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RESEARCH ARTICLE

PERSONALITY CHARACTERISTICS OF COMMERCE AND SCIENCE GRADUATES AND MALE FEMALE DICHOTOMY- A COMPARATIVE STUDY

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ABSTRACT

In the present study an attempt has been made to compare the Personality Characteristics of Commerce and Science graduates, pursuing B.Ed course in Directorate of Distance Education, University Of Kashmir. Cattell's Sixteen Personality Factor Questionnaire has been chosen as a tool for comparing personality traits of the subjects with respect to their academic background and gender. The hypothesis examined that Female students were not significantly different from Male students and students with commerce background were not much different from students of science background. Results showed that there were no significant difference among students in personality, on the basis of academic background except for the measures of Sensitivity and Perfectionism. The study findings also resulted in significant Gender based differences in some measures of personality like Warmth, Sensitivity, Vigilance, Abstractness and Openness to change.

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INTRODUCTION

Personality has been conceptualized at different levels of breadth (Mc Adams, 1992) and each of these levels includes our understanding of individual understanding. The question of which personality variables are relevant to career choice has been considered by several personality theories. Individuals are characterized by unique patterns of traits, and these traits contribute significantly towards the development of teaching abilities, so far as this study is concerned. So, it seems to be important to know something about teacher trainee's personality traits and provide them with the necessary training, so as to mould their personalities into most effective and efficient teachers. Graduates from almost every discipline can pursue B.Ed course and in fact it has observed that students from almost every academic background opts for B.Ed course as it includes number of teaching subjects and electives, taken from both science, commerce and other streams/subjects. Students from different academic backgrounds are acquainted with different concepts and subjects. This may probably leads to difference in their teaching aptitude, particularly in learning the teaching skills. The different academic background will possibly influence their choice of teaching subjects and electives. The trainee's choice of teaching subjects and electives will lead to the proper development of professional skills and performing better while teaching in the classroom situation. For Example, Commerce graduate may choose 'teaching of mathematics' and science graduates may possibly choose 'teaching of bioscience' as teaching subjects, respectively. Comparing the personality characteristics of commerce and science graduates can help in understanding their choice of electives which further provides opportunities to them to grow in the profession. The purpose of this study was to look for a range of personality characteristics out of which it could be established as to which are the essential ones which go with teacher effectiveness.

Review of Literature

The studies on individual and personal differences are central theme in psychology, educational psychology and other areas of social and

behaviour sciences. Personality factors are important in the development of teaching abilities. The issue of gender difference cannot be subsided. For example; one can observe that an appreciable fraction of graduate students majoring in biology or chemistry are females, while only a few percent of graduate students majoring in mathematics or physics are females. Females are more successful than males at university. Females now represent a majority of the students at the university (Masson, Hoyois and Cado 2004). Male students have a significantly higher score in three of the personality traits, namely, *extraversion, agreeableness and conscientiousness* and one of the psychological maturity dimension *cooperativeness*. Moreover, the relationship between personality profile and the psycho-social maturity revealed that there is positive correlation between *cooperativeness (psycho-social maturity)* and the four factors of *personality; extraversion, openness, agreeableness and conscientiousness*, Efficacy over openness and conscientiousness; positive correlation between perseverance over conscientiousness and negative correlation between neuroticism and perseverance. (George, Manju; Gayathridevi, Sri; Mampilly, Sebastian Rupert. May 2012).

Effect of gender is also significant. Girls are found to be more agreeable than boys. (Gawali, Chandrashekhar, 2013). Pandey *et al.* (2008) studies significance of difference between male and female adolescents on *academic performance, achievement motivation, intelligence and socio economic status* and found that there was no significance difference between male and female adolescents on the measure of academic performance. Kazmi (2005) studied the personality profiles and cognitive factors of academic failure among science and arts students at various levels and found that the relationship between different personality factors viz. *intelligence, conformity, achievement motivation, study habits, memory span and academic failure* was not significant; failures differed in their personality interact characteristics and cognitive make up; gender difference did not interact with any personality characteristics for academic failure; personality characteristics and cognitive factors interacted on the failure's of academic achievement. Asthana (2005) studied internal and external conditions of control as determinants of performance, in relation to *personality characteristics*

