Two types of goal-setting effects comparisons in performing short serves in badminton

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ABSTRACT

Background: The purpose of this study is to compare the effect of two types of goal setting styles in performing short range serves in badminton. Objective: A group of 58 university female students with ages between 20-26 FE major, specializing in badminton were selected from Esfahan University and Islamic Azad University, Najafabad, in academic year 2007-2008. Groups of 30 participants were selected on random basis. They were randomly divided in two groups. The task for the first group was based on goal setting [self setting] and for the second group was based on [coach setting]. After the pre-test was conducted for 2 sessions through an exercise-free retention test. Each participant executed 20 frails – test serves and 20 retention test, where the points were calculated. The data was evaluated through "t" in relation to the independent and dependant groups with the following result: Both of the approaches in goal setting resulted in an increase in the skills of post-test and memory test. By comparing the two approaches in post-test, due to p<0.05 result we can say that there is no statistical significance between them. Similarly, by comparing the two approaches of goal-setting in the test and retention test, due to p>0.05 we can say that in both approaches of short range skills of service in badminton. Results: The results of this research are same as done researches in acquisition & retention parts because goal-setting is a motivate method that caused to increasing the confidence & positive self-concept in the test but in some of researches are known that the coach-setting is better than self-setting that can be related to the type of skills, some skills that not be regulated concept in the test but in some of researches are known that the coach-setting is better than self-setting but the researches in acquisition & retention courses of self-setting, so utilization of this method is proffered.

INTRODUCTION

One of the most important dimensions is sport psychology in scientific sport. In at all, the optimal performance of athletic skills depend to the 3 types of fitness, skills & mental, since the different training methods & skills performance practices have evaluated & the distance among champions about a few milliseconds & a few millimeter, but it seems that different their performance depend to their mental preparation [2].

Mental skills discussion has most important role in sport skills performance by psychology science advancement, before this insisted on fitness, while today, the sport psychologists & coaches & athletics insist on mental preparation, because most of deficits are mental type that it can prevent elite athletes in optimal performance practice & competitions & nor errors or physical deficiencies. In fact, most factors in success in elite athletics & other ones depend to the mental factors [3].

One of the most important factor is “motivation” in mental, DezvidFeraste believed that; motivation is the key of doing each work such as in; sport, medical, business or in the important efforts. For that the people feel motivation must be presented in activities that can obtain short & long-term goals. Goals determined the efforts environments & sustainability claims to obtaining operational or skill proficiency [1]. Psychology & motivated factors include; “goal-setting” that effects on performance & learning sport skills. This technique is studied in industrial, organizational areas in recent years [8]. The importance & value of goal-setting in all parts of life, works, activities & sports & … are need to obtaining best method in determining the goal for increasing the performance that the basic proceedings as scientific & originally & it is done by studying on different

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researches, so by generalization of their results can be improved the important & influence area in learning motor behavior that can see it in increasing the ROI of skill levels.

The recent research is studying on comparison on effects of two types of goal-setting in performing short range serves in badminton for finding best methods of determining goal during the period of receiving short range serves in badminton & the effects of adoption goals for learning skills. Goal adoption is determining activities that caused to eliminating the needs. A regular plane is a program that goals & efforts codification for obtaining goals, to development & increasing confidence & earning further merit. In this research showed several times that goal codification helps the athletics to improve their physical & mental skills [3]. Determining the goal by motivate-cognitive effects on person, making motivation & concentration & attention to the skill caused to person increased his/her efforts & he can obtain the developed results by understanding some of desired results & successful planning. The goal-setting skills help to athletics & coaches to recognize the goal & the manner of receiving successful. In another hands, goal-setting evaluate the quality & the level of development, when the human can determine the proper & effective goals & obtain them by their efforts & also obtain the more feel of power, sufficiency, confidence & increasing the interpersonal skills [skills that a person uses when want to interact other person] & inside of a person [includes individual physical & mental skills] [5].

Goal-setting is a wonderful method in making motivation, if the goal determined in appropriately, caused to make the negative motivation & it caused to decrease the desires in continue their efforts. Goal-setting is an important factor in learning sport skills that can help the teachers & coaches’ increase their level of sport skills. As Joane Haog knew that the best students who targeted efficiency & have control locus branch & named from Canadian swimmers. This showed that they believed their abilities because of motivation & confidence that obtained by determining & earned the goals [10]. Regarding to goal-setting caused to the targeted practices, specifying the best method of goal-setting not only encourages the subjects but also caused to more motivation & perseverance in practical program & decrease the time of course & then caused to the better retention sport skills & goal-setting caused to increase the confidence in athletics, so they feel self-esteem & self-worth. Making the best method of goal-setting because of determining the most desirable practice plan caused to decrease the mental-spiritual pressures in athletics & the person practice more accurately & relaxed. Undoubtedly, determining the goal with high confidence coefficient in using the results of skill acquisition & its retention in different characteristics & even the competition can be positive results for athletics & coaches. The goals divided in to the various types according to the need & the individual characteristics & includes; sort-term & long-term goals, general & special goals, out-coming & functional, challenges & easy, personal [the goals that determined by person such as coach determines for person], individual or group goal [Tenenbaum, 1991].

