The effectiveness of a program to develop the speed of the visual reaction and its impact on the performance level of the shot-out skill for hockey players under 16 Years

Prof. Manal Mostafa Mohamed

Researcher / Zainab Ahmed Khalil

Helwan University, Faculty of Physical Education for Girls on the gezira,
Department of Training Sports Games

Introduction to the research:
The sports training process is an organized process that is subject to the scientific method and depends on scientific laws and aims to prepare the athlete "fully" in all respects and push him to reach the high level through the use of physical pregnancy. (10: 203)
The team's success in achieving the goal comes from its establishment as a connected unit whose members are integrated within the scope of the plan laid down so that each individual carries out his responsibilities in a "proper" and timely manner, and this responsibility is to choose the appropriate skill that the situation requires and then perform this skill in the correct way that ensures the achievement of Purpose. (1: 7)
"Isabel Walker (2000) indicates that sports coaches, players and sports scientists are constantly and continuously searching for modern training methods in order to improve athletic performance and gain a competitive advantage, and visual training is one of these technologies presented in the sports field, which is a frequent series of eye training With the aim of improving basic visual abilities, which are important for athletes in all competitive sports (23: 203).
As the use of vision is one of the important and auxiliary skills for offensive and defensive skills in basketball, in mini-games the student must see everything around it either as a direct view or a surrounding view of the stadium, in addition to the sense of the stadium, the attacking student must see the movements of her colleagues and also the defensive moves, As for the defending student, she must not focus on the opponent alone only when she is in possession of the ball, but remains aware of the location of the ball and the cases of attachment that can be performed from the opponents, and the peripheral vision of the stadium has a special importance Where the defending student can see the events within the 180-degree arc, where the defending student will be able to see the events from the left and right sides, and the surrounding view of the defending student stadium enables the opposing student and the ball to be seen together (9: 32)
Weashurist et al. (2012) assert that the availability of visibility for athletes in all games provides information regarding where? And when? and what ? They do regardless of the physical level or the individual skills of the player, as the player's ability to quickly process the visual information correctly affects high-level players and others, and work to strengthen the capabilities of the visual vision of players leads to improving the performance of the player's basic skills. (27: 72)
The mathematical visual vision depends on the fact that the eye presents information to the brain, which in turn interprets the information and sends signals that make hands, legs and other parts of the body move, and this occurs in a very simple part of
the second. As appropriate, this is reflected in incorrectly performed performance. (2:178)

Research problem:
Team games are one of the many and varied sporting activities where each sporting activity has its own characteristics that are unique to other activities, whether in relation to the nature, components, contents or requirements of the type of activity. (11:20)
Hockey is one of the team games that features many features unlike some other team games where each team has eleven players and they have one small ball where the player with the ball controls it within the field of the stadium (100 * 60 yards) and by a specific racket and a hand. Only one, with awareness of all movements of colleagues and competitors alike, with awareness of the legal spaces and dimensions of the stadium.
The position of the player’s body during the performance in terms of the tilt of the stem in front of “a little down” to reach the ball and perform all the basic skills with the necessity of raising the head high “at the same time to see all the moves of colleagues and competitors are difficult factors that constitute a burden” at the individual skill level of the player. Which must be considered when developing hockey training programs.
Where the individual and team skill performance in hockey is highly dependent on the visual abilities of the players in general and the speed of the visual reaction in particular, where we find that the player who can infer and analyze situations and estimate times, distances and moves in the shortest time possible can overcome the competitor and even physical capabilities are equal. And skill,
Where we find that the physical, skill and planning level is not sufficient “to win the matches, but it depends on the level of the visual reaction speed of the player, which enables him to realize the distances and movements between colleagues and competitors during the game, so that he can choose the appropriate timing and skill, whether in passing, progressing and evading, Also "inside the circle and during the attacking of the attacker Ali Al-Marami, the selection of the skill and the appropriate timing when aiming depends greatly on the speed of the visual reaction of the attacker to determine the position and location of the guard and the rest of the defense and attack players.
The amendments to cancel the tie in some hockey matches and resorting to what is known as a hot shot were an alternative to “penalty kicks, where the player alone stands on the 25-yard line in the face of the goalkeeper only, so that the attacker makes progress towards the goal, trying to score a goal in a time not exceeding Eight seconds where each team executes a number of five strikes and the winning team is the one that can score more goals. In the event of a tie, a strike and a strike are executed. The team that ended the implementation of the five basic strikes begins by executing the first strike on us where we find that the speed of the visual reaction of the player with a goal Realizing M. The goalkeeper’s movements were the basis for the attacker’s success in scoring a goal, as it depended on the attacker to choose the right skill To target the goal, in the shortest possible time, as we find that one of the most important plans that goalkeepers implement in the shootout is to try to consume the eight seconds specified for implementation.
Through the work of the researcher as a coach for hockey and looking at the nature of the performance of hockey players during the performance of shot-out during matches, it was noted that there are many errors due to lack of interest in visual reaction speed training, which led to wasting many goals, which of course affected the results of the teams.

