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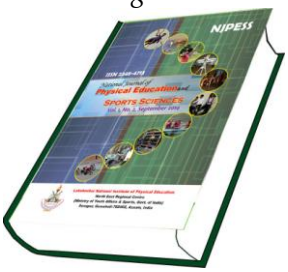
National Journal of

Physical Education and Sports Sciences

(NJPESS-2021)

Volume 7 Number 1 February 2021 ISSN: 2348-4713

Publishing Consultancy



for

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LNIPE, Sonapur, Guwahati, Assam-782402 (INDIA)
Tel: +91-8811018526 (M)
Editioral Board: publication@lnipeassam.edu.in
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Typeset by
North East Regional Center-LNIPE, Guwahati, Assam
E-mail: publication@lnipeassam.edu.in

Printed by
North East Regional Center-LNIPE, Guwahati-782402
E-mail: publication@lnipeassam.edu.in

Editorial

Epicenter Voyage of a Myth Institute-Lakshmibai National Institute of Physical Education
North East Regional Center

Lakshmibai National Institute of Physical Education, NERCis amongst the most admired centers of world-class education to foster academic excellence, physical fitness and research in sports committed to helping scholars, researchers and sports scientist leap into the 21st century. The present endeavor is a tribute to the holy symbol of Lakshmibai National Institute of Physical Education, NERC as the same was long precious aspiration. The journal shall symbolically signify the essence of quality research thereby appropriate in the ambition of the institute. The journal shall offer a much desired platform to publish quality research being undertaken in the whole world on the area in question. The journal shall bring the academicians and researchers from all over the globe to share their accumulated experiences and perceptions in order to realize new scientific and original innovation focused on aspects of the sports sciences and sports performance.

Prof. Shankar Basumatary
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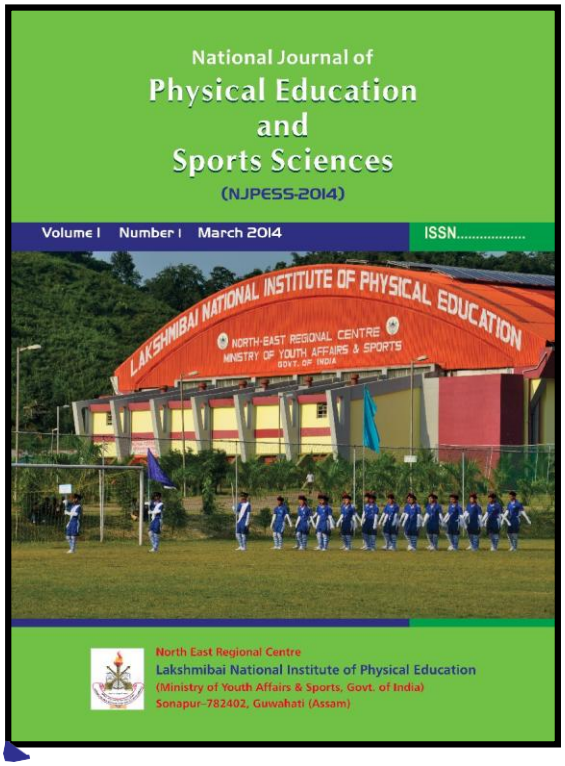

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N J P E S S

National Journal of Physical Education and Sports Sciences

Volume 7 Number 1 February 2020 ISSN : 2394 - 9953

Content

National Journal of Physical Education and Sports Sciences
ISSN:2394-9953
Volume 7, Number 1, February 2020

Comparison of Anxiety, Aggression, Self- Concept and Morality Among Individual, Combative and Team Game Players

Dr. Shrikrishna Patel

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The purpose of the study was to characterize university level players by selected psychological responses and to compare selected psychological variables among individual, combative and team games. The study was conducted on selected psychological variables on 60 male interuniversity level players, twenty from each group i.e. individual, combative and team games. The age of the subjects was ranging between 20 to 25 years. The selected psychological variables were anxiety, aggression, self-concept and morality. To compare psychological variables among individual, combative and team games, analysis of variance (ANOVA) was employed at 0.05 level of significance. On the basis of results following conclusions were drawn:

No significant difference was found in individual sports, combative sports and team games in relation to anxiety (0.086) and aggression (0.259) whereas significant difference was found in self-concept (3.693) and morality (4.737) among individual, combative and team games

