INTERNATIONAL JOURNAL OF INNOVATIVE RESEARCH & DEVELOPMENT

ISSN 2278 – 0211 (Online)

Effects of In-Service Training Teaching Skills on Explosive Power and Flexibility of Rural and Urban Areas School Boys

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Abstract:
An attempt was made in the present study to examine the effects of in-service training on improving flexibility and muscular power of rural and urban area school boys. Participants of this study were 40 boys (n = 20) rural school students and (n = 20) urban school boys who had gone through the in-service training and planned to get involved in a long-term exercise program for improving the flexibility and explosive power of rural and urban school boys. Informed consent form and permission from the physicians of the students as well as from the medical center were obtained before the beginning of the study. An equal number of students from rural (n = 20) and urban (n = 20) students were randomly assigned to an experimental groups. The study lasted 12 weeks and consisted of a pretest, an intervention phase, and a posttest. On the pretest, each participant was required to take physical function tests on flexibility and explosive power. During the intervention phase, a modified In-service training program was offered by a well-trained instructor to the experimental group under the supervision of an investigator and a researcher at a school in salem district. Participants in the both group were involved in the In-service training program during the same time period. All participants were encouraged to continue their standard physical activities and routine care procedures. The intervention phase lasted 12 weeks and included 1-hour In-service training for five days in a week. During the period of intervention, the physical and health conditions of each participant were closely and regularly checked and monitored by a investigator. At the end of the 12-week intervention, a posttest with similar testing procedures to those of the pretest was administered to all participants. 't' test was measures on the test was used to examine differences in physical function variables between the two groups. Follow-up tests were conducted on any significant main or interaction effects. The results of the study revealed a significant group × test interaction ($p < 0.001$). Follow-up analyses indicated that while no group differences in explosive power and flexibility existed between the two groups on the pretest, the rural group was found to have significantly ($p < 0.05$) better performance on the explosive power and flexibility tests than the urban school boys. The findings of the present study suggest that In-Service training enhances explosive power and flexibility of rural school boys.

Keywords: *Speed, Muscular strength and endurance, In-service training*

1. Introduction

There has been considerable interest in the effectiveness of in-service education of teachers (INSET) as a means of improving teaching and student outcomes. This is evident in previous research on in-service education (Fullan 1993; Hall & Hord, 1987; Huberman & Miles; 1984, Ingvarson & Coulter 1987; Joyce & Showers, 1995; Little, 1989; Sprinthall, Reiman & Theis-Sprinthall, 1996).Despite the extent of this research there are still complaints that much in-service training is ineffective (Dalin, 1993; Feiman-Nemser & Floden, 1986; Robertson, 1992). Ingvarson, (1988) found those who fund or attend ineffective in-service training programs begrudge the wasted effort and resources. Guskey commenting on lessons learnt from research on professional development noted: Questions are being raised about the effectiveness of all forms of professional development in education. And with these demands have come increased demands for demonstrable results. Legislators, policy makers, funding agencies, and the general public all want to know if professional development programs make a difference (1996, p. 1). In some countries there is less reliance on trying to change education systems though in-service teacher development. As an alternative, certain governments have attempted reform by dramatically restructuring their education systems around self managed schools and specifying system wide curriculum and assessment frameworks (Caldwell, 1994; Caldwell & Spinks, 1988; Fullan with Stiegelbauer, 1991). Changes in memberships of central policy and management groups caused by new reforms are associated with a lack of commitment to long term development and knowledge of what is required to make INSET effective (Little, 1989). At the local level, principals and councils of self managed schools were funded for the in-service development of their staff. This placed an additional layer of responsibility on schools as

traditional, centralized sources of advice and support for INSET were radically diminished (Directorate of School Education 1994). It is important, therefore, that the messages of earlier research are refined and illustrated with local data to ensure decisions about in-service teacher development are contextualized and soundly based at system and school levels.

2. Methodology

The purpose of the study was to find out the effects of In-Service training teaching skills on explosive power and flexibility of rural and urban school boys. To assure that the sample of subjects taken from salem district rural and urban areas represents the population, we could test every subject in the population and choose only those who fall around the mean of the entire population. This technique is usually pointless because doing so mean we could just as easily have tested the entire population on our independent and dependent variables. Therefore in order to make sure all possible subjects have an equal opportunity to be chosen, to choose a group twenty students from rural and twenty student from urban were participated in this study and healthy boys within the age group 14-16 years. The selected two groups in each 20 subjects were under went in-service training programme The scheduled program was one hour per day in the evening of five days per week for a period of six weeks.

3. Analysis of the Study

	Variables	Mean	Std. Deviation	M.D	Std. Error Mean	't' ratioo
Explosive Power	Pre-Test	39.2000	4.0859	4.2500	.1758	24.169
	Post-Test	43.4500	4.0062			
Flexibility	Pre-Test	27.7000	4.0406	3.5500	.5959	5.957
	Post-Test	31.2500	4.5058			

Table 1: Significance of Mean Gains / Losses between Pre and Post Test of In-Service Training on Explosive Power and Flexibility of Rural Area School Boys
** Significant at 0.05 levels*

Table shows the obtained't' ratios for pre and post test mean difference in rural area explosive power (24.16), flexibility (5.95) respectively. The obtained't' ratio is when compared with the table value of 2.09 for the degrees of freedom (1, 19) it was found to be statistically significant at 0.05 level of confidence.

