PUBLIC HEALTH RESEARCH

Filipino Students' Adversity Quotient and School Connectedness

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ABSTRACT

Introduction	The present study determined the adversity quotient (AQ) and the school connectedness (SC) of education students in one of the state universities in Region VII, Philippines and establish if there is an influence between AQ and SC.
Methods	Randomized sampling through fishbowl technique was employed in this study which were participated by one hundred (100) third year Education students from Bachelor of Elementary Education (BEED) and Bachelor of Secondary Education (BSED). There were two (2) major research tools used: AQ using student norm and self-made school connections checklist.
Results	The result revealed a significant relationship between overall AQ and SC of the respondents by computing Pearson Product Moment Correlation (Pearson r). However, the reach dimension of AQ showed no significant relationship between factors of SC. Lastly, AQ does not affect the respondents' connectedness in school in factors like commitment to education and school environment.
Conclusions	Hence, this study concluded that AQ is a predictor of SC.
Keywords	Adversity quotient; School; Students; Adversity; Connectedness

INTRODUCTION

Life's difficulties have encroached on human existence ever since time began to pass. For instance, it is often read in the newspapers and even in broadcast media that there are increased teenage pregnancy rates, sexual initiation, strained family relations, parents' fight among themselves, gender discrimination, and peer pressure. Moreover, bullying, being hooked to prohibited drugs, and smoking cigarettes are identified causes of noticeable irregularity of class attendance resulting to school dropouts.

There was a minor incident reported in the research locale for cases of dropping-out in the middle of the semester, early pregnancy, online bashing by classmates and friends, classroom bullying, unfounded underground movement, and suicidal tendencies. Statistics revealed that the Philippines' dropout rates in the Department of Education including State Universities and Colleges have been increasing since 2017 up to 2021.[1] Dropout rates have in fact increased by 10% from 2002 - 2012 due to lack of academic preparation, lack of engagement in school, family obligations including early parenthood and the need for paid employment. As a result, the students, when faced with serious problems in life, cannot regulate their emotions and may try to escape such mistakes. These mistakes are a pressing concern that needs the school institutions to act steadfastly. Otherwise, if it will be left unattended, it may impair the psychological well-being of the students and become disconnected to the school activities, indifferent to positive peer group, and will likely be involved to risky behavior and most likely they will disengage support from faculty, staff, and school administrators.[2]

School administrators, including researchers, are interested in exploring and inquiring about new factors that affect educational outcomes. Review of related literature has also conducted studies on student achievement that affects the students, family, school, teacher, and peer factors as well as other psychological constructs.[3]

Education is a solid means of effecting change of behavior by overcoming adversities. Daily life's challenges are part of the students and teachers despite the newly adopted free tuition fee policy, scholarship grants, accessible school location, student-friendly environment, poor but well-rounded deserving graduates and other opportunities afforded for the well-being of the students. The students may feel disappointed at times due to failure in contacting their peers, overwhelming confidence in relating with teachers, losing connections with their academic tasks, achievements, extra-curricular and even indifferent to school rules and regulations.

The environment also plays a key role in society by creating a resilient atmosphere for the benefit of the students. If the schools themselves are not equipped enough to deal with adversities, then it becomes more difficult for the students to survive in a scenario wherein they may explore a new opportunity or unfortunately adverse life situations.

The focus of this study is based on the impression that the more resilient a student is, the greater is their potential to become productive young adults despite the hindrances felt and encountered every day in school. AQ can help enhance the students' belief of contacting the school through care and support of teachers, staff and administrator, sense of belongingness with their peers in school, commitment of the school activities, rules and regulations as well as being engaged in their school environment.

