

Performance Variation of in Throwing and Jumping Events of Middle School and Junior College Athletes

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ABSTRACT

A study of performance variation in throwing and jumping events. Objective: To study the variation in performance depending on the trails in jumping and throwing events. Population and sample: All the athletes participating in State Level Middle School and Junior College athletic competitions participating in short put, Discus throw, Javelin throw, long jump, Triple jump each in boys and girls from the academic year 2015-2020 was the population of the study. And the entire 8 finalist participating in selected Jumping and throwing events in the said categories for consecutive 5 years organized by Directorate of Sports and Youth Affairs Panjim Goa was the sample for this study. Method: For this study, researcher used longitudinal check system. This system provides a system of disquisition to study variation in performance depending on the trails. Descriptive Statistics and ANOVA were used to analyse and interpret the data. Conclusion: Trial wise performance in Throwing and Jumping events, researcher found that in throwing events performance of athletes steadily increased till the fourth trial and exposed downfall in the remaining two trials. Wherein in Jumping Events, performance of the athletes sustained increasing till the sixth trial.

Keywords : performance variation

Introduction

The world conducts many competitions in the year for all sports disciplines. Every country selects and sends their sportsman for such competitions. Athletics is one of such exclusive group of sporting events that involve competitive track and field events in running, jumping, throwing, and walking.

Participation in such competitions is a matter of pride to the sportsman. Every sportsman place in a lot of hard work, commitment and dedication to participate in

such trials because for competitive athletes, sport is “more than just a game” (Jones, 1995).

According to Stoeber, et al; (2007), competition is often the fruit of extensive training and thus an experience which is to be transformed into top performances. On the other hand, it provides an chance for self-evaluation wherein the athlete’s expectations and the obtained results are compared. Thereby, a competition might be associated with heightened competitive anxiety.

School and colleges plays a major role in providing platform for the new budding athletes to experience competition. Since Sports plays an important role in today’s life, separately gender and Age wise competitions are being organized for students in various academic bodies. Athletics competitions are similarly organized every year by such bodies.

During athletics competitions in throwing events and horizontal jumps, the athletes perform several trials. The best performance is then used as a competition result. Between the trials performed by the same athlete, the performance can vary substantially. Also, in some trials, the athletes commit foul (they break the rules) and the performance is discarded.

In this study, the researcher initially intended to find out the trend of participation of athletes in throwing and jumping event. The work also advances to outline the percentage of successful trials of the athlete’s in successive trials.

Sample

The entire 8 finalist participating in selected Jumping and throwing events in the all categories was the sample for this study. For consecutive 5 years, approximately, 40 participates each in short put, Discus throw, Javelin throw, long jump, Triple jump each in boys and girls categories participating in the State Level Middle School and Junior College athletic competitions from the academic year 2015-2020, organized by Directorate of Sports and Youth Affairs Panajim Goa.

Data Collection tool

After selecting the samples, the next task was to select the proper tools for storing the data. The selection of tools for a particular study depends upon various considerations such as purposes of the study, the amount of time at the disposal of the investigator to administer the tools, score and interpretation of the test results. The participation list provided by the coordinators and the Score sheet of the selected athletic events was used as tools for the data collection. Main tool was the record

sheet designed by the researcher with the support of experts.

