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Teaching Aptitude Among Prospective Pupil Teachers from Diverse Professional Background

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Abstract: The study analyzed teaching aptitude of physical education pupil teachers. One hundred and thirty (130) pupil teachers pursuing Master of Physical Education (semester-4th ,n=45) Bachelor of Physical Education (2year, semester-4th,n=40) and Bachelor of Physical Education (4year integrated course,semester-8th, n=45) were selected by using random sampling technique from the teacher training institutes located in Chandigarh. Age of subjects was ranged between 21 to 27 years. Teaching Aptitude Test(TAT) was developed by Gakhar, S.C. and Dr. Rajnish (2004) was used to assess the teaching aptitude. Normality of data was verified by using the Kolmogorov–Smirnov test and Shapiro-Wilk. Since the data didn't follow a normal distribution, therefore, Kruskal–Wallis (H test) was applied. Post-hoc test was applied to see the degree and direction of differences, where 'F' ratio was found significant. The level of significance was set at 0.05. Findings with regard to sub-variables i.e. Interest towards students, teaching potential and current knowledge were found statistically significant. Post-hoc test revealed that Master degree pupil teachers demonstrated better on the sub-variables interest towards students, teaching potential and current knowledge, followed by Bachelor of Physical Education (2year), whereas, Bachelor of Physical Education (4year integrated course) scored relatively lower. However, insignificant differences were observed on the sub-variables i.e. Teaching profession, Social contact, Innovation regarding activity of school, Professional ethics among the groups in question. It is concluded that diverse educational background leads to positive transfer of training in the subsequent learning and facilitates the person to make easy and quick adaptation.

KEY WORDS: Teaching Aptitude, Pupil Teachers, Physical Education

1. Introduction

In any education institution the physical education and sports play a very important role to promote inclusive and cultural environment [kaur et al.,2014]. Physical education teachers are parenting figures who can help students develop their aptitude for a sports. Physical Education teachers will teach students discipline, and serves as a bridge between the management and the students, to enable their students to achieve their goals. With the drastic change in habits, lifestyle diseases tend to rise, therefore, fitness serve as a safeguard and should be made an important part of the curriculum. Physical fitness is just as important for children as learning the letters and numbers. Competent teachers are the backbone of a nation's school system, playing a vital role in determining learner achievement. National Council for Teacher Education [National Council for Teacher Education; National curriculum framework for teacher education: towards preparing professional and humane teacher,2009] stated that 'teachers serve as a crucial link between students and educational institutions, facilitating the dissemination of knowledge and skills that prepare students for the competitive workforce. To effectively achieve institutional goals. It is essential for teachers to continually update and upgrade their expertise, ensuring they remain equipped to meet the evolving needs of their students and the profession'. Teaching is regarded as an art, like a piece of

painting or music. It is not merely a mechanical process for the transmission of information. However, it is a human interaction between teacher and students. It touches heart, brightens the mind and shape the future of the nation. Teachers will inspire and motivate the learner to go ahead on the road of exploration and discovery. Teaching, therefore, is the process through which a teacher imparts or transmits his knowledge to the students, passes on some information to them, enables them to acquire some values and skills, tries to inculcate an attitude for learning, help them to modify their behaviour, provide them direct experiences of life and prepare them for complete living. Acc. to Clarke 'Activities that are designed and performed to produce change in student behaviour' [Rather,2004]. Burton stated that teaching is the stimulation, guidance, direction and encouragement of learning [Aggarwal,2009]. Bingham defines aptitude 'As a condition symptomatic in his readiness to acquire proficiency- his potential ability and another is his readiness to development an interest in exercising his ability'[Chauhan,2007]. Adaptability and a willingness to learn are essential skills for career success in the 21st century[Kolb,1984]. As the global job market continues to evolve, young professionals must be equipped with the aptitude to adapt to new technologies, management styles, and work environments. Teaching aptitude, therefore, is a crucial component of professional development, enabling individuals to excel in their careers and stay relevant in a rapidly changing world.In India teacher training programmes in the field of Physical Education such as Master of Physical Education (M.P.Ed), Bachelor of Physical Education (B.P.Ed-2year) and Bachelor of Physical Education (B.P.Ed.- 4 year integrated Course) are regulated by National Council for Teacher Education (NCTE) is a statutory organization of Indian Government setup under the National Council For Teacher Education Act,1993. NCTE is responsible for preparing the framework of programs regarding the field of teacher education and also contributes in standardizes and supervises the teacher education system throughout the Country. It formulates the guidelines for the minimum qualifications need for an individual to be a teacher such as M.P.Ed, B.P.Ed (2year), B.P.Ed (4year Integrated), mentioned the provision of physical and infrastructural facilities, staffing pattern for the compliance by recognized institutions. It enforces the standards with respect to examinations, the major criteria for such admissions, conducts research and innovation in schools and recognized institutions, examines its own laid guidelines, norms and standards for the improvement etc. According to NCTE Guidelines for doing M.P.Ed. the eligibility B.P.Ed(2year) after graduation and B.P.Ed (4year Integrated Course) after +2 however, NCTE also proposed that a student doing B.Sc. in health and physical education can take a direct leap of two years, where is the equivalence of years in this case. For B.P.Ed. (2year) the eligibility was Graduation with Physical Education as one of elective subject, Graduation in any stream with state level sports participation. For B.P.ED (4year Integrated Innovative Course) the eligibility is 10+2 with sports participation at District level[UGC, The Gazette of India, 2014 & NCTE Notification,2014].