Given "the importance of shoot out in determining the winning team, it was necessary to increase interest in visual reaction speed training within the preparation programs in order to improve the basic visual functions in a way that reflects at the level of skillful performance of players when implementing the shot because of its importance in achieving victory for the teams.

research importance:

1- Scientific importance
- Provide more scientific information that can be provided in the field of sports training to raise the player’s efficiency in the performance of the "shot out" game.

2. Applied importance
- The researcher designs an attitude training for the offensive performance of the player in "shot out" strikes in field hockey.
- Ruling the performance of offensive moves by players in "shot out"
- Economy of effort to adjust the player's performance.
- Increase the effectiveness of the player's performance in "shot out" so that it can be used in future training programs for clubs.

1/3 research objectives
The research aims to improve the level of skill (shot out) performance of hockey players under 18 years through:
1. Design a suggested training program for visual sho-reaction speed training (sho out)
2. Building a standardized test for measuring shot skill by the researcher.
3. Identify the effect of the proposed program of visual reaction speed training exercises on the level of (shot out) performance for hockey players under 18 years of age.

4/1 Hypotheses of the research:
1. There are statistically significant differences between the averages of the pre and post measurements of the experimental research group in the level of visual and harmonic capabilities of hockey players under 18 years old.
2. There are statistically significant differences between the averages of the pre and post measurements in the level of "shot out" skill for hockey players under 18 years old.
3. The proposed training program will have a positive impact on improving the level of "shot out" skill for hockey players under 18 years of age.

Search terms:
Visual Training: It is a training method that includes some exercises that are used for the eye to cause changes in eye responses in order to improve basic visual functions, improve visual cognitive skills.
Visual Skills: visual capabilities They are the variables whose behavior can be modified by affecting the source of vision, which is the eye, whether the effect is internal or external, including (28) (29)
Visual Reaction Time: It is the student's ability to respond quickly and accurately to the visual events surrounding her, no matter how fast or different. (8: 368)
Static Visual Acuity: It is to see the goals accurately from persistence, so the student and the target are steadfast.
Dynamic Visual Acuity: It is to see the targets accurately during the movement of the student, that is, the target is fixed and the student is mobile.
External awareness Peripheral Vision It is the realization of all that surrounds the goal of individuals and bodies without losing focus on the goal:

1. Optical Depth Perception It is the correct estimation of the required velocity and relative distance during performance.

2. Spatial Relationships of Visual Spatial Relationships It is the ability to perceive more than one situation at the same time as it includes the ability to perceive The proper visual direction and direction for things.

Constancy - Visual Form It is the ability to accurately identify shapes and symbols, despite their different sizes.

Visual Training It is a series of repetitions of eye exercises that work to improve the relationship between the eyes and the brain through the development of skills and capabilities of vision using graded exercises of difficulty working to improve the compatibility and flexibility of the eye muscles with the ability to control those muscles in an attempt to improve the basic visual functions Improve Basic Visual Functions and thus sports performance.

Previous studies:
First: Arabic Studies:
1. "Magda Ismail and others" (2007) (6) conducted a study aimed at identifying the effect of a visual training program on some visual skills, visual cognitive skills and the level of performance of some control and control skills among rhythmic gymnastics young women. The researchers used the experimental approach for two groups, one experimental and the other, controlling a sample of (12) emerging from the fishing club, the strength of each of them (6) young women aged (8:12) years. Visual skills tests were applied, the visual cognitive skills measure the training program took on (6) weeks at a rate of (3) times per week, the computer was used in some visual exercises and the most important results indicated that the training program has a positive impact on improving the visual and cognitive skills under consideration and the level of performance of control and control skills among young women in favor of the experimental group. Also, there is a correlation between the variables in question.

2. "Mohamed Lotty El-Sayed and others" (2006) (13) conducted a study aimed at identifying the extent to which visual training can be used to increase the effectiveness of the life-saving vision on water. The researchers used the experimental method on a sample of (30) outlets. The sample was divided into two groups, one experimental and the other is a control. A visual training program was applied. The most important results indicated that visual skills are important to achieve good rescue requirements, and that visual training increases Attention rate and lower eyelash rate versus increased eye opening for a life saver.

