

# **Personality Traits and Vocational Interests among Physically Handicapped and Normal Individuals: A Comparative Study**

**Dr. Samia Wasif<sup>1</sup> & Ms. Wajeeha Ghazal<sup>2</sup>**

**COMSATS Institute of Information Technology Islamabad**

Current study commenced to compare the personality traits and vocational interests of physically handicapped and normal individuals, by using Big Five Inventory and Holland Code Test. Participants comprised of 90 physically handicapped and 100 normal individuals aged from 15-30 years. Physically handicapped were taken from special educational and training centers while normal individuals from different school, colleges and universities of Rawalpindi and Islamabad. Findings revealed significantly low score of Physically Handicapped on Extroversion as compared to normal individuals while physically handicapped scored higher on Neuroticism as compared to normal individuals. Assessment of Vocational Interests signified that physically handicapped scored significantly higher on Realistic, Investigative, Artistic and Conventional interest as compared to normal individuals. Outcomes of this research work are valuable for different professionals, caretakers and institutions (dealing with handicapped) including counselors, psychologists, teachers, vocational training centers, hospitals and organizations that offers jobs for handicapped. Identifying the Personality traits and Vocational Interests is more beneficial for better understanding of handicapped individuals' special needs and facilitating them with better treatment.

*Keyword.* Personality Traits, Vocational Interests, Physically Handicapped, Normal Individuals.

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- 1. Assistant Professor, COMSATS Institute of Information Technology Islamabad, Pakistan.*
- 2. Research Scholar, Department of Psychology, Foundation University, Rawalpindi Campus, Pakistan.*

*Correspondence concerning this article should be addressed to Dr. Samia Wasif, COMSATS Institute of Information Technology Islamabad, Pakistan.*

*Email:* samia.wasif@comsats.edu.pk.

Personality and physical functions are found to be in association with each other (Tolea et al., 2012). It can be a powerless condition in which person deprived from the physical fitness can't meet the standards of society, moreover, loneliness have been found to be a frequent companion of those afflicted with physical disabilities (Rokach, Lehcier-Kimel, & Safarov, 2006). This all in turn brings an association with personal interests amongst which vocational interests are of prime importance.

*Physically handicapped* are those who might have lost or failed to develop bodily function or multiple functions, that might be related to body movements, coordination of body parts, sensations, or speech, excluding injuries or disabilities related to brain that may affect the mental functions (Rokach, Lehcier-Kimel, & Safarov, 2006). They have their own specific needs that might be different from their normal counterparts.

Pakistan Press international counsel emphasized on “Pakistan Disability Act, 2014 lacking enforcement mechanism”, mentioned Center for Peace and Development Initiatives’ statement that Pakistan has to act on the laws focusing on the rights of the disabled population both at provincial and federal levels. They also need to keep into consideration the special needs of disabled individuals. While the laws are not enforced, the people with disabilities will have to face discrimination and humiliating behaviors as students, teacher and workers in every aspect of life.

## **Personality Traits**

The word “personality” is originated from a Latin word “Persona” that means “mask”. Feist and Feist (2009) in their book defined

personality as “a pattern of relatively permanent traits and unique characteristics that give both consistency and individuality to a person’s behavior”, where traits contributes in the development of specific behaviors, their stability over time and consistency across diverse circumstances. Some traits are completely unique while some are shared across similar group members or even among similar species; however their pattern is different for every single individual.

### **Goldberg’s Five Factor Model of Personality Traits**

Trait theories of personality have long attempted to pinpoint exactly how many personality traits exist. Many researchers felt that Cattell's 16 factor theory was too complicated and Eysenck's three factor theory was too limited in scope. Goldberg (1981) invented the term “Big-Five” and it was originally related to the study of personality dimensions in the field of natural language and the five factor model is used to assess the personality traits (Srivastava, 2015). The analysis of the study by Aziz and Jackson (2001) suggested that the Five Factor Model is more forceful as compared to three factor model in the Pakistani data.

Big Five personality dimensions are:

1. **Extraversion:** involves traits like energetic, talkative and assertive.
2. **Agreeableness:** includes the traits like kindness, sympathetic and loving.

3. **Conscientiousness:** involves traits like thorough, organized and people who follow plans.
4. **Neuroticism:** sometimes oppositely referred as Emotional stability. It includes traits like anxiousness, moodiness and tension.
5. **Openness to Experience:** it is also referred as Intellect/Imagination. This dimension involves people who are insightful, imaginative and have wide range of interests.

Hancock and Cob (1980) linked between various personality variables and disability among children and adolescent and suggested that disabled individuals have very limited social circle due to their functional impairment and a limited range of interpersonal relations available to them. Authors concluded that further research is required to identify the issues faced by physically disabled and that needs to be more systematic and of observational kind.

Another study was conducted by Steinhausen (1981) to determine the personality of chronically ill, handicapped children and adolescents and also compared them with the control group of healthy participants. The findings suggested that emotional integration into environment was lacking among the physically disabled persons but conflict was not observable and it was also acknowledged that the physically challenged individuals were not considerably extrovert as opposed to control group. Similarly another study conducted by Jabeen, Kazmi, Rehman, & Sajjad Ahmed (2016) concludes that normal students have high scores on big five personality traits as compared to physically disabled. Vocational

development is another important aspect of a person's growth, through which their personality can manifest itself. Vocational interests are developed differently among physically disabled and normal individuals, because physically handicapped are treated in a different manner by the society. They are kept deprived of their basic rights. These people are ignored by their families, by educational institutions, so they cannot develop their vocational interests and career worth (Harpur, 2012).

### **Holland's Theory of Vocational Choice**

A theory by Holland (1966, 1973) is regarding the vocational choice of an individual. This theory overtly identifies the role of personality in determining the vocational interest. These interests are categorized on the basis of shared psychological features among multiple occupations. Holland's perspective about occupations suggests that, they can't be separated completely from each other but still vocational interests can be assembled under the six major categories:

1. **Realistic:** includes individuals having athletic aptitude and prefers to work with machinery, objects, plants or animals, or having outdoor interests.
2. **Investigative:** includes individuals' likes to investigate, learn, evaluate, observe and solve problems.
3. **Artistic:** includes individuals who are having innovating, artistic or intuitional capabilities, or who like to work in informal conditions and are creative and imaginative.
4. **Social:** includes individuals intended to work for other people like to help, enlighten, train or cure them.

5. **Enterprising:** includes individuals who are intended to persuade, influence, lead or manage other people for the sake of organizational goals or economic gain.

6. **Conventional:** includes individuals who have numerical or clerical ability, likes to work with data and perform tasks thoroughly, or follow other people instructions.

Several physically disable people do not necessarily accomplish level of vocational growth well-suited to their competences (Brolin and Gysbers, 1989). Similarly, another researcher (Conte, 1983) illustrated that the literature of vocational development both in theoretical and experimental fields is lacking, concentrating on the vocational learning of physically challenged individuals. Hosken (2008) also added that the extent to which a person is handicapped cannot be measured or predicted with the help of medical diagnosis.

Studies involving the exploration of issues countered by the physically disabled populations are very limited. So, the exploration of their issues and needs is mandatory in order to provide them with the appropriate resources. An important dimension emphasized being inadequately researched about handicapped populations is literature regarding their vocational development (Griggs, 1993). Therefore, the current study is aimed at satisfying the following objectives:

- To determine the prevailing personality traits and vocational interests of the physically handicapped individuals and normal individuals.
- To compare the personality traits and vocational interests of the physically handicapped individuals with the normal individuals.

## **Method**

### **Hypotheses**

- Physically handicapped individuals will have lower level of extroversion and higher level of neuroticism as compared to normal individuals.
- Physically handicapped individuals will have higher Realistic and Investigative-type vocational interests as compared to normal individuals.
- Physically handicapped individuals will have higher Artistic and Conventional-type vocational interests as compared to normal individuals.

### **Sample**

Participants of the present study include 90 physically handicapped individuals and 100 normal individuals comprising of 84(44.2%) males and 106(55.8%) females. Physically handicapped individuals were taken from two institutes in Islamabad i.e. Al-Farabi special education center for physically handicapped children and National training center for special persons. The comparison group was taken from normal population who had no physical or mental handicap, and they belonged to different schools, colleges and universities of Islamabad and Rawalpindi region. Purposive sampling technique was used to select the participants of the study. Their age ranged from 15 -30 years and both males and females were included.

### **Measures**

**Big Five Inventory (BFI).** It is a personality inventory developed by John and Srivastava in 1999. It consists of 44-items and 5-

point Likert scale ranging from 'Strongly Disagree' to 'Strongly Agree', is used in the inventory in order to mark the statements. The BFI have five sub-scales i.e. Extroversion, Agreeableness, Conscientiousness, Neuroticism and Openness to experience. There are some items with reverse scoring that are mentioned with 'R' in the following list of items. The items of the subscales are: i) Extraversion: 1, 6R, 11, 16, 21R, 26, 31R, 36, ii) Agreeableness: 2R, 7, 12R, 17, 22, 27R, 32, 37R, 42, iii) Conscientiousness: 3, 8R, 13, 18R, 23R, 28, 33, 38, 43R, iv) Neuroticism: 4, 9R, 14, 19, 24R, 29, 34R, 39 and v) Openness: 5, 10, 15, 20, 25, 30, 35R, 40, 41R, 44. In the current study, alpha reliability of BFI and the subscales ranges from .51-.77 which is reflected as fairly good.

**Holland Code Test (RIASEC markers scale).** The scale aims at measuring the vocational interests and it was originally developed by the Liao, Armstrong and Rounds (2008) while its shorter version was developed by Armstrong, Allison and Rounds (2008). It consists of 48-items that are marked on a 5-point Likert scale ranging from 'Strongly Dislike' to 'Strongly Like'. Holland code test is based on 6 subscales, each containing 8 items. Subscales are Realistic, Investigative, Artistic, Social, Enterprising, and Conventional determining six different types of vocational personalities. The most highly scored dimension is considered as one's interest-type. In the current study, alpha reliability of Holland code test and its subscales ranges from .67-.93 which is also considered as medium to high reliability.



## **Procedure**

The data collection progressed after getting permission from the management of educational institutes. Students were taken from Al-Farabi special education center for physically handicapped individuals & National training center for special persons and for normal population; students were included from normal schools to fulfill sample inclusion criteria of research.

Participants were briefed about the research and after providing the relevant information; formal consent was taken from the participants. After acquiring the consent formally, questionnaires were distributed among them. Two sets of questionnaires i.e. Big Five Inventory and Holland Code test were provided to the participants along with the demographic data sheet including: Age, Gender, and health status (i.e. Physically handicapped or normal). The whole procedure took 10-15 minutes for each participant. Confidentiality of the information was ensured to the participants and any query came across was dealt with on the spot.

## **Results**

Present study initiated to compare the personality traits and vocational interests of physically handicapped and normal individuals, by using Big Five Inventory and Holland Code Test. Participants included 90 physically handicapped and 100 normal individuals aged from 15-30 years. Physically handicapped were taken from special educational and training centers while normal individuals from different school, colleges and universities of Rawalpindi and Islamabad. After collecting the data

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from participants of study, descriptive statistics were computed and  
analysis was conducted to draw the findings which are as follows.

**Table 1**

Demographics	Categories	<i>f</i> (%)
Age	15-20	78(41.1)
	21-25	65(34.2)
	26-30	35(18.4)
	Above 30	12(6.3)
Gender	Male	84(44.2)
	Female	106(55.8)
Physical Health Status	Physically Handicapped	90(47.4)
	Normal Individuals	100(52.6)

Table 1 shows the demographic data of the sample. From the total of 190 participants majority belonged from the age range of 15-20 and fewer were included from age above 30. Male participants were comparatively lesser in number i.e. 84 as compared to female participants' i.e. 106. Number of total physically handicapped respondents is also comparatively less i.e. 90 as compared to normal individuals i.e. 100.

**Table 2**

*Comparison of Physically Handicapped and Normal Individuals on subscales of Big Five Inventory (N= 190)*

Variables	Physically	Normal	<i>t</i> (188)	95% CI		Cohen's <i>d</i>
	Handicapped ( <i>n</i> = 90)	Individuals ( <i>n</i> = 100)		LL	UL	
Variables	<i>M</i> ( <i>SD</i> )	<i>M</i> ( <i>SD</i> )				
Extroversion	25.20 (5.79)	26.92 (5.03)	2.19*	3.27	.17	.32
Agreeableness	34.78 (5.39)	34.70 (5.06)	.10	1.42	1.57	
Conscientiousness	32.71 (5.68)	31.60 (5.41)	1.38	.48	2.69	
Neuroticism	26.73 (6.56)	23.97 (6.36)	2.95***	.91	4.61	.43
Openness	36.26 (5.67)	35.32 (4.76)	1.24	.56	2.43	

*Note:* CI= Confidence Interval; LL= Lower Limit; UL= Upper Limit. \**p*<.05,

\*\*\**p*<.001

Table 2 demonstrates the mean difference for Extroversion, Neuroticism and openness to experience personality dimensions among physically handicapped and normal individuals. It depicts that mean differences for extroversion ( $t=2.19$ ,  $p<.05$ ) and neuroticism ( $t=2.95$ ,  $p<.001$ ) among physically handicapped and normal individuals are statistically significant while the mean differences for other subscales are statistically non significant. Findings signify that physically handicapped individuals are scoring higher than normal individuals on extroversion whereas they are scoring higher than normal individuals on neuroticism. Cohen's *d* value of Extraversion ( $d= .32$ ) and Neuroticism ( $d=.43$ ) has moderate effect size.

**Table 3**

*Comparison of Physically Handicapped and Normal Individuals on subscales of Holland Code Test (N= 190).*

Variables	Physically Handicapped (n = 90)	Normal Individuals (n = 100)	t(188)	95% CI		Cohen's d
				LL	UL	
RIASEC markers scale	M(SD)	M(SD)				
Realistic	23.19 (7.24)	20.80 (7.62)	2.21*	.26	4.52	.32
Investigative	29.61 (6.67)	25.08 (7.64)	4.33***	2.47	6.59	.63
Artistic	30.97 (4.19)	29.25 (5.28)	2.46*	.34	3.09	.24
Social	30.22 (5.26)	30.12 (6.80)	.12	1.65	1.87	
Enterprising	24.62 (6.89)	23.32 (6.99)	1.29	.69	3.29	
Conventional	27.77 (7.42)	22.22 (7.85)	4.98***	3.35	7.74	.73

Note: CI= Confidence Interval; LL= Lower Limit; UL= Upper Limit. \* $p < .05$ ,

\*\*\* $p < .001$

Table 3 demonstrates the mean difference for Realistic, Investigative, Artistic, Social, Enterprising and Conventional type vocational interests among physically handicapped and normal individuals. It depicts that mean difference for Realistic ( $t=2.21$ ,  $p < .05$ ), Investigative ( $t=4.33$ ,  $p < .001$ ), Artistic ( $t=2.46$ ,  $p < .05$ ) and Conventional ( $t=4.98$ ,  $p < .001$ ) types are statistically significant but for Social and Enterprising ( $t=.19$ ,  $p > .05$ ), mean differences are not statistically significant among physically handicapped and normal individuals. Numerical values of the findings indicate that physically handicapped score higher than normal individuals on Realistic, Investigative and

Artistic types whereas they are scoring lower than normal individuals on Conventional type vocational interest. Cohen's  $d$  value of Artistic ( $d = .24$ ) suggested small effect size, of Realistic ( $d = .32$ ), it suggests medium while for Investigative ( $d = .63$ ) and Conventional ( $d = .73$ ) has large effect size.

## **Discussion**

The current study aimed at comparing the personality traits and vocational interests of physically handicapped and normal individuals. Participants of the study included both physically handicapped and normal individuals. Normal individuals were selected from different schools, colleges and universities of Islamabad and Rawalpindi region while Physically Handicapped individuals were taken from two special educational institutes in Islamabad. Participant's age ranged from 15-30 years including both males and females.

Vocational choices are limited for the physically handicapped, they do not have a complete range of occupational choices to opt for as compared to normal. Their incapability restricts them to the narrower range of vocational choices (Hosken, 2008). These people are ignored by their families, by educational institutions, so they cannot develop their vocational interests and career worth (Harpur, 2012). Correspondingly, they have somewhat different personality traits as opposed to their normal counterparts (Bhavisha, 2012).

The researcher intended to compare the personality of physically handicapped and normal individuals. Findings of the study determined that in comparison to normal individuals, physically handicapped scored

significantly lower on Extroversion while higher on Neuroticism personality dimensions. Other Personality dimensions portrayed no significant differences. Similar findings illustrated that Disabled tend to be more introverted, lethargic, distant, sluggish, passive, unsophisticated, and modest (Fichten & Bourdon, 1986). Physically handicapped are not very social because of their functional deficiencies and limited range of interpersonal relationships accessible to them (Hancock & Cob, 1980). Finch (1967) determined in his study that the individuals with disability evaluate themselves negatively as compared to their counterparts.

Current study uncovers the finding that physically handicapped scored significantly higher than the normal individuals on the realistic-type interests. It was also observed by Richardson, Hastorf and Dornbusch (1964) in their study while ruling out the effects of physical limitations on children's conception of his/her self. Because they are aware of their physical limitations and do not intend to set unattainable goals for themselves. Similarly, Jaspal and Shikha (2013) attempted to determine the area of vocational interest among speech impaired adolescents, and indicated that these adolescents usually have artistic-type interests. The current study supported their findings by comparing vocational interests of physically handicapped and normal individuals which also revealed that physically handicapped scored higher on artistic type than normal individuals. It was also hypothesized that physically handicapped will score higher on Investigative and conventional-type vocational interests, and in current study findings, physically handicapped depicted significantly higher than normal individuals' score on

investigative and conventional-type vocational interests. As, physically handicapped are supposed to select occupations from narrower range accessible to them (Hosken, 2008), for that reason they might be willing to opt for bulk of vocational choices. Overall, the personality traits scores are reflected as lower among physically handicapped as compared to normal individuals in current study which is also found as same by Jabeen, Kazmi, Rehman, & Ahmed (2016).

### **Limitations and Suggestions**

Personality and vocational interests was not explored on the basis of severity level of physical disability, which may be taken into considerations in future research to get more accurate findings. Role of gender was not included which may be incorporated to examine personality traits and vocational interests among physically handicapped for getting the gender comparison. Comparison among handicapped on the basis of qualification level was missed which might also be helpful to have a better understanding of their perceptions and behaviors. Self-report inventories were used in the current study which might have introduced some kind of bias that can be minimized through observational method or questionnaires filled by guardians, teachers or care takers of handicapped.

### **Implications for Practice**

Outcomes of this research work are valuable for different professionals, caretakers and institutions (dealing with handicapped) including counselors, psychologists, teachers, vocational training centers, hospitals and organizations that offers jobs for handicapped. Nevertheless,

priorities of the handicapped should never be neglected. To facilitate them with suitable treatment it's necessary to have a better understanding of their needs and requirements. They might be lacking in some physical abilities, but they probably constitute inherent potentialities (Bhavisha, 2012). As a quintessence, these all efforts will positively ensure a healthy society.

## References

- Armstrong, P. I., Allison, W., & Rounds, J. (2008). Development and initial validation of brief public domain RIASEC marker scales. *Journal of Vocational Behavior*, 73, 287-299. doi:10.1016/j.jvb.2008.06.003
- Aziz S, Jackson CJ. (2001) A Comparison between three and five factor models of Pakistani personality data. *Personal Individ Differ* 31(8):1311-9.
- Bhavisha, J. S. (2012). A Study of Personality Differences among Orthopedic Handicapped and Non Orthopedic Handicapped Children. *International Indexed & Referred Research Journal*, 3(32), 7-8.
- Brolin, D. E., & Gysbers, N. C. (1989). Career education for students with disabilities. *Journal of Counseling and Development*, 68(2), 155-159. doi: 10.1002/j.1556-6676.1989.tb01348.x



Personality Traits and Vocational Interests among Physically Handicapped and Normal Individuals:  
A Comparative Study

Conte, L. E. (1983). Vocational development theories and the disabled person: Oversight or deliberate omission? *Rehabilitation Counseling Bulletin*, 26(5), 316-328.