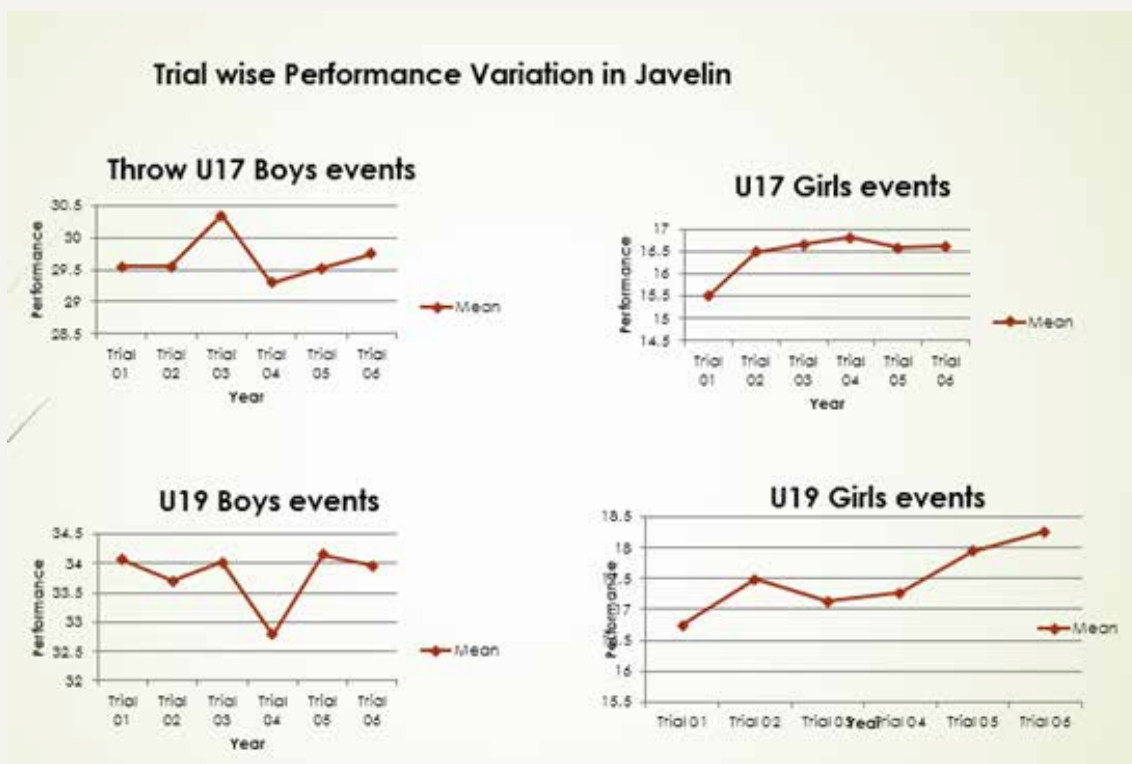
Use of statistical tools

Researcher has used Descriptive Statistics, Trend Analysis and ANOVA, to analyze and interpret the data.