2. Objective

To assess the level of teaching aptitude among B.P.Ed. (2 year) B.P.Ed. (4 year) integrated course and M.P.Ed. (2year) pupil teachers.

3. Scope and Methodology

Participants;For the present study Total One Hundred and thirty (N=130) pupil teachers were selected which includes Forty (n=40) students studying in 4 semester of B.P.Ed (2year) course, Forty Five (n=45) students studying in 8 semester of B.P.Ed (four year integrated course) and Forty Five (n=45) students studying in 4 semester of M.PEd (2year) course were selected by using extensive sampling technique . The subjects for the present study were selected by using random sampling technique. The age of subjects was ranged between 21 to 27 years. Present study was delimited to all the teacher training institutes located in Chandigarh only. The present study comprises of male and female pupil teachers. Students who were pursuing NCTE approved B.P.Ed (2year) course from Department of Physical Education and Postgraduate Government Girls College, sector sector-42 Chandigarh., B.P.Ed (4year) integrated course from Post Graduate Government College, sector-11, Chandigarh as well as M.P.Ed from Department of Physical Education, Panjab University, Chandigarh or Post Graduate

Government College, sector,11 Chandigarh were selected as subjects. However, the students who did Bachelor of physical education and sports (B.P.E.S.) after 10+2 which is a UGC recognized Course, Diploma in Physical Education (D.P.Ed) , Certificate in Physical Education (C.P.Ed) or Bachelor of physical education (B.P.E.) than pursued B.P.Ed (2year) course were not included in the sample. No motivational technique was used for data collection. Socio-economic background, Educational background of the subjects were not in the control of investigator.

The teaching aptitude of the pupil teachers was measured by administrating Teaching aptitude questionnaire developed by Gakhar, SC, Rajnish [2004]. This scale comprises of 35 items derived from six categories pertinent to classroom teaching scenarios. The categories utilized for item construction include: Teaching Profession, Interest in Students, Social Interactions, Innovations in School Activities, Professional Ethics, and Teaching Potential and Current Knowledge. Reliability: The reliability of the scale was determined using the test-retest method, yielding a reliability coefficient of 0.76. Validity: The validity coefficient was established at 0.68. Scoring: The Questionnaire has the four alternative responses have been provided for each statement, with only one response deemed correct. A scoring key is included. Each correct response is worth 1 (one) mark. There are a total of 35 statements, resulting in a maximum possible score of 35 and a minimum score of 0 (zero). This tool categorizes performance into three levels: scores of 29 and above indicate a high teaching aptitude, scores ranging from 17 to 28 reflect an average teaching aptitude, and scores below 16 signify a low teaching aptitude.

For the descriptive analysis of data, the mean and standard deviation were carried out. A normal distribution of the data was verified by using the Kolmogorov–Smirnov test and Shapiro-Wilk. Since the data did not follow a normal distribution, therefore, Kruskal–Wallis (H test) was applied to find out the significant differences among pupil teachers of Physical Education. Where 'F' ratio was found significant, post-hoc test i.e. paired mean comparison was applied to see the degree and direction of differences among pupil teachers of Physical Education. For testing of hypothesis, the level of significance was set at 0.05.

4. Literature Review

Bertills et al.[2018] recognized teaching aptitude as a one of critical skill for young professionals in the 21st century as the outcome of educational institutions is completely bases on it, by developing this aptitude, individuals can adapt to new situations, share knowledge and expertise, and stay relevant in a rapidly changing world. By polishing the teaching aptitude through professional development strategies, organizations can create a culture of continuous learning and collaboration that drives innovation and growth. However, Parhi [2024] stated that teaching aptitude encourages pupil teachers to use active teaching techniques to engage the students while teaching, create more knowledge and enable the pupil teachers to reflect on their style of teaching and make them aware about what they are doing. Similarly,authors considered that teaching is not a product[Stronge,2018], it is the process which has the potential to modify the behaviour of the learners and enhance their learning[Gilpin & Kaganovich,20 12]. Teaching aptitude contributes in making reflective teacher's rather than mechanical or robotic teachers. The one who can understand his/her need of learner and modify his/her teaching accordingly to satisfy the quest of knowledge of its leaner. Teacher's command over the subject matter; student's learning and teaching methods these are core elements of effective teaching, which are correlated with teaching aptitude. In case, if a teacher is lacking in teaching aptitude, then he/she become incompetent or indifferent to his/her responsibilities and the whole educational program may likely to become ineffective and largely wasteful. Several studies substantiated that teaching aptitude cannot be undermining in the field of education. For instance, Appadurai & Saraladevi[2015] cited that teaching aptitude, teaching attitude has very significant influence on teaching efficacy as it can influence the outcomes of educational settings. Jena [2012] further, stated that organizational climate directly influences the teaching attitude of an individual. Venkatesha & Rajeeva[2024] cited moderately positive relation between student instructor academic achievement and their teaching aptitude. However, authors [Kalita ,2016; Kandhavel &Nellaiyapen,2016] stated that teaching aptitude significantly related with educational back