Introduction

Success and failure of an athlete depends on the blending of physical conditioning, training, mental preparation and ability to perform well in under pressure and cooperation of athlete with others, so all the aspects (physical, psychological and social) are needed for an athlete. If one is lacking in an aspect, it is very difficult to get success in competition. That's why the coaches must not only have the knowledge about the skills and strategies of the sports but also should be psychologically skillful. Anxiety is one of the greatest problems of modem trends in scientific knowledge, culture conflict, economic problem; industrialization all adds to the problem of men thus increasing the anxiety level. Sports may be arranged in a scale accordingly to the intensity and type of aggression inherent in each. Some sports require that a great deal of physical force be directed against one's opponent, whereas other requires forceful actions against the environment instead of direct aggression. Many sports however

required that individual aggress with in structured rules and specific conditions stressful in the fact that in many sport all out aggression is alternated with periods of total absence of action. Thus, in sport as in life, one problem is to encourage an optimum amount of aggression. The self-concept is a highly complex component of behavior, composed of both cognitive and effective dimension and has at least four orientations: The real self, the perceived self, and the ideas self and the self as perceived by others. Not only from physical, physiological but also from moral point of view one has to be fit. Jawaharlal Nehru the first prime minister of India said about "PLAY THE GAME IN THE TRUE SPIRIT OF THE GAME" which reflects the moral values in games/sports.

Sports world is not separate from the real world. Just to get materialistic gains, people got to any extent. Today there are many who will readily bequeath their soul to the devil in exchange for pleasure and power. Modern man is confronted with temptation at every step. In sports, the unfair measures of winning viz. cheating, lying, aggression, violation of rules, doping etc. has taken the place of morality.

Athlete thanks that morality is the obstacle in winning the games. It is the hindrance in their performance improvement. They use the unfair means, though may later realize the price. They had to pay for it in terms of losing their peace and happiness. It is because of the weakness of modern man/athlete that man has become a victim of their lust. The only way is the spiritual and moral regeneration through listening to their inner voice, the so-called conscience. That can never mislead man. The future of humankind is really in the hands of those who can bring about a reawakening of man's higher consciousness.

Purpose

The purpose of the study was to characterize university level players by anxiety, aggression, self-concept, and morality. Another purpose of the study was to compare anxiety, aggression, self-concept and morality among individual, combative and team games

Material and Methods

Participants

Sixty players at university level were selected as subjects for the study. The age of the subjects ranged between 20 to 25 years. The subjects were selected according to following sports groups.

Table - 1

Individual Sports			Combative Sports		Team games		
Badminton	Athletics	Swimming	Wrestling	Judo	Football	Volleyball	Hockey
06	07	07	10	10	07	07	06

Questionnaire Used

The following questionnaires were used to test the hypothesis:

- The anxiety score of the subject was obtained by using Sports Competition Anxiety Questionnaire – A form developed by Rernier Marten.
- The aggression score of the subject was obtained by using sports Aggression inventory developed by Anand Kumar and Prem Shankar Shukla.
- The self-concept scores of the subjects were obtained by using Self-Concept Questionnaire (SCQ) by Dr. Raj Kumar Saraswat (r = 0.91)
- Morality score of the subjects was obtained by using sports morality test by Dawn Slephae and David Layed Shield.

Statistical Analysis

To compare the Anxiety, Aggression, Self-concept and Morality among Individual, Combative and Team Game Players, one way analysis of variance (ANOVA) was applied at 0.05 level of significance.

Results

To compare the Anxiety, Aggression, Self-concept and Morality among Individual, Combative and Team Game Players, one way analysis of variance (ANOVA) was applied and data pertaining to these has been presented in two sections

Section one deals with the characteristics of Anxiety, Aggression, Self-Concept, and Morality belonging to Individual, Combative and Team Games.

Section two deals with the comparison of psychological variables namely Anxiety, Aggression, Self-Concept, and Morality among all the categories.