3. "Jihan Fouad, Iman Abdullah" (2005) (4) conducted a study aimed at identifying the effectiveness of the visual training program on some skill variables and visual abilities in volleyball. The two researchers used the experimental method on a sample consisting of (30) students from the fourth year specializing in volleyball at the Faculty of Physical Education for Girls in Zagazig, Al-Basri for a period of (8) weeks at the rate of (3) units per week, and the time for visual training in the program (40 BC). The most important results indicated that the visual training program proved its effectiveness in improving the visual abilities in favor of the experimental group, improving the special skills of volleyball.

4. "Doaa Mohamed Hemat" (2002) (5) conducted a study aimed at identifying the effect of an eye training program in fencing on some physiological variables related to stress and the level of performance. The researcher used the experimental approach on a sample of (30) students from the second year at the Faculty of Physical Education for Girls in Cairo, they were divided into two groups, one is experimental and the other is a strength of each of (15) students, and the researcher used a simple reaction velocity measuring device and a visual
measurement board. A program was implemented using eye exercises, and the most important results indicated that the eye training program led to the experimental group students outperforming the control group.

Second: foreign studies:
1. "Mazyn, et al." (2004) (25) conducted a study aimed at identifying the contributions of vision when performing the skill of picking a tennis ball with one hand. The researchers used the semi-experimental method on a sample of (20) individuals with vision strength, (20) individuals with vision impairment, they performed three attempts at different speeds to capture the tennis ball with one hand in the case of closing the eyes and opening both eyes, and video cameras were used. To perform the necessary analyzes of eye movements, the most important results indicated that there is an inverse correlation between the speed of the ball and its capture, the higher the speed of the ball, the lower the level of performance of the tennis ball capture and also the lack of differences in the case of using both eyes or one eye for the group with the strength of vision and that these differences appeared clearly when using One sample for afrad D people with low vision, and this indicates that poor vision may be one of the main reasons for not achieving sports achievement.

2- Elizabeth, Bressan (2003) (20) conducted a study aimed at identifying the effectiveness of three different concepts in order to improve sports performance by improving sports vision in volleyball. And the researcher used the experimental method on a sample of (70) girls whose ages ranged between (19-24) years, and ball passing skills tests were applied on the net, visual skills tests, and they were divided into (4) groups (three experimental groups, a control group) A visual skills training program, training sessions on traditional vision, and a multidisciplinary concept defined as the dynamics of sports vision in a period of (30) minutes twice a week and over five consecutive weeks, the most important results indicated an improvement in the accuracy of passing the ball on the net. For the three groups showed the ratio The percentage of improvement that the dynamics of sight program group showed greater improvement as opposed to other programs.

3- Harle S. & Vikers (2001) (22) conducted a study aimed at identifying the effect of eye sleep training, improving accuracy in basketball free throw. The researchers used the experimental approach to design three groups, a first experimental group, a second experimental group, a control group, on a sample of basketball players at Calgary University, and the most important results indicated that the training of eye sleep improves visual accuracy and time of eye sleep improves accuracy Free throw.

Comment on previous studies:
- All studies used the experimental or quasi-experimental method due to its suitability of the nature of the procedures of each study.
- There is a diversity in the selection and determination of the nature of the research sample individuals, from male and female players in various games, male and female students from colleges of physical education, where the duration of application of training programs used in studies ranged between (5) to (8) weeks and the size of the study samples ranged between (1) player One to (30) players.
- All previous studies used some visual abilities, a measure of visual cognitive skills, and skill tests as a tool to measure the skill level.
Most studies used visual vision programs to identify their impact on various aspects, in line with the measurements for each study. Most of the studies used the following statistical methods (mean, standard deviation, T. test, and Test Re Test).

**Benefiting from previous studies:**
The researcher used eleven previous studies, including six Arab studies, five foreign studies, despite what was mentioned in those studies of the diversity of their titles and their sub-goals, but it partially covered the current research topic.

The researcher also benefited from previous studies in identifying the visual vision training for the basketball that was used in the research, and setting and defining the content of the training program using the visual vision, in addition to identifying the tests used to measure some visual capabilities, as well as choosing the appropriate statistical methods and trying to achieve its goals in a sound scientific methodological method. The researcher also benefited from the results of these studies in interpreting and discussing the results.

**Search procedures:**
The researcher used the experimental method with the experimental design of two groups, one experimental and the other controlled, due to its relevance to the nature of this research.

