

# The role of deception reduction in controlling some kinetic abilities and basic skills in badminton for female students

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## ABSTRACT

The purpose of this paper was to identify the role of deception reduction in controlling some kinetic abilities and basic skills in badminton for female students. The researchers used the descriptive approach for its suitability to the problem and objectives of the research. The 34 female students of the first stage at the Al-Salam University defined the research community and the final sample consisted of 30 female students. The researchers used the Statistical Package for the Social Sciences (SPSS) for data analysis. Based on the results, there is a statistically significant relationship between control deception and motor abilities (agility, balance and coordination) ( $p < 0.05$ ), as well as a statistically significant relationship between control deception and basic skills (serving, forehand and backhand) ( $p < 0.05$ ). Through the results, it was concluded the need to reduce deception in badminton players in order to achieve better performance.

## KEYWORDS

Badminton; Kinetic abilities; Basic skills; Female students

## 1. INTRODUCTION

Deception concerns many fields and has been studied in different ways according to its own theories. Several scholars have discussed this topic in terms of its importance and its impact on the self in a large way in public life in general and in the sports field in particular. In addition, people were affected in terms of performance in any sports game with regard to physical attributes, motor abilities, skills and mentality, either positively or negatively.

Badminton is considered to be one of the sports that require high kinetic abilities, as it is a game that requires speed and lightness, as agility is one of the capabilities that are at the forefront of the conditions that must be met. It is one of the most important kinetic qualities necessary for human

movement in general, as it plays a prominent role in developing results in various activities. In addition to its importance in perfecting performance, it is associated with all physical attributes (Al-Haq, 2004). Coordination is no less important than its predecessor in this game, and this requires good physical fitness to reach the ideal performance, which in turn requires mastering the skills of the game, which is the basis for the success of badminton. The importance of the study comes from the degree of control deception among first-year students and its role in some kinetic abilities and the performance of basic badminton skills.

The researchers have noticed through their presence in the field of teaching as well as by reviewing sources and interviewing experts that deception control is an important indicator and factor affecting motor skills and abilities. Thus, the purpose of this paper was to identify the role of deception reduction in controlling some kinetic abilities and basic skills in badminton for female students.

## **2. METHODS**

### **2.1. Design and participants**

The nature of the problem determines the appropriate approach on which the researcher relies on to achieve the research objectives by studying the phenomena related to the problem. In this study, the researchers used the descriptive approach in the style of correlative relations to suit the nature of the problem. The researchers chose the research community in a deliberate way. They were the first-stage female students of the Al-Salam University in the academic year 2020/2021, which comprised 34 students, and the statistical sample consisted of 30 of these female students.

### **2.2. Procedures and instruments**

The study was conducted from 18/10/2020 to 1/11/2020, using the badminton court of Al-Salam University College. The tools used in the present research included badminton rackets (30 Yonex rackets), two Yonex feather nets, plastic blades with 5 tubes (each one with a capacity of 10 Yonex blades), stopwatch, and whistle.

Kinetic abilities were determined according to the questionnaires distributed to the experts, and agility, coordination and balance were chosen to suit the game. Often the researchers need to set multiple tests to measure the variables, so it is necessary to choose some tests to measure what needs to be measured, and by referring to some available scientific sources and previous studies, the tests

that measure the abilities were determined. Below is a brief explanation of the specifications of the tests used in this research to measure kinetic abilities.

*Agility test (Allawi & Radwan, 1982).* Name of the test: Lateral Bounce run. The purpose of the test: to measure agility. Tools used: a stopwatch - three parallel lines. The distance between the line in the middle and the two sides on both sides is four feet. Description of performance: The tester stands on the center line. When he/she hears the start signal, he/she makes sideways movements to the right until he/she crosses the side line with both feet, then he/she moves to the left until he/she crosses the side line with both feet. Recording: The tester records the number of sidelines that he/she has crossed during 10 seconds.

