN : 2602-540X		<i>Sport system journal</i>
V/09 N/01 Year/2022		<i>International scientific journal published by: Ziane Achour –Djelfa- Algeria</i>
P 321 - 336		<i>Received: 24/10/2021 A ccepted: 24/12/2021</i>

The Relationship of mental perception with schematic thinking of chess players

A Failed study on the players of some clubs in Djelfa

Djaroub Abderrahmane¹

¹ Khamis Miliana University / Health and Performance Lab / abderahmane.djaroub@univ-dbkm.dz

Abstract:

The study aimed to identify the relationship between the internal and external mental perception with schematic thinking among chess players of some clubs in the wilaya of Djelfa. The researcher used the descriptive approach in accordance with the requirements of the study .The study community was represented in some clubs of the wilaya state league of Djelfa for chess .where 8 players were deliberately chosen .the researcher concluded:

There is a strong relationship between internal mental perception and schematic thinking among chess players of some clubs in the wilaya of Djelfa.

There is a strong relationship between external mental perception and schematic thinking among chess players of some clubs in the wilaya of Djelfa

Keywords: Mental perception¹; schematic thinking²; Chess³.

**Corresponding author*

1 Introduction and problematic of the study:

Among the sports in which mental effort is used as a measure to win the game is chess, as it is classified among the strategic planning sports in which two people exploit their intelligence by filling their pieces and developing plans based on elements that control the course of the confrontation such as strength (the value of different pieces) and time (efficiency that With it the pieces are run and the area the area each player controls), good players prefer to choose a strategy and follow it to its logical conclusion. Unfortunately, they are often thwarted by a strange random factor known as tactics, as tactics can support your own strategy and destroy strategy. Your opponent. The superior player wins from the general strategic plans because he has the power to completely change any situation. (seirawan, 2003), it is the change of attitude in the game of chess towards controlling the opponent's play that makes the distinction between the losing player and the winning player at the end of the match. Is it that the player's abilities are purely natural? Or does hard work change something? Of course, there must be some inherent capabilities, but as in other areas of human endeavor - our key factor is the tremendous and tireless effort to master the skills of strategy and tactics of chess (kotov, 1971) not to mention the mechanism of employing a set of mental operations. Such as attention, perception, perception, intelligence, readiness and thinking, as well as developing and strengthening some personality traits in the individual such as patience, courage, endurance, cleverness and courage (al_weis, 2009). Among the most prominent mental abilities on which the chess game relies in achieving higher levels and achieving victories in competitions are: mental perception and schematic thinking. Mental imagery, "a psychological skill or mental skill that can be learned and acquired," is seen as a mental method or mental performance through which the athlete's mind can be programmed to respond according to this programming. As if the mental perception in sports means that the player thinks with his muscles. (Allawi, 2001, p. 248)

Mental visualization can also be used to help the player visualize his movements in some tactical sentences in different sports. Add to that the ability to think effectively schematic, after the athlete realizes the dimensions of the current situation and remembers his previous experiences, and for this it is the last mental process that occurs immediately before the behavior is issued, and it is also the process that directs and defines the behavior. (Walid, 2020). The importance of planning thinking for chess players in developing attention and perception of the

The Relationship of mental perception with schematic thinking of chess players A Failed study on the players of some clubs in Djelfa

opponent's movements and controlling the course of the confrontation is considered. The schematic thinking plays an important role in the player's performance during competition. Through it, the player can perceive multiple situations during the competition and then perform. By analyzing it, followed by the planned response to these situations, mental visualization exercises help in developing the mental and psychological capabilities of chess players, which work on making decisions to choose the best moves and maneuvers that guarantee victory in matches and competitions. (Hammad, 2008)

Winning matches is a matter of engineering coaches, as most of them indicated that the players were able, with remarkable acceleration, to learn some offensive and defensive plans through the use of mental visualization training programs. It can also be used by using mental perception that depends (Ratib, 2000) on the perception of individual and group plans, as well as visualizing different options in many defensive and offensive situations. We cannot develop and develop a mental skill for chess players and neglect some other mental skills. The development of the mental perception skill requires the development of the thinking skill. Plan what this skill is of great importance to chess players. (Allawi, 2001, p. 253), through an exploratory study and field survey of some chess players of the Algerian national elite, the two researchers saw the importance of mental perception among elite chess players who are the focus of the study as an important element in schematic thinking, and from here came the study in order to know the essential relationship between perception. Both types of mental and planning thinking because of their great importance in preparing for sports competitions. And from all of the above, the following question comes to us:

- Is there a relationship between mental perception with its two types (internal and external) and schematic thinking among the players of some clubs in the Wilaya of Djelfa?