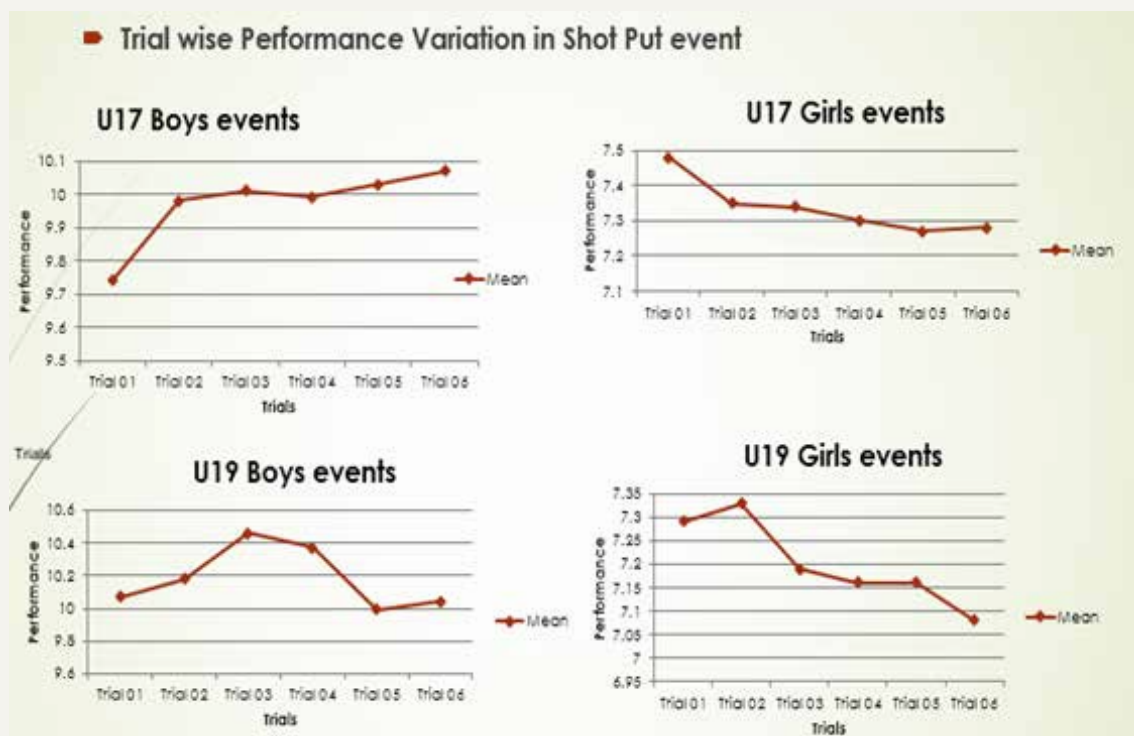
Data Analysis and Interpretation

Table No. 1 : Trial Wise Performance Variation in Javelin throw

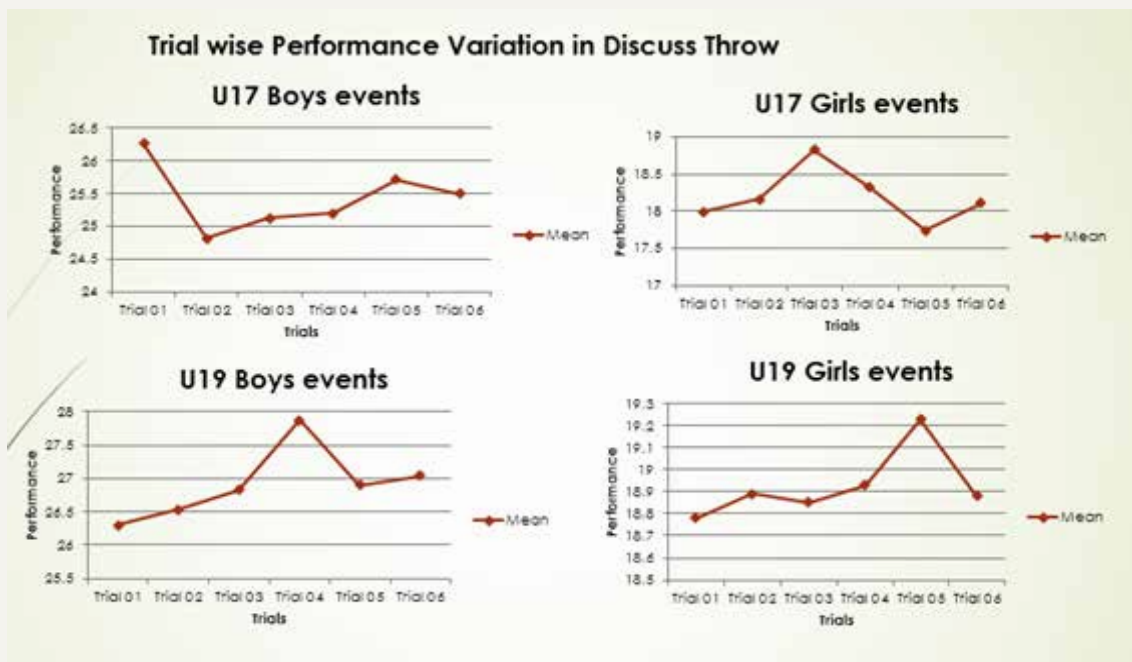
		Trial 01	Trial 02	Trial 03	Trial 04	Trial 05	Trial 06
U- 17 Boys Javelin throw	Mean	29.55	29.55	30.35	29.3	29.52	29.75
	N	29	29	31	33	23	24
	Standard Deviation	3.53	3.89	4.82	4.62	4.23	3.17
U- 17 Girls Javelin throw	Mean	15.48	16.49	16.66	16.81	16.57	16.62
	N	30	27	32	28	25	21
	Standard Deviation	3.1	2.84	2.51	2.78	2.59	2.95
U- 19 Boys Javelin throw	Mean	34.06	33.7	34.02	32.78	34.15	33.95
	N	20	21	26	26	22	17
	Standard Deviation	3.11	5.46	5.39	5.01	4.6	5.03
U- 19 Girls Javelin throw	Mean	16.74	17.49	17.12	17.26	17.94	18.26
	N	31	31	30	27	23	24
	Standard Deviation	3.3	3.51	3.36	3.49	3.3	3.58