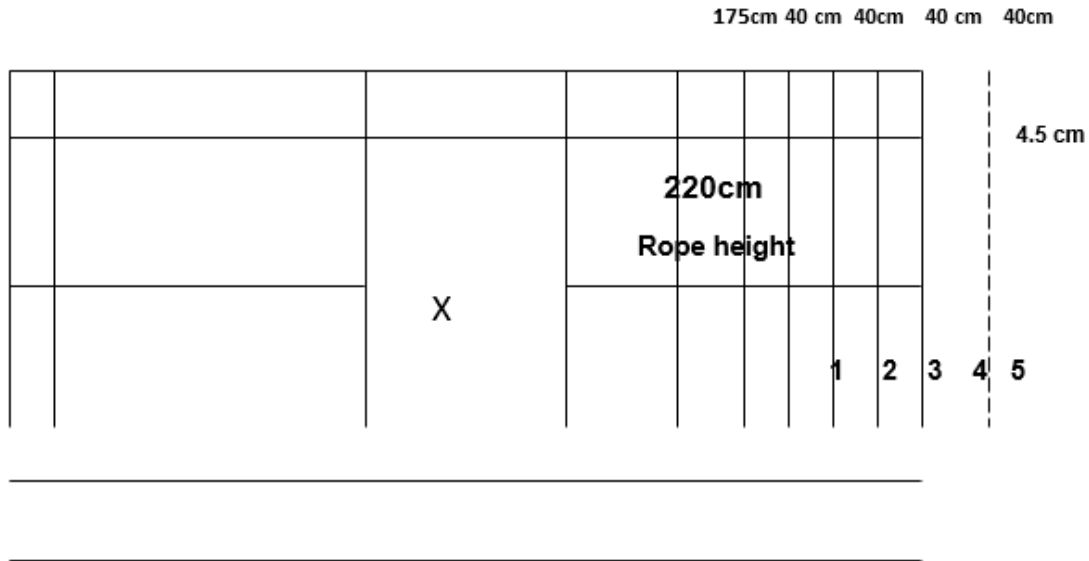
*Balance test.* The purpose of the test: to measure moving balance. Tools: flat ground - wooden bench. Description of performance: The tester walks on the wooden bench, hands aside, and the tester is given three attempts. Recording: The attempt is considered valid in the case of walking on the wooden bench from start to finish without falling.

*Coordination test (Jawad, 2004).* The purpose of the test: to measure the kinetic coordination between the legs and the eyes. Tools: a pen, a stopwatch. Description of performance: eight circles are drawn on the ground, every sixty centimeters in diameter. The tester stands inside circle No. 1. When he/she hears the start signal he/she jumps with both feet to circle No. 2 and then 3 ... until circle 8 is done, at full speed. Recording: The time used to travel through circles is recorded.

The badminton skills used in the research were determined based on the curriculum vocabulary that is taught, and with reference to the scientific sources and previous studies related to the topic of the research, a series of tests have been obtained that measure the performance of the skills used in the research and presented to experts to clarify whether they are appropriate or not and the addition of any other test as they saw fit, and accordingly, the tests were conducted.

*The long serve test.* The purpose of the test: to measure the accuracy of the long serve skill. Tools: badminton court, badminton rackets, feathers, tape measure, masking tape, information form, grade markers, rope attached to poles, table for placing the blades. Description of performance: After the test has been explained to the testers, they are given an appropriate time to warm up and then each participant is given 5 trial attempts. The participant stands in the area marked with "x". The tester transmits in a high and long way so that the shuttlecock crosses over the net and then over the rope trying to drop it in the area specified in the points. The participant is given 12 attempts and only

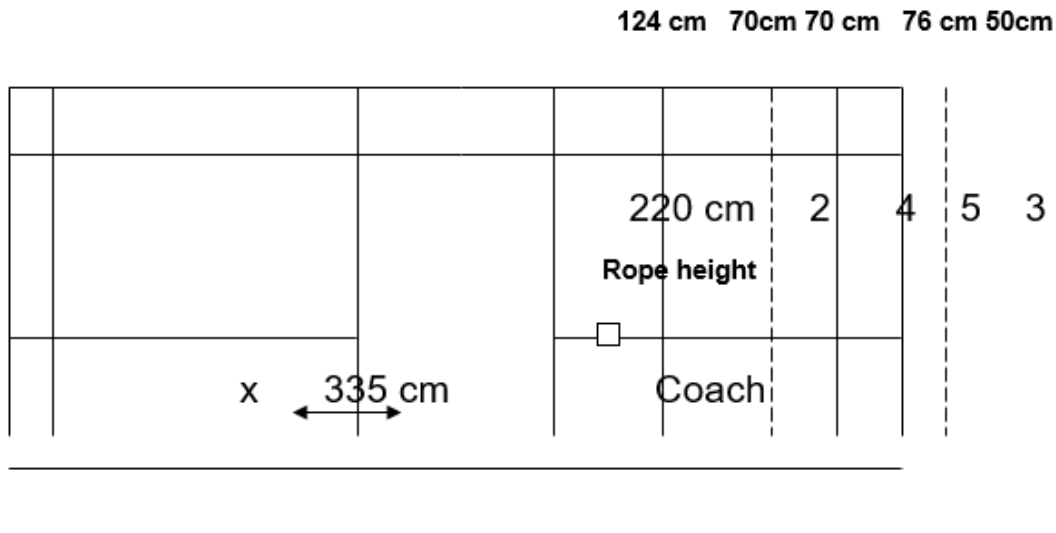
the best 10 attempts are calculated. Performance evaluation: The tester is given 5 points in the event that the shuttlecock falls in the specified area at a distance of 4.5 cm outside the limits of the back court, in excess of 40 cm inside the limits of the court directly after the back line of the court. The participant is given points (4, 3, 2) in the event that the feather falls in the specified areas with a distance of 40 cm, respectively, after the area specified in it 5 points. The tester 1 is given a point in case the feather falls in the specified area at a distance of 175 cm, which starts from the end of area 2 to the imaginary line under the rope. One point is subtracted for each attempt in which the shuttlecock does not cross over the rope. If the shuttlecock falls on a line between two regions, the highest score is given. A shuttlecock that lands outside the court (other than the designated area) or gets caught in the net is not awarded any point. The maximum number of points that the tester can score in the best 10 attempts is 50 points.