Feist, J. & Feist, J.G. (2009) *Theories of Personality*. Boston: McGrawa Hill Higher Education.

Finch, S. M. (1967). Personality Development in the Physically Handicapped Child. *Clinical Pediatrics*, 6(3), 171-172.

Goldberg, L. R. (1981) Language and individual differences: The search for universals in personality lexicons. In L. Wheeler (Ed.), *Review of Personality and Social Psychology*, Vol. 2. Beverly Hills, CA: Sage.

Griggs, R. F. (1993). *Career Indecision among the Physically Challenged and the Nonphysically Challenged* (Doctoral dissertation). Texas Tech University, Lubbock, TX.

Hancock, K. A., & Cobb, L. S. (1980). Psychological Perspectives on Physically Disabled Children and Adolescents. *Journal of Pediatric Psychology*, 5(4), 377-393.

Harpur, P. (2012). Embracing the new disability rights paradigm: the importance of the Convention on the Rights of Persons with Disabilities. *Disability & Society*, 27(1), 1-14.

Holland, J. L. (1966). *The psychology of vocational choice: A theory of personality types and model environments*. Waltham, MA: Blaisdell Publishing.

Personality Traits and Vocational Interests among Physically Handicapped and Normal Individuals:  
A Comparative Study

Holland, J. L. (1973). *Making vocational choices: A theory of careers*.  
Englewood Cliffs, NJ: Prentice-Hall.

Hosken, C. K. (2008). *Lecture # 401: Impact of Disability on a Handicapped Individual's Personality, Vocation and Country*. Retrieved May 23<sup>rd</sup>, 2015 from <http://www.agape-biblia.org/plugins/pract-ministries/Lect401.htm>

Jabeen, T., Kazmi, F. S., Atiq ur Rehman. & Ahmaed, S. (2016) Upper and Lower Limbs Disability and Personality Traits. *Journal of Ayub Medical College*. 28(2), 348–52

Jaspal, S. & Shikha, D. (2013) A Comparative Study of Vocational Interests of Speech Impaired and Normal Adolescents. *International Journal of Advanced Scientific and Technical Research*, 2(3), 417. Retrieved from <http://www.rpublication.com/ijst/index.html>

Pakistan Press International.(n.d.).*Draft: (Proposed draft of Pakistan Disability Act 2014 lacks enforcement mechanism)*. Retrieved, from <http://ppinewsagency.com/199524/%EF%BB%BFdraft-proposed-draft-of-pakistan-disability-act-2014-lacks-enforcement-mechanism/>

Physical Handicap (2015). Collins Dictionary. Retrieved from <http://www.collinsdictionary.com/dictionary/english/physical-handicap>

- Personality Traits and Vocational Interests among Physically Handicapped and Normal Individuals:  
A Comparative Study
- Richardson, S. A., Hastorf, A. H., & Dornbusch, S. M. (1964). Effects of Physical Disability on a Child's Description of Himself. *Child Development*, 35(3), 893-907. doi: 10.2307/1126514
- Rokach A, Lehcier-Kimel R, Safarov A. (2006) Loneliness of people with physical disabilities. *Social Behavior and Personality: An International Journal*, 34(6):681-700.
- Srivastava, S. (2015). *Measuring the Big Five Personality Factors*. Retrieved May 20, 2015, from <http://psdlab.uoregon.edu/bigfive.html>
- Tolea, I. M., Terracciano, A., Simonsick, M. E., Metter, J. E., Costa, T. P. & Ferrucci, L. (2012). Associations between personality traits, physical activity level, and muscle strength. *J Res Pers.* 46(3): 264–270. doi: 10.1016/j.jrp.2012.02.002,