This general question gives rise to the following sub-questions:

- Is there a relationship between the internal mental perception and the schematic thinking of the players of some clubs? Djelfa?
- Is there a relationship between the external mental perception and the schematic thinking of the players of some clubs? Djelfa?

2 General framework for study:

2.1 *General hypothesis :*

- There is a relationship between mental perception, of its two types, and schematic thinking among chess players of some clubs in the Wilaya of Djelfa.

2.2 *Partial hypotheses :*

- There is a relationship between the internal mental perception and the schematic thinking of the players of the chess game of some clubs in the Wilayat of Djelfa.
- There is a relationship between external mental perception and schematic thinking among chess players of some clubs in the Wilayat of Djelfa.

2.3 *the importance of studying :*

The importance of the study is represented in knowing the extent of interconnection between the mental processes of chess players, which is a mental game. Here lies the importance of knowing the correlational relationships between internal and external mental perception and schematic thinking among chess players of some clubs in the Wilaya of Djelfa and highlighting the psychological preparation role of athletes and the extent of Its effectiveness among athletes by developing mental skills in order to reach the highest levels and achieve athletic excellence.

2.4 *Objectives of the study :*

- Shedding light on the relationship between internal mental perception and schematic thinking among chess players of some clubs in the Wilaya of Djelfa.
- Shedding light on the relationship between external mental perception and schematic thinking among chess players of some clubs in the Wilayat of Djelfa.
- Knowing the type of relationship between mental perception and schematic thinking and the extent of integration of these mental skills with each other among players of the chess game of some clubs in the Wilaya of Djelfa.

The Relationship of mental perception with schematic thinking of chess players A Failed study on the players of some clubs in Djelfa

2.4.1 Previous studies:

- **The first study** Under the heading the level of offensive tactical thinking and its relationship to some basic skills in football .

The researcher "Qurain Walid", where he used the descriptive analytical correlational approach for its relevance to the nature of the study. The study sample consisted of 42 players. Where the schematic thinking scale was used in order to collect the study data, where the researcher concluded:

- ✓ The possibility of developing schematic thinking among the players through the development of training programs and classes to develop thinking skills and analysis of matches,
 - ✓ Paying attention to the preparation of skills and plans helps to form a mature offensive tactical thought among the players
 - ✓ Attention to developing players' ability to make good use of their thinking while performing basic skills.
 - ✓ Increasing the speed of decision-making among players during the planned situations that they encounter improves the level of sports performance.
- **The second study** Under the title of the impact of a proposed training program using mental visualization exercises in improving the skills of passing and receiving the soles of the foot among football beginners, by Dr. Majadi Moftah, where the researcher used the experimental approach to suit the nature of the study, and the study sample consisted of 16 players, and the researcher used a set of skill tests, and the researcher reached:
 - ✓ The mental perception accompanying the skill performance improved the performance of the members of the experimental group for the skills of passing and receiving the soles of the foot.
 - ✓ The skill training program without mental perception led to a non-significant improvement of the morale of the control group members.
 - ✓ There was an improvement in the skills of passing and receiving the soles of the foot among the experimental group compared to the control group.
 - ✓ Mind visualization is extremely important in teaching and improving basic football skills.

- **The third study** Under the title "mental perception and its relationship to the high-level sporting performance of Algerian karate du sport". Dr. Belaid Aqeel Abdel Qader, where the researcher used the descriptive method as a suitable method for the study, and the research sample included 396 karate-doo athletes, and mental perception scale and skill tests were used as research tools. The researcher concluded:
 - ✓ There is a positive statistically significant correlation between mental perception and high-level performance in the karate athlete.
 - ✓ The degree, type and pattern of mental perception varies according to the variable of sex, age, and the level of sports performance of Karate Do athletes.