The school, as well as the teachers, can be considered as the catalyst to effectively manage the classroom activities and student development program that can help them face the problem with grace. The present study investigated the factors influencing the students' AQ and their concept of SC as basis for recommendations.
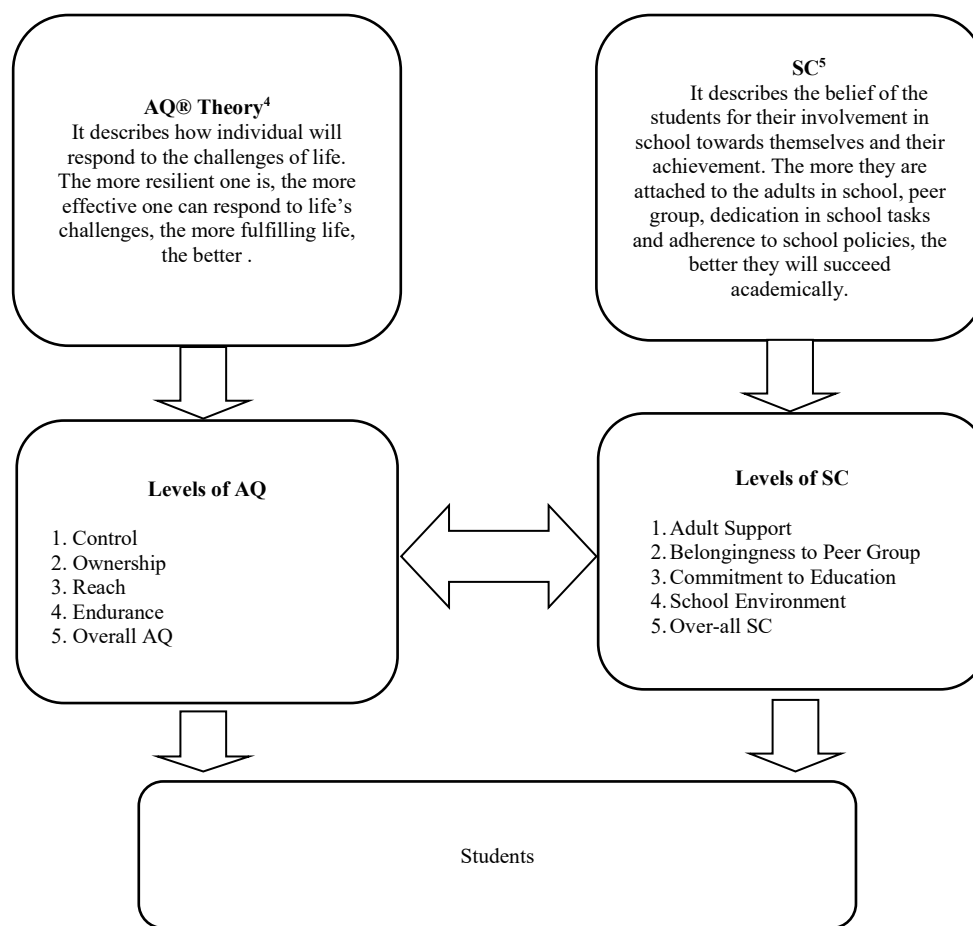
Figure 1 Theoretical Framework and Literature Review

Conceptual Paradigm
The present study delved on different perspectives to study human behavior, such as Emotional Quotient or a person's Intelligence Quotient, social skills, aptitude, achievement, motivation and personality traits or some few related studies about AQ and students' scholastic performance. To be specific, the researchers have chosen to focus on this new construct, the AQ, and the SC of third year education students.

AQ is the first variable in the conduct of this study which comprises the four dimensions according to Dr. Paul Stoltz: The acronym CO2RE includes *Control*; *Ownership* and Origin; *Reach*; and *Endurance*. *Control* begins with the ability that something can be done or can be regulated in times of conflicting situation. *Ownership* and Origin refer to the students' ability of how one takes responsibility in times of stressful situation. *Reach* refers to the ability of how one can grab opportunities in a situation of putting a problem at hand or letting it affect in some areas of life. *Endurance* refers to the ability to see the problem whether it is fixed or temporary in nature. These four elements are combined to form a person's AQ and his or her response to any given adversity.

The present study emphasizes that aside from high Intelligence Quotient, AQ can influence SC. The higher the AQ, the better the student can connect to the school with adult support, sense of belongingness to peer group, commitment to education and school environment. SC was used as second variable in the conduct of this study which consists of four factors namely: adult support, belongingness to peer group, commitment to education and school environment.[5]

The researchers assumed that the scales of AQ affect the scales of SC of the respondents. Usually, people think that if the person possesses a high level of AQ, his or her SC will be inversely high. AQ is a predictor of the students' success in their academic life by caring about themselves and their learning, being attached to their co-dependents in school as well as adherence to classroom routines and school policies. AQ, which determines the resiliency of an individual in overcoming life's challenges, will significantly influence his academic success.

