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Effect of virtual reality technology based on artificial intelligence on sports competition anxiety of Indian players

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Abstract
The study was conducted to investigate the Effect of Artificial Intelligence Virtual Reality Technology on Sports Competition Anxiety among male cricketers of Rohtak region. 20 male cricketers were selected by simple random sampling technique out of which 10 is in control group who do only Normal daily routine training and 10 in experimental group who do Normal daily routine training with Artificial Intelligence Virtual reality technology. Sports competition Anxiety Test was administered as standard questionnaire for the study. Dependent t test was used with level of significance 0.05 to compare pre-test and post-test. The findings of the study reveals that there is no significant difference when we don't use Artificial Intelligence Virtual reality technology with normal training whereas there is a significant difference when we use Artificial Intelligence Virtual reality technology with normal training.

Keywords: Artificial intelligence virtual reality technology, sports competition anxiety, male cricketers, normal daily routine training

Introduction
Virtual reality: What is it? The term "near-reality" can be used to describe virtual reality Through sensory experience, humans learn about their surroundings. The process of ingesting artificial information through the senses, which the brain then interprets as reality, is hence virtual reality. In a technical sense, "virtual reality is the term used to describe a three-dimensional, computer-generated environment which can be explored and interacted with by a person"

Immersion
In the world of virtual reality, immersion is essentially a singular experience. Here, the user can completely immerse himself in this made-up universe while exploring the three-dimensional virtual reality environment. It essentially involves the user experiencing a sense of involvement in a cleverly created virtual world.

Virtual reality in Sports
There is a great deal of interest in the use of computer technology in sports. Computerized modeling, data collection and analysis, portable computers, and information technology networks are examples of such technologies. Another technology is virtual reality (VR), which was first used in athletic studies in the 1990s but has recently attracted renewed interest. A computer-simulated environment known as VR tries to give users a sense of being physically or mentally present (Craig, 2002) [7]. The ability to present in another location is one of VR's key features (Banos *et al*. 2000; Sherman) [8]. The ability to interact with the environment is a key component of virtual reality. Sport-related engagement may take place through an exertion interface (Mueller *et al*. 2007) [9]. VR can also be used for evaluation, to get performance feedback, and develop particular abilities. The VR experience does not have to be exclusive to one person. Even if they are physically situated somewhere else, additional people, such as a coach, teammate, or rival, may nonetheless be present.

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Sports Competition Anxiety

Athletes may experience somatic (physical) and cognitive (mental) reactions during competition, which may have a negative impact on their performance. Terms used to characterize this condition include stress, arousal, and anxiety. Letting your mind work against you rather than for you is the main issue in a competition. Only after accepting anxiety sensations as an inherent part of the competition experience will anxiety start to improve your performance. The interference components that affect performance are described by Gallwey (2000) [10].

Performance = Potential - Interference.

Statement of the problem

Effect of Virtual Reality Technology Based on Artificial Intelligence on Sports Competition Anxiety of Indian Players.

Objective of the study

To determine the effect of Artificial Intelligence Virtual reality technology (VRT) on Sports competition Anxiety.

Hypothesis

1. It was hypothesized that there will be no significant difference of normal training without Artificial intelligence on sports competition anxiety between Pre-test and Post-test. of control group.
2. It was hypothesized that there will be no significant difference of normal training with Artificial intelligence on sports competition anxiety between Pre-Test and Post-test of Experimental group.

Delimitations

1. The study was delimited to only players of Rohtak region.
2. The study was delimited to only 20 male cricketers (10 in experimental group, 10 in controlled group).
3. The training period was limited to 4 weeks 3 times in a week.
4. The training was limited to 30 minutes, 2 half of 15 minutes with 10 minutes rest.
5. The study was delimited to age between 15-25 years
6. The study was delimited to only cricket game.

Methodology

Sources of data

For the present study primary source of data was collected from the male cricketers of Rohtak region.

Selection of subjects

For the purpose of the study, twenty (20) male cricketers age 15-25 year from Rohtak region who voluntarily agreed to participate in the experiment were chosen at random for the purpose they were further divided into experimental and controlled group (10 in both).

Selection of variables

On the basis of review of literature, expert's opinion, facilities & instruments availability and own understanding, sports competition anxiety were selected.

Independent variable

Artificial Intelligence Virtual Reality Technology (VRT).

Dependent variable

Sports competition anxiety.

Sampling Method

The subject were selected by simple random sampling.

Equipment used for collection of data

Sports competition anxiety test.
Artificial Intelligence Virtual Reality Technology (VRT).

Results and Discussion

Hypothesis No. 1: It was hypothesized that there will be no significant difference of normal training without Artificial intelligence on sports competition anxiety between Pre-Test and Post-Test. of controlled group.

Table 1: Showing the mean, S.D, S.E$_D$ and t-value of Pre-test and Post-test of controlled group

	N	Mean	S.D.	S.E$_D$.	't' Value	Significance Level
Pre-test	10	24.60	0.70	0.29	0.68	Not-Significant
Post-test	10	24.40	1.26			

Table 1. shows the mean, S. D, S.E$_D$ and t-value Pre-test and Post-test of Controlled Group. The mean score of Pre-test of controlled group is 24.60 and S.d is 0.70. The mean score of Post-test controlled group is 24.40 and S.d is 1.26. The calculated t-value of controlled group cricketers is 0.68 The tabulated value is 1.83 at 0.05 level of significance. The tabulated value 1.83 is greater than the calculated value 0.68, it means hypothesis accepted so there is no significant difference of normal training without Artificial intelligence on sports competition anxiety between Pre-test and Post-test of controlled group

Hypothesis No. 2: It was hypothesized that there will be no significant difference of normal training with Artificial intelligence on sports competition anxiety between Pre-Test and Post-Test of Experimental group

Table 2: Showing the mean, S.D, S.E$_D$ and t-value of Pre-test and Post-test of Experimental group

	N	Mean	S.D.	S.E$_D$.	't' Value	Significance Level
Pre-test	10	24.80	1.40	0.45	6.32	Significant
Post-test	10	21.90	1.52			

Table 2. shows the mean, S. D, S.E$_D$ and t-value Pre-Test and Post-test of Experimental group. The mean score of Pre-Test of Experimental group is 24.80 and S.d is 1.40 The mean score of Post-Test of Experimental group is 21.90 and S.d is 1.52 The calculated t-value of Experimental group of cricketers is 6.32.The tabulated value is 1.83 at 0.05 level of

significance The tabulated value 1.83 is smaller than the calculated value 6.32 it means hypothesis rejected, so there is significant difference of normal training with Artificial intelligence on sports competition anxiety between Pre-test and Post-test of Experimental group

Conclusion
The study was conducted to investigate the Effect of Virtual Reality Technology Based on Artificial Intelligence on Sports Competition Anxiety among male cricketers of Rohtak region. From the study it is concluded that there is no significant difference when we don't use Artificial Intelligence Virtual reality technology with normal training whereas there is a significant difference when we use Artificial Intelligence Virtual reality technology with normal training which shows that Effect of Artificial Intelligence Virtual reality technology in cricket Sports is very useful to decrease sports competition anxiety

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