Section One

Table - 2

Mean and Standard Deviation of Anxiety, Aggression, Self-concept and Morality belonging to Individual, Combative and Team Game Players

Variables	Groups	Mean	Standard Deviation
Anxiety	Individual	19.75	2.77
	Combative	19.40	2.91
	Team	19.65	2.56
Aggression	Individual	70.15	4.18
	Combative	69.35	3.19
	Team	69.45	4.03

Self-Concept	Individual	13.55	2.01
	Combative	11.40	2.14
	Team	12.40	2.45
Morality	Individual	161.30	24.87
	Combative	175.70	15.79
	Team	160.25	18.51

Section Two

Table - 3

Analysis of Variance of Anxiety belonging to Individual, Combative and Team Games

Source of Variance	d.f.	Sum of Squares	Mean Sum of Squares	F-Raito
Between Groups	2	1.300	0.650	0.086
Within Groups	57	431.10	7.563	

Tab.- F 0.05 (2,57) = 3.17

It appears from table - 3 that the obtained value of F (0.086) among Individual, Combative and Team Games in relation to Anxiety was less than the tabulated value (3.17) at 0.05 level of significance, therefore null hypothesis among the Individual, Combative and Team Game Players was accepted.

Table - 4

Analysis of Variance of Aggression belonging to Individual, Combative and Team Games

Source of Variance	d.f.	Sum of Squares	Mean Sum of Squares	F-Raito
Between Groups	2	7.600	3.800	0.259
Within Groups	57	836.050	14.668	

Tab.- F 0.05 (2,57) = 3.17

It appears from table - 4 that the obtained value of F (0.259) among Individual, Combative, and Team Games in relation to Aggression was less than the tabulated value (3.17) at 0.05 level of significance, therefore null hypothesis among the Individual, Combative and Team Game Players was accepted.

Table - 5

Analysis of Variance of Self-Concept belonging to Individual, Combative and Team Games

Source of Variance	d.f.	Sum of Squares	Mean Sum of Squares	F-Raito
Between Groups	2	2981.100	1490.550	3.695*
Within Groups	57	23004.150	403.582	

**** Significant at 0.05 level of significance***

Tab. - F, 0.05 (2, 57) = 3.17

It appears from table - 5 that the computed value of F (3.695) among Individual, Combative, and Team Games in relation to Self-Concept was greater than the tabulated value (3.17), at 0.05 level of significance, therefore null hypothesis among the Individual, Combative, and Team Game Players was rejected.

Table - 5.1

Least Significant Difference (LSD) Post - Hoc Test of Self-Concept in relation to Individual, Combative and Team Games

Individual	Team	Combative	Mean Difference	Critical Difference
175.50	161.30		14.20*	12.70
175.50		160.25	15.25*	
	161.30	160.25	1.05	

****The Mean Difference was Significant at 0.05 level of significance***

It is evident from table - 5.1 that mean difference of Combative and Individual, Combative and Team was significant whereas mean difference of Individual and Combative was not significant at 0.05 level of significance.

Table - 6

Analysis of Variance of Morality belonging to Individual, Combative, and Team Games

Source of Variance	d.f.	Sum of Squares	Mean Sum of Squares	F-Raito
Between Groups	2	46.300	23.150	4.737*
Within Groups	57	278.550	4.887	

**** Significant at 0.05 level of significance***

Tab. - F, 0.05 (2, 57) = 3.17

It appears from table - 6 that the computed value of F (4.737) among Individual, Combative, and Team Games in relation to Morality was greater than the tabulated value (3.17), at 0.05 level of significance, therefore null hypothesis among the Individual, Combative, and Team Game Players was rejected.

Table - 6.1

Least Significant Difference (LSD) Post - Hoc Test of Morality in relation to Individual, Combative and Team Games

Individual	Team	Combative	Mean Difference	Critical Difference
13.55	12.40		1.150	1.398
13.55		11.40	2.150*	
	12.40	11.40	1.00	

****The Mean Difference was Significant at 0.05 level of significance***

It is evident from table - 6.1 that mean difference of Individual and Combative was significant, on the other hand mean difference of Individual and Team; Team and Combative was not significant at 0.05 level of significance.

Conclusion

The analysis of data revealed that the anxiety, aggression, of Individual, Combative and Team Game players did not differ significantly. This may be attributed to the fact that anxiety is more or less related with the experience of the player, since all the players were having more or less same experience.

Almost all the players in different games need a good level of controlled aggression and hence their nature of game has not brought any difference.

The analysis of data also showed that significant difference was found among Individual, Combative and Team Game players in relation to Morality and Self-Concept. This might be due to the reason that the sportsmen belonging to all the three categories of sports uses different types of tactics i.e. negative as well as positive. These tactics require different types of moral values and self-concept.

