Mental training for increasing multi responses skills to overcome defensive situations for handball players

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Abstract

Contemporary communities are in continuous search for training strategies to promote innovative solutions that are capable of enhancing. Most recently, research has emphasized increasing creativity and one of the most well-known tools for creative thinking is brainstorming. therefore, in order to raise the level of skills for the handball players through brainstorming, the significance of this study emerged, Brainstorming method gives the chance for players to think freely during different competitive situations by generating and sharing ideas to innovate new skills. Thus, study carries out the effect of brainstorming method on developing creative abilities for handball players in competitions .Twenty- male handball players (16 years old) participated in a brainstorming training program three sessions per week for a period of three months. Each brainstorming session lasted 20-25 minutes. The players have innovated two new technical skills that named as Pendulum and the rotational shooting.

Keywords: Brainstorming, creativity, training strategies.

1- Introduction:

For a time ago, creativity has considered as something mysterious which related to genius (Cropley, 2011) all science and human civilizations are products of creativity. In which Creativity is a trait defined in terms of capability for creative thinking, and its refers to the ability to produce valued outcomes in a novel way (Strenbery 1998). Torrance (1998), defines creativity as “showing sensitivity to problems, shortcomings, knowledge gap, inconsistencies, looking for solutions, forming hypotheses on shortcomings, testing and retesting such hypotheses, and finally, reaching conclusions” (quoted from Aiamy,M.Haghani,F.2012.).

All games which have tactics plan to overcome the rival in completion in dire need to think in a creative way to win in dire need to think in a creative way to win. In a way of using creative thinking in sports, training players can break up of old ideas to make new relevance and trying to enlarge their knowledge to innovate fabulous ideas.

As (Jarwan 2008), defined creative thinking “as a compound mental activity aiming to direct a strong desire to look for solutions or reaching original solutions that were not known before” (Jarwan, 2008). The handball players use this mental process by exploitation his experiences and available information to solve problems situations may face it in competitions, consequently brainstorming considered one of the creativity problem-solving skills tools that lead players to win matches.

Brainstorming is a popular method for group creativity, but is inefficient. In creative problem-solving individuals often face fixation, an impediment to productive problem solving (KOHN,N.W.& SMITH,S.M.2010) .

The Brainstorming strategy is one of the most important strategies in exciting creativity and solving problems in the educational, commercial, industrial, political fields or physical fields. Al-maghrawy, (2012) defines brainstorming as “a group creativity forum for general ideas”. According to Zayton (2001), “brainstorming was to produce ideas without inhibition”. In which it is introduced and developed by Alex Osborn, an American advertisement company manager in 1938 as a result of his inconvenience of traditional business meetings. As Osborn (1953), defined this new technique as “An organized way to allow the mind to produce ideas without getting bogged down in trying to judge the value of those ideas at the same time”.

Also, Mongeau and Morr's (1999) terms brainstorming is a "method of ideation" through

which a group of language learners is motivated to generate a large number of ideas, so it was effective in achieving student interaction in developing the cognitive skills for the purpose of generating ideas. (Ghabanchi,Z.&Behrooznia,S.2014)

Brainstorming in training is considered a group of techniques by which coaches innovates or creates a different situation for players and then asks them to produce many solutions as they come up with, even if their solutions are not thought or correct. Researchers who use this technique encourage players to produce solutions. Finally, they will have their self-expression (Aiamy,M.Haghani,F.2012) .

Therefore, this method could used to contribute problem-solving through the cooperation of a group in the form of a team. Each one in the team contributes by giving his opinion it could be oral and pre-writing exercises for helping the players to overcome the problems may face them. After that, opinions gathered to reach the best solutions under the discussion method (Al-khatib, B .A.2012) because of choosing the best solution players in handball can train on this creative or innovative solution to surprise the defense or the goalkeeper to win the match.

The major purpose of brainstorming as a training strategy is to enhance and promote communication skill, which helps to consolidate thinking and decision-making skill as well as foster different viewpoints and opinions. This could apply by using the brain to the active problem solving and solution problems. Thus, coaches must equally be able to guide and give support or help as necessary considering the training environment as such considerations often determine the outcomes.

Although brainstorming as a method is undeniable but using it in handball training is not fairly examined or used. It's great importance training process is summarized in a not only in helping players to solve problems or difficult situation that they may face it in competitions by using an innovative or creative solution but also it helps players to benefit from the ideas of others through the development and build on them.

On the other hand, it helps the coaches to conclude ideas that are broader than players' thinking solutions Makes the coaches more democratic and respectful of views regardless of the different points of view (Al-khatib , B .A.2012) .