**Research community:**
The research community represents players of the U-18 hockey team of the Eastern Company (Eastern Company).

**The research sample:**
The research sample was randomly chosen from among the players of the female hockey team, Cairo U-16 teams in the Eastern Company club (Eastern Company), which participates in the Egyptian Hockey Federation championships for the sports season 2018/2019. The total number of the research sample reached (40) players, and the researcher excluded (10) players from outside the basic research sample who were used as a sample for exploratory study, (10) irregular players, and thus the basic research sample became (20) players in one experimental group.

**Reasons for selecting the sample:**
The players have been chosen this stage of the year because they are the basic nucleus in the formation of the first-class teams of the Premier League, and the Egyptian Hockey Federation is about to start forming a national team to participate in the upcoming international championships.

**Homogeneity of the research sample:**

<table>
<thead>
<tr>
<th>variable</th>
<th>The average</th>
<th>Mediator</th>
<th>standard deviation</th>
<th>skewness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transition speed 30 m</td>
<td>6.347</td>
<td>6.335</td>
<td>0.227</td>
<td>0.255</td>
</tr>
<tr>
<td>The elegance of Zigzagis running</td>
<td>6.610</td>
<td>6.665</td>
<td>0.366</td>
<td>0.228*</td>
</tr>
<tr>
<td>The capacity of two men is a broad bounce</td>
<td>1.710</td>
<td>1.720</td>
<td>0.105</td>
<td>0.341*</td>
</tr>
</tbody>
</table>
It is clear from Table (1) that the value of the torsional coefficient of the variables ranges between (± 3), which indicates the homogeneity of the sample in the physical variables, where the value of the torsion coefficient ranged between 0.030 and -0.746, which indicates the moderation of the research sample.

Table (2)
The homogeneity of the basic research sample in the skill variables.

<table>
<thead>
<tr>
<th>variable</th>
<th>The average</th>
<th>Mediator</th>
<th>standard deviation</th>
<th>skewness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accuracy of payment</td>
<td>3.800</td>
<td>4.000</td>
<td>83351.</td>
<td>194-</td>
</tr>
<tr>
<td>Push speed</td>
<td>72.3000</td>
<td>71.5000</td>
<td>4.6092</td>
<td>344.</td>
</tr>
<tr>
<td>Momentum</td>
<td>67.1610</td>
<td>68.1200</td>
<td>7.13927</td>
<td>208.-</td>
</tr>
<tr>
<td>Precision of multiplication</td>
<td>4.000</td>
<td>4.000</td>
<td>72548.</td>
<td>0.000</td>
</tr>
<tr>
<td>Short hit speed</td>
<td>75.8000</td>
<td>74.0000</td>
<td>6.24584</td>
<td>408.</td>
</tr>
<tr>
<td>Hitting power</td>
<td>85.1200</td>
<td>83.4200</td>
<td>6.96390</td>
<td>222.</td>
</tr>
<tr>
<td>Speed of progress</td>
<td>4.9095</td>
<td>4.8800</td>
<td>35558.</td>
<td>808.</td>
</tr>
<tr>
<td>agree</td>
<td>68.6500</td>
<td>69.0000</td>
<td>9.47170</td>
<td>005.</td>
</tr>
</tbody>
</table>

It is clear from Table (2) that the value of the torsional coefficient of the variables ranges between (± 3), which indicates the homogeneity of the sample in the physical variables, where the value of the torsional coefficient ranged between .000 and 0.808, which indicates the moderation of the research sample.

Data collection tools and means:

Data collection tools:
The researcher used the following tools and devices to suit their research objectives:
1- Scientific references and previous studies.
2- The personal interview.
3- Questionnaire forms.
4- Tests include:
A- Optical ability tests (optical reaction speed).
B- (shot out) tests.

1- Scientific references:
The researcher conducted a Christian study of references and previous studies in order to communicate to:
A- The visual abilities of offensive skills are restricted Search in hockey.
B- Optical tests.

2- Personal Interview:
The researcher conducted interviews with some experts in the field of hockey and some team coaches to determine the most important visual abilities and the most relevant to the performance of basic offensive skills under consideration for hockey players.

3- Questionnaire forms:
The researcher designed questionnaire forms with the aim of:
A- Experts poll to determine the most important visual abilities of offensive skills for hockey.

4- Tests:
A- Tests to measure the visual abilities under consideration (visual reaction speed).
B - tests to measure the game (shot out).