ground, gender orientation and teaching competency. Organization for Economic Co-operation and Development OECD [2005] research had shown that individuals with high levels of teaching aptitude are better equipped to adapt to new situations and learn from their experiences. This ability to learn and adapt is essential in a world where technological change is driving innovation and creating new opportunities for growth. Moreover, teaching aptitude enables individuals to share their knowledge and expertise with others, promoting a culture of continuous learning and collaboration. The quality of teaching primarily depends on various factors such as attitude, self-confidence [Kukruti,1990], personality traits, gender [Jain ,2007], emotional intelligence and interest in teaching [Garg & Islam ,2018]. Brinkerhoff [2010] corborrated another approach is to incorporate teaching aptitude into performance management and talent development strategies. This can involve setting clear goals and objectives, providing regular feedback and coaching, and recognizing and rewarding individuals who demonstrate a strong desire to learn and grow. By embedding teaching aptitude into organizational practices, leaders can create a culture of continuous learning and development that benefits both the individual and the organization. Gupta & Lashkar [2023] conducted a research with purpose to delves into the teaching aptitude among trainee teachers while focusing the roles of experience, gender, and educational streams. Findings of their study exhibited that diverse educational background or diverse hands-on experience in teaching roles substantially augments pedagogical skills. Whereas, they further revealed that that gender and caste did not influence the teaching aptitude at large. Eckertn et al.[2016] highlighted that there are several ways in which teaching aptitude can be developed among young professionals. One approach is to provide opportunities for experiential learning, such as job shadowing, mentorship programs, and leadership development initiatives. These experiences enable individuals to develop essential skills such as problem-solving, communication, and teamwork and also cultivating a growth mindset and a willingness to learn. Ali [2024] analyze the teaching aptitude of female and male school teachers of three districts Multan, Khanewal and Muzaffar Garh. Findings of their study revealed insignificant difference was found between the female and male school teachers with regard to teaching aptitude. The study recommends to administer aptitude test at the time of selection of teachers to appoint those teachers for teaching profession who possess high level of teaching aptitude. Thangarajan [2018] studied the relationship between teacher attitude and teaching aptitude of prospective secondary school teachers. Total sample of 650 school teachers were selected from 10 colleges of education under Nagarjuna university and highlighted that: (i) positive relationship was observed between the teacher attitude and teaching aptitude. (ii) Academic qualifications was statistically insignificantly influenced the teacher attitude and teaching aptitude of prospective secondary school teachers. Ratheeswari & Akila [2022] cited that teacher is a well-informed person who made all the effort in order to facilitates or assist the student while imparting knowledge, he/she also develop rapport with the students to make the leaning interesting. A teacher has to do number of role so should not only have to be competent in his/ her subject, method of teaching and in understanding his/her student, but also should have interest in the profession and have a favorable aptitude towards teaching. They examined the relationship of aptitude of teacher educators towards professional competencies. Total 125 teacher's educators were selected by using stratified random sampling technique. The findings of the study reveal a significantly positive relationship between aptitude towards teaching and professional competencies of teacher educators. Biswal & Swain [2022] investigated the relationship between teaching aptitude and academic background of teacher Educators to determine the level of teaching aptitude of teacher educators with a purpose to explore how teaching aptitude of teacher educators is influenced with their academic stream. Sample size comprise of 60 teacher educators were selected for the study. Their findings of their study highlighted that the arts and science stream teacher educators were different in their teaching aptitude, academic background of science teacher educators is better than the Arts teacher educators, however, the overall result of their study also highlighted that there was significant difference among teachers with regard to teaching aptitudes and the levels of teaching aptitudes is also varying along with their streams i.e. science and arts streams. Ulferts et al.[2021] stated that teachers should be trained while keeping in mind the skills required for 21st century as teachers play very important role in shaping and guiding the students' knowledge regarding the use of digital tools and also contributes in optimizing the educational benefits of their digital

experiences. They are also agents of inclusive, equitable education and ambassadors of embracing diversity as an enriching element of our societies. To fulfil these roles teachers, need to be experts of teaching and learning, and base their practice on a specialized and updated body of knowledge. Bijender et al. [2023] validated that teaching aptitude varies with the age in relation to gender in the education institutions with the increase in age, slight decrease in teaching aptitude was observed which negatively influenced learning outcome. They, further stated that change in various personality traits were also observed in teachers with aging so therefore it pertinent to tap on the factor causes changes to foster healthy teaching -learning. Raza, [2022] studied the teaching aptitude of high school teachers and secondary school teachers in schools of three districts of the Multan division in Punjab province and recommended that teaching aptitude should be measured at the time of induction of teachers. Rani [2021]in her study stated insignificant difference between the male and female pupil teacher with regard to the variable teaching aptitude. Sonawane [2020] highlighted that level of stress is substantiate enough to influence the teaching aptitude. Chandel & Dhiman [2014] studied the teaching aptitude of prospective male and female teachers and their study revealed that both the groups respond in a same manner on the sub variables i.e. teaching profession and interest towards students however, significant difference was observed with regard to overall teaching aptitude between the groups. Whereas, few studies [Topal & Pant,2016;Sharma,2017; Menka,2016;Kanti,2013;Das,2016] validated insignificant variation between both the genders with regard to the variable teaching aptitude Therefore, Therefore, the present study was a small initiative to explore the teaching aptitude among the pupil teachers of physical education and also highlight the role of diverse educational experiences on the teaching aptitude.