	Variables	Mean	Std. Deviation	M.D	Std. Error Mean	't' ratioo
Muscular Power	Pre-Test	39.0000	2.8470	1.5000	.2666	5.627
	Post-Test	40.5000	2.9290			
Flexibility	Pre-Test	27.8500	4.0298	1.9500	.3662	5.325
	Post-Test	29.8000	4.3237			

Table 2: Significance of Mean Gains / Losses between Pre and Post Test of In-Service Training on Explosive Power and Flexibility of Urban Areas School Boys
** Significant at 0.05 levels*

Table shows the obtained't' ratio's for pre and post test mean difference in rural area explosive power (5.62), flexibility (5.32) respectively. The obtained't' ratio was when compared with the table value of 2.09 for the degrees of freedom (1, 19) it was found to be statistically significant at 0.05 level of confidence.

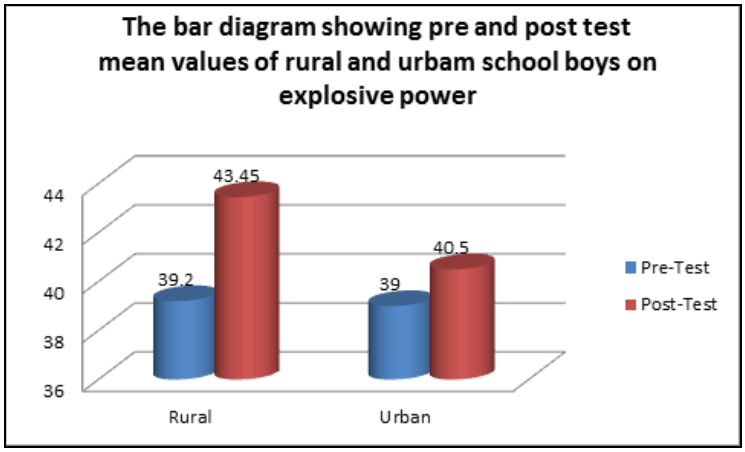

Figure 1

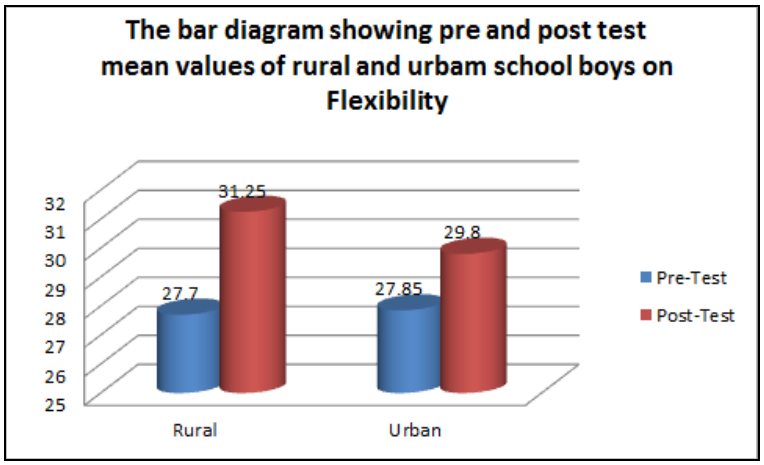

Figure 2

variables	source of variance	Sum of Squares	df	Mean Square	F	Sig.
Explosive power	Between Groups	.400	1	.400	0.032	.858
	Within Groups	471.200	38	12.400		
	Total	471.600	39			
Flexibility	Between Groups	.225	1	.225	0.014	.907
	Within Groups	618.750	38	16.283		
	Total	618.975	39			

Table 3: Analysis of variance on pre-test on rural and urban areas explosive power and flexibility of school boys
** Significant at 0.05 level*

Table shows that the obtained values of explosive power (0.032) and flexibility (0.014). The obtained f value was lesser than the required table value of 3.21 indicates that there was no significant at 0.05 level of confidence for the degrees of freedom 1 and 38.

variables	Source of variance	Sum of Squares	df	Mean Square	F	Sig.
Explosive power	Between Groups	87.025	1	87.025	7.067	.011
	Within Groups	467.950	38	12.314		
	Total	554.975	39			
Flexibility	Between Groups	48.400	1	48.400	3.223	.081
	Within Groups	570.700	38	15.018		
	Total	619.100	39			

Table 4: Analysis of variance on post-test on rural and urban areas explosive power and flexibility of school boys
** Significant at 0.05 level*

Table shows that the obtained values of explosive power (7.06) and flexibility (3.22). The obtained f value was higher than the required table value of 3.21 indicates that there was significant at 0.05 level of confidence for the degrees of freedom 1 and 38.

3. Result

1. In service training improved the explosive power and flexibility for the students of rural area school boys.
2. In service training improved the explosive power and flexibility for the students of urban area school boys.
3. In service training improved the rural areas school boys on explosive power and flexibility better than the urban area school boys

4. Conclusion

Rural areas school boys showed the better improvement on explosive power and flexibility due to in-service training.

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