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National Journal of Physical Education and Sports Sciences
ISSN:2394-9953
Volume 7, Number 1, February 2020

Effects of Calisthenic Exercises on the Selected Physical Fitness Components Among Players of Rackets Games

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Abstract

The purpose of the study was to investigate the effect of caslisthenic exercise on the selected physical fitness components among players of racket game with age group of 18 to 22 years from lnipe, nerc, Guwahati, Assam. Total 30 player of racket game were the sample of the study. 15 subject were in experimental group and 15 were control group. The selection of subject were done randomly from three rackets game badminton, tennis, table tennis. The experimental group was exposed to calisthenic training program for six weeks whereas the control group continued with their daily routine activities but was not given any calisthenic training. The study was conducted on selected physical fitness variables i.e. speed, cardio-respiratory endurance, and explosive strength. The SPSS 20 software was used. Two way analysis of variance (ANOVA) was employed to find out intra group difference in pre and post-test on caslisthenic exercise on the selected physical fitness components among players. To test the hypothesis, the level of significance was set at 0.05.

Keyword: Callisthenic exercise, Physical Fitness, Racket Game

Introduction

Racquet sports are exciting games of power and precision. Racquet sports require a high level of athleticism, skill, technique, and mental abilities. There are many racquet sports including the popular badminton, pickle ball, racquetball, squash, table tennis, and tennis. Racquet sports require a myriad of skills, including power, precision, technique, timing, and perhaps, most importantly of all, agile footwork and mental focus. We would be remiss to discuss developing racquet sport skills without covering the crucial, and often neglected, mental side of racquet sports, including overtraining. The sports world is filled with great physical athletes that never achieved their potential because their mental games weren't as good. In addition to the mental side of the game, it is necessary for racquet sports players to condition their bodies for long hours of practice and playing. Lifting can enhance a racquet athlete's potential skills because so many of the muscles of the

body are used in these sports. Extra attention, however, should be placed on core training and leg training. Participants can run through agility ladders or tires much the same way pro football players do. Racquet sports players must endure hours per day of games and practice, and they can supplement their workouts with exercise bikes or swimming to build endurance. They say that 'practice doesn't make perfect, perfect practice does'. In racquet sports, it's not enough to practice long hours. The skills must also be done correctly in order to perfect your technique. For badminton fitness to be effective, the methods adopted to improve fitness should be specific to badminton. For example, there is no need to strengthen jaw muscles for badminton, as it serves no useful purpose in developing the playing skills of any badminton player. Specific badminton fitness involves strengthening of the wrist, elbows, shoulders, neck, chest, abdomen, back, thighs, knees and ankles. Because these are the body areas that are actively involved in playing badminton. Consequently, strengthening these areas by specific exercises improves the fitness and strength of the player, enabling him to endure better during play.

Training should be sport specific, addressing the specific needs of a badminton player. On court training, such as playing games and badminton drills, will provide some fitness benefits, but it needs to be supplemented with extra off-court training, such as resistance exercises in the gym and other cross training activities. Here is some more information about training for specific physical attributes that are important for badminton.

Materials and Methods

Participants

Total 30 player of racket game were the sample of the study. 15 subject were in experimental group and 15 were control group with age group of 18 to 22 years from lnipe, nerc, Guwahati, Assam. The selection of subject were done randomly from three rackets game badminton, tennis, table tennis. The experimental group was exposed to calisthenic training program for six weeks whereas the control group continued with their daily routine activities but was not given any calisthenic training. The study was conducted on selected physical fitness variables i.e. speed, cardio-respiratory endurance, and explosive strength.

Statistical Analysis

In order to examine the hypotheses of the study , descriptive statistics such as mean, standard deviation and comparative statistics such as two way ANOVA was employed and tested at 0.05 level of significance to measure the present data collected (SPSS 20 was used).

Instrument

- The following instruments used for collection of data were physical fitness variables, speed, cardio respiratory endurance, explosive strength.

- The description of the test items for testing and collecting the pre and post data on the selected physical fitness variables are as follows:
- Speed- 50 meter dash, cardio respiratory endurance- nine minutes run, explosive strength- standing long jump test (broad jump).

Result

The data was analysed by use of univariate analysis- two way ANOVA to understand if there is an interaction between the two independent variables on the dependent variables.