Scientific treatments, visual tests and (shot out).
First: Calculating the honesty coefficient:
The researcher used the honesty of distinction as she applied the study to a sample of 20 players from the Eastern Smoke Club and 20 players who did not play the game, with the aim of conducting scientific transactions for the tests that measure the visual abilities associated with the hockey game under investigation, as well as tests to measure the game (shot out) under investigation.

Table (3)
The significance of the differences between the mean of the distinguished group and the unmarked group in a sample Rationing for validation tests n = 40

<table>
<thead>
<tr>
<th></th>
<th>the exams</th>
<th>Featured group</th>
<th>Undetected group</th>
<th>The difference between the two mediums</th>
<th>Value of t</th>
</tr>
</thead>
<tbody>
<tr>
<td>S</td>
<td></td>
<td>S ± p</td>
<td>S ± p</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Optical tracking</td>
<td>4.300 ± 0.979</td>
<td>5.200 ± 0.834</td>
<td>0.900</td>
<td>3.13</td>
</tr>
<tr>
<td>2</td>
<td>Optical focus</td>
<td>7.450 ± 1.050</td>
<td>6.550 ± 0.826</td>
<td>0.900-</td>
<td>3.01</td>
</tr>
<tr>
<td>3</td>
<td>External awareness is right</td>
<td>0.450 ± 0.044</td>
<td>0.484 ± 0.050</td>
<td>0.034</td>
<td>2.28</td>
</tr>
<tr>
<td>4</td>
<td>North outer awareness</td>
<td>1.850 ± 0.745</td>
<td>1.150 ± 0.366</td>
<td>0.700-</td>
<td>3.77</td>
</tr>
<tr>
<td>5</td>
<td>Realizing the depth of vision</td>
<td>1.050 ± 0.510</td>
<td>0.650 ± 0.489</td>
<td>0.400-</td>
<td>2.53</td>
</tr>
<tr>
<td>6</td>
<td>Fixed optical precision</td>
<td>1.900 ± 0.852</td>
<td>1.250 ± 0.444</td>
<td>0.650-</td>
<td>3.02</td>
</tr>
<tr>
<td>7</td>
<td>Animated optical resolution right</td>
<td>14.850 ± 1.725</td>
<td>0.200 ± 0.523</td>
<td>14.650-</td>
<td>36.34</td>
</tr>
</tbody>
</table>
The value of the tabular value at 0.05 and the degree of freedom $38 = 1.684$. Table (3) shows the existence of significant differences between the mean of the distinct group and the non-distinct group in the ration sample for physical tests, which shows the validity of these tests.

**Table (4)**

The significance of the differences between the mean of the distinguished group and the unmarked group in the ration sample for performing the validity of skill tests $n = 40$

<table>
<thead>
<tr>
<th></th>
<th>the exams</th>
<th>Featured group</th>
<th>Undetected group</th>
<th>The difference between the two mediums</th>
<th>Value of t</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>S ± p</td>
<td>S ± p</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Accuracy of payment</td>
<td>3.800 0.834</td>
<td>1.350 0.745</td>
<td>2.450-0</td>
<td>9.80</td>
</tr>
<tr>
<td>2</td>
<td>Push speed</td>
<td>72.300 4.601</td>
<td>19.450 3.086</td>
<td>52.850-0</td>
<td>42.66</td>
</tr>
<tr>
<td>3</td>
<td>Momentum</td>
<td>67.161 7.139</td>
<td>20.600 2.637</td>
<td>46.561-0</td>
<td>27.36</td>
</tr>
<tr>
<td>4</td>
<td>Precision of multiplication</td>
<td>4.000 0.725</td>
<td>1.050 0.826</td>
<td>2.950-0</td>
<td>12.00</td>
</tr>
<tr>
<td>5</td>
<td>Short hit speed</td>
<td>75.800 6.246</td>
<td>23.300 4.293</td>
<td>52.500-0</td>
<td>30.98</td>
</tr>
<tr>
<td>6</td>
<td>Hitting power</td>
<td>85.120 6.964</td>
<td>39.990 4.187</td>
<td>45.130-0</td>
<td>24.84</td>
</tr>
<tr>
<td>7</td>
<td>Speed of progress</td>
<td>4.910 0.356</td>
<td>8.769 0.825</td>
<td>3.8600</td>
<td>19.21</td>
</tr>
<tr>
<td>8</td>
<td>agree</td>
<td>68.650 9.472</td>
<td>12.250 3.307</td>
<td>56.400-0</td>
<td>25.14</td>
</tr>
</tbody>
</table>

The value of the tabular T at 0.05 and the degree of freedom $38 = 1.684$. Table (4) shows the existence of significant differences between the mean of the distinct group and the un-distinct group in the ration sample for physical tests, which shows the validity of these tests.