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and individuals locus of control and found that internal, warm hearted, emotionally stable and assertive individuals performed better if they worked under intrinsic motivation; those who are reserved in nature performed better under the condition of external reinforcement; those who are relaxed and were warm hearted, assertive, adventurous and tense performed well academically irrespective of conditions of control. Suresh *et al.* (2007) studied the influence of *personality* on the environmental awareness ability of college students and found that gender did not affect the personality of students whereas subject specialization, residential area, parental income and parents' level of education significantly influence certain dimensions of personality; locality of the students had a significant influence on the *extraversion, sensation, intuition and perception dimension of personality*. Mehrotra (2004) studied difference in personality profile of male and female candidates as revealed by thematic appreciation test responses and indicates that girls were better equipped with qualities like organizing ability, power of expression, social adaptability, sense of responsibility and determination whereas boys were high in effective intelligence, self confidence and courage. Jahan (2004) examined personality profile of students of science, arts and commerce at college level of education in relation to their academic achievement and found that the overachievers of science stream were more reserved, intelligent, emotionally stable, excitable, obedient, sober, conscientious, shy, self sufficient, controlled and relaxed as compared to underachievers; the overachievers of arts stream were more warm hearted, intelligent, affected by feelings, undemonstrative, assertive, enthusiastic, conscientious, zestful, apprehensive and tensed as compared to underachievers; the overachievers of commerce stream were more reserved, reserved, intelligent, affected by feelings, sober, conscientious and self assured as compared to the underachievers.

Objectives

- To study the differences in personality characteristics between commerce and science graduates.
- To find out the gender difference in personality characteristics in the total sample.

Hypothesis of the study

- There is no significant difference between commerce and science graduates pursuing B.Ed.
- Personality of male students is not significantly different from female students.

MATERIALS AND METHOD

Sample of the study

A sample of 120 students (60 commerce graduates and 60 science graduates) were taken, pursuing B.Ed course, from directorate of distance education, Kashmir university. Out of 60 students each in commerce and science stream 50% are males and 50% are females. The mean age of males was 25.24 years and mean age of females was 23.42 years. The mean age of the participants was 24.33 and the standard deviation 1.93.

Tool used

One of the most popular and much used device, generally and specially built after factor analytic strategy of personality analysis is Sixteen Personality Factor Questionnaire designed and constructed by Raymond Bernard Cattell, has been chosen as a tool for assessing the personality traits of the subjects.

METHODOLOGY

The tool was administered on 120 students (Teacher Trainees) with 60 commerce graduates and 60 science graduates covering 50% male and 50% females in the total sample. Participants signed the consent forms that indicated that all data furnished by them would be kept

strictly confidential. Participants were given instructions before hand and their queries and doubts clarified accordingly.

RESULTS AND DISCUSSIONS

Table 1 shows the mean, standard deviation and the t values calculated for the primary personality factors across different academic backgrounds such as commerce and science. The t values calculated for the primary factors based on academic background showed that some primary factors were significant for measures like tough mindedness (factor I) and perfectionism (factor Q3). The mean calculated showed that the students with science background were more tough minded than the students with commerce background. This shows that the science students are more self-reliant, realistic, responsible and emotionally tough. They tend to keep the group operating on a practical and realistic "no-nonsense" basis as compared to the commerce background students. Another significant difference found is the measure of perfectionism. Science students are more socially aware, controlled, self-disciplined and perfectionists as compared to the commerce background students. These differences could have probably emerged due to the time spent in practicals in their graduation. The curriculum for science course is more practical and focused and demands more perfection to be successful and also due to the fact that the science students spend more time with their classmates in laboratories they tend to become tougher minded and focused as they are given lot of team assignments in their curriculum as compared to the commerce graduates. The mean calculated for the measure of vigilance though not significant in the present study showed that science students are good team members as compared to the commerce graduates. Earlier studies have also found that science majors were more practical and tough-minded than the non-science majors (Clark *et al.*, 1983). Science students were often thought of to be very pragmatic. Studies conducted by Harrison, Tomblen and Jackson (1955) and Moore and Levy (1951) have found that science students tend to be more ingenious and concrete-minded and practical.

Table 2 shows the mean, standard deviation and the t values calculated for the primary personality factors across gender. There are significant gender differences in the primary factor measures like warmth (A), utilitarian (I), vigilance (L), abstractedness (M) and open to change (Q1). This shows that males are more outgoing, tender minded, good team members, abstracted and less open to change as compared to females. These findings are in accordance with the previous studies conducted by Bourke (2001; 2002) which showed that boys are more tender-minded than the girls. Girls were found to be more independent than the boys (Bourke, 2002). The results have implications for the faculty members involved in facilitating learning in the B.Ed course. Studies have shown that people have different learning style preferences that can be related to personality based differences (Rothschild, Jacqueline and Piland, 1994; Irani, Scherler, Harrington and Telg, 2000). Bachelor of education is a blend of several disciplines. The method of evaluation adopted also aims at a holistic development with a broad aim of shaping people to become successful teachers. The differences in the personality factors among the B.Ed students suggest a need for different parameters for evaluation to ensure a better and objective assessment of the learning process of students. Different people adopt different styles and the preferred styles are related to personality and individual differences (Honey and Mumford, 1982; Kolb, 1976). This also has an implication for classroom management and teaching. The instructional design could include lectures, discussion, experiential exercises, cases and problem solving as part of classroom activities for creating a better learning environment. The results of this study also show that the sample did not differ significantly on several personality factors. These similarities across gender and educational background could be due to several reasons. One important factor to which similarities could be attributed is the fact that Directorate of Distance education from which the sample was drawn has a well defined process for selecting eligible students for the B.Ed program. Based on the results it is apparent that focused counseling would further hone the skills and competencies of students

Table 1. Mean, SD and t-values of the primary personality factors of commerce and science graduates pursuing B.Ed.