Some researches were done by Look & Latham & Buton & others that evaluated the effects of goal-setting in sport such as; basketball, swim & golf & they showed that determining the goal-setting caused to better skill performance.

The definition

Goal-setting
It means; having regular & classified plans & trying to obtain them

Short range serves
Serves is a hitting that the game starts with it. The place of landing the ball, short serves with little height to passes the edge of net in front or corner of playground.

Self-setting
The goal can be determined by individual or group of person that named it “self-selection

Coach-setting
The goals can be determined by other person expect performing the task that named “coach-setting” [10].

Materials and Methods

This research is quasi-experimental based on research’s goal & collecting data are done as field & also regarding to the time, doing the research is practical in using results & it is cross-sectional.

The [statistical] population included all female students in physical education field in Isfahan University & Najafabad Azad Islamic University who present in badminton classes in 2007-2008 & their age range are between 20-26 years old. Among 64 female students after tests & speak to them, 58 persons of them present voluntary in research & among them 30 persons of them selected accidently 15 persons from Isfahan University & 15 persons from Najafabad& divided simple accidently in 2 groups; self-setting group & coach-setting group to do their tasks;

1- First group includes subjects that coach determined goal for them [coach-setting].
2- Second group includes subjects that self determined their goal [self-setting]

The measurement tools
The measurement tools is French test that it standardization for short range serves in badminton. French’s badminton test is the test that is used for measuring the accurate of level skill in short range serves in badminton.

Results:
Because the data is qualitative for doing the tests on them, firstly must be sure about the normal of data, so must be used Kolmogrov-Smirnov test.

Table 1: Kolmogrov-Smirnov test table.

<table>
<thead>
<tr>
<th>Determined goal</th>
<th>Z statistics</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-test</td>
<td>0.464</td>
<td>0.983</td>
</tr>
<tr>
<td>Acquisition test</td>
<td>0.642</td>
<td>0.804</td>
</tr>
<tr>
<td>Retention test</td>
<td>0.390</td>
<td>0.998</td>
</tr>
</tbody>
</table>

As you see, the above p-value is more than α=0.05, so the normality of data is accepted. Doing the hypothesis test “determining the goal-setting by subjects caused to developing the short range serves in badminton in acquisition test” & because of dependence of data so used parameter tests & because of dependence of data [pre-test & retention test] so was used paired t-test.

Table 2: Paired t-test in goal-setting by subject.

<table>
<thead>
<tr>
<th>Paired difference</th>
<th>Mean</th>
<th>SD</th>
<th>Mean</th>
<th>SD</th>
<th>Lower limit</th>
<th>Upper limit</th>
<th>T</th>
<th>Freedom Rate</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>-9.571</td>
<td>4.941</td>
<td>1.321</td>
<td>-12.425</td>
<td>-6.718</td>
<td>-7.248</td>
<td>13</td>
<td>0.000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Regarding to the table [2], calculated t is -7.248, it is lower than t=1.80 of table in the level of α=0.05 & freedom rate is 13, so the zero hypothesis is declined. It means that the factor of goal-setting is affected on short range serves in badminton.

For hypothesis test “determining the goal-setting by coach caused to short range serves development in badminton in acquisition test”

Table 3: Paired t-test in goal-setting by examiner.

<table>
<thead>
<tr>
<th>Paired difference</th>
<th>Mean</th>
<th>SD</th>
<th>Mean</th>
<th>SD</th>
<th>Lower limit</th>
<th>Upper limit</th>
<th>T</th>
<th>Freedom Rate</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>-6.615</td>
<td>1.660</td>
<td>0.460</td>
<td>-7.19</td>
<td>-5.612</td>
<td>-14.367</td>
<td>12</td>
<td>0.000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Regarding to the table [3], calculated t is -7.119, it is lower than t=1.089 of table in the level of α=0.05 & freedom rate is 12, so it means that coach-setting factor is effective in short range serves in badminton.

In surveying the hypothesis “determining the goal-setting by subjects caused to learning short range serves in badminton in retention test”

Table 4: Paired t-test table in goal-setting by subjects.

<table>
<thead>
<tr>
<th>Paired difference</th>
<th>Mean</th>
<th>SD</th>
<th>Mean</th>
<th>SD</th>
<th>Lower limit</th>
<th>Upper limit</th>
<th>T</th>
<th>Freedom Rate</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>-3.214</td>
<td>3.068</td>
<td>0.820</td>
<td>-4.443</td>
<td>-1.443</td>
<td>-3.920</td>
<td>13</td>
<td>0.002</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Regarding to the table [4], calculated t is -3.920, it is lower than t=1.08 of table in the level of α=0.05 & freedom rate is 13, so it means that self-setting factor is effective on learning short range serves in badminton.

For doing the test of this hypothesis that “determining the goal-setting by coach caused to learning short range serves in badminton in retention test”

Table 5: Paired t-test table in examiner goal-setting.