5. Result and Discussion

Results with regard to descriptive analysis of selected variable has been presented by using central tendency and dispersion measures. A normality of the data was determined using the Kolmogorov–Smirnov test and Shapiro-Wilk. Since the data did not follow a normal distribution, Kruskal–Wallis (H test) was used to compare the groups in question. The interpretation of results related to Kolmogorov–Smirnov and Shapiro-Wilk, Descriptive, Kruskal–Wallis (H test) with their tables and figures with regard to selected variable teaching aptitude have been presented

Table 1:*Test of Normality*

Tests of Normality: Pupil Teachers from Master of Physical Education (2year) Course

	Kolmogorov-Smirnova			Shapiro-Wilk		
Variable: Teaching aptitude	Statistic	df	Sig.	Statistic	df	Sig.
Teaching Profession	.174	45	.001	.926	45	.007
Interest towards students	.353	45	.000	.785	45	.000
Social Contact	.207	45	.000	.846	45	.000
Innovation regarding activity of the school	.287	45	.000	.868	45	.000
Professional Ethics	.209	45	.000	.882	45	.000
Teaching Potential and Current Knowledge	.208	45	.000	.903	45	.001

Tests of Normality: Pupil Teachers from Bachelor of Physical Education (2year) Course

	Kolmogorov-Smirnova			Shapiro-Wilk		
Variable: Teaching aptitude	Statistic	df	Sig.	Statistic	df	Sig.
Teaching Profession	.200	40	.000	.915	40	.005

Interest towards students	.315	40	.000	.834	40	.000
Social Contact	.265	40	.000	.820	40	.000
Innovation regarding activity of the school	.283	40	.000	.830	40	.000
Professional Ethics	.196	40	.000	.886	40	.001
Teaching Potential and Current Knowledge	.252	40	.000	.870	40	.000

Tests of Normality: Pupil Teachers from Bachelor of Physical Education (4year Integrated) Course

	Kolmogorov-Smirnova			Shapiro-Wilk		
Variable: Teaching aptitude	Statistic	df	Sig.	Statistic	df	Sig.
Teaching Profession	.174	45	.001	.883	45	.000
Interest towards students	.251	45	.000	.819	45	.000
Social Contact	.254	45	.000	.877	45	.000
Innovation regarding activity of the school	.212	45	.000	.909	45	.002
Professional Ethics	.243	45	.000	.899	45	.001
Teaching Potential and Current Knowledge	.308	45	.000	.845	45	.000

Table-1 shows the result of test of normality (Kolmogorov–Smirnov and Shapiro–Wilk test statistics) with regard to the variable teaching aptitude of Master of Physical Education (2year), Bachelor of Physical Education (2year) and Bachelor of Physical Education (4year integrated) course. As the obtained values were significant, therefore, it shows that present data did not follows the normal distribution with regard to the variable teaching aptitude.

Table 2: *Descriptive Statistics with regard to all the sub-variables of teaching aptitude among various Physical Education Courses*

Groups	Sub-variables	Mean	SD	Kurtosis	Skewness	Minimum	Maximum
M.P.Ed.(2year)	Teaching Profession	4.0222	1.15776	-.090	-.137	1.00	6.00
	Interest towards students	2.7556	.80214	2.552	-1.179	.00	4.00
	Social Contact	3.8889	1.09175	.378	-.867	1.00	5.00
	Innovation regarding activity of the school	3.4444	1.13929	.630	-.870	.00	5.00
	Professional Ethics	4.5111	1.23624	.551	-.858	1.00	6.00
	Teaching Potential and Current Knowledge	5.4889	.99138	-.349	-.261	3.00	7.00
	Teaching Profession	4.0000	1.46760	-.460	-.461	1.00	6.00
	Interest towards students	2.6750	.76418	.129	-.449	1.00	4.00
	Social Contact	3.9750	1.14326	-.334	-.816	1.00	5.00

B.P.Ed.(2year)	Innovation regarding activity of the school	3.0500	1.15359	1.084	-.1.157	.00	5.00
	Professional Ethics	3.9000	1.87835	-.1.133	-.434	.00	6.00
	Teaching Potential and Current Knowledge	5.0750	1.30850	1.627	-1.157	1.00	7.00
B.P.Ed.(4year)	Teaching Profession	3.6444	1.36774	-1.150	.240	2.00	6.00
	Interest towards students	2.3556	.74332	1.208	-.692	.00	4.00
	Social Contact	3.6889	.92496	.465	-.586	1.00	5.00
	Innovation regarding activity of the school	3.1778	1.05073	-.200	-.126	1.00	5.00
	Professional Ethics	3.8667	1.67332	-.198	-.633	.00	6.00
	Teaching Potential and Current Knowledge	4.7556	1.29957	3.258	-1.212	.00	7.00

Note; M.P.Ed.(2year)= Master of Physical Education (2year) Course; B.P.Ed(2year)=Bachelors in Physical Education(2year) Course; B.P.Ed(4year integrated) Course= Bachelor in Physical Education(4year integrated) Course

Table-2 highlighted the Mean and SD values with regard to all the sub-variables of teaching aptitude among M.P.Ed. (2year), B.P.Ed. (2year) and B.P.Ed. (4year) pupil teachers of physical education.