**Figure 1.** The layout of the badminton court for the long serve test

*Forehand stroke test (Taha, 2001).* The purpose of the test: to measure the accuracy of the forehand stroke performance. Tools: badminton rackets, rope, extra legs (244 cm), information form, test-designed playing field. Description of performance: After the test is explained to the testers, the testers are given an appropriate time to warm up and then each participant is given 5 experimental attempts. The participant stands in the area marked with “x”. The coach sends him/her the feather, and he/she can move if this movement is necessary for the success of the attempt. He/she must hit the feather with a forward blow (from above the head) to send it over the net and then the rope towards the specified area in degrees. The participant is given 12 attempts, and only the best 10 attempts are

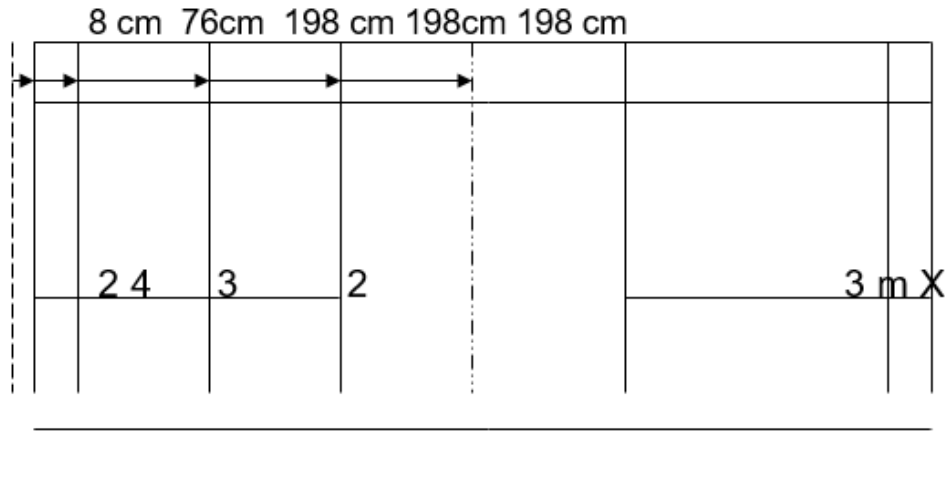
calculated for it. Performance evaluation: The tester is given 3 points in the event that the shuttlecock falls in the specified area at a distance of 50 cm after the back line of the arena. The tester is given 5 points in case the shuttlecock falls in the specified area with a distance of 76 cm between the back line of the yard and the start of the far double transmission line. The tester is given 4 points in the event that the shuttlecock falls in the specified area at a distance of 70 cm after the far even transmission line. The tester is given two points in case the feather falls in the specified area with a distance of 124 cm that starts from the end of point (4) and ends with the imaginary line extending under the rope. The highest score is given in case the shuttlecock falls on a line between two points, and no point is given to the shuttlecock that falls outside the court boundary or gets stuck in the net. The maximum score that the tester can have in the best 10 attempts is 50 points.