<table>
<thead>
<tr>
<th>Paired difference</th>
<th>Mean</th>
<th>SD</th>
<th>Mean</th>
<th>SD</th>
<th>Lower limit</th>
<th>Upper limit</th>
<th>T</th>
<th>Freedom Rate</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>-2.154</td>
<td>1.725</td>
<td>0.478</td>
<td>-3.196</td>
<td>-1.112</td>
<td>-4.503</td>
<td>12</td>
<td>0.001</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Regarding to the table [5], calculated t is -4.503, it is lower than t=1.089 of table in the level of α=0.05 & freedom rate is 12, the zero hypothesis is declined, so the hypothesis to be same short range serves in badminton of two methods in accepted acquisition test & the above test is declined.
Now, for doing the hypothesis “there is difference between two methods of goal-setting in retention test in short range serves in badminton”

Table 6: T-test table for comparison the past test among two groups.

<table>
<thead>
<tr>
<th>Paired difference</th>
<th>Confidence interval</th>
<th>Lower limit</th>
<th>Upper limit</th>
<th>T</th>
<th>Freedom Rate</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>SD</td>
<td>Confidence interval</td>
<td>Lower limit</td>
<td>Upper limit</td>
</tr>
<tr>
<td>2.654</td>
<td>2.318</td>
<td>-2.119</td>
<td>-2.119</td>
<td>7.427</td>
<td>7.427</td>
<td>1.145</td>
</tr>
</tbody>
</table>

Regarding to the table [6], calculated t is 1.145, it is higher than t=1.030 of table in the level of α=0.05 & freedom rate is 25, the zero hypothesis is accepted, so the hypothesis to be same short range serves in badminton of two methods in accepted acquisition test & the above test is declined.

Now for doing the sixth hypothesis that “there is different between two methods of goal-setting in retention test in short range serves in badminton”

Table 7: T-test table for comparing two groups of retention test.

<table>
<thead>
<tr>
<th>Paired differences</th>
<th>Confidence interval</th>
<th>Lower limit</th>
<th>Upper limit</th>
<th>T</th>
<th>Freedom rate</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>SD</td>
<td>Confidence interval</td>
<td>Lower limit</td>
<td>Upper limit</td>
</tr>
<tr>
<td>-3.714</td>
<td>2.218</td>
<td>0.853</td>
<td>8.828</td>
<td>1.675</td>
<td>25</td>
<td>0.106</td>
</tr>
</tbody>
</table>

Regarding to the table [7], calculated t is 1.675, it is higher than t=1.030 of table in the level of α=0.05 & freedom rate is 25, the zero hypothesis is accepted, so the hypothesis to be same short range serves in badminton of two methods in accepted retention test & the above test is declined.

Discussion:

Surveying on the obtained results of this research showed that the mean of performance of two groups of self-setting & coach-setting of short range serves have increasing progress. In at all tests, the scattering amplitude is decreased in self-setting but it is increased in coach-setting group. In at all, the two groups’ efforts showed that increasing progress in acquisition test, while with insisting on the efforts mean of self-setting group is higher than the efforts mean of coach-setting group that it is showed that the higher effects of self-setting in acquisition period.

The results of recent research in acquisition part is same as the results of researches that were done by Weinberg, Breton, Look & Latham, Erli & Litoushi, Breton, Swin & Jones, Laner & Lak, Michel & Miler, Merdis & Janson, Brobst & Ward, Papaianou, Mellaliou, Tara, Boyee, Michel & Ln, Seneh. But these results are different from the results of Kiorn & Jivani & Wood researches why, the results of mentioned research showed that the ineffective goal-setting in acquisition course. In other words, this research said that there is not significant different between two groups of having & not having goal in skills of acquisition course & when the goal-setting is effective that have feedback & lonely the feedback effect is not same as the level of competition of goal-setting & feedback.

Also the results of recent in the learned skill retention parts are same as the results of research Bandara & Kron, Stephen Berg, Ttstitis Jee, Kiurs Zogla, Mellaliou, Maleki, Swin & Jones it is not same as the Brobst, Erli & Litoshi, Tara, Michel, Boyee, Brobst said that the method of goal-setting method is effective on performance but it can extent the results to the comparisons’ conditions & also Erli & Litoshi said that the effects of goal-setting on learning development only in comparison between feedback effects with learning feedback effects.

The results of recent research on comparison between two groups [self-setting & coach-setting] is same as the results of Seneh but they are not same as Weinberg, Weingber & Wijend, Boyee, Tara. VaezMosavi[2004] said that the best serves is when the athletic have a goal for themselves. Weinberg &Wijened knew that determining the goal is better done by guidance. Boyee & Tara extended that goal-setting that it is done by a coach & be better than self-setting.

The results of this research are same as done researches in acquisition & retention parts because goal-setting is a motivate method that caused to increasing the confidence & positive self-concept in the test but in some of researches are known that the coach-setting is better than self-setting that can be related to the type of skills, some skills that not be regulated must be done by coach that can determined the goals. Also in the most of research, the people are beginners who are not familiar with extended the goals but in this research, the Physical Education students are familiar with the method of extent of goals & their ages of them are in the ages that can understand perfectly. In at all, can say that using 2 types of methods are similar each other but because of better results in acquisition & retention courses of self-setting, so utilization of this method is proffered.
REFERENCES