The level of significance chosen to test the hypothesis was 0.05.

Univariate analysis is the simplest form of analysing data. "Uni" means "one", so in other words your data has only one variables. It doesn't deal with causes or relationship (unlike regression) and its major purpose is to describe; it takes data, summarise that data and finds patterns in the data. The interaction term in a two-way ANOVA informs whether the effect of the independent variables is the same for all values of the other independent variables (and vice versa).

Table 1:

Univariate analysis of experimental and control groups in variables of speed

	Sum of square	df	Mean square	F	Sig.
Contrast	.046	1	.046	.21	.648
Error	12.237	56	.219		

****significant at .05 level***

f.05 (1, 56) = 4.0

As shown in table 1 that the obtained 'f' value of experimental and control group in speed was 0.21 which was less than the tabulated value. This indicated that there was no significant difference between the group in the factor of speed.as there was no significant difference seen further calculation are not done for the group.

Table 2:

Univariate analysis of experimental and control group in variables of cardio respiratory endurance

	Sum of square	df	Mean square	F	Sig.
Contrast	367601.317	1	367601.317	10.615*	.002
Error	1939278.545	56	346229.974		

****significant at .05 level***

f.05 (1, 56) = 4.01

As shown in table 2 that the obtained 'f' value of experimental and control group in cardio- respiratory endurance was 10.615, greater than the tabulated value. This indicated that there was significant difference between the groups in the factor of cardio respiratory endurance. As there was significant difference.

Table 3

Univariate analysis of experimental and control group in the variables of explosive strength

	Sum of square	df	Mean square	F	Sig.
Contrast	.028	1	.028	1.169	.284
Error	1.349	56	.024		

****significant at .05 level***

f.05 (1, 56) =4.01

As shown in the table 3 that the obtained 'f' value of experimental and control groups in explosive strength was 1.169 which was less than the tabulated value. This indicated that there was no significant difference between the group in the factor of explosive strength. As there was no significant differ

Discussion

Based on the statistical analyses and the derived result, the hypothesis of the study is discussed. From the analysis of hypotheis1 it can be said that the hypothesis of the study stands partially accepted, as because in the variable of speed there was significant difference seen in the test score, whereas, no significant difference was seen between the experimental and control group. From the analysis of hypothesis2 hypotheis1 it can be said that the hypothesis of the study stands partially accepted, as because in the variable of cardio-respiratory endurance there was no significant difference seen in the test score, whereas, significant difference was seen between the experimental and control group. From the analysis, it can be said that the hypothesis of the study stands rejected, as because in the variables of cardio-respiratory endurance there was no significant difference seen in between the test and group score.

Conclusion

Keeping the result and discussion in view within the limit and limitation of the study and on the basis of obtained result, the following conclusion have been drawn that the sample of the study were thirty male students with fifteen each in experimental and control group, based on the test and treatment score, i.e. pre-test and group score. The result drawn which depicted that the 'f' value tested for significance for the present findings was at 0.05 level with 1, 56 df. The required value was 4.01.

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National Journal of Physical Education and Sports Sciences
ISSN:2394-9953
Volume 7, Number 1, February 2020

Construction of Cricket Knowledge Test for the Player of Punjab Cricket Association

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Abstract

The purpose of this study was to measure the relationship of reaction time, agility, speed of movement and flexibility to the performance of subjects in 110 meter hurdles event. The subjects for this study were 10 male hurdlers of L.N.I.P.E., Gwalior who have participated in M.P. State Athletic Meet. The age group of subjects was 16 to 25 years. Reaction time was measured by Anand's electronic reaction time apparatus; Shuttle run (4 x 10 yards) was used to access the agility; speed of movement was represented by 50 yard dash test and while sit and reach test was used to check the flexibility of the subjects. The performance of the subjects was also recorded in 110 meter hurdles. The product moment correlation method was used in order to find the relationship between the performance of subjects in the event of 110 meter hurdles and Reaction time, Agility, Speed of movement and Flexibility. The finding of the study revealed that these were insignificant relationship between the reaction time, agility, speed of movement and flexibility to the performance in 110 meter hurdles. The obtained values of correlations were found insignificant at 0.05 level.