- **The fourth study** Under the title of mental perception and its relationship to mathematical confidence among pupils involved in school sports in the wilaya of Tebessa, the class of cubs, for the researchers: Yahya Qashleh and Abd al-Wahhab al-Hashaishi, the researchers used the descriptive approach in the method of correlational relations to suit the nature of the study. 170 players were a sample for the study, and they used the mental perception scale and the mathematical confidence scale as tools to collect data, the two researchers concluded:
 - ✓ The level of visual perception is relatively high, while the level of auditory perception, motor sensation and the accompanying emotional state was moderate. Therefore, we say that the level of mental perception among students participating in school sports in the province of Tebessa.
 - ✓ There is a positive, statistically significant relationship between mental perception and sports confidence among pupils participating in school sports in Tebessa governorate.

- **Fifth study** Under the title of mental perception and its relationship to schematic thinking in the attack area from the viewpoint of basketball players for the researchers Orabi Sheikh. Bin Al-Din Kamal. The Arab Muhammad The researchers used the descriptive approach due to the nature of the study, and they used the mental perception scale and the schematic thinking scale as tools to collect data.
 - ✓ Trainers must find attitudes of mental perception as they form the main pillar in success and achieving the best results.

The Relationship of mental perception with schematic thinking of chess players

A Failed study on the players of some clubs in Djelfa

- ✓ The necessity for sports clubs to rely on coaches who have scientific and initial experience to train young and emerging players
- ✓ Inclusion of mental perception within the training curricula to further improve performance and fill the deficiencies in team sports in general and basketball in particular.
 - **Sixth study** Study Christian Cooley Christian Collet entitled "Movement and the Brain", as he concluded that "the trainer must present a clear movement model, which enables the athlete to identify the shape of the movement and its formation method, since motor learning is linked to the real movement image."
 - **The seventh study** Under the title "The effect of playing and practicing chess on the development of schematic thinking and some mental abilities of young football players less than." 15 years. "

For the researcher Kunduz Kaddour, where the researcher used the experimental method for its suitability to the nature of the study, and the study sample was included 36 players from the State League for a happy state, and a set of tests and interviews were used to collect data, and it was concluded:

The practice of chess contributed positively to the development of the level of schematic thinking, mental perception and attention among the budding soccer players.

2.4.2 Commentary on previous studies:

All previous studies fall under the framework of the search for correlations between the dependent variable and the independent variable, as we find that the second, third, fourth, fifth and seventh studies are all in agreement with the current study in terms of the dependent variable, while the first study does not agree with the current study whose dependent variable is thinking The schematic, in a cycle, is consistent with the current study with the independent variable, and all studies agree with this current study in terms of the method used, the descriptive approach, the second and sixth studies, and its owner used the experimental method for its suitability to the nature of the study. As for the test of the sample, all studies agree with the current study in the method of sample selection Where it was in an intentional way as for data collection tools, all the studies agreed in that. All the researchers used measures of schematic thinking and mental perception to collect data except for the third study, in addition to the

mental perception scale, the researcher used skill tests and the fourth study used In addition to the mental perception scale, a measure of self-confidence.

3 Application aspect:

3.1 *Exploratory study:*

We conducted the current study with the available capabilities and by social distancing in light of preventive measures from the Corona virus 19 In order to ensure the smooth functioning of this study, we were able to communicate electronically with the chess players of the Wilaya of Djelfa. For the National Chess Elite

3.2 *fields of study:*

- **Temporal domain:** The start of the study was a day September 11, 2020, where the methodological steps followed for the scientific article were prepared, electronic questionnaires were sent on October 04, 2020, and the results were analyzed on November 15, 2020.
- **Spatial domain:** Some clubs in the Wilayat of Djelfa for chess, and a questionnaire of mental perception and schematic thinking was sent electronically through social networking sites.

3.3 *Curriculum:*

The descriptive approach is the one that is concerned with describing and explaining what an object is, and is concerned with determining the conditions and relationships that exist between the facts. It is also concerned with identifying common or prevailing practices and identifying the beliefs and attitudes of individuals and groups. (Abd al yimin & Ata Allah, 2004)

The researchers used the descriptive approach due to its relevance to the nature of the study.

3.4 *Study population and sample :*

▪ **Study population:**

Represent the research community in the National Chess Elite contacted by the State Chess Association.

The Relationship of mental perception with schematic thinking of chess players

A Failed study on the players of some clubs in Djelfa

▪The study sample:

We must then withdraw a sample from individuals, that is, that part of the research community from which we will collect data. In the field of science we hope that the sample consisting of some tens, hundreds or thousands of items, depending on the situation, and taken from a specific research community will allow us By accessing estimates that can be generalized to the entire original research community (Morris, translated by, Bouzid , Kamal , Said , & Mustapha, 2004).