Fig. No. 1 :**Table No. 2 : Trial Wise Performance Variation in Shot Put**

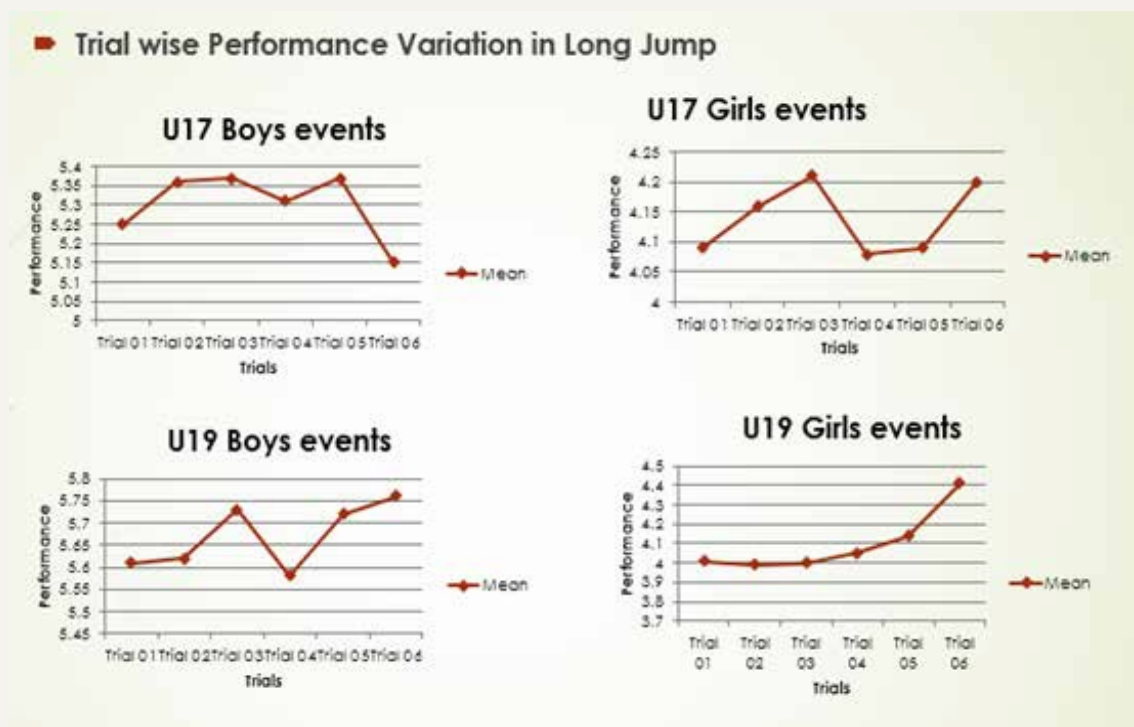
		Trial 01	Trial 02	Trial 03	Trial 04	Trial 05	Trial 06
U- 17 Boys Shot Put	Mean	9.74	9.98	10.01	9.99	10.03	10.07
	N	33	32	34	34	26	25
	Standard Deviation	0.83	0.9	0.95	0.7	0.8	0.94
U- 17 Girls Shot Put	Mean	7.48	7.35	7.34	7.3	7.27	7.28
	N	31	31	33	32	25	26
	Standard Deviation	0.86	0.9	0.99	0.87	0.91	0.9
U- 19 Boys Shot Put	Mean	10.07	10.18	10.46	10.37	9.99	10.04
	N	32	34	31	28	28	26
	Standard Deviation	1.24	1.29	1.19	1.17	1.13	1.05
U- 19 Girls Shot Put	Mean	7.29	7.33	7.19	7.16	7.16	7.08
	N	36	32	35	36	25	26
	Standard Deviation	1.07	1.14	1.23	1.29	0.81	0.9