Pupil teachers from Master of Physical Education (2year) Course had the Mean and SD values with regard to all the sub-variables of teaching aptitude were 4.0222±1.15776, 2.7556±.80214, 3.8889±1.09175, 3.4444±1.13929, 4.5111±1.23624, 5.4889±.99138 respectively.

Pupil teachers from Bachelors in Physical education (2year) Course had the Mean and SD values with regard to all the sub-variables of teaching aptitude were 4.0000±1.46760, 2.6750±..76418, 3.9750±1.14326, 3.0500±1.15359, 3.9000±1.87835, 5.0750±1.30850 respectively.

Pupil teachers from Bachelors in Physical education (4year integrated) Course had the Mean and SD values of with regard to all the sub-variables of teaching aptitude were 3.6444±1.36774, 2.3556±.74332, 3.6889±.92496, 3.1778±1.05073, 3.8667±1.67332, 4.7556±1.29957 respectively. The graphical representation of mean scores of all the groups in question i.e. have been presented in figure-1.

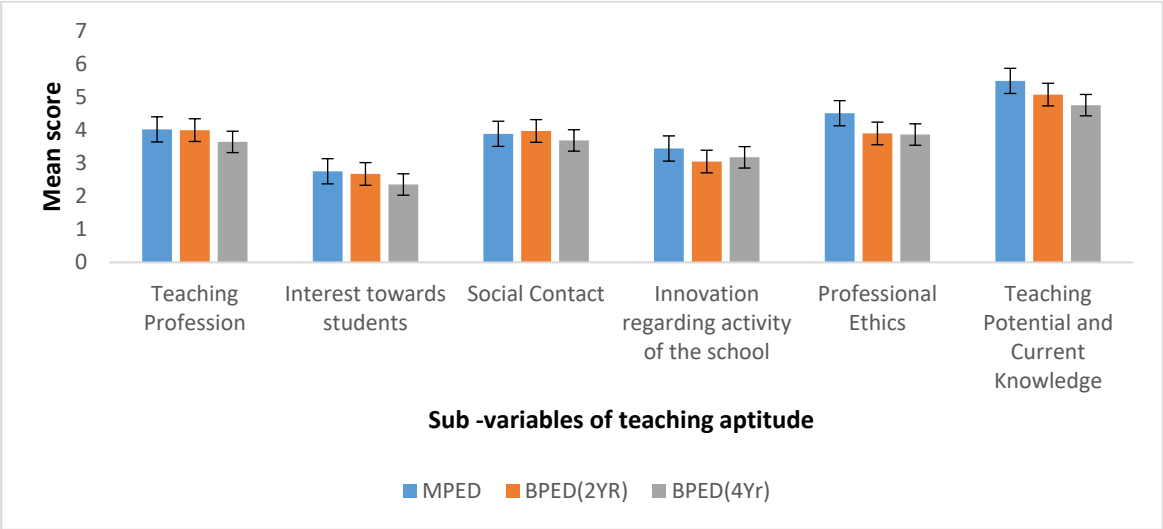

Figure 1:Graphical presentation of mean score with regard to all the sub-variables of teaching aptitude among physical education pupil teachers pursuing M.P.Ed.(2year), B.P.Ed. (2year) and B.P.Ed. (4 year Integrated) Courses

Table 3:Kruska-Wallis H test with regard to the assessment of sub -variable i.e. Teaching Profession among Pupil Teachers of various Physical Education Courses

Ranks of different Groups						
Sub-Variables	Group	N	Mean Rank	Chi-Square	df	Asymp. Sig.
Teaching Profession	MPED (2year)	45	68.83	2.513	2	.285
	BPED (2year)	40	69.64			
	BPED (4year)	45	58.49			
	Total	130				

The results with regard to sub-variable teaching profession from table no-3, A Kruskal-Wallis H test showed that there was a statistically insignificant difference found among different groups, $\chi 2(2) = 2.513$, p=.285, with a mean score of sub-variable teaching profession of M.P.Ed. (2year) 68.83, for B.P.Ed. (2year) group was 69.64 and for B.P.Ed. (4year) group was 58.49. Since the obtained p-value .285 was found statistically insignificant. Therefore, post-hoc test was not applied.