**Second: Stability coefficient:**
Through the methods of the tests method, the test - Retest was re-applied to the survey study sample, where the researcher applied the tests and then re-applied within a period of one week.

Table (5)

Correlation coefficient between application and re-application of tests to find the coefficient of stability

<table>
<thead>
<tr>
<th>S</th>
<th>the exams</th>
<th>Application</th>
<th>Redo the application</th>
<th>Value of t</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Optical tracking</td>
<td>4.300</td>
<td>4.450</td>
<td>0.732</td>
</tr>
<tr>
<td>2</td>
<td>Optical focus</td>
<td>7.450</td>
<td>7.500</td>
<td>0.877</td>
</tr>
<tr>
<td>3</td>
<td>External awareness is right</td>
<td>0.450</td>
<td>0.441</td>
<td>0.627</td>
</tr>
<tr>
<td>4</td>
<td>North outer awareness</td>
<td>1.850</td>
<td>1.750</td>
<td>0.813</td>
</tr>
<tr>
<td>5</td>
<td>Realizing the depth of vision</td>
<td>1.050</td>
<td>1.100</td>
<td>0.789</td>
</tr>
<tr>
<td>6</td>
<td>Fixed optical precision</td>
<td>1.900</td>
<td>1.800</td>
<td>0.934</td>
</tr>
<tr>
<td>7</td>
<td>Animated optical resolution right</td>
<td>14.850</td>
<td>14.950</td>
<td>0.950</td>
</tr>
<tr>
<td>8</td>
<td>North moving optical resolution</td>
<td>1.300</td>
<td>1.250</td>
<td>0.726</td>
</tr>
<tr>
<td>9</td>
<td>Visual reaction</td>
<td>1.200</td>
<td>1.150</td>
<td>0.840</td>
</tr>
</tbody>
</table>

Attachment "t" value at 0.05 and freedom 18 degrees in one direction = 0.378 Table (5) shows that there is a statistically significant correlation between application and re-application of the tests under discussion in the rationing sample, which indicates the stability of those tests.
### Table (6)

Correlation coefficient between application and re-application of skill tests to find the coefficient of stability \( n = 20 \)

<table>
<thead>
<tr>
<th>S</th>
<th>the exams</th>
<th>Application</th>
<th>Redo the application</th>
<th>Value of ( t )</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>S</td>
<td>( \pm p )</td>
<td>S</td>
</tr>
<tr>
<td>1</td>
<td>Accuracy of payment</td>
<td>3.800</td>
<td>0.834</td>
<td>3.750</td>
</tr>
<tr>
<td>2</td>
<td>Push speed</td>
<td>72.300</td>
<td>4.601</td>
<td>72.600</td>
</tr>
<tr>
<td>3</td>
<td>Momentum</td>
<td>67.161</td>
<td>7.139</td>
<td>67.184</td>
</tr>
<tr>
<td>4</td>
<td>Precision of multiplication</td>
<td>4.000</td>
<td>0.725</td>
<td>4.100</td>
</tr>
<tr>
<td>5</td>
<td>Short hit speed</td>
<td>75.800</td>
<td>6.246</td>
<td>76.100</td>
</tr>
<tr>
<td>6</td>
<td>Hitting power</td>
<td>85.120</td>
<td>6.964</td>
<td>84.508</td>
</tr>
<tr>
<td>7</td>
<td>Speed of progress</td>
<td>4.910</td>
<td>0.356</td>
<td>4.858</td>
</tr>
<tr>
<td>8</td>
<td>agree</td>
<td>68.650</td>
<td>9.472</td>
<td>68.750</td>
</tr>
</tbody>
</table>

The tabular “R” value at the 0.05 level and the freedom degree18 in one direction = 0.378 Table (6) shows a statistically significant correlation between the application and the re-application of the tests in question in the rationing sample, which indicates the stability of those tests.

**Survey study:**

Part of the suggested training program for the visual reaction speed was applied to a group of (10) players from the Eastern team smoke players from the research...
community and from outside the basic research sample in order to ensure the validity of the tools used and the safety of the application of tests and the extent of understanding and response of the players to the training units and the extent of the program's suitability to a sample Basic research, and determining the intensity of performance, the number of iterations and periods of interfacing, in the period from 17/7/2019 to 19/7/2019.

Steps to implement the research:

Tribal measurement:

Tribal measurements of optical abilities, physical variables, skill variables, and the shot out variable were investigated. Basic study implementation.