Thus, Transferring theoretical, practical and applied information contributes greatly to learning players in the right direction. (Mahmoud , B . G . 2015) Researchers on the effectiveness of training creativity reveal that using sufficient education and training programs can enhance creativity among the players. This is because in the skills of creative thinking practice, encouragement, and training lead to the enhancement of risen the degree of creativity. Since the potential of creativity exists among all people, it can be identified and fostered by training. (Zahra , P.& Yusooff,F. & Hasim , M.S. 2013) .

Nowadays as creativity and brainstorming are recognized as an important source of progress, which deserves a special attention (KOHN, N. W. & SMITH, S. M. 2010). Although creativity and innovation are considered as a way to apply brainstorming and as it essential for progressing in the 21 century they are limited in development.

Therefore recently The role of brainstorming in obtaining training objectives under research and Many empirical studies have been performed considering the effectiveness of this approach in group idea generation. (Ghabanchi,Z.&Behrooznia,S.2014) .

Overall, in order to the significant importance of the creative thinking and brainstorming method is undeniable in training process which plays an essential role in the competitive progressing for the players. The study assesses the role of brainstorming as a training strategy, which promotes the development of innovative skills in handball game especially, attack skills

during the handball competitions. As the research at this point is not fairly examined especially in handball field. Therefore, in order to discover and raise the level of creative thinking and innovating for each player in the team of handball through applying brainstorming, the significance of this study emerged.

2- Materials and Methods:

Twenty- male handball players (16 years old) participated in a brainstorming training program three sessions per week for a period of three months. Each brainstorming session lasted 20-25 minutes and included open forum simulations of various attack scenarios that handball players may encounter during the competitions. At the end of the training program, the players participated in six competitions. The competitions were video recorded and analyzed for the presence of any innovative technical skills during attack situations. The researcher used the statistical equivalent transactions in the validity of creative skills of experts and the percentages of Frequencies, number, and percentages of success and failure for the skills of the pendulum and the rotational shoot in each competition.

3- Results and Discussion:

As a result of using brainstorming training method in the training sessions, two new skills have been innovated and they could name as rotational and pendulum shoot. Additionally, The expert‘s opinions were an indicator of the percentage of the two new skills as the following in table(1).

All calculations that related to the expert’s opinion based on the following percentage of creativity for the skill validity.

Table 1: The creativity percentage of the expert’s opinions for both rotational and pendulum shoot

skills	Experts	Degree of percentage for the two skills										
		1	2	3	4	5	6	7	8	9	10	sum
Rotational shoot	Number of experts	0	0	0	3	3	3	6	6	6	3	30
	%	0	0	0	10%	10%	10%	20%	20%	20%	10%	100
Pendulum shoot	Number of experts	0	0	0	0	3	0	6	9	9	3	30
	%	0	0	0	0	10%	0	20%	30%	30%	10%	100

The table (1) shows the value the percentage of the expert’s opinions for both rotational and pendulum shoot. The highest values of the rotational shoot were (20% + 20%+20%) equals (60%) in degrees (7-8-9) degree, and percentage of other degrees were (10% - 10% -10%-10%) in degree (4 – 5 – 6 – 10) as the sum of low percentage equals 40% according to experts opinion. The highest value of the pendulum shoot concentrated between (7 - 8 - 9) degree, the sum of three percentage (20% + 30% + 30%) equals (80%),the percentage of others were placed on (5 –10) degree as (10% - 10%) the sum of low percentage = 20% depends on the value of the expert’s opinions.

To begin, The figure for the rotational shoot leveled off at (zero%) from (1) to (3) as no experts put degree for this low percentage. then rose rapidly to (10%) and then leveled off again at this percentage until it reached a pike for (20%) as (6) experts gave the maximum degrees (7,8,9). Thus, According to the results of expert’s opinions, As it shown (6) experts give the degree (7, 8, 9) and (3) experts give the degree (4, 5, 6) and there is no experts gave the degree

(1, 2, 3) as the experts put the degree from zero to ten. In addition, as it shown (6) experts give the degree (7, 8, 9) and (9) experts give the degree (8) and (9) experts give the degree (9) and there is no experts gave the degree (1, 2, 3, 4, 6). In addition, the following graph in figure (1) illustrates this clearly.