Adversity in its essence is something of a negative connotation in daily life. It refers to a situation of surpassing difficulty, hardships or even misfortunes. There are synonymous meanings of

adversity like stress, conflict, hardship, misfortune, danger, and challenges. Bakare[3] reiterated that students regardless of age group will encounter different challenges with respect to time and place. The struggle of life's challenges according to Stoltz,[4] will continue even after school and throughout life. In one of his studies, he affirmed that the average difficulties that a person faces each day will rise from seven to 23 times in the last 10 years.

There exists an uninterrupted elevation to life goals which are divided into three categories, namely: quitters, campers, and climbers. Quitters retired years ago but just never tell anybody so they will not be bothered. At some point they were preoccupied by the difficulties and gave up their higher pursuits, becoming helpless and alienated about their loss of life. For the most part of their life, campers are retired climbers who get the job well done but do not try as hard as they experienced it in the past. They have lost their enthusiasm since they have proven their worth and accomplishment. Their operating systems have bogged down, or they have reached some limits they seem unable to transcend. Climbers are dedicated to a lifelong direction to succeed, with the capacity that enables them to cope with adversities. Climbers make things happen. They are determined and refuse to accept defeat. Although they face more adversity than others, they continue to think about possibilities and rarely allow hindrances or external obstacles to get in the way of their life.[6]

AQ measures students' resiliency in the rigors of life. This includes the ability to manage the problem at hand and how they overcome the challenges. AQ tells how well an individual respond to adversity and their ability to surpass it.[7]

SC was the second variable used in this study in relation to AQ. Protective factors are something that shields the students and young adults alike from the negative effects of the situations. These include characteristics such as a healthy view about one's life goals or situations such as parents who are absent during key times where active participation in school is needed. SC is one of such important protective factors to influence effective educational outcomes.[8]

SC, in essence, refers to a student's emotional bonding to the school environment and culture. School serves as a context for the policies, regulations, and norms that influence the quality of interactions among administrators, staff, and, importantly, students. Students learn school-related skills through interactions with peers and adults within social institutions, e.g., a school.[9] It also suggested that an experience of having a strong sense of connectedness in school is a basic need that promotes the sense of engagement, motivation, and trust. Resnick et al[10] found that students with high

SC have lower levels of emotional distress than those students with low SC.

Factors Increasing SC

The study of Allen et al[11] proposed factors in relation to SC in the school setting; some of the factors are (1) Adult Support; (2) Belongingness to a Peer Group; (3) Commitment to Education and lastly, (4) School Environment.

(1) *Adult support* is a protective shield in SC among students. According to research by Resnick et al,[12] referring to the belief that students enjoy the time spent in school, as long as they are supported by adults, which results in high engagement in school activities. In school, students feel supported and cared for when they see school staff dedicating their time, interest, and attention in their work. Satellite schools may encourage more personal relationships among students, teachers and staff considering the small size of the school. They will allow their students for personalized learning to show concern for their studies. Schools can mobilize their teachers in which several of them know their students and can ensure that every student has an identified academic adviser or program coordinator.

(2) *Belongingness to a peer group* is a protective factor that students' educational outcomes are influenced by the kind of peer group they have, including the characteristics of their peers. If their peer group displays desirable behavior (e.g., engaging in school activities, completing academic tasks, and helping others), they will remain stable in the group. They will be protected from being bullied or victimized if they belong to a stable and positive peer group. If the behavior in the group is anti-social (e.g., bullying, and other adverse behaviors), they are less engaging in school activities, and their sense of connectedness to the school will be affected including their achievement. Strong bonding among students will enable them to maintain healthy relationships. Students who are most connected to their schools will most likely have a lot of friends from different groups regardless of race, gender, or age group. Thus, those students who feel less connected to school will have more friends outside the school than inside the school premises or will be alienated later in life and will eventually detach themselves.

