ISSN: 2349 - 4891

International
Journal of Recent Research and Applied Studies

Influence of Pedagogical Process of Physical Education on Fine Motor Skills among College Level Women Students

G.Mahalakshmi[1] , Dr. K.V.Balamurugan[2]

[1]*Ph.D., Research Scholar, Department of Physical Education and Sports, Manonmaniam Sundaranar University, Tirunelveli, Tamilnadu, India.*
[2]*Associate Professor, Department of Physical Education, Annamalai University, Chidambaram, Tamilnadu, India.*

Received 11th August 2014, Accepted 15th September 2014

Abstract

The purpose of the study was to find out the Influence of pedagogy process of physical education on fine motor skills among college level women students. To achieve this, one hundred and fifty (N=150) students from Residential colleges and one hundred and fifty students from Non-Residential colleges (N=150) totally three hundred (N=300) Women students were selected randomly. In both Residential and Non-Residential category, fifty government college students, fifty government aided college students and fifty private college students were selected. The age of the subjects ranged between 17 and 21 years. All the colleges under this investigation, were followed the physical education curriculum as elective. The design used for the present investigation was 2 x 3 ANOVA factorial designs. In which, the first factor denotes residential and non residential college women the second factor indicated whenever they obtained interaction 'F' ratio value was significant, simple effect was used as a follow up test. Then, the Scheffe'S test was applied as Post hoc test to determine the significant paired mean differences. The level of confidence was fixed at 0.05 to test the significant. The data was analysed in computer system by using statistical package for social science (SPSS) version 17. The result of this study shows that the residential private college students are superior to residential government, residential government aided, non-residential government, non-residential government aided and non-residential private college students. The finding of the status of colleges that there have notable fine motor skills, psychological parameters and academic achievement as found to be better in residential college level women students. The finding of the status of colleges that there have notable fine motor skills, psychological parameters and academic achievement as found to be better in private college level women students.

Keywords: Resistance Training, Strength, Endurance, Speed.

Introduction

In recent years interest has grown in 'pedagogy' within English-language discussions of education. The impetus has come from different directions. There have been those like Paulo Freire seeking a 'pedagogy of the oppressed' or 'critical pedagogy'; practitioners wanting to rework the boundaries of care and education via the idea of social pedagogy; and, perhaps most significantly, governments wanting to constraint the activities of teachers by requiring adherence to preferred 'pedagogies'. A common way of approaching pedagogy is as the art and science (and maybe even craft) of teaching. As we will see, viewing pedagogy in this way both fails to honour the historical experience, and to connect crucial areas of theory and practice. Education is essential for every society and individual. It is life itself but not a preparation for life. Man has various qualities. These qualities of the individual should be developed for the improvement of the country. So education plays a complementary role for overall individual, social and national development.

It enables an individual to realize his highest self and goal. Physical activity enhances a person's life both socially and psychologically. Studies have shown that physical activity may modify anxiety and depression. Physical education may help prevent degenerative disease, improve overall physical condition, maintain emotional balance, promote a sense of social effectiveness, contribute to academic performance, and establish positive recreation habits. Therefore, physical education must not be considered a curricular frill; rather, it must be supported as an integral part of comprehensive education.

Correspondence
G.Mahalakshmi,
E-mail: maha2305@gmail.com, Ph: 090252 22123

Statement of the Problem

The purpose of the study was to investigate the influence of pedagogical process of physical education on fine motor skills among college level women students.

Methodology

To achieve the purpose of the study, one hundred and fifty (N=150) students from Residential

colleges and one hundred and fifty students from Non-Residential colleges (N=150) totally three hundred (N=300) Women students were selected randomly. In both Residential and Non-Residential category, fifty government college students, fifty government aided college students and fifty private college students were selected. The age of the subjects ranged between 17 and 21 years. All the colleges under this investigation, were followed the physical education curriculum as elective. The design used for the present investigation was 2 x 3 ANOVA factorial designs. In which, the first factor denotes residential and non residential college women the second factor indicated whenever they obtained interaction 'F' ratio value was significant, simple effect was used as a follow up test. Then, the Scheffe'S test was applied as Post hoc test to determine the significant paired mean differences. The level of confidence was fixed at 0.05 to test the significant. The data was analysed in computer system by using statistical package for social science (SPSS) version 17.