Fig. No. 2 :**Table no. 3 : Trial Wise Performance Variation in Discus throw**

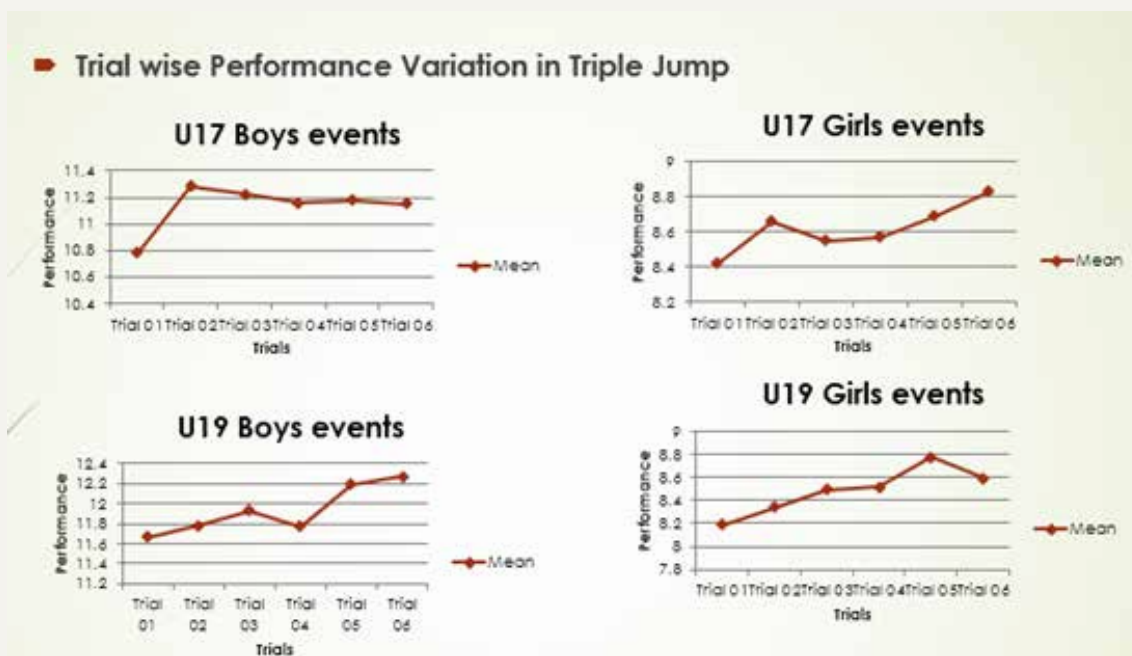
		Trial 01	Trial 02	Trial 03	Trial 04	Trial 05	Trial 06
U- 17 Boys Discus throw	Mean	26.26	24.81	25.12	25.19	25.71	25.49
	N	25	32	30	29	24	24
	Standard Deviation	2.26	2.39	2.82	2.25	2.38	2.19
U- 17 Girls Discus throw	Mean	17.99	18.16	18.82	18.32	17.73	18.1
	N	30	34	30	31	25	26
	Standard Deviation	2.91	2.5	2.34	2.32	2.02	2.29
U- 19 Boys Discus throw	Mean	26.3	26.53	26.83	27.87	26.9	27.04
	N	31	30	31	30	20	24
	Standard Deviation	3.58	3.51	3.31	3.06	3.55	2.86
U- 19 Girls Discus throw	Mean	18.78	18.89	18.85	18.93	19.23	18.88
	N	28	31	31	33	25	21
	Standard Deviation	2.05	2.43	2.25	2.61	1.96	2.5