Table 4: Kruskal-Wallis H Test with regard to assessment of sub- variable i.e. Interest Towards Students among Physical Education Pupil Teachers

Ranks of different Groups						
Sub-Variables	Group	N	Mean Rank	Chi-Square	df	Asymp. Sig.
Interest Towards Students	MPED (year)	45	73.98	8.268	2	.016*
	BPED (2year)	40	68.86			
	BPED (4year)	45	54.03			
	Total	130				

It has been seen that this table- 4 revealed significant difference was found among groups, $\chi 2(2) = 8.268$, p value=0.16, with a mean score of sub variable interest towards students of M.P.Ed. (2year) 73.98, B.P.Ed. (2year) 68.86 and B.P.Ed. (4year) 54.03. Since the obtained p-value is .016 significant and found lower than 0.05($p<0.05$) the level of significance, therefore, Post-hoc paired mean comparison was applied to see the degree and direction among groups.

Table -5: Post-hoc; Multiple Paired Mean comparison among various groups with regard to sub-variable i.e. Interest towards students

Groups Average rank	Groups(I) and Group (II)	Test Statistic (Mean Difference)	SE	Std-test Statistic	Sig	Adj. Sig.
MPED (2year) (2.7556)	MPED (2year) BPED (4year)	21.700	7.569	2.867	.004	.012*
BPED (2year) (2.6750)	BPED (2year) MPED (2year)	-9.713	7.801	-1.245	.213	.639
BPED (4year) (2.3556)	BPED (4Year) BPED (2year)	11.988	7.801	1.537	.124	.373

***Asymptotic significances (2 Sided Tests) the level of significance 0.05**

It was observed in table-5 that the mean difference between M.P.Ed. (2year) and B.P.Ed. (4year) was 21.700, and p-value = .012 ($p < 0.05$), showing that the M.P.Ed group was statistically significantly superior to the B.P.Ed. (4year) group. Mean difference between B.P.Ed. (2year) and M.P.Ed. (2year) was -9.713 and the p-value =.639 ($p > 0.05$), which reveals that there was no statistically significant difference between them. The mean difference between B.P.Ed. (4year) and B.P.Ed. (2year) was 11.988 and p-value =.373 ($p > 0.05$), and again this shows that there is no statistically significant difference. These findings indicate that although the M.P.Ed (2year) program shows a clear and statistically significant difference, the differences between the B.P.Ed. (2year) program are not statistically significant.

Table-6: Kruskal-Wallis H Test with regard to assessment of sub- variable i.e. Social Contacts among Physical Education Pupil Teachers

Ranks of different Groups						
Sub-Variables	Group	N	Mean Rank	Chi-Square	df	Asymp. Sig.
Social Contacts	MPEd (2year)	45	67.50	2.880	2	.237
	BPEd (2year)	40	71.21			

	BPEd (4year)	45	58.42			
	Total	130				

The results in table-6 with regard to sub-variable Social Contacts, A Kruskal-Wallis H test table no 4.7 showed that there was a statistically insignificant difference found among different groups, $\chi 2(2) = 2.880$, p=.237, with a mean score of sub-variable teaching profession of M.P.Ed. (2year) 67.50, for B.P.Ed. (2year) group was 71.21 and for B.P.Ed. (4year) group was 58.42. Since the obtained p-value .237 was found statistically insignificant. Therefore, Post-hoc test was not applied.

Table-7: Kruskal-Wallis H Test with regard to assessment of sub- variable i.e. Innovations Regarding Activities of the School among Physical Education Pupil Teachers

Ranks of different Groups						
Sub-Variables	Group	N	Mean Rank	Chi-Square	df	Asymp. Sig.
Innovations Regarding Activities of the School	MPED (2year)	45	73.49	3.402	2	.183
	BPED (2year)	40	60.83			
	BPED (4year)	45	61.67			
	Total	130				

The results in table-7 with regard to sub-variable Innovations Regarding Activities of the School, showed that there was a statistically insignificant difference found among different groups, $\chi 2(2) = 3.402$, p=.183, with a mean score of sub-variable teaching profession of M.P.Ed. (2year) 73.49, for B.P.Ed. (2year) group was 60.83 and for B.P.Ed. (4year) group was 61.67. Since the obtained p-value .183 was found statistically Insignificant. Therefore, Post-hoc test was not applied.

Table-8:Kruskal-Wallis H Test with regard to assessment of sub- variable i.e. Professional Ethics among Physical Education Pupil Teachers

Ranks of different Groups						
Sub-Variables	Group	N	Mean Rank	Chi-Square	df	Asymp. Sig.
Professional Ethics	MPED (2year)	45	73.44	3.369	2	.186
	BPED (2year)	40	63.01			
	BPED	45	59.77			

	(4year)					
	Total	130				

The results in table-8 with regard to sub-variable Professional Ethics, A Kruskal-Wallis H test showed that there was a statistically insignificant difference found among different groups, $\chi 2(2) = 3.369$, $p = .186$, with a mean score of sub-variable teaching profession of M.P.Ed. (2year) 73.44, for B.P.Ed. (2year) group was 63.01 and for B.P.Ed. (4year) group was 59.77. Since the obtained p-value .186 was found statistically insignificant. Therefore, post-hoc test was not applied.