Table I. Analysis of mean and standard deviation on accuracy of residential and non-residential status of different types of College Level Women Students

Residential status of colleges		**Nature of colleges**		
		Government	**Government Aided**	**Private**
Residential	Mean ± SD	7.87 ± 0.64	9.23 ± 0.52	13.45 ± 0.66
Non-residential		7.15 ± 0.51	9.70 ± 0.78	12.36 ± 0.52

Figure 1. Bar diagram of accuracy of residential and non-residential status of different types of colleges

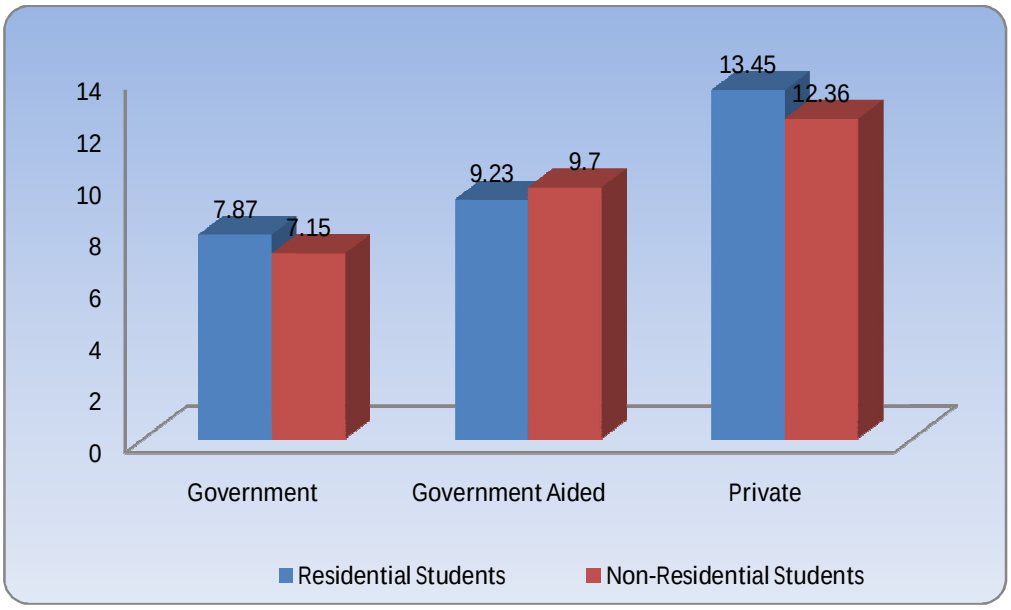

Table II. Analysis of Variance on accuracy between the residential and non-residential college level women students

Source of Variation	Sum of Square (SS)	df	MS	F
Residential status of colleges	42.80	1	42.80	1068.27*
Nature of colleges	62.26	2	31.13	776.99*
Interaction of Residential and Nature of college	14.352	2	7.17	179.11*
Error	11.779	294	0.040	

* Significant at 0.05 level df (1,294 = 3.87) and df (2,294 = 3.02)

The analysis of data exhibit a significant difference on accuracy between residential and non-residential college level women students, irrespective of nature of colleges as the obtained 'F' ratio of 1068.27 is greater than the required table value 3.87 at 0.05 for df 1 and 294. The findings of the study also reveals a significant difference on accuracy of college level women students among colleges of different nature, irrespective of residential status of colleges as the obtained 'F' ratio of 776.99 is greater than the required table value 3.02 at 0.05 for df 2 and 294.

Further, the findings demonstrates a significant difference on accuracy of college level women students for the interaction of residential status and nature of colleges as the obtained 'F' ratio 179.11 is greater than the required table value 3.02 at 0.05 for df 2 and 294. Since, the interaction of both factors is significant, the simple effect test was applied and present in table III.

Table III. Simple effect test on accuracy between the residential and non-residential College Level Women Students

Source of variation	SS	df	MS	F
Government colleges of different residential status	47.011	1	47.011	1175.27*
Aided college of different residential status	6.204	1	6.204	155.10*
Private colleges of different residential status	3.937	1	3.937	98.42*
Residential colleges of different nature	8.969	2	4.484	112.11*
Non-residential college of different nature	67.64	2	33.82	845.50*
Error	11.779	294	0.040	

* Significant at 0.05 level df (1,294 = 3.87) and df (2,294 = 3.02)

From table III, it is found that there is significant difference on accuracy between residential and non-residential college level women students of Government, Government Aided and Private colleges as the obtained 'F' ratio of 1175.27, 155.10 and 98.42 respectively are greater than the required table value of 3.87 at 0.05 for df 1 and 294.

Furthermore, it is found that the accuracy of residential college level women students differs significantly among colleges of different nature as the obtained 'F' ratio of 112.11 is greater than the required table value of 3.02 at 0.05 for the df of 2 and 294. Similarly, the accuracy of non-residential college level women students differs considerably among colleges of different nature as the obtained 'F' ratio of 845.50 is greater than the required table value of 3.02 at 0.05 for the df of 2 and 294. The Scheff'S Post Hoc test on accuracy was applied separately for different types of colleges were presented in tables IV and V.