**Figure 2.** The layout of the badminton court for the forehand stroke test

*Backhand stroke test.* The purpose of the test: to measure the accuracy of backhand stroke performance. Tools: badminton court, badminton rackets, duct tape, measuring tape, information form. Description of performance: After the test is explained to the testers, they are given an appropriate time to warm up and then each participant is given 5 experimental attempts. The participant stands in the area marked with “x”. The coach must serve so that he/she reaches the left side of the participant (if he/she is holding his/her racket with the right arm and vice versa), so that he/she can hit it with a backhand kick. The participant is given 12 attempts, and the best 10 attempts are calculated for it. The tester can move to make the attempt successful and he/she can also leave any feather if he/she believes that its response does not result in a successful attempt, and if the coach

thinks his/her sending is incorrect he/she calls (re) and this attempt is not counted. The maximum number of points that the participant can score in the best 10 attempts is 40 points. Performance evaluation: The tester is given 1 point in the event that the shuttlecock falls in the specified area at a distance of 198 cm extending from the center line of the arena under the net to the nearest transmission line. The tester is given 2 and 3 points in case the feather falls in the specified area at a distance of 198 cm, which starts from the near transmission line and ends with the far even transmission line. The tester is given 4 points in the event that the shuttlecock falls in the specified area with a distance of 76 cm, which extends beyond the end line of the arena. The participant is given 2 points in case the feather falls in the specified area at a distance of 8 cm, which separates the far even transmission line from the far odd transmission line. A shuttlecock that gets caught in the net or goes out of court (other than the designated area) is not awarded any point.



**Figure 3.** The layout of the badminton court for the backhand stroke test

The participants also completed a questionnaire of 33 items, with the following response options: (1) It is very applicable to me; (2) It is applicable to me; (3) It applies to me moderately; (4) It applies to me in a small degree; (5) It does not apply to me at all. The 33 items of the questionnaire were: 1) If you focus on what is difficult enough for the teacher to explain the skill, you will be able to master it. 2) I think it will take longer to master the skill. 3) A good student is the one who has a vision of achieving mastery of the skill in any way. 4) It turns out to me that a student with a well-planned system will master the skill to no avail. 5) I do not expect to master the skill no matter how favorable things are in the future. 6) I expect to master the skill no matter the difficulties in front of me. 7) I think I'll get a better performance when I reduce the extra movement. 8) My athletic skills enable me to have high time control, necessary for any performance. 9) I have no control over the

difficulties I face if the performance time is long. 10) Going into the games does not allow me to get enough time to rest. 11) I do not have the ability to achieve any outstanding performance in the length of the performance time. 12) No matter how long the performance or playing time is, I shift my effort according to time. 13) My physical abilities will be the reason for my optimal performance experience. 14) I think that the future of my relations with female colleagues will be negative for me. 15) Success in social life requires absolute confidence in success. 16) There are secrets to success in the social relations between the teacher and the students that can be learned and acted upon easily. 17) The teacher's reactions make me feel that I have no control over the events. 18) There are indications of my skills in any social interactions I make with my female colleagues. 19) My social relations are good with the teacher and classmates, and it goes back to my social style and abilities. 20) Someday in college or somewhere I'll be lucky to find my soulmate. 21) My way of thinking with the competitor will make me the victim of a failed romantic relationship. 22) No matter how emotionally sad the atmosphere is at the club, I never lose my temper. 23) The capabilities I possess make the possibility of the success of my emotional relationships with the competitor in the future a great possibility. 24) I do not have the confidence to overcome the hardships that I will face with my emotional partner. 25) I rely on a certain system that provides me with success in my love life. 26) I have control over the exact prediction of my future emotional state. 27) I enjoy control over my affection with female colleagues, no matter the circumstances. 28) I have what qualifies me to publish daily newspapers about my sporting achievements. 29) The satisfaction that comes to me in any competition that I participate in suggests to me that I dominate and win. 30) I am sure of winning any match because I prepare well before it. 31) Maintaining a method that enables me to reach my goal is the secret of my superiority over others. 32) Having the skills makes me more dominant in any competition with others. 33) I can guess how far my skills will outperform others in any competition with them.

An exploratory experiment was conducted in order to know and overcome the possible obstacles for implementing the tests, as well as to determine the time needed and to know what things must be available when testing. The researchers supervised the procedures of the exploratory experiment, which was applied to a sample of first stage university students who were not participating in the main experiment, with a number of 4 students on the date 20/10/2021, in order to identify the most important difficulties that may accompany the implementation of the tests.

### 2.3. Statistical analyses

The Statistical Package for the Social Sciences (SPSS) was used for data analysis. To identify the relationship between the reduction of deception and some kinetic abilities in badminton, as well as the relationship between the reduction of deception and basic skills, Pearson's correlation coefficient was used. The level of significance for all data was considered as  $p < 0.05$ .