Fig. No. 3 :**Table No. 4 : Trial Wise Performance Variation in Long Jump**

		Trial 01	Trial 02	Trial 03	Trial 04	Trial 05	Trial 06
U- 17 Boys Long Jump	Mean	5.25	5.36	5.37	5.31	5.37	5.15
	N	30	31	35	32	24	22
	Standard Deviation	0.34	0.28	0.34	0.29	0.32	0.55
U- 17 Girls Long Jump	Mean	4.09	4.16	4.21	4.08	4.09	4.2
	N	27	32	32	31	27	22
	Standard Deviation	0.42	0.44	0.35	0.33	0.4	0.44
U- 19 Boys Long Jump	Mean	5.61	5.62	5.73	5.58	5.72	5.76
	N	29	31	31	27	25	23
	Standard Deviation	0.33	0.44	0.49	0.59	0.34	0.29
U- 19 Girls Long Jump	Mean	4.01	3.99	4	4.05	4.14	4.41
	N	37	37	36	34	29	24
	Standard Deviation	0.49	0.49	0.45	0.53	0.43	1.11

Fig. No. 4 :**Table No. 5 : Trial Wise Performance Variation in Triple Jump**

		Trial 01	Trial 02	Trial 03	Trial 04	Trial 05	Trial 06
U- 17 Boys Triple Jump	Mean	10.78	11.28	11.22	11.16	11.18	11.15
	N	31	29	29	29	26	23
	Standard Deviation	1.74	0.43	0.54	0.61	0.55	0.74
U- 17 Girls Triple throw	Mean	8.42	8.66	8.55	8.57	8.69	8.83
	N	27	29	28	31	21	22
	Standard Deviation	0.7	0.7	0.7	0.7	0.66	0.72
U- 19 Boys Triple throw	Mean	11.67	11.78	11.93	11.77	12.19	12.27
	N	28	28	33	31	24	25
	Standard Deviation	0.9	0.87	0.83	0.98	0.66	0.55
U- 19 Girls Triple throw	Mean	8.19	8.34	8.49	8.52	8.78	8.59
	N	28	31	31	30	25	24
	Standard Deviation	0.91	0.86	1.05	1.03	1.07	0.99

Fig. No. 5 :

Discussion

Trial wise performance in Throwing and Jumping events, investigator found that in Throwing events performance of athletes gradually increased till the fourth trial and shown downfall in the remaining two trials. Wherein in Jumping Events, performance of the athletes continued growing till the sixth trial.

After in depth investigation, researcher was unable to find the cause which decided the 6 trials trend for jumping and throwing events. Researcher reviewed the study of Byung, H. W. & Vladimir, M. Z. (2006) which stated that 6 trial performances was started according to Olympic Games, which are meant for adult athletes at senior most level.

On the conflicting to the performance, fitness of the athlete also desires to be taken into consideration. As said in the above lines, to perform 6 trials at Olympics games; fitness level of the athletes in Olympics on comparing it to the Fitness level of athletes at the State level.

As per the conversation with the athletes, they feel that he/she is able to be in the top 3's after comparing their performance in the first three trials and later for remaining trials he/she intentionally lower their performance or sometimes, dodge going for more

trials. Similarly, the athletes are able to comparatively observe the best performances and feel themselves very poor at the event and due to which they dodge giving their best in last 3-4 chances of the event. Hence the performance varies. Here motivation plays a energetic role, as a Physical Education Teacher he/she might have to move from one event to other event to guide his athletes. So somewhere athletes may lack in guidance throughout his event and therefore motivation level may go down and performance may decrease.

As per concerns throwing events, all the events have in total six number of trials. In these six numbers of trials they consider highest performance for evaluation of result. As consideration of six numbers of trials it delivers maximum chances to the participant. But it may give stress to participants that they have to perform very well till the sixth trial. If the two trials are cut down and made only four trials participants can just focus on four trials and they can give their best.

Findings and Conclusions

Trial wise performance in Throwing and Jumping events, investigator found that in Throwing events performance of athletes gradually increased till the fourth trial and shown downfall in the remaining two trials. Wherein in Jumping Events, performance of the athletes continuous increasing till the sixth trial.

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