Table-9: Kruskal-Wallis H Test with regard to assessment of sub- variable i.e. Teaching Potential and Current Knowledge among Physical Education Pupil Teachers

Ranks of different Groups						
Sub-Variables	Group	N	Mean Rank	Chi-Square	df	Asymp. Sig.
Teaching Potential and Current Knowledge	M.P.Ed (2year)	45	76.00	8.248	2	.016*
	B.P.E.d (2year)	40	66.29			
	B.P.Ed (4year)	45	54.30			
	Total	130				

It has been seen that this table-9 revealed significant difference was found among groups, $\chi 2(2) = 8.248$, p value=0.16, with a mean score of sub variable Teaching Potential and Current Knowledge of M.P.Ed. (2year) 76.00, B.P.Ed. (2year) 66.29 and B.P.Ed. (4year) 54.30. Since the obtained p-value is .016. significant and found lower than 0.05($p<0.05$) the level of significance, therefore, post hoc paired mean comparison was applied to see the degree and direction among groups.

Table-10: Post-hoc; Paired Mean comparison among various groups with regard to sub- variable i.e. Teaching Potential and Current Knowledge

Groups Average rank	Groups(I) and Group (II)	Test Statistic (Mean Difference)	SE	Std- test Statistic	Sig	Adj. Sig.
M.P.Ed (2year) (5.4889)	MPED (2year) BPED (4year)	19.944	7.185	2.776	.006	.017*

B.P.Ed (2year) (5.0750)	BPED (2year) MPED (2year)	-5.115	7.406	-.691	.490	1.000
B.P.Ed (4year) (4.7556)	BPED (4year) BPED (2year)	14.829	7.406	2.002	.045	.136

***Asymptotic significances (2 Sided Tests) the level of significance 0.05.**

It was observed that in table-10 the mean difference between M.P.Ed. (2year) and B.P.Ed. (4year) was 19.944, and p-value = .017 ($p < 0.05$), showing that the M.P.Ed. (2year) group was statistically significantly superior to the B.P.Ed. (4year) group. Mean difference between B.P.Ed. (2year) and M.P.Ed. (2year) was -5.115 and the p-value = 1.000 ($p > 0.05$), which reveals that there was no statistically significant difference between the groups in questions. The mean difference between B.P.Ed. (4year) and B.P.Ed. (2year) was 14.829 and p-value = .136 ($p > 0.05$), and again this shows that there is no statistically significant difference. These findings indicate that although the M.P.Ed. (2year) program shows a clear and statistically significant difference, the differences between the B.P.Ed. (2year) program are not statistically significant.

A perusal at results obtained from (table-1) with regard to test of normality had revealed that data related to the selected variable i.e. teaching aptitude did not follow the normal distribution, therefore, non-parametric application was used for the analysis of present data. Table-2 presented the descriptive statistics i.e. Mean and SD values (figure-1 represents the graphical representation) with regard to all the sub variables of teaching aptitude among pupil teachers pursuing the various physical education courses. It was noticed from the results of Kruskal-Wallis H test (tables-3 to10) among pupil teachers of Physical Education with regard to sub-variables of teaching aptitude i.e. interest towards students and teaching potential and current knowledge were found statistically significant ($P<0.05$) as the obtained p -values (sig.) .016,.016.were found lower than 0.05 level of significance. The result of post hoc test revealed notable differences in performance among the groups in question as M.P.Ed. (2 year) pupil teachers demonstrated better on the sub-variables interest towards students and teaching potential and current knowledge, closely followed by B.P.Ed. (2 year) pupil teacher's, whereas B.P.Ed. (4 year) pupil teachers scored relatively lower. However, the findings with regard to the sub-variables i.e. teaching profession, social contacts, innovation regarding activity of school, professional ethics revealed statistically insignificant differences($P>0.05$) among pupil teachers (M.P.Ed. (2 year), B.P.Ed. (2year), B.P.Ed. (4year) as the obtained p-values (sig.) .285, .237, .183 and .186 respectively were found lower than 0.05 level of significance. The outcome of the study might be due to the fact that diverse educational exposure or experience contributes to polish the emotional intelligence, adjustment abilities, as well as level of understanding and it cannot be underestimated in the field of education since the M.P.Ed Pupil teacher's groups were heterogeneous in nature which includes both B.P.Ed (2year) and B.P.Ed (4year) students so may be that could be the reason they performed better than their counterpart, but they were very closely followed by B.P.Ed (2year) group and statistically lower performance was given by B.P.Ed(4year), it showed that the maturity level, understanding level or diverse educational exposure play vital role in shaping the teaching attitude of pupil teachers. The findings of the present study also challenge the conventional notion that expertization is solely a function of time invested. In fact, it showed that diverse