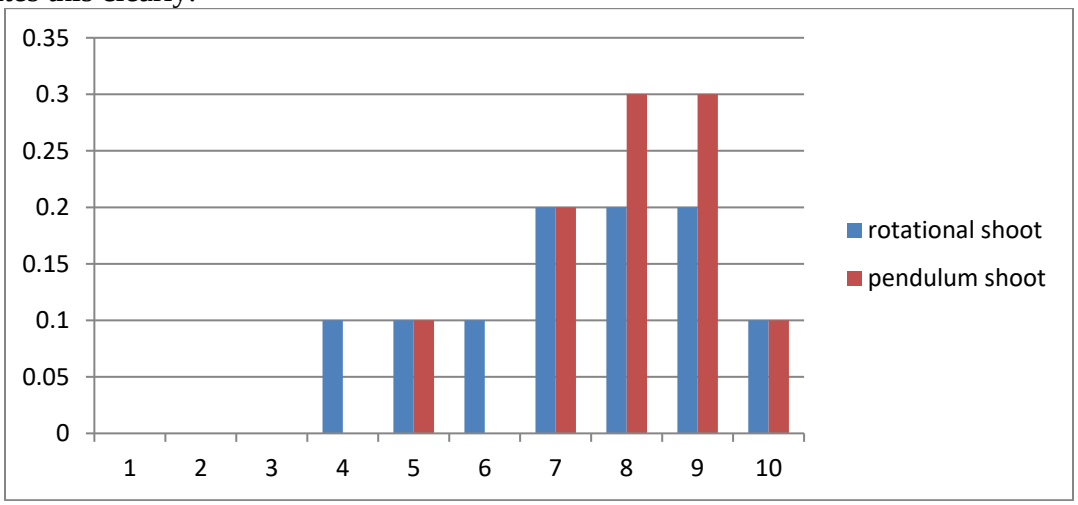

Fig 1: The percentage of the expert's opinions for both rotational and pendulum shoot

The table (2) shows the number of shoots and its percentage in each competitive match. The two new skills repeated in (6) competitive matches as it recorded in the videos of this matches. The players did (34 shoots) as a total number of shooting in the whole competitive matches. The players record (15 shoots) for the rotational shoot with a percentage (44.12%) and (19 shoots) for the pendulum shoot with percentage (55.88%) of the overall creative shoots the players have recorded in the whole six matches so the different between the number of shoots for the two skills are (11.76%). although the percentage of shoots for the two creative new skills are too close but the number of shoots for the pendulum shoot is increased in the last match more than the rotational shoot.

Table 2: the percentage of a number of shoots for both new skills in the competitive matches.

skills	shoots	Number of matches						Total of shoots
		1	2	3	4	5	6	
Rotational shoot	number of shoots	1	2	2	3	3	4	15
	%	2.94%	5.88%	5.88%	8.82%	8.82%	11.77%	44.12%
pendulum shoot	number of shoots	2	2	3	3	4	5	19
	%	5.88 %	5.88 %	8.82%	8.82%	11.77%	14.71%	55.88%

To begin, the figure (2) shown that the rotational shoot increased slightly from (1 shoots) to (2 shoots) in the second match then leveled off at (2 shoots) until the third. Following this rose rapidly to (3 shoots) at the fourth match then leveled off again at the fifth and finally it reached a peak of (4 shoots) in the last match. but the pendulum shoot leveled off at a number of (2 shoots) until the second match then rose slightly with (3 shoots) in the third match then level off again till the fourth match. Following this, raise rapidly till it reach the pick in the last match with (5 shoots) and The following graph in figure (2) illustrates this clearly.

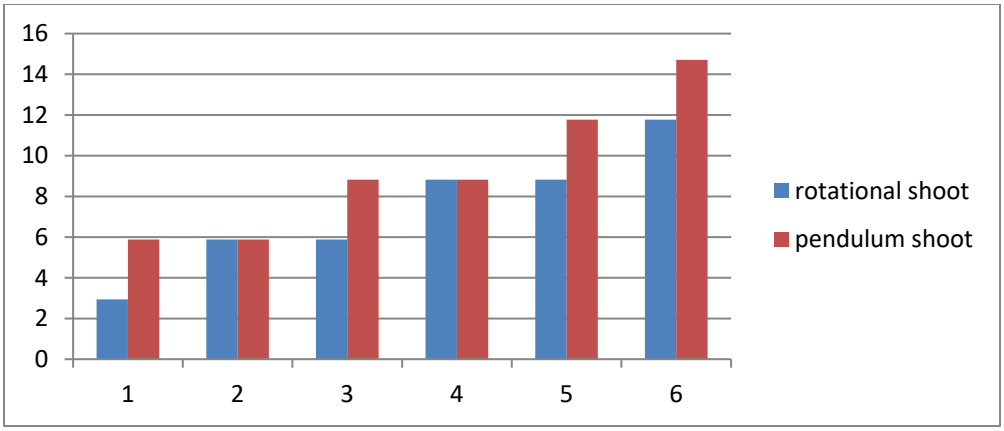

Fig 2: the percentage of number of shoots for both new skills in the competitive matches

However, The players did (34 shoots) there were either successful or Failed shoots or both for a total number of shoots in of each competitive matches. As the following table (3) shown that the number of successful or failed shoots in each competitive match and its percentage. The players record (12 shoots) for the rotational shoot from (15 shoots) with a percentage (79.99%) and (16 shoots) for the pendulum shoot from (19 shoots) with a percentage (48.22%) of the overall creative successful shoots the players have recorded in the whole six matches. On the other hand the players record (3 shoots) for the rotational shoot from (15 shoots) with a percentage (20.01%) and (3 shoots) for the pendulum shoot from (19 shoots) with percentage (15.78%) of the overall creative failed shoots the players have recorded in the whole six matches. and shown that the failed shoots for both skills are the same as the players recorded (3 failed shoots) for each skill for the whole skills