(3) *Commitment to education* is an essential shield to both students and adults who are committed to learning. Students' dedication is associated with the degree to which they perceive that school adults and peers believe that school is important and will act out on such beliefs. Students who are personally invested in school will tend to believe that good education is important for reaching their life goals. They spend more time in school completing activities and have an increased sense of connectedness to school.

(4) *School environment* is a protective factor enhanced by a healthy and safe surrounding with welcoming attitude by adults around the school. A clean and pleasant physical environment (e.g., one free from all forms of risky adverse behavior) raises expectations for safety and respectable atmosphere. It sets the stage for positive, good-mannered, and warm relationships. The atmosphere is influenced by factors like policies related to school discipline, opportunities for student participation, and teachers' classroom management practices. A study by Abid and Akhtar[12] indicated that student connectedness became lower in schools practicing harsh and punitive discipline. A school climate is described as warm interpersonal relationships integrated with values shared by the school; having opportunities to participate in school and sound decision-making.

How can schools influence the increase of SC?
There were identified six strategies to increase school connectedness according to the publication of the U.S Department of Health and Human Services entitled School Connectedness: Strategies for Increasing Protective Factors among Youths in 2009. These strategies boil down into four factors that influence SC namely: (1) adult support, (2) belonging to positive peer groups, (3) commitment to education, and lastly (4) school environment.

Students' connectedness to school is identified largely in the literature as one critical protective factor that is related to various studies in academic, health, and behavioral outcomes. There are other approaches from a more specific view relating to school engagement, educational outcomes including achievement and disengagement. There are cases in which an individual remains well-adjusted and does not involve in risk taking behavior. Although an individual's vulnerability to problems increases with the number of risk factors, this will reduce the likelihood of difficulties.[13]

Uslu and Gizir[14] showed the relationship between students' belongingness, teacher support and school context using mixed methods which illustrates the significance of supplying adolescents' sense of belongingness.

Furthermore, Matore et al[15] showed the influence of AQ on the academic achievement among Malaysian Polytechnic students for the five different zones in Borneo where findings showed that AQ significantly changes in the academic achievement score.

Moreover, research findings as cited in Bakare[3] revealed that students' AQ and teacher's efficacy has a positive influence with students' academic achievement in Mathematics and English Language in WASSCE, South-western Nigeria while SC and students' attribution have no correlation with both academic achievements in Mathematics and English Language in WASSCE. It also showed that SC does not affect their academic performance in Mathematics and English language.

Additionally, Villagonzalo[16] showed that Emotional Intelligence (EI) will affect the AQ towards academic performance of the selected respondents.

By synthesizing this study, the literature shows how AQ will affect the SC of the students. These are important psychological constructs necessary for effective educational outcomes or improvement of quality education. A few research studies[3,17,18] show adverse life's situation like unhealthy competition, failed expectations and increasing academic stress have become a "bread and butter" of the students when they get connected in their academic life. Apart from these challenges in the academe, there is another societal adverse situation like natural calamities experienced by the students and their families during calamities, human-caused destructions and a threat to peace and order situation in the Philippines.

A lot has been scientifically investigated[12,14] about predictors of some variables like intelligence quotient, emotional quotient, personality traits, academic performance, and others; however, none has been narrowed down in the realm of education about AQ in relation to the students' SC. Thus, there is a need to fill this gap by providing an empirical basis for drawing conclusions across the samples. There is a dearth in literature particularly in the Filipino context in terms of AQ since this is a recent study in the field of psychology, guidance and counseling and behavioral sciences. Hence, this study sought to determine the AQ and the SC of third year education major students in one of the state universities in Region VII, Philippines. It specifically sought to answer the scale of AQ in terms of control, ownership, reach, endurance, and overall AQ. Then, the scale of SC of the respondents in terms of adult support, belongingness to peer group, commitment to education, school environment and overall SC. Moreover, this study answered if there is a significant correlation between the scale of students' AQ and their scale of SC. Lastly, it answered if there is a significant correlation between the overall students' AQ and their overall SC.