educational background and variety of micro teaching experiences contributes to broaden the mental perspective and leads a better adaption and enable a person to transfer his/her previous knowledge positively in the subsequent learning. Therefore, the diverse educational exposure to the pupil physical education teachers must be provided so that the young pupil teachers will be able to cater the expectations of all the stakeholders. The findings of the present study are in line with the study [Modi &Patel,2025; Ramesh et al.,2017] highlighted that educational diversity has the potential to influence the teaching aptitude. Pany [2013] stated that postgraduate and undergraduate primary teacher possess different teaching aptitude Study [Ademiluyi & Olusanya,2022] stated healthy micro teaching boost the teaching aptitude. Research conducted by Dominguez-Almansa et al. [2000] highlighted that cultural and emotional education also contributes in shaping the teaching aptitude. They further revealed that 'training that includes components of cultural awareness and emotional education, such as understanding and managing personal and student emotions', have been significantly improving the professional competence of trainee teachers. Knowledge about emotional and social components enables the pupil trainees to handle the emotional and social dynamics of the classroom more effectively. Study initiated by Ramzan [2019] exhibited the positive correlation between the educational background and teaching aptitude. In the same line, Venkatesha & Rajeeva [2024] cited the moderate positive correlation between the teaching aptitude and academic achievement. They further highlighted that teaching aptitude comprises of amalgamation of various factors such as skill, knowledge and attitude essential for fostering the conducive educational environment. Padmavathy [2021] & Pushap [2025] stated that teaching aptitude and emotional intelligence are two important predictors to determine the desirable outcome. Emotionally intelligence make an educator self-reflective and constant review of his/her teaching pedagogy has contributed to make an impressive difference in the learning path of students and shape the mind of their students. However, those who possessed low emotional intelligence failed to engage the students in various activities [Goel ,2024]. Several Studies advocates that teaching aptitude influenced by various factors such as level of difficulty set while designing the curriculum component, opportunities or activities to nurture the leadership qualities, creativity among the pupil teachers [Prajapati ,2024] and also strengthen teacher- taught relationship [Vijaya Kumari & Naik,2016]. Quality education demand judicious class management [Roy & Chaturvedi,2018] teaching aptitude is also positively associated with effective class management. Researchers [Darling-Hammond et al, 2017; Rajput & Walia,1998] demonstrated that different organizational learning serves as foundation to provide better professional exposure which further leads to better adaptation, enable the teacher to create planned yet flexible learning environments where students can thrive on academic domain [Mili, 2023] and sharpen the teaching skill of teachers [Collie & Martin ,2016]. Teaching aptitude has also significant relation with teaching effectiveness [S M.& Vardhini,2017]. Similarly Rani & Siddiqui [2015] exhibited that teaching aptitude differs among the academic streams i.e. Arts science and Commerce. Similarly, Safi et al.[2024] highlighted that teaching aptitude of teacher impact the teaching practice and educational objectives. For instance, Shanmugam [2016] cited that better teaching aptitude enhance the teaching competency, as teaching aptitude serves as a crucial determinant for competency [Parveen et al.,2021]. However, the findings of the present study are not in line with the study [Thangarajan,2018; Chit,2020] stated previous academic qualification has no substantial relation the teaching aptitude and closely significantly associated with aspiration level of pupil teacher [lata,2017]. Authors [Loewen,2016, Shabbir,2019] also validated that innate scholarly aptitude of an individual positively facilitates his/her teaching aptitude. On contrary, findings of the present study contradicting the results of the several studies which advocates the insignificant differences across the levels of teaching i.e. postgraduate and undergraduate [Kalita,2016]/Primary and Secondary teaching professionals [George,2017]/streams i.e. Arts and science pupil teachers [Husain,2023], on the personal part i.e. Commitments [Kant,2021], personal educational background /experiences [Tanwar & Pooja,2012] and gender disparity [Singh,2020;, Kumar &Roy,2019].

6. Findings

The insights of the present study highlights and advocates the diverse educational background also leads to

positive transfer of training. Since, pupil teachers pursuing M.P.Ed course were closely followed by B.P.Ed (2year), it shows that the understanding as well as maturity level of students also improves with diverse exposure of knowledge. Further, the present study suggests the refinement of physical education teacher training programs at regular interval of 2 years (approx.). Since the global landscape is keep on changing, therefore, physical education teacher training curriculum framework required to be in line with the curriculum framework for college/school aspirations. It is also suggested to focus on multifaceted training curriculum which provides hand on practical experience while promoting inclusivity. Further, the findings of the study advocates for professional ethics may be the part of physical teacher education curriculum to ensure a broad-based and experiential training approach. Because the expectations of all the educational institutions from their respective teachers vary from institution to institution. The academic and professional criterions of teachers constitute a critical component of the essential learning conditions for achieving the educational goals. Therefore, it is also suggested that teaching aptitude should be given utmost consideration at the time of recruitment to foster better teaching-learning environment.

7. Limitations and Research Gaps

Limitations of the study was that (i) No motivational technique was used for the collection of data. (ii) Socio economic status, psychological make–up of an individual, educational background as well as genetic composition were not in control of investigator. However, the research gaps showed that no prior research had studied the diverse educational acquaintance on teaching aptitude of pupil teachers. Therefore, the present study was an attempt to highlight the influence professional exposure on shaping the teaching aptitude

8. Conclusion

It is concluded from the findings that M.P.Ed pupil teachers demonstrated significantly better on the sub-variables i.e. interest towards students and teaching potential and current knowledge. followed by B.P.Ed (2year), whereas, B.P.Ed (4-year) pupil teachers scored relatively lower. However, on the rest of the sub-variables i.e. Teaching profession, Social contact, Innovation regarding activity of school, Professional ethics all the groups in question performed equally.

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