Table 3: the number and the percentage of successful or failed shoots in each competitive match.

skills	Kind of shoots	Number of matches						Total of shoots
		1	2	3	4	5	6	
Rotational shoot	Successful shoots	0	1	2	2	3	4	12
	%	0	6.67	13.33	13.33	20	26.66	79.99 %
	failed shoots	1	1	0	1	0	0	3
	%	6.67	6.67	0	6.67	0	0	20.01%
Pendulum shoot	Successful shoots	1	2	2	3	3	5	16
	%	5.26	10.526	10.526	15.79	15.79	26.316	84.22%
	Failed shoots	1	0	1	0	1	0	3
	%	5.26	0	5.26	0	5.26	0	15.78%

As a result of above, the figure for the rotational successful shoots increased slightly from (0 %) to (6.67%) in the second match then leveled off at the third and the forth. Following this rose sharply to (20%) and finally it reached a peak of (26.66%) in the last match. Nevertheless, the pendulum successful shoots increased sharply from (5.26%) to (10.526%) in the second match then leveled off till the third. Following this, it rose slightly and the fourth of (15.79%) then leveled off again till the fifth match. and finally, it reached a peak of (26.316%) in the last match. Which is an indicator for adaptation of the players on the creative skill that they innovated to resolve the difficult situation that they may face it in handball competition.

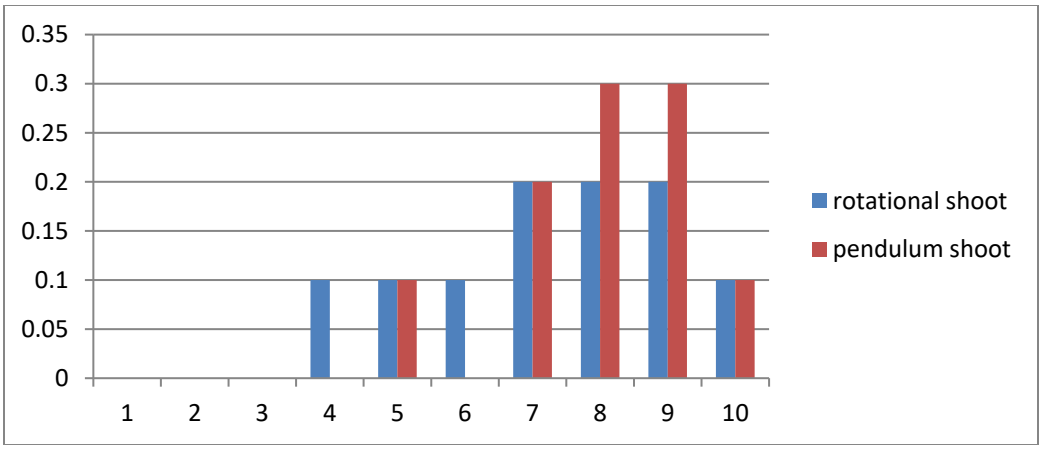

Fig 3: The percentage of the successful shoots for both creative skills in all matches.

As the result above the researcher explains this high results to the skills novelty as the players may need new nexpected skills to overcome handball goalkeepers. while b.bolte et all. (2010) that nowadays the level of handball goalkeepers developed Coinciding since handball became one of the fastest indoor sports. So a player can overcome handball goalkeepers by using this creative skills as the goalkeepers can't expect this new skill therefore he can't prevent the goals.

4- Final considerations:

- Incorporating a brainstorming strategy in Team Handball training programs provides an opportunity for players to explore new ways of solving difficult competition situations through creative thinking. This approach could lead to new ways of performing existing technical skills or the innovation of new technical skills.
- Using the brainstorming method in sports training lead, the players to generate and innovate new ideas unconventional converted to movement performance purposefully through the movement lines called motor skills. thus creating new skills that are used as solutions in attack situations are overcoming the problems that may face players through competitions.
- Using brainstorming method in sports training may show how the players use the creative abilities and Recruit these abilities in the form of dynamic performance. So it helps in the selection process and the Recruit .
- Using brainstorming method in sports training provides the opportunity for all players to innovate motor without restrictions or limitations in accordance with international law for handball game .
- The brainstorming sessions have a significant impact on all of the skill

Therefore, the researcher recommends that coaches use the brainstorming method as part of a training program through open forum simulations of various attack scenarios that handball players may encounter during competition and give the opportunity for players to try to find unconventional solutions to overcome these problems and thus the evolution of the aspects of technique and tactical handball game happen.

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