Table IV. Scheffe's test on accuracy of residential in different types of colleges

Types	Nature of colleges			Different Means (DM)	Class Interval (CI)
	Govt.	Govt. Aided	Private		
Residential	7.87	9.23	-	1.36	2.54
	7.87	-	13.45	5.58*	2.54
	-	9.23	13.45	4.22*	2.54

* Significant at 0.05 levels

Indicate that the obtained paired mean difference value of 5.58 and 4.22 between Government and private colleges, Government aided and private colleges respectively were significantly greater than the required confident interval value of 2.54 at 0.05 level of significant.

However, no significant difference is observed on accuracy between Government and Government Aided, and Government Aided and Private colleges residence student, as obtained paired mean difference of 0.20 and 0.15 is less than the confident interval value of 0.345 required for significance.

Table V. Scheffe's test on accuracy of non-residential in different types of colleges

Types	Nature of Colleges			Different Means (DM)	Class Interval (CI)
	Govt.	Govt. Aided	Private		
Non- Residential	7.15	9.70	-	2.55*	2.54
	7.15	-	12.36	5.21*	2.54
	-	9.70	12.36	2.66*	2.54

Significant at 0.05 levels

Indicate that the obtained paired mean difference value of 2.55, 5.21 and 2.66 between Government and Government Aided, Government and Private and Government Aided and Private Colleges non-residential students, respectively, were significantly greater than the required confident interval value of 2.54 at 0.05 level of significance. It shows that there is a statistically significance on accuracy among difference types of non-residential college students.

Table VI. Analysis of mean and standard deviation on Balance of residential and non-residential status of different types of college level women students

Residential status of colleges		Nature of colleges		
		Government	Government Aided	Private
Residential	Mean	20.12 ± 2.45	23.28 ± 1.23	30.65 ± 1.60
Non-residential		19.76 ± 1.28	22.12 ± 1.19	27.87 ± 1.27

Figure 2. Bar diagram of Balance of residential and non-residential status of different types of colleges

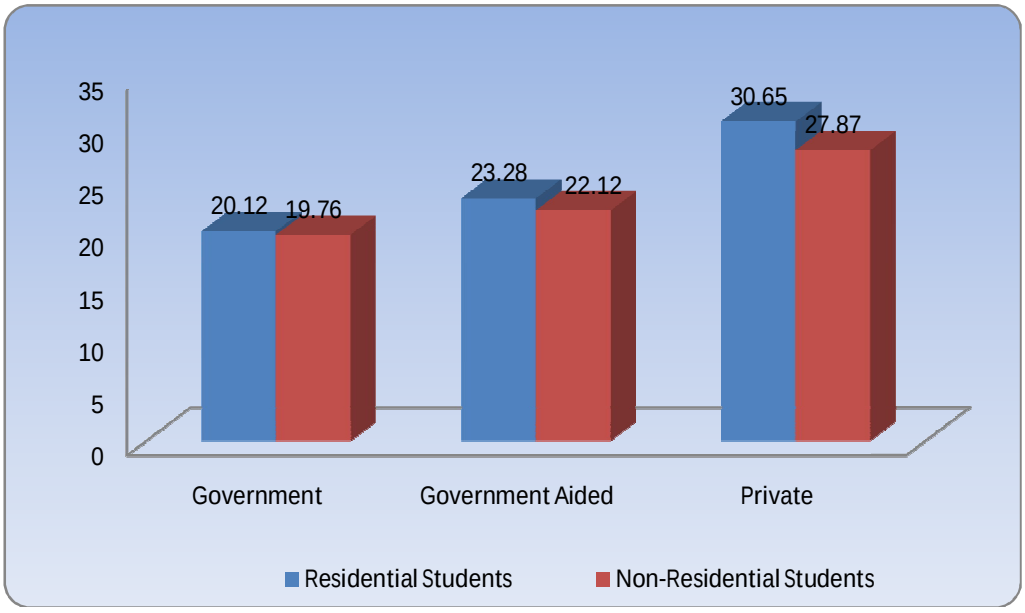

Table VII. Analysis of Variance on Balance between the residential and non-residential college level women students

Source of Variation	Sum of Square (SS)	df	MS	F
Residential status of colleges	1570.74	1	1570.74	194.52*
Nature of colleges	1422.43	2	711.21	88.07*
Interaction of Residential and Nature of college	155.73	2	77.86	9.64*
Error	2374.95	294	8.07	

* Significant at 0.05 level df (1,294 = 3.87) and df (2,294 = 3.02)

The analysis of data exhibit a significant difference on balance between residential and non-residential college level women students, irrespective of nature of colleges as the obtained 'F' ratio of 194.52 is greater than the required table value 3.87 at 0.05 for df 1 and 294. The findings of the study also reveals a significant difference on balance of college level women students among colleges of different nature, irrespective of residential status of colleges as the obtained 'F' ratio of 88.07is greater than the required table value 3.02 at 0.05 for df 2 and 294.