Keywords: Reaction Time, Agility, Speed of Movement, Flexibility, 110 MH

Introduction

Games and sports are a major part of most physical education curricula (Werner, Thorpe, & Bunker, 1996). During the past twenty years, there has been a particular focus in the way games and sports have been taught. Tactical approaches to teaching games such as "Teaching, Games for Understanding" have been developed based on the fact that more traditional approaches or teaching games, such as a technical approach, have demonstrated themselves to be not very efficient in helping students' understand, perform and consequently better appreciate games and sports. Controversy still exists pertaining to the most efficient teaching strategy (Rink, 1996). However, the fact

remains that whatever the approach used in teaching games (History, rule and regulation, technical or tactical), when emphasis is placed on solving tactical problems, there is a need for measurement procedures and instruments that adequately assess students' performance in actual game contexts with regards to different assessment scenarios (diagnostic, formative, summative). Knowledge testing has probably always been a part of school physical education programs; however, most attempts to measure knowledge have been done through the use of teacher made tests. Knowledge test, which may be either objective or subjective in nature, but they have not been scientifically constructed and devised.

Construction of a knowledge test is a necessity because if one needs to administer any test before that one should have to proceed step by step. What to do first then afterwards. Construction means to build up and when one builds up a knowledge test, then it will definitely lead to a successful physical education program.

There seem to be no knowledge test available at present or few are outdated in literature as far as the game of cricket is concerned. At present physical education has become a compulsory/optional examination subject in many of the educational institutions and the game of cricket is included as one of the curricular activity. It is also an instructional game in the professional institutions. Therefore for the purpose of evaluating and assessing grades. it is necessary that some kind of knowledge test be available in the game of cricket. With this idea in mind the present study has been undertaken. Sports is an integral part of a society an expression of its ideal of man and woman hood, a pursuit of the ends of life rather than the means an activity are really wants to do with one's whole self unforced by the constraints of nature or the state. Sports by their very nature are enjoyable, challenging, all absorbing and required a certain amount of skill and physical fitness. The phenomenon of sports today intervenes in many fields of endeavors and sometimes has even a central position.

Test

Test refers to any specific instrument, procedure or technique used by a test administration to enact a response from the test taker.

A set of questions, problems or exercises for determining a person's knowledge, abilities, aptitude or qualifications. It is a specific tool of measurement for the collection of data implying a response from the person being measured.

Knowledge

Knowledge is defined as an awareness of specific facts, universals and information that involves remembering the ability to result.

Knowledge Test

Knowledge test is the test designed to measure what an individual knows about a particular subject, distinguish from aptitude, attitude and physical performance test.

Methodology

The subjects for these study hundred male students of Punjab cricket association were selected as subjects their age ranged from 17 to 26 years as per the association records. Besides, all of them had regular period during which many aspects of the game were theoretically explained together with practical implications.

Test Content

The following areas of the game of cricket were included in this test, vis. the history of the game. the development of the game as an international sport, the introduction of the game in the Indian continent, the International and National governing bodies, the rules and its interpretations as adopted by the Marylebone cricket club, London, the knowledge of basic techniques which include batting, bowling, fielding, wicket-keeping and running between the wickets, offensive and defensive tactics of the game and the modern trends in cricket.

Test Blue Print

The test blueprint was prepared in keeping view of the content out line and behavioral objectives, in the left hand column of the test blueprint the condensed list of behavioral objectives had been mentioned. The percentage and time allotted to each content area had also been mentioned. The proportion of questions from each content and objective area corresponded to the emphasis given to the topics during instruction. The items for the test had been constructed from the written notes that the research scholar had made in each of the individual cells. The test blueprint has been shown in Table 1.

Table-1 Test Blue Print

Content Out-line						
	Batting	Bowling	Fielding	Running between wickets	Others	
History and Development 40 %	10%	10%	10%	10%	-	40
Rule and its Interpretations 20 %	5%	5%	5%	-	5%	20
Terminologies 10 %	2%	2%	2%	2%	2%	10
Records and Modern Trends 30 %	5%	5%	5%	5%	10%	30
Total 1% of item in each content 100%	22%	22%	22%	17%	17%	100

Development of Questionnaire

After the preparation of questionnaire it was consulted with a few friends so as to see how it worded, after consultation with friends, opinion was sought from

expert and given due weight age to their suggestion where ever necessary. This helped the researcher to detect major and technical. Fault in language, instruction etc, and a logical, sequence was made for the question. It helped to make each question precise, relevant clear and easy to understand so that the respondent was not put under pressure while filling the questionnaire, its also helped to use specific terms to avoid any ambiguity when respondents was responding to the question. Each content and objective are corresponded to the emphasis given to the topic during instruction. The test blue print has been show in table-1.