METHODS
This research study utilized a quantitative research design employing two survey checklists (AQ and SC) to quantify behavior. This was a descriptive study in which data were collated to find the profile of the respondents and to describe levels of AQ and factors of School Connections. A correlational study was employed to predict how these two variables (students' AQ and SC) affect each other and whether

there exists a significant relationship between these two variables. The respondents of this research were the third year Bachelor of Elementary Education (BEED) and Bachelor of Secondary Education (BSED) students who major in English. The sampling frame of one hundred (100) third year education students was employed using Slovin's formula out of the total number of one-hundred forty-four (N=144) students. The choice of education student-respondents was based on the following premises: (1) have been exposed to the demands of teaching-learning tasks before going to student-teaching or practicum; (2) have faced heavy and difficult academic task as compared to lower levels; and lastly (3) since the target population was small and hence, teacher education program was the flagship course of the university. Also, randomized sampling through fishbowl technique was used in this study.

Student's Adversity Quotient® Profile (SAQP®) was the tool that tagged the "Student's Adversity Quotient® Profile" (SAQP®) that collected relevant data from the target sampling frame. The instrument was designed by the proponent of the Adversity Theory, Paul Stoltz in 1997 (PEAK Learning Inc., 2009) from the standardized paper-and-pencil form of the "Adversity Quotient Profile" (AQP®). The tool is scientifically grounded for measuring how effectively an individual deal with adversity.[4] The questionnaire was developed, tested, and validated by Peak Learning with larger and increasing sampling size from different organizations and establishments across the country. It is a self-reported questionnaire having five-point Likert – response type of scales.

The second research tool was SC which is a self-made tool which four-factor analysis. It has five (5) Likert-response type of scales with 56-item test adapted from the study of Bakare's 16-item test.[3] It underwent a pilot testing for 49 respondents from Bachelor of Tourism Management (BTM) third year students. According to Cronbach's Alpha, it yielded 0.81 reliability index and 0.88 as validity index. The response format ranges from: (5pts.) is SA - Strongly Agree; (4pts.) is A – Agree; (3pts) is N = Neutral (2pts) is D – Disagree; and (1pt) SD - Strongly Disagree. Five is the highest score while one is the lowest score.

Initially, permission was requested from the school administrator for the profiling of respondents and the conduct of the tools. The first tool was AQ through Katie Martin of Peak Learning, Inc., USA to use the Adversity Quotient Response Profile (ARP) through an electronic mail. However, there was no availability of norm for student version, so permission was asked to lift the questionnaire of Dr. Babajide Mike Bakare, research contributor of Peak Learning from his research work whose AQ

instrument was re-validated for the purpose of removing ambiguity of the meaning of the test items due to environmental and cultural differences among students. Furthermore, the researchers also sought the approval from Dr. Babajide Bakari of University of Ibadan via e-mail for the use of the SC Scale and its psychometric properties through electronic mail.

The next step was the request for approval from the Campus Director of the said state university to administer the said instrument- AQ) and SC. After seeking the approval, the respondents were approached, and the letter of informed consent was given and explained to them after which the two main instruments were administered. Parents' consent was no longer acquired since the respondents' age bracket were mostly within 18 – 20 years old. The researchers carefully explained the instructions on both questionnaires one at a time; then, the researchers gave instructions to the participants to answer religiously as it was needed in the ethical conduct of this research and to finish it within the time allocated in the soonest possible time. The next step was the administration of the questionnaire which was done after the field study classes of the respondents.

Lastly, the researchers gathered all the data contained in the responded tools, tabulated, collated, and encoded the respondents' AQ scores and SC scores. All information and data were managed by the researchers for record and confidentiality purposes.

RESULTS AND DISCUSSION

The result of this study confirmed Amparo's[19] findings on the influence of students' social skills in relation to AQ. The present study was consistent with the study of Cornista and Macasaet[20] wherein the authors found out that AQ affects achievement motivation students. Likewise, it also confirmed on the study of Huijuan[21] in which the author found out that AQ predicted the academic performance among college students.