Where it was tested 8 players intentionally tested.

3.5 Data collection tools :

The tools that the researcher uses in collecting data related to the research topic are among the most important steps and are considered the main and necessary focus of the study.

The researcher used:

- ✓ The National Association of American Coaches' Schematic Reasoning Scale 2004.
- ✓ Renner-Martens mental visualization scale 1993.

3.6 Scientific conditions for the tool:

3.6.1 Validity and constancy of the schematic thinking scale:

The validity of the schematic thinking scale has been verified by using the validity of internal consistency, which calculates the correlation coefficient between the degrees of each axis of the scale and the total degree of the scale by using the statistical programSPSS22.

Table number 01: It represents the correlation coefficients between scores for each axis and the overall score for the schematic reasoning scale

Test 1	Correlation coefficient	Significance value
The first axis	0.63	0.01
The second axis	0.71	0.008

Source: Created by the researcher

From Table No.01 We find that the correlation coefficient for the first axis is 0.63 and the significance value for the first axis is 0.01 and we find that the correlation coefficient for the second axis is 0.71 and the significance value for the axis is 0.008. By comparing the value of the significant significance with the level of significance, we find that the two axial coefficients are statistically significant, and thus the linear thinking scale is internally consistent.

Persistence: To measure the reliability of the schematic thinking scale, the researchers used the Cronbach alpha coefficient

Table 02: The Cronbach alpha factor is a measure of the reliability of the linear reasoning scale.

	The number of phrases	Cronbach alpha coefficient
Linear reasoning scale	18	0.87

Source:

Created by

the researcher

From Table No. 02 We find that the stability coefficient of the schematic thinking scale is high, reaching 0.87 for the total paragraphs, and therefore it can be relied upon in application in this study.

3.6.2 Validity and reliability of mental perception scale:

The validity of the mental perception scale has been verified using the validity of internal consistency, which calculates the coefficient of correlation between the degrees of each axis of the scale and the total degree of the scale by using the statistical program SPSS22.

Table number 03: It represents the correlation coefficients between scores for each axis and the overall score for the mental perception scale.

	Correlation coefficient	Significance value
The first axis	0.74	0.01
The second axis	0.83	0.009

Source: Created by the researcher

**The Relationship of mental perception with schematic thinking of chess players
A Failed study on the players of some clubs in Djelfa**

From Table No.03 We find that the correlation coefficient for the first axis is 0.74 and the significance value for the first axis is 0.01, and we find that the correlation coefficient for the second axis is 0.83 and the significance value for the axis is 0.009. By comparing the value of the significant significance with the level of significance, we find that the two axial coefficients are statistically significant, and thus the mental perception scale is internally consistent.

To measure the stability of the mental perception scale, the researchers used the Cronbach alpha coefficient.

Table 04: The Cronbach alpha factor is a measure of the reliability of the mental visualization scale.

	The number of phrases	Cronbach alpha coefficient
Mental perception scale	18	0.87

Source: Created by the researcher

From Table No. 04 We find that the stability coefficient of the schematic thinking scale is high, reaching 0.91 for the total paragraphs, and therefore it can be relied upon for application in this study.

3.7 Statistical methods used:

Descriptive Statistics:

- ✓ SMA.
- ✓ standard deviation S.

Inferential Statistics:

- ✓ Exam Pearson R.
- ✓ Degree of freedom DF.
- ✓ Significance level A.
- ✓ Moral significance sig.

Statistical treatment was done by a program SPSS22.

4 Presentation, discussion and interpretation of results:

4.1 *Presentation, analysis and discussion of the first hypothesis :*

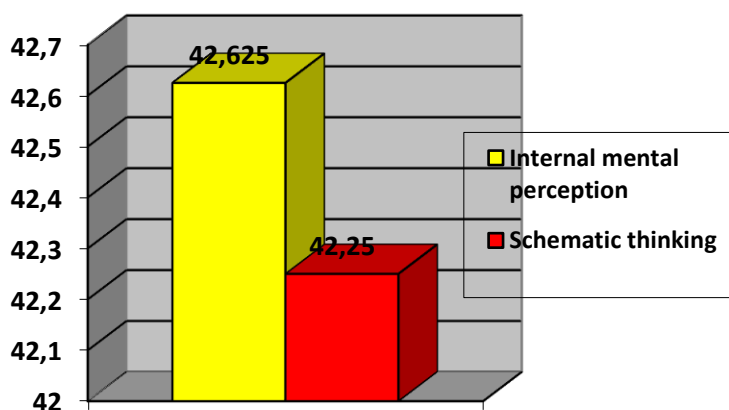
- **The first hypothesis:** There is a relationship between the internal mental perception and the schematic thinking of the players of the chess game of some clubs in the Wilayat of Djelfa.
- **the purpose:** Knowing the relationship between internal mental perception and schematic thinking among chess players of some clubs in the Wilaya of Djelfa.

Table number05: It represents the relationship between internal mental perception and schematic thinking among chess players of some clubs in the Wilaya of Djelfa

	SMA	Standard deviation	Value R calculate	Degree of freedom	Indication level	The moral significance	Statistical significance
Internal mental perception	42.62	5.85	0.807	6	0.05	0.015	Statistical
Schematic thinking	42.25	4.55					

Source: Created by the researcher

the shape01: represents the relationship between internal mental perception a schematic thinking among chess players of some clubs in the Wilayat of Djelfa.



Source: Created by the researcher

**The Relationship of mental perception with schematic thinking of chess players
A Failed study on the players of some clubs in Djelfa**

Analysis and discussion of the first hypothesis:

From Table No. (05) which represents the relationship between the internal mental perception and the schematic thinking among the players of the chess game of some clubs in the Wilayat of Djelfa. The significance level was 0.05, and as for the Pearson value, it was 0.807, and the significance value was 0.015, which is less than the value of the significance level 0.05.

So, there is a correlation between the internal mental perception and the schematic thinking of the chess players of some clubs in the Wilaya of Djelfa.

The study in football, and the study of Belaid Aqeel Abdel Kader, who concluded that there is a positive statistically significant correlation between mental perception and the high-level performance of the karate athlete. And Yahya Shelli, who found a positive statistically significant relationship between mental perception and sports confidence among students participating in school sports in the governorate of Tebessa.

4.2 Presentation, analysis and discussion of the second hypothesis :

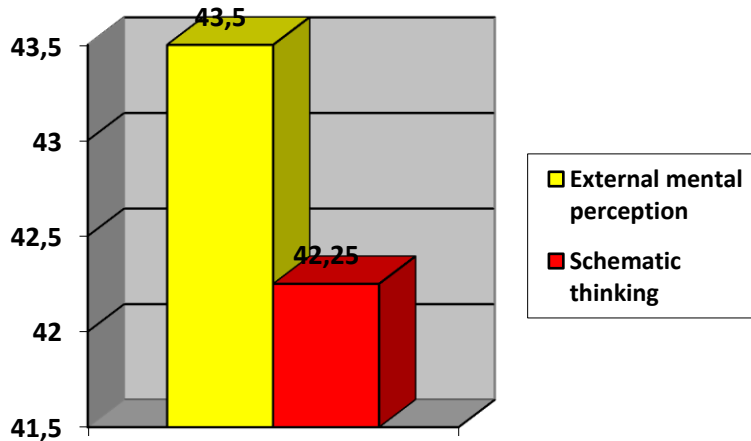
- **The second Hypothesis:** There is a relationship between external mental perception and schematic thinking among chess players of some clubs in the Wilaya of Djelfa.
- **Purpose:** To know the relationship between external mental perception and schematic thinking among chess players of some clubs in the Wilaya of Djelfa.

Table number06: It represents the relationship between external mental perception and schematic thinking among chess players of some clubs in the Wilaya of Djelfa

	SMA	Standard deviation	Value R calculate	Degree of freedom	Indication level	The moral significance	Statistical significance
External mental perception	43.5	5.65	0.836	6	0.05	0.015	Statistical
Schematic thinking	42.25	4.55					

Source: Created by the researcher

the shape01: represents the relationship between external mental perception and schematic thinking among chess players of some clubs in the Wilaya of Djelfa



Source: Created by the researcher

Analysis and discussion of the second hypothesis:

From Table No. (06) which represents the relationship between external mental perception and schematic thinking among chess players of some clubs in the Wilaya of Djelfa. We note that the arithmetic mean of the external mental perception was 43.5 and the standard deviation is 5.656, and the arithmetic mean value of the schematic thinking scale was 42.250 with a standard deviation of 4.559, at a degree of freedom of 6 The significance level was 0.05, and as for the Pearson value, it was 0.836, and the significance value was 0.010, which is less than the value of the significance level 0.05.

So there is a correlation between the external mental perception and the schematic thinking of the chess players of some clubs in the Wilaya of Djelfa.

From the statistical treatment it was found that there is a strong correlation between external mental perception and schematic thinking among chess players of some clubs in the Wilaya of Djelfa, meaning that the higher the degree of external mental perception of the player, the higher the player's schematic thinking, due to the presence of a large correlation between the mental skills of the game of chess, i.e. That the player sees himself thinking from outside himself, where the player can perform a mental skill compound of two mental skills at the

The Relationship of mental perception with schematic thinking of chess players A Failed study on the players of some clubs in Djelfa

same time and this works to help the player during the competition because the nerves that transmit the nerve message during the process of the mental perception of the player are the same that transmit the message while performing. The motor interval means that the player stimulates her and this is consistent with the study of Christian Collet entitled "Movement and the Brain", as he concluded that "the trainer must present a clear movement model, which enables the athlete to identify the shape of the movement and the method of its formation, since the linear learning is linked to the real movement image. (Christian, 2002)

4.3 Conclusions and suggestions :

Through the current study the researcher concluded:

The presence of a strong correlation between the internal mental perception and the schematic thinking of the chess players of some clubs in the Wilaya of Djelfa.

The existence of a strong correlation between the external mental perception and the schematic thinking of the players of the chess game in some clubs in the Wilaya of Djelfa.

There is a strong correlation between mental perception and schematic thinking for players of chess game in some clubs in the Wilaya of Djelfa.

The researcher suggests the following:

The development and development of the mental skills of the players of the game of chess is integrated where we cannot develop a skill without another, the development of the mental perception of the players of the game of chess helps in the development of the schematic thinking of the player as the mental skills are intertwined with each other, especially in this game it requires high mental skills such as a chess, which is a mental game par excellence. As the mental perception depends on the player's feedback, which helps him to think well during sports competition, which leads to taking the appropriate decision in this game.

5 Bibliography

- Abd al yimin , B., & Ata Allah, A. (2004). *the guide in scientific research for students of physical education and sports*. Algeria : Dar Al_Qasbah publishing.
- Akil, B. A. (2013). the mental perception and its relationship to the high_level sporting performance of the algerian sport de carte. *University of algeris*.
- al_weis, k. t. (2009). chess among the arabs. *The Arab Culture Magazine* , 24.
- Allawi, M. H. (2001). *Psychology training and sports Competition* . Cario: Arab Thought House .
- Christian, C. (2002). *Mouvement et cerveau*. belgique: deboock Universite.
- Guider , m., translated by, & Labied , A. (2006). *Research Methodology*. jorden: House of the book for publishing and distribution.
- Hammad, M. I. (2008). *Modern Sports Training*. Cario: Arab Thought House .
- Human, k. (2004). *National Soccer Coaches Association*. United States: the soccercoaching bible.
- kaddour, k. (2018). the effect of playing and practicing chess on the development of schmatic thinking and some mental abilities of young football plyers is less than 15 years . *Mostaganem University*.
- kotov, A. (1971). *Think like grandmaster* . london: british library.
- Morris, I., translated by, Bouzid , S., Kamal , B., Said , S., & Mustapha, M. (2004). *Methodology of Scientific Research in the Humanities* . Algeria : Dar Al_Qasbah publishing.
- Orabi , S., Bin Al_Din kamel, & Arebi, M. (2020). mental perception and its relationship to schematic thinking in the attack area from the piont of view of basketball . *excellence in the sciences and techniques of physical and sports activites* .
- Ratib, O. K. (2000). *psychological skills training applications in the sports field*. Cario: Arab Thought House.
- seirawan, Y. (2003). *winning chess tactics*. london: british library.
- Walid, Q. (2020). The level of offensive tactical thinking and its relationship to some basic skills in footbal. *Sports Creativity*, 221.
- Yahya , s., & Hashishy, A. (2019). mental percpetion and its relationship to sports confidence among puplis involed in school sports in the wilaya of tebssa. *class cubs*.