The proposed program has been applied using visual reaction speed exercises through visual vision training for a period of (12) continuous weeks. The program consists of (36) training units at the rate of (3) exercises per week which are Sunday, Tuesday and Thursday unit time (90) minutes and part time The experimental (40) s where the gradation of visual exercises and (shot out) exercises were taken into account, from easy to difficult, and from simple to compound.

Dimension:

The dimensional measurement of the visual capabilities in question and the game of shot out were performed in the same conditions during which the tribal application was carried out in the same order.

Statistical treatments:

The researcher used the following statistical treatments:

- Descriptive statistics.
- Significance of differences (T)
- Coefficient of torsion.
- Correlation coefficient (t)
- Improvement ratios (%).

Presentation and discussion of the results:

First: Presentation of the results:

Table (7)

An indication of the differences between the pre and post measurement of the experimental group scores in search variables n20

<table>
<thead>
<tr>
<th>variable</th>
<th>Tribal measurement</th>
<th>Telemetry</th>
<th>Mf</th>
<th>T value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visual reaction</td>
<td>0.435</td>
<td>0.035</td>
<td>0.401</td>
<td>0.027</td>
</tr>
</tbody>
</table>
The tabular “T” value has a significance level of 0.05 and freedom score 19 in one direction = 5.684 - It is clear from Table 7 that there are statistically significant differences between the pre and post measurement of the control group in all tests and the differences were in the direction of the post measurement.

Table (8)
An indication of the differences between the pre and post measurement of the experimental group scores in search variables

<table>
<thead>
<tr>
<th>variable</th>
<th>Tribal measurement</th>
<th>Telemetry</th>
<th>M</th>
<th>P</th>
<th>M</th>
<th>P</th>
<th>T value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shoot out</td>
<td>1.400</td>
<td>0.821</td>
<td>3.300</td>
<td>1.031</td>
<td>1.900</td>
<td>*11.831-</td>
<td></td>
</tr>
</tbody>
</table>

The tabular “T” value has a significance level of 0.05 and freedom degree 19 in one direction = 11.831 It is clear from Table (8) that there are statistically significant differences between the pre and post measurement of the experimental group in all tests and the differences were in the direction of the post measurement.

Table (9)
The percentages of change between the pre and post measurement of the experimental group scores
In search variables n = 20

<table>
<thead>
<tr>
<th>variable</th>
<th>Tribal measurement</th>
<th>Telemetry</th>
<th>M</th>
<th>P</th>
<th>M</th>
<th>P</th>
<th>Percentage of change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visual reaction</td>
<td>0.435</td>
<td>0.035</td>
<td>0.401</td>
<td>0.027</td>
<td>0.034-</td>
<td>%7.87</td>
<td></td>
</tr>
</tbody>
</table>

It is clear from Table (9) that the percentage of change between the pre and post measurements of the experimental group ranged between 7.87%.

Table (10)
The percentages of change between the pre and post measurement of the control group scores in search variables n = 20

<table>
<thead>
<tr>
<th>variable</th>
<th>Tribal measurement</th>
<th>Telemetry</th>
<th>M</th>
<th>P</th>
<th>M</th>
<th>P</th>
<th>Percentage of change</th>
</tr>
</thead>
</table>
It is clear from Table (10) that the percentage of change between the pre and post measurements of the control group ranged from 135.71%.

### Secondly, discussing the results:

**By displaying results:**

Through the presentation of the research results, it is clear from Table (8) that there are statistically significant differences between the pre-measurement and the post-measurement in the search variables (visual variables) (visual reaction) and this improvement is due to the proposed training program using visual vision exercises, which was implemented on the research group as The researcher believes that the process of learning and training using visual vision exercises has a positive effect in advancing the level of the research sample for field hockey players, and this is consistent with what Barry seille (2004) (18) American Optical Society (2004) indicated that capabilities Special visuals can be straightened and trained It has to develop, develop and improve, which will in turn be reflected in the level of skill performance. This is also confirmed by Asseman & et al (2005) (17), Youssef Ibrahim and others (2005) (16) I visual impairment indirectly affects the skillful performance of the player.

**Suzanna Cathnina Venter (2003) (26)** Lynnem et al. (2005) (24) Nermin Fikry Al-Ghlami (2009) (15) also finds that visual vision exercises had no place in numbers today. For athletes, the trainers were doing the training related to vision without intention, but research has demonstrated the importance of visual skills for athletic performance. It also revealed that athletes have high visual skills compared to non-athletes, and many researchers have verified the possibility of training in visual skills.