Preparation of Test Items

The test items consisted of 100 objective type questions. The proportion of test items was chosen as per the test blueprint, i.e. forty questions from history and development of the game, twenty questions from rules and its interpretations, ten questions from terminology, thirty questions from records and modern trends of the game. Also these questions as far as possible were selected evenly from various aspects of the game such as batting, bowling, fielding and running between the wickets.

Procedure for Test Administration

A 100 item objective test was first administered to 20 students in order to determine clarity of question items. On the basis of this question items were refined. Those items were then subjected to carefully analysis by experts. Then a final test was administered to 100 students. There were 100 objective type questions and almost all students had answered all the items within the allotted time of 60 minutes and their responses were evaluated later.

On the basis of the scores these questions were further analyzed carefully. The items which were found unsatisfactory, after analysis, were either rejected or modified. The final form of the test consisted of 50 questions. The statistical procedures employed in item analysis have been indicated below.

Statistical Technique Employed in Item Analysis

Item analysis was used to make decisions about individual item within the test as well as the worthiness of the test as a whole.

For this the following analysis procedures were employed, such as difficulty rating, index of discrimination.

Difficulty Rating

It was determined by the total number of students who had chosen the correct response for a particular test item. The formula used for computing the difficulty rating was

DR= P/N

Where DR = Difficulty Rating

P =Number of students answered on item correctly and

N = Number of students who appeared for the test.

Index of Discrimination

It was used to provide information's about the high and low performers on a specific test who answered such correctly. For index of discrimination the scores from the top and bottom 27 percent of the students who appeared in the test were used. The formula used was

ID=Cu-cl

Nu

Where ID = Index of discrimination.

Cu = Number of correct responses in the upper 27 percent. CI = Number of correct responses in lower 27 percent and Nu = total number of students in the upper group.

Reliability

Using a split halves method, a correlation between the correct odd and even numbered items was established. Then the Spearman-Brown Prophecy Formula used was

rwt=2 rht

1 + rht

When rwt = reliability of the whole test,

rht = reliability of half the test.

Validity

The content validity of the test was assumed as the test items were constructed keeping in view the content materials of the course.

Result

Result Pertaining to Dif□iculty Rating

The difficulty of each question item was determined by computing the percentage of examinees answering each question correctly. This was done by dividing each question correctly. This was done by dividing the score of number of examiners answering a certain items correctly by the total number of examinees. The degree of difficulty rating obtained for each item is presented in table 2.

Table-2 Difficult Rating (N=100)

Item Number	No. of students answered correctly (p)	DR =P/N
1	67	0.67
2	36	0.36

3	58	0.58
4	69	0.69
5	67	0.67
6	36	0.36
7	59	0.59
8	41	0.41
9	64	0.64
10	74	0.74
11	3	0.3
12	69	0.69
13	73	0.73
14	71	0.71
15	74	0.74
16	68	0.68
17	19	0.19
18	16	0.16
19	70	0.70
20	64	0.64
21	74	0.74
22	57	0.57
23	69	0.69
24	68	0.68
25	19	0.19
26	79	0.79
27	44	0.44
28	68	0.68
29	69	0.69
30	67	0.67
31	46	0.46
32	71	0.71
33	81	0.81
34	19	0.19
35	58	0.58
36	62	0.62
37	64	0.64
38	18	0.18

39	43	0.43
40	86	0.86
41	59	0.59
42	46	0.46
43	58	0.58
44	44	0.44
45	58	0.58
46	86	0.86
47	78	0.78
48	69	0.69
49	73	0.73
50	78	0.78
51	56	0.56
52	66	0.66
53	83	0.83
54	16	0.16
55	73	0.73
56	67	0.67
57	80	0.80
58	66	0.66
59	52	0.52
60	29	0.29
61	75	0.75
62	65	0.65
63	80	0.80
64	66	0.66
65	56	0.56
66	42	0.42
67	64	0.64
68	69	0.69
69	88	0.88
70	81	0.81
71	79	0.79
72	85	0.85
73	81	0.81
74	65	0.65