Further, the findings demonstrates significant difference on accuracy of colleges women for the interaction of residential status and nature of college as the obtained 'F' ratio 9.64 is great than the required table value 3.02 at 0.05 for df 2 and 294. Since, the interaction of both factors is significant, the simple effect test was applied and presented in table VIII.

Table VIII. Simple effect test on Balance between the residential and non-residential college level women students

Source of variation	SS	df	MS	F
Governmentcolleges of different residential status	9488.92	1	9488.92	1175.82*
Aided colleges of different residential status	6683.65	1	6683.65	828.20*
Private colleges of different residential status	6811.28	1	6811.28	844.02*
Residential colleges of different nature	4284.70	2	2142.35	265.47*
Non-residential colleges of different nature	6293.46	2	3146.73	389.92*
Error	2374.95	294	8.07	

* Significant at 0.05 level df (1,294 = 3.87) and df (2,294 = 3.02)

From table 8, it is found that there is no significant difference on balance between residential and non-residential college level women students of Government, government aided and private colleges as the obtained 'F' ratio of 1175.82, 828.20 and 844.02 respectively are greater than the required table value of 3.87 at 0.05 for df 1 and 294, whereas, statistically considerable difference on balance exists between residential and non-residential college level women students of aided colleges as the obtained 'F' ratio of 14.01 is greater than the required table value of 3.87 at 0.05 for the df of 1 and 294.

Furthermore, it is found that the balance of residential college level women students differs significantly among colleges of different nature as the obtained 'F' ratio of 265.47 is greater than the required table value of 3.02 at 0.05 for the df of 2 and 294. Similarly, the balance of non-residential college level women students differs considerably among colleges of different nature as the obtained 'F' ratio of 389.92 is greater than the required table value of 3.02 at 0.05 for the df of 2 and 294. The Scheff'S Post Hoc test on accuracy was applied separately for different types of colleges were presented in tables IX and X.

Table IX. Scheffe's test on Balance of residential students in different types of college level women students

Types	Nature of colleges			Different Means (DM)	Class Interval (CI)
	Govt.	Govt. Aided	Private		
Residential	20.12	23.28	-	3.16	4.28
	20.12	-	30.65	10.53*	4.28
	-	23.28	30.65	7.37*	4.28

* Significant at 0.05 level

Table IX indicate that the obtained paired mean difference values is 10.53 and 7.37 between Government and Private; and Aided and Private colleges respectively were significantly greater than the required confidence interval value of 4.28 at 0.05 level of significance. It shows that there is a statistically significant difference on balance of private college students with that of Government and Government Aided college level women students.

However, no significant difference is observed on balance between Government and Government Aided College Level Women Students, as the obtained paired mean difference of 3.16 is less than the confident interval value of 4.28 required for significance.

Table X. Scheffe's test on Balance of non-residential students in different types of college level women students

Types	Nature of colleges			Different Means (DM)	Class Interval (CI)
	Govt.	Govt. Aided	Private		
Non- Residential	19.76	22.12	-	2.36	4.28
	19.76	-	27.87	8.11*	4.28
	-	22.12	27.87	5.75*	4.28

Significant at 0.05 level

Table X indicate that the obtained paired mean difference values is 8.11 and 5.750 between Government and Private; and Aided and Private colleges respectively were significantly greater than the required confidence interval value of 4.28 at 0.05 level of significance. It shows that there is a statistically significant difference on balance of private college students with that of Government and Government Aided college students. However, no significant difference is observed on balance between Government and Government Aided College students, as the obtained paired mean difference of 2.36 is less than the confident interval value of 4.28 required for significance.

Conclusions

The result of this study shows that the residential private college students are superior to residential government, residential government aided, non-residential government, non-residential government aided and non-residential private college students. The finding of the status of colleges that there have notable fine motor skills as found to be better in residential college level women students. The finding of the status of colleges that there have notable fine motor skills, psychological parameters and academic achievement as found to be better in private college level women students.

References

1. Bossaert, G, Doumen, S., Buyse, E. and Verschueren, K. 2011.*Predicting Students' Academic Achievement after the Transition to First Grade: A Two-Year Longitudinal Study.*Journal of Applied Developmental Psychology, 32: 47-57.
2. Casperson, C.J., Nixon, P. & Durant, R. 1998.*Physical Activity Epidemiology Applied to Children and Adolescents.* Exercise and Sport Science Review C.V. Mosby Company.
3. Chang, K.S.F. 1969. *Growth and development of Chinese children and youth in Hong Kong.*University of Hong Kong, Hong Kong.
4. Devries, H. and Housh, T.J. 1994. *Physiology of exercise for physical education, athletic and exercise science (5thed).* Boston, WCB McGraw Hill.