The researcher believes that I am developing the visual abilities represented by the (visual reaction), which contributes greatly to raising the level of the game (shot out) and the capabilities to implement the game (shot out) in a timely manner and with high accuracy and proper performance based on the speed of the player’s reaction from the beginning. The starting whistle until the end of the game and within (8 seconds), as well as the player’s reaction based on the goalkeeper’s movements, in which the player performs the appropriate skill. The player’s reaction to the goalkeeper’s move at a specific time during (8 seconds) and thus that achieves the first individual. Statistically significant differences between the mean of the pre and post measurements Experimental level in the visual and interoperability capabilities of hockey players under 18 years old.

"It is clear from Table (9) that there are statistically significant differences between the pre and post measurements of the experimental group under investigation and they were in favor of the post measurement, which confirms that I am visual vision exercises represented by the visual reaction using (shot out) exercises that affected a positive impact on the level of game performance (shot out).
The researcher returns that the presence of statistically significant differences in the level of performance of the players that the players are exposed to visual vision training, which stipulates that I am the visual capabilities play an important role in the performance effectiveness and that these capabilities can be developed through the design of visual training programs and linking them to skill performance through implicit skills training. The vision exercises are well inserted and this is consistent with what Colder & Noakes (2000) (19) and Mazyn et al. (2004) (25) refer to. This is what achieves the second individual. "There are statistically significant differences between the averages of the pre and post measurements in the level of" shot out "skill for hockey players under 18 years old.

It is clear from Table (9) and (10) that there are rates of improvement in the two diminutors of the experimental group in the (shot out) and (visual reaction) variables, and that the improvement of the performance of the speed of the visual reaction has had a positive impact in developing the level of performance of the game (shot out) and end the attack at the specified time (8 seconds), and this explains how positive the visual capabilities are in developing and improving the performance level of the skilled player in performing the shot out game and in ending the attack at the required time and at a good level.

The researcher attributed this to the proposed training program for visual visibility exercises to raise the efficiency of the visual reaction speed of field hockey players, which leads to the player’s speed of departure or lack of time between hearing the referee’s whistle and starting the move from the player to end the attack well without the end of the original time. To play the (shot out) game.

This is consistent with the results of Ahmed Amin Fawzi (2004) (1), Mai Mustafa Mohamed (2014) (14) Basmat Muhammad Ali (2011) (3), Mohamed Fikry Sayed (2010) (12), and they confirmed that capacity development Optical contributes greatly to raising the level of players, because the ability to execute the time attack in a timely and accurate manner and the proper performance is based on a good vision through which signals are transmitted to the brain, which in turn organizes performance in light of the data obtained from the eye and thus The wrong vision that leads to an inaccurate performance.

Which achieves the third individual "The proposed training program will have a positive impact on improving the level of" shot out "skill performance for hockey players under 18 years of age.

Conclusions and recommendations: First:: Conclusions:

In the light of the research results, the following was extracted:

1. The proposed visual training program has a positive effect on improvement (visual reaction).

2. The visual training program has a positive impact on improving the performance and time of the "shot out" game.

Second: Recommendations:

1. Applying the visual programs for the young hockey players, which has an effective role in raising the performance efficiency of the juniors.

2. Paying attention to visual measurements periodically for hockey players.
3. Working to include visual exercises within the basic training programs for trainers.

References:

First: Arab references:


5. Gehan Fouad, Iman Abdullah (2005): The effectiveness of visual training on some skillful variables and visual abilities in volleyball, Journal of Comprehensive Education Research, second volume for the second grade, Faculty of Physical Education for Girls, Zagazig University.


7. Majda Mohamed Ismail and others (2007): the effectiveness of a visual training program on some visual skills and visual cognitive skills and their relationship to the level of performance of some control and control skills for rhythmic gymnastics young women, published research, international scientific journal.


performance of the handball goalkeeper, Journal of Sports Science and Arts, volume (35), number two, Faculty of Physical Education for Girls, Helwan University.


Second: Foreign references:


24- Isabel walker (0221): Why visual training programs for sport don’t work, sports sci, mar 12 (2)

25-Lemmink kA, Dijkstra B, Visscher c (0221): “Effects of Limited Peripheral vision on shuttle sprint Performance of soccer Playes “, percept .Mot skills .feb; 122 (1); 167-71

27-Suzanna Cathrina venter (0222): A comparison of the visual skills of two Different Age Group high school Rugby players, Master Philosophise, Faculty.


Information Network :
32- http://www.i-see.org