75	87	0.87
76	89	0.89
77	46	0.46
78	56	0.56
79	26	0.26
80	65	0.65
81	29	0.29
82	52	0.52
83	69	0.69
84	29	0.29
85	59	0.59
86	70	0.70
87	70	0.70
88	49	0.49
89	69	0.69
90	79	0.79
91	81	0.81
92	62	0.62
93	85	0.85
94	68	0.68
95	87	0.87
96	81	0.81
97	78	0.78
98	78	0.78
99	75	0.75
100	88	0.88

The findings of the table 2 of difficulty rating question answered correctly by more than 80 percent of subjects were judged to be too easy and those answered correctly by less than 20 percent subjects were considered to be difficult. On the basis of this of this a total of 23 test item were eliminated from the test. The items discarded on the basis of difficulty rating are: 11,17,18,25,33,34,38,40,46,53,54,6, 70,71,72,73,75,76,91,93,95,96,100.

Result Pertaining to Index of Discrimination

The index of discrimination was calculated by separating the answer sheets of the upper 27 percent from the group of completed answer sheets. Then the proportion of each of the groups answering a test item correctly was calculated.

For the purpose, the scorers of the lower 27 percent on each item subtracted from the scores of the upper 27 percent of the same item and the result thus obtained was divided by the number of examinees in the upper group. The index of discrimination thus obtained is presented in table 3

Table 3 Index Of Discrimination (N=100)

Item Number	DR =P/N
1	0.03
2	0.07
3	0.14
4	0.25
5	0.29
6	0.48
7	0.51
8	0.14
9	-0.11
10	0.74
11	0.92
12	0.81
13	0.48
14	0.59
15	0.51
16	0.48
17	-0.07
18	0.77
19	0.59
20	0.07
21	0.03
22	0.77
23	0.88
24	0.66
25	0.85
26	0.66
27	0.00
28	0.59
29	0.55

30	0.40
31	0.48
32	0.40
33	-0.07
34	0.92
35	0.55
36	0.44
37	0.44
38	-0.22
39	0.77
40	0.11
41	0.40
42	0.24
43	0.11
44	0.33
45	0.37
46	0.22
47	0.51
48	0.40
49	0.55
50	0.48
51	0.62
52	0.51
53	0.14
54	0.14
55	0.59
56	0.70
57	-0.14
58	0.12
59	0.40
60	0.24
61	0.37
62	0.40
63	0.48
64	0.85
65	0.24

66	0.66
67	0.66
68	0.03
69	0.96
70	0.11
71	0.73
72	0.44
73	0.25
74	0.37
75	0.33
76	0.48
77	0.07
78	0.81
79	0.40
80	0.07
81	0.0
82	0.51
83	0.40
84	0.14
85	0.51
86	0.66
87	0.55
88	0.44
89	0.59
90	0.33
91	-0.22
92	-0.18
93	0.51
94	0.03
95	0.92
96	0.40
97	0.88
98	0.92
99	0.03
100	-0.08

The table-3 of the index of discrimination indicated those questions in which poor students well or better than the subject of the upper group, such items were also excluded from the because such items failed to differentiate the abilities of good and poor subjects, total 43 items were eliminated for this reason. The items discarded are :-

1,2,3,4,8,9,11,12,17,20,21,23,25,27,33,34,38,40,42,43,46,53,54,57,58,60,64,66, 68,69,70,73, 77, 78, 80, 81, 84, 91, 94, 98, 99, 100.

Thus a total 50 items was selected after elimination of 50 items on the basis of difficulty rating and index of discrimination.

Discussion of Findings

The findings of the study indicated that the degree of difficulty in rating for the test question was ranged from.03 to .89 and the mean difficulty was 60.95. These question answered correctly by more than 80 percent of subjects were judged to be too easy and were eliminated. Similarly those question which answered correctly by less than 20 percent subjects were considered too difficult were eliminated. A total of 23 test items were eliminated from the test as a result of difficulty rating.

Index of discrimination indicated an elimination of those questions in which lower students did as well as or better than the students of upper group. Such item were also excluded from the test because, such items failed to differentiated the ability of good and poor subjects. A total of 50 items were eliminated for this reason.

Thus, a total of fifty items were discarded. The final test comprises of a total of fifty questions which are to be answered by the subject.

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