However, this study contradicted the results of the study of Bakare[3] wherein the author found out that SC will not influence the academic performance and AQ will not relate with the academic performance of selected senior secondary students at South-western Nigeria. Still in contrast, Beri et al[22] found out that AQ will not affect the cognitive style of secondary students at different schools in Punjab State. The study also disproved the study of Villagonzalo,[16] wherein the author found out AQ will not predict academic performance of the students.

The researchers further discovered that the scales of AQ of the respondents fell on average ability of control, ownership, reach, and endurance. Total AQ resulted in an average ability of

overcoming life's challenges, problems, stress, or difficulties. The scales of SC of the respondents were neutral in terms of adult support and belongingness of peer group; they strongly agreed their SC in terms of commitment to education and they agreed in in terms of school environment. Total SC demonstrated a neutral ground of their belief in getting involved in school. The scales of AQ and SC of the respondents in this study were significantly related. However, the reach dimension of AQ was not significantly related in all scales of SC. Total AQ did not affect the respondents' commitment to education and school environment. The over-all AQ and SC of the respondents were significantly related. Thus, AQ will influence the students' belief of getting connected to the school. The more they withstand problems in life the more they will be effective in pursuing their studies.

The majority were from Bachelor of Secondary Education where 65 (65%) of them responded and 35 (35%) were Bachelor of Elementary Education. These were extracted from Registrar's Officer-In-Charge where there were two sections in the BSED and one section of BEED programs. Education programs were densely populated compared to other fields.

Out of 100, there were 81 (81%) females and 19 (19%) males who responded. Majority of the respondents were females as compared to males.

Majority of them were earning annually within Php 40,000 or below Php 40,000 with 82% out of the 100 respondents, 11 (11%) earning 40,000 – 59,000, 4 or 4% earn annually 60,000 – 99,999 and 3% were earning 100,000 – 249,000 while none of them were receiving between 250,000 and more.

Out of 100, most of them, 33 of the respondents whose means of living were in farming, second, 27 were in fishing; third, 19 were in peddling like, habal-habal driving, "sikad" or "padyak", chappi, and peddling items. Fourth in rank, there were 11 who were working as teachers in DepEd or government employees; Lastly, Overseas Filipino workers or Seaman and lastly, only three of them specified for others which were into buying and selling or other business as specified by the respondents. Despite low income and most of them were siblings of farmers and followed with fisher folks, challenges were embedded in them in the day-to-day life situations.

Table 1 Frequency and Percentile Distribution according to Program

Program	Freq	Percentage
BSEd	65	65
BEED	35	35
Total	100	100

Table 2 Frequency and Percentile Distribution of the Respondents in terms of gender

Gender	Freq	Percentage
Female	81	81
Male	19	19
Total	100	100

Table 3 Frequency and Percentile Distribution of Respondents according to annual income

Annual Income	Freq	Percentage
Under 40,000	82	82
40,000 - 59,999	11	11
60,000 - 99,999	4	4
100,000 - 249,999	3	3
250,000 and over	0	0
Total	100	100

Table 4 Frequency and Percentile Distribution according to Means of Living

Annual Income	Freq	Percentage
Farming	33	33
Fishing	27	27
Peddling	19	19
Teaching/Govt employee	11	11
OFW/Seaman	7	7
Others, pls specify	3	3
Total	100	100

Table 5 Frequency and Percentile Distribution of the Scales of AQ

AQ Dimensions	Frequency	Percentile	Verbal Description
Control	33	33	Average
Ownership	32	32	Average
Reach	26	26	Average
Endurance	30	30	Average
Total AQ	30	30	Average

n=100
Legend: High (5pts); Above Average (4pts); Average (3pts); Below Average (2pts); Low (1pt)

The respondents fell on average or moderate ability of navigating life in conventional way if everything was going smoothly. Out of 100 respondents, there are 33 percentile distributions in the control dimension. These were the respondents fell in average ability of AQ which implies that they have moderate control over life's challenges. There are instances that are beyond their control even when they can positively influence the situation, or they can make things happen to improve the situation. There are instances in their academic life which are unmanageable, meaningless, and worthless, yet they come for a reason – to finish their studies. They can manage daily challenges with moderation. There was something that can be done or can be regulated in times of adversity or how the respondents conquer day-to-day challenges.[23] There are respondents who are in 32 percentile distributions under ownership dimension of AQ. These are individuals taking responsibility on an average scale for whatever outcomes of adversity they have encountered. It implies that the respondents will take responsibility in moderation like reporting to school, engaging in school activities, but may have the tendency to deflect accountability in dealing with challenges especially during tough times.