Personality Factors	Measure	Commerce		Science		t-value
		Mean	SD	Mean	SD	
Reserved v/s Warm (A)	Warmth	4.62	1.50	4.86	1.32	1.016
Concrete v/s Abstract (B)	Reasoning	5.71	2.26	6.02	2.05	1.246
Reactive v/s Emotionally stable (C)	Emotional stability	5.20	2.09	5.42	1.85	0.706
Differential v/s Dominant (E)	Dominance	5.30	0.97	5.38	1.18	0.308
Serious v/s Lively (F)	Liveliness	4.85	2.38	4.96	2.12	0.428
Expedient v/s Rule Conscious (G)	Rule boundness	7.04	2.30	7.28	2.35	1.046
Shy v/s Socially bold (H)	Social Boldness	5.27	1.00	5.38	1.09	0.377
Utilitarian v/s sensitive (I)	Sensitivity	5.99	2.54	5.31	2.44	2.501
Trusting v/s vigilant (L)	Vigilance	5.66	1.40	5.40	1.43	0.881
Grounded v/s Abstracted (M)	Abstractedness	4.39	1.29	4.55	1.58	0.584
Forthright v/s Private (N)	Privateness	7.75	2.44	7.76	2.23	0.064
Self assured v/s Apprehensive (O)	Apprehension	5.31	1.88	5.19	1.75	0.400
Traditional v/s open to change (Q1)	Openness to change	5.87	1.93	5.78	1.97	0.384
Group oriented v/s self reliant (Q2)	Self-reliance	5.69	1.89	5.27	2.09	1.297
Tolerated disorder v/s Perfectionism (Q3)	Perfectionism	6.06	1.93	6.54	1.71	1.824
Relaxed v/s Tense (Q4)	Tension	4.98	2.40	4.73	2.02	0.891

Table 2. Mean, SD and t-values of the primary personality factors across gender

Personality Factors	Measure	Male		Female		t-value
		Mean	SD	Mean	SD	
Reserved v/s Warm (A)	Warmth	5.31	1.35	4.21	1.34	5.022
Concrete v/s Abstract (B)	Reasoning	5.24	1.40	5.19	1.63	0.165
Reactive v/s Emotionally stable (C)	Emotional stability	5.54	1.82	4.96	1.97	1.875
Differential v/s Dominant (E)	Dominance	5.98	1.83	6.10	1.73	0.557
Serious v/s Lively (F)	Liveliness	5.04	2.32	4.83	2.24	0.794
Expedient v/s Rule Conscious (G)	Rule boundness	6.23	1.21	6.23	1.39	0
Shy v/s Socially bold (H)	Social Boldness	5.50	1.28	5.55	1.20	0.153
Utilitarian v/s sensitive (I)	Sensitivity	6.25	2.01	4.49	2.10	6.987
Trusting v/s vigilant (L)	Vigilance	5.23	1.55	6.17	1.51	3.441
Grounded v/s Abstracted (M)	Abstractedness	4.72	1.43	4.14	1.32	2.242
Forthright v/s Private (N)	Privateness	7.69	2.11	4.64	2.37	0.193
Self assured v/s Apprehensive (O)	Apprehension	5.19	1.64	5.15	1.83	0.112
Traditional v/s open to change (Q1)	Openness to change	5.52	2.13	6.33	1.86	3.401
Group oriented v/s self reliant (Q2)	Self-reliance	5.63	2.03	5.31	2.03	1.203
Tolerated disorder v/s Perfectionism (Q3)	Perfectionism	6.87	2.07	6.67	2.51	0.764
Relaxed v/s Tense (Q4)	Tension	4.92	2.19	4.89	2.33	0.130

and make them more adaptive to different work pressure situations. Also, individual counseling requirements would vary given the different backgrounds of the students. Further, additional inputs like this would give insight to the counselors in shaping the overall personality of the students so that they fare better in the educational sector. Overall, relevant factors as observed in the study which have a bearing on the performance effectiveness can be singled out for attention by psychologists, trainers, subject experts so that the talent potential of the students is appropriately assessed for fine tuning and development. This study clearly brought out the impact of factors like sensitivity, independence, perfectionism, team work, openness to change and so on in bringing the differences between gender and academic background of the teacher trainees so that it helps in dealing with different classroom situations accordingly.

Conclusion

According to the obtained results, the present study is of great value as the findings are important for educational planners for framing curriculum. The teacher trainees can understand their own personality traits and other attributes. This study offers additional support to the claim that personality patterns play a part in the development of teaching skills. Also, teacher trainees with higher scores on emotional stability, as a personality trait, should be taken into account while appointing them as teachers.

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