### 3. RESULTS

The relationship between each of the kinetic abilities in badminton (agility, balance and coordination) and the control deception scale is presented in Table 1. Table 1 shows the value of Pearson's correlation coefficient ( $r$ ) between agility and the control deception scale, which was 0.97 ( $p = 0.02$ ), while the correlation coefficient between balance and control deception scale was 0.95 ( $p = 0.04$ ), and the correlation coefficient between coordination and control deception scale was 0.99 ( $p = 0.00$ ). As we can see from the results, these values are all lower than the significance level of 0.05, which means the significance of the positive correlation between them.

**Table 1.** Correlation between kinetic abilities and control deception scale

| <b>Kinetic ability</b> | <b>Pearson coefficient value</b> | <b>p value</b> |
|------------------------|----------------------------------|----------------|
| Agility                | 0.97                             | 0.02           |
| Balance                | 0.95                             | 0.04           |
| Coordination           | 0.99                             | 0.00           |

The relationship between the basic skills in badminton (serve, forehand stroke and backhand stroke) and the control deception scale is presented in Table 2. The table shows the value of the Pearson's correlation coefficient ( $r$ ) between the serve and the control deception scale, which was 0.97 ( $p = 0.02$ ), while the correlation coefficient between the forehand stroke and the control deception scale was 0.99 ( $p = 0.00$ ), and the correlation coefficient between the backhand stroke and the control deception scale was 0.96 ( $p = 0.03$ ). These values were all lower than the significance level of 0.05, which means the significance of the positive correlation between them.



**Table 2.** Correlation between basic skills and control deception scale

| Basic skills    | Pearson coefficient value | p value |
|-----------------|---------------------------|---------|
| Serve           | 0.97                      | 0.02    |
| Forehand stroke | 0.99                      | 0.00    |
| Backhand stroke | 0.96                      | 0.03    |

#### 4. DISCUSSION

The purpose of this paper was to identify the role of deception reduction in controlling some kinetic abilities and basic skills in badminton for female students. Based on research results, there was a positive correlation between all kinetic abilities (agility, balance and coordination) and control deception scales ( $p < 0.05$ ). The value of the Pearson's correlation coefficient ( $r$ ) between agility and the control deception scale was 0.97 ( $p = 0.02$ ), while the correlation coefficient between balance and the control deception scale was 0.95 ( $p = 0.04$ ), and the correlation coefficient between coordination and the control deception scale was 0.99 ( $p = 0.00$ ).

The researchers attribute the reason for the positive relationship between each of the motor skills and the control deception scale to the fact that each skill cannot be separated from the thinking process. The further the student's thinking is from the performance, the more errors occur, and the phenomenon of deception of control puts the mind in a state of constant motion because the thinking process is the cornerstone. This was confirmed by Wortman (1975) regarding the deception of control, as he defined it as "the excessive awareness of personal control".

As for the relationship between the basic skills in badminton (serving, forehand, backhand) and the control deception scales, based on research results, there was also found a positive correlation between them ( $p < 0.05$ ). The Pearson's correlation coefficient ( $r$ ) between the serve and the control deception scale was 0.97 ( $p = 0.02$ ), while the correlation coefficient between the forehand and the control deception scale was 0.99 ( $p = 0.00$ ), and the correlation coefficient between the backhand and the control deception scale was 0.96 ( $p = 0.03$ ).

Researchers attribute the reason for the significant relationship to the fact that the skills and this phenomenon share a certain characteristic, which is the desire. This was confirmed by previous studies and research, as a number of researchers addressed the issue of the relationship between desire and deception of control and between. The cases in deception of control are likely to occur through desire, i.e. people know that they have overcome difficulties through their desire to accomplish the task they are assigned. They judge things from the beginning (before completing the

task), i.e. they give a perception of success before announcing the result, and this is the deception of control that results from desire (Weinstein, 1987).

In conclusion, there is a statistically significant relationship between control deception and kinetic abilities (agility, balance and coordination) in badminton, as well as a statistically significant relationship between control deception and basic skills (serving, forehand and backhand). Therefore, there is a necessity of reducing deception in badminton players in order to achieve better performance.

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## AUTHOR CONTRIBUTIONS

All authors listed have made a substantial, direct and intellectual contribution to the work, and approved it for publication.

## CONFLICTS OF INTEREST

The authors declare no conflict of interest.

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