When given school activities or academic tasks, they may step back or even surrender when blame by others and avoid ownership of the adverse situation because they already feel pre-occupied and overloaded.[23] In the endurance dimension of AQ, they got 30 percentile distributions which fell on average ability of enduring the pain or problems in life and how long these consequences will last. It implies that the respondents have done good in overcoming academic challenges and may pull back at times, especially during tough times. When challenges become complicated or when they burn-out, they may let the problem flow into other aspects, thus, causing them to stressful life in school. The respondents have the tendency to perceive difficulties as enduring or long-lasting or whether their survival was fixed or just temporary.[4] They fell on 26 percentile distributions under reach dimension of AQ which fell on average or moderate ability of perceiving problems just at hand or their ability of making things happen depending on how they perceive life's challenges may it be good or bad influences depending on how far they can deal effectively in life.[19] It implies that they will deal life's problem by themselves or if not, they will influence it to some aspect of their life. They may delve into some trivial conflicts in life and have the potential to strengthen as they are trying to enhance their way of reaching problems. The respondents fell on average total AQ with 30 percentile distributions. It means that the respondents have the moderate ability of dealing with daily challenges. They have the tendency to improve life and are moderately resilient in dealing with life's difficulties. They are accustomed in day-to-day academic challenges coupled with personal stress or conflicts, but it depends whether they will use their fullest potential or under-utilize it in overcoming problems in life as to how they will influence it in themselves to some areas of their life. It is how they will strengthen their capacity to react to adverse situations. Since resiliency is not simply about bouncing back from adversity, it is the ability to improve by it.[4] It is perceived that managing situations beyond control while restraining the range of obstacles is essential for effective problem solving. The ability to withstand life's challenges can sometimes be demoralizing and perceived by others as somewhat

negative, which declines the ability to take the greater obstacles in life. The data revealed that they need guidance to sustain life in school while facing daily challenges.

The majority of the respondents yielded 38 percentile distributions in adult support which they are neutral in their belief towards adult support in school. This implies that the respondents are undecided or momentarily forego their degree of agreeableness or disagreeableness from the support of their teachers, staff, and administrators. Strongly agreed respondents believed that they are hugely nourished by adults in school while dedicating their time, attention, and interest.[17] There are 40 percentile distributions of the respondents which are neutral or undecided in their belongingness to peer group. They are either strong or light or in their belief that peer group influences their characteristics such as how socially desirable their group are, and whether how they are attached either in social behavior (i.e., engaging classroom activities, completing projects and regular attendance) or anti-social behavior like being bullied, victimized, cutting classes, dropped, etc.[13] They are either lukewarm or insensitive in having stable peers or friends in school to which they are attached. Mostly they form allies to help them in their academic tasks while some of them are independent minded in accomplishing school works without necessarily belonging to their classmates or friends in school as well as teacher referrals for them to feel secured and taken cared.[24] There are respondents with 22 percentile distributions who strongly agreed about commitment to education while connecting the school. It implies that they have intense or high feeling of being attached to the adults in school like administrators, teachers and staff, belongingness among peers, dedication to education and favorably embrace the school surrounding while adhering to school policies and classroom management routines. They will display strong student relationships when they get more connected to school.[25] There are respondents at 26 percentile distributions who agreed their SC in terms of school environment.

Respondents who moderately agreed are more likely to engage themselves in healthy behaviors and succeed academically when they feel strongly connected to school.[17] There are respondents which yielded 35 percentile distributions who are neutral in their over-all SC. The respondents are either light or strong about their feeling of being attached to the school. It implies that they were accustomed to engaging themselves and their learning in school. These are the groups who will preferably form allies outside the school and eventually become disoriented with the school including tendency to adhere the rules and classroom practices.[17]

It deals with the intense feeling of withstanding the academic problems of the respondents. These are the respