

# ADVERSITY QUOTIENT AMONG SENIOR SECONDARY SCHOOL STUDENTS: EFFECT OF GENDER, LOCALE AND NATURE OF FAMILY

Ms. Veerpal Kaur\* & Dr. Harneet Billing\*\*

## ABSTRACT

*Adversity Quotient (AQ) plays a vital role in one's success. This study aims to explore the adversity quotient of senior secondary school students and to study differences in gender, locale and nature of family on the adversity quotient of senior secondary school students. Data has been collected from 1008 senior secondary school students with random sampling techniques. Descriptive statistics are worked out and t-values are calculated to check the significance of differences in mean scores across gender, locale and nature of family. Results of study depicted that there is a significant difference in mean scores of male and female students, rural and urban and joint family and nuclear family on adversity quotient.*

**Keywords:** Adversity Quotient, Gender, Locale, Nature of family, Senior secondary school students.

## Introduction

Every day, students experience and face new challenges in their lives which affect their psychological stability. One has an innate ability to manage difficulties and transform them into opportunities. Adversity Quotient is an indicator of how one withstands adversity, the ability to overcome it or the capacity of a person to deal with adversities in his life (Stoltz, 1997, 2010). Adversities are part of a student's life. Their response to such adversities in academic and personal life is determined by personal characteristics and environmental factors. It is the measure of human skill in overcoming difficulties, problems, and challenges of life. He further revealed that individuals who are high in resilience generally have been found to possess higher confidence levels and a better understanding of their strengths, abilities, and weaknesses with good perseverance. They not only bounce back from adversities but develop ways and learn to deal effectively with the difficulties. Due to this, they are also able to regain their original momentum and balance.

There are four subcomponents of the Adversity Quotient. They are control, ownership, reach and endurance. Though correlated, they measure different aspects of the adversity quotient. Where

control is the amount of perceived control one has over an adverse situation. Ownership is the degree to which an individual is willing to own the outcome of an Adversity. Reach is a reflection of how far adversity impacts other areas of life. Endurance is the measure of endurance assessing how long the adversity and its causes and effects will last.

Research has been done on adversity quotient of principals, teachers, students, managers, leaders, nurses, psychologists, entrepreneurs, nonprofit organization staff, insurance agents, IT staff etc. with respect to academic performance, academic well being, learning outcome, teaching performance, achievement motivation leadership styles, resilience, promotions, retention, optimism and commitment to change, occupational stress etc.

The result of the research of Sanchez (2018) on college students showed that the level of Adversity Quotient of the students is average in the Control dimension (36.10), below average in the Ownership (36.43) and Endurance (31.11) dimensions and low in the Reach (22.35) dimension. The level of the CORE dimension may vary since the degree to which respondents perceive experiences associated with each dimension also differ (Sanchez, 2018).

Lee (2008) in his study on teachers found that gender, age, seniority of service, and level of

\* Research Scholar, Sri Guru Granth Sahib World University, Fatehgarh Sahib, Punjab

\*\* Assistant Professor, Department of Education, Sri Guru Granth Sahib World University, Fatehgarh Sahib, Punjab

education have a significant effect on their AQ. Studies also revealed that males have higher control over adversity with stronger analytical capability than females (Madelin, 2001; Rodgers, Blewitt, Jacomb and Rosenman 2003; Lin 2001). However, a study conducted on college students revealed that no significant difference in AQ between male and female students (Flejoles and Muzones, 2009). Shen and Ying (2014) in their study on 307 workers in Taiwan found that difference in gender does not have a significant effect on AQ. As fewer studies have been done on student's demographic variables with AQ, researchers in the present study investigated the effect of gender, locale and nature of family on AQ of students.

### **Rationale of the Study**

Senior secondary school education is based on higher education and a successful future. The senior secondary stage is adolescent age as it is a transition period so it is the most stressful period. Students at this stage need proper attention and care so that they can cope with adverse situations and get success in the future. This study may help the individuals to know about their Adversity Quotient score and help them to handle that. Understanding the AQ levels of students' teachers, parents, administrators, the faculty and staff can help the students in fighting with the stressors of life and come out of adversities. Considering the importance of aspects, researchers conducted research in this area. Thus, it is needed at present time to understand the status of the Adversity Quotient among senior secondary school students as they are going to enter into higher education where it focuses on the all-around development of an individual. To perform well the individual has to put a lot of effort into the work which leads to an additional energy drain and consequently bad effect on an individual's health. Adversity quotient has a moderating mediating effect as individuals with a higher Adversity Quotient have a greater ability to reduce the happening of such events and better performance. Hence there is a need to improve the adversity quotient of students so that educational planning can be visualized accordingly.

### **Objectives of the Study**

Following are the objectives for the present research study:

- To explore the adversity quotient of senior secondary school students.
- To study the difference of demographics viz. gender, locale and nature of family on adversity quotient.

### **Hypothesis of the Study**

Based on the objectives following null hypotheses are formulated:

- There exists a significant difference in gender in the adversity quotient of senior secondary school students.
- There exists a significant difference in the locale on adversity quotient of senior secondary school students.
- There exists a significant difference in the nature of family on adversity quotient of senior secondary school students.

### **Delimitation of the Study**

The present study has the following delimitations:

- The present study is confined to three demographic variables only viz gender, locale and family type.
- The present study is delimited to the Malwa region only.
- The present study is confined to government schools only.

### **Sample**

The participants in the study consisted of 1008 senior secondary school students selected randomly from government senior secondary schools of 6 districts of Malwa region.

### **Tools used**

- Student demographic response i. e. gender, locale and nature of family
- Adversity Quotient Questionnaire (self prepared) which consisted of 36 items classified under four dimensions of AQ (control=10 items, ownership=8, reach=9 and endurance=9). The internal consistency reliability of AQS was assessed by Cronbach Alpha is 0.72. The total

Adversity Quotient score can be the cumulative score of all the items. Total adversity quotient scores vary from 36 to 180.

### Procedure of Data Collection

To collect the requisite data related to the adversity quotient of senior secondary school student's researchers took permission from school principals and employed the questionnaire in face-to-face situations. Students took approximately 45 minutes to complete the questionnaire.

### Statistical Techniques Employed

Descriptive inferential statistics was worked

out for total adversity quotient as well as for its dimension using SPSS. t-values were computed to compare the differences in mean scores across gender, locale and nature of family.

### Data Analysis and Interpretation of Results

The research findings are based on the objectives of the study to prepare AQ profile of students. Based on the analysis the measurement results are found as follows in table 1-

Table 1 shows the results of descriptive statistics for the scores on Adversity quotient and its dimension across the different demographic variables under study.

**Table 1: Mean scores, Standard Deviation, Skewness and Kurtosis for Adversity Quotient and its Dimensions**

Demographic	Dimension	Mean scores	SD	Skewness	Kurtosis
Male (541)	Control	35.13	6.05	-0.32	-0.03
	Ownership	27.92	5.77	-0.47	-0.31
	Reach	23.66	6.08	0.39	0.03
	Endurance	24.04	5.51	0.21	-0.14
	Total AQ	110.75	11.24	-0.23	0.46
Female (467)	Control	37.43	5.55	-0.63	0.39
	Ownership	28.99	5.38	-0.71	0.42
	Reach	26.40	7.45	0.26	-0.80
	Endurance	26.91	6.79	0.10	-0.76
	Total AQ	119.73	16.54	0.43	-0.43
Rural (517)	Control	36.28	5.79	-0.39	-0.08
	Ownership	28.15	5.64	-0.42	-0.29
	Reach	23.43	5.95	0.39	0.09
	Endurance	24.48	5.80	0.22	-0.22
	Total AQ	112.35	11.19	0.06	0.17
Urban (491)	Control	36.11	6.08	-0.53	0.17
	Ownership	28.69	5.59	-0.76	0.32
	Reach	26.50	7.44	0.24	-0.82
	Endurance	26.31	6.66	0.21	-0.65
	Total AQ	117.61	17.17	0.41	-0.16
Joint family (510)	Control	36.22	5.97	-0.48	-0.05
	Ownership	28.65	5.61	-0.50	-0.33
	Reach	26.24	7.31	0.23	-0.69
	Endurance	26.65	6.71	0.11	-0.78
	Total AQ	117.75	16.69	0.50	-0.15
Nuclear family (498)	Control	36.18	5.91	-0.46	0.19
	Ownership	28.17	5.63	-0.66	0.25
	Reach	23.58	6.14	0.51	0.12
	Endurance	24.06	5.57	0.28	0.14
	Total AQ	112.00	11.51	-0.12	0.26
Total sample (1008)	Control	36.20	5.9	-0.47	0.06
	Ownership	28.41	5.62	-0.58	-0.03
	Reach	24.93	6.88	0.41	-0.36
	Endurance	25.37	6.30	0.27	0.55
	Total AQ	114.91	14.65	-0.40	0.58

Table 1 reveals that the value of mean scores for adversity quotient among male students is

110.75±6.05 whereas for female students it is 119.73±5.55. The value of mean scores for control, ownership, reach and endurance dimension of adversity quotient among male students is 35.13, 27.92, 27.92 and 24.04 respectively whereas for female students is 37, 28.99, 23.66 and 26.91 respectively. Further it is also evident from Table 1 that the value of mean scores for adversity quotient among rural students is 112.35±5.79 whereas the value of mean scores for adversity quotient among urban students is 117.61±6.08. The value of mean scores for control, ownership, reach and endurance dimension of adversity quotient among rural students is 36.28, 28.15, 23.43 and 24.48 respectively whereas among urban students is 36.11, 28.69, 26.50 and 26.31 respectively.

Table 1 indicates that the value of mean scores for adversity quotient among students belonging to joint family is 117.75±5.97 whereas the value of mean scores for adversity quotient among students belonging to nuclear family is 112.00±5.91. The value of mean scores for control, ownership, reach and endurance dimension of adversity quotient among students belonging to joint family is 36.22, 28.65, 26.24, and 26.65 respectively whereas among students belonging to nuclear family is 36.18, 28.17, 23.58 and 24.06 respectively.

It is observed that amongst four dimensions of adversity quotient value of mean scores on control dimension for all the sub-samples is highest and for endurance and reach dimension is lowest. It may also be observed from table 1 that the value of mean scores for total adversity quotient among total sample of senior secondary school students is 114.9±14.65 that reveals senior secondary school students have average AQ.

To study the differences in mean scores across gender, locale and nature of family, t-values were calculated. The results are presented in table 2, 3 and 4 respectively.

Table 2 shows the mean score for male students on adversity quotient is 110.75 whereas for female students is 119.73.

**Table 2: t-values for difference in mean scores of senior secondary school students across gender**

Demographic	Mean scores of Adversity Quotient	t-value
Male (541)	110.75	10.19**
Female (467)	119.73	

\*\*significant at 0.01 level

The results of AQ measurement and gender indicate that the results of AQ measurement are found to be significant at 0.01 level (  $t = 10.19$  ), then  $H_0$  is rejected meaning there is difference between male and female students against AQ. This means that gender influences someone's adversity quotient and female students have more AQ than male students.

T test measure for analysis of adversity quotient against locale is being presented in table 3.

**Table 3: t-values for difference in mean scores of senior secondary school students across locale**

Demographic	Mean scores of Adversity Quotient	t-value
Rural (517)	112.35	5.79**
Urban (491)	117.61	

\*\*significant at 0.01 level

Table 3 shows that the results of measurement of AQ and locale are significant at 0.01 level, then, it can be concluded that  $H_0$  is rejected meaning that there is a difference between locale and AQ. Urban students have a higher AQ than rural students.

T-test analysis for measurement of Adversity quotient against family type is being presented in table 4.

**Table 4: t-values for difference in mean scores of senior secondary school students across nature of family**

Demographic	Mean scores of Adversity Quotient	t-value
Joint family (510)	117.75	6.36**
Nuclear family (498)	112.00	

\*\*significant at 0.01 level

Table 4 shows that the results of measurement of AQ and family type are significant at 0.01 level, then, it can be concluded that  $H_0$  is rejected meaning that there is an influence of family type on the adversity quotient of students with students belonging to joint families having a higher AQ than those from nuclear families.

## Discussion and Conclusion

Mean scores on the control dimension of adversity quotient are highest as compared to other dimensions. Results are similar to the previous studies

(Sanchez, 2018; Markman, 2000). Variations in levels of CORE dimensions may be due to the fact that in various studies respondents are in different settings and situations. Variation in the mean scores on the four dimensions of adversity quotient has been found. Such variation has been explained in terms of differences in perception of the experience associated with each dimension (Sanchez, 2018). A study by Bautista, Pascua, Tiu, and Vela (2016) on student leaders found that among the four CORE dimensions, students are at a low level of control and reach compared to ownership and endurance which contradict present research in the present study it was found that students are at low level on reach and endurance dimension whereas a high level of control was found among students.

The present research was conducted to examine the effect of demographic variables on adversity quotients. The results of analysis reveal that there is an influence of gender on the adversity quotient scores of students. Female students are found to have a higher adversity quotient than males. Women use more feelings in facing problems while men use more logic. Females are found to report a higher level of happiness and life satisfaction than males (Carmel, 2019). Girls are more hardworking and responsible than boys. Boys in general, have less healthy lifestyles than girls, and they engage in far less health-promoting behavior (Courtenay, 2000). Furthermore, in Indian society boys enjoy more freedom than girls which sometimes leads them to get involved in unnecessary events and lack behind in tests, time management and completing their home assignments. The results of the present study are in contradiction with the findings of Hema and Gupta (2015), Flejoles and Muzones (2009), Cornista and Macasaet (2013), Huijuan (2009) and Cura and Gozum (2011) but in consensus with the research of Madelin (2001), Rodgers, Blewitt, Jacomb and Rosenman (2003), Lin (2001), Liu (2011) and Shanthi and Sasipriya (2020).

Second, when AQ of students is seen from the locale, findings of the study reveal that there is a difference between rural and urban students. This means the AQ of an individual is influenced by his area of residence. Urban students have higher AQ

than rural students' results are in contradiction with the findings of Flejoles and Muzones (2009). There can be several possible reasons for the said results. Life in urban areas is far more multifaceted than life in rural areas. There is better exposure for students in urban areas than in rural areas. Urban students are allowed to deal with their problems independently. So, they are better able to face life situations and challenges. The students from rural perspectives are under intense pressure. Thus, they easily get affected by tough situations.

When the AQ of students is seen from the nature of family, findings of the study reveal that there is a difference between students belonging to nuclear families and joint family AQ scores. This means the AQ of an individual is influenced by the nature of family. In the present study students belonging to the joint family have higher AQ than students belonging to the nuclear family which contradicts the results of the study of Hema and Gupta (2015) in which they did not find any significant differences across the nature of family. However, no study was found along similar lines. Family gives care, affection, security and supports an individual during hard times. The feeling of togetherness and emotional support from family provides strength to an individual to deal with adversities effectively.

### **Conclusion and Recommendations**

The ability of an individual to face challenges and solve problems is based on their adversity quotient. (Nahrowi, Susanto and Hobri, 2020). Training programmes can be taken in accordance with the needs of students as directed guidance to students to improve their adversity quotient (Listiwati and Sebayang, 2019). Through direct guidance, students can be trained in developing strategies for coping with stressful life events and coming out from adverse situations and leading a successful life. The application of adversity quotient in the field of education that focuses on students can be used to develop the character of students so that they have a strong mentality in the face of difficulties. In addition, the adversity quotient can provide an overview of individual abilities so that activities and learning can be determined in

accordance with needs and develop the capabilities of individuals.

## References

- Bautista, R.V., Pascua, M.D., Tiu, J.V. & Vela, C.D. (2016). *Adversity quotient and leadership styles among student leaders in Bulacan State University*. Unpublished thesis, Bulacan State University, City of Malolos, Bulacan. Retrieved from [http://www.peaklearning.com/documents/PEAK\\_GRI\\_Bautista\\_Pascua\\_Tiu\\_Vela.pdf](http://www.peaklearning.com/documents/PEAK_GRI_Bautista_Pascua_Tiu_Vela.pdf)
- Carmel, S. (2019). Health and well-being in late life: Gender differences worldwide. *Frontiers in medicine*, 6, 218-223. Retrieved from <https://doi.org/10.3389/fmed.2019.00218>
- Cornista, G., & Macasaet, C. (2012). Adversity quotient and achievement motivation of third year and fourth year psychology students of de la salle lipa. Retrieved from [http://www.peaklearning.com/documents/PEAK\\_GRI\\_cornista-macasaet.pdf](http://www.peaklearning.com/documents/PEAK_GRI_cornista-macasaet.pdf)
- Cura, J., & Gozum, J. (2011). Correlational study on adversity quotient and the mathematics achievement of sophomore students of college of engineering and technology in pamantasan ng lungsod ng maynila. Retrieved from [http://www.peaklearning.com/documents/PEAK\\_GRI\\_gozum.pdf](http://www.peaklearning.com/documents/PEAK_GRI_gozum.pdf)
- Courtenay, W.H. (2000). Behavioral factors associated with disease, injury, and death among men: Evidence and implications for prevention. *Journal of Men's Studies*, 9, 81-142.
- Flejoles and Muzones, (2009). *Adversity quotient of Bachelor of Science in maritime information technology students*. Unpublished doctoral thesis, Maritime University, Philippines. Retrieved from [http://www.academia.edu/3621438/Adversity\\_Quotient\\_of\\_Bachelor\\_of\\_Science\\_in\\_Maritime\\_Information\\_Technology\\_Students\\_at\\_John\\_B.\\_Lacson\\_Foundation\\_Maritime\\_University-Molo\\_Inc](http://www.academia.edu/3621438/Adversity_Quotient_of_Bachelor_of_Science_in_Maritime_Information_Technology_Students_at_John_B._Lacson_Foundation_Maritime_University-Molo_Inc)
- Hema, G. & Gupta S. M. (2015). Adversity quotient for prospective higher education. *The International Journal of Indian Psychology*, 2 (3), 49-64.
- Huijuan, Z. (2009). *AQ and academic performance among college students at St. Joseph College*. Unpublished Doctoral thesis, Department of Psychology, Quezon city. Retrieved from [www.peaklearning.com/documents/PEAK\\_GRI\\_huijuan.pdf](http://www.peaklearning.com/documents/PEAK_GRI_huijuan.pdf)
- Lee, S. C. (2008). *A study on the relationships among teacher's emotional intelligence, adversity quotient, and classroom management effectiveness in elementary schools*. Doctoral thesis, Taipei: University of Taipei.
- Lin, C. H. (2001). *Adversity management, job satisfaction, and organizational commitment among Taiwanese franchiser managers*, Changhua: Da-yeh University.
- Listiawati, N. Sebayang, S. K. (2019). The association between socio demographic factors and teachers "guidance towards students" adversity quotient'. *International Journal of Education*, 11(2), 109-116. Retrieved from <https://doi.org/10.17509/ije.v11i2.15341>
- Liu, L. (2011). Men are from mars and women are from venus?"—from the aspect of gender role, the interrelationships between AQ, work pressure, personal characteristic, and work performance. Retrieved from [http://libserver2.nhu.edu.tw/ETD-db/ETDsearch/view\\_etd?URN=etd-1207111-111820](http://libserver2.nhu.edu.tw/ETD-db/ETDsearch/view_etd?URN=etd-1207111-111820)
- Madelin, B. (2001). Les femmes-relais, les "sans-papiers" du travail social? *ENJEUX*, 124, 81-91
- Markman, G.D (2000), Nahrowi, Susanto & Hobri (2020). The profile of student's creative thinking skills in mathematics problem solving in terms of adversity quotient. *Journal of Physics: Conference series*.
- Rodgers, B., Blewitt, K., Jacomb, P., & Rosenman, S. (2003), Child abuse prevention, Australian Institute of family studies, Melbourne, Australia. *Newsletter*, 11(1).
- Markman, G. D. (2000). Adversity quotient: The role of personal bounce-back ability in new venture formation. Retrieved from [http://peaklearning.com/documents/Rensselaer\\_Study%20doc.pdf](http://peaklearning.com/documents/Rensselaer_Study%20doc.pdf)
- Stoltz, P.G. (1997). *Adversity quotient: Turning obstacles into opportunities*, New York: Wiley.
- Stoltz, P. G. (2010). *Adversity Quotient at Work: Make Everyday Challenges the Key to Your Success-Putting the Principles of AQ Into Action*. Canada: John Willey and Sons, Inc. Wiley Publishers.\
- Shen D., & Ying C. (2014). A study investigating the influence of demographic variables on adversity quotient. *The Journal of Human Resource and Adult Learning*, 10(1), 22-32.
- Sanchez, R.R. (2018). Relationship between the adversity quotient and psychological well-being of psychology students of Pamantasan [https://www.peaklearning.com/wp-content/uploads/2019/05/PEAK\\_GRI\\_Sanchez\\_October-2018.pdf](https://www.peaklearning.com/wp-content/uploads/2019/05/PEAK_GRI_Sanchez_October-2018.pdf)
- Shanthi, A. & Sasipriya, R. (2020). Adversity quotient of secondary teacher education students. Retrieved from [https://www.researchgate.net/publication/344785461\\_adversity\\_quotient\\_of\\_secondary\\_teacher\\_education\\_students](https://www.researchgate.net/publication/344785461_adversity_quotient_of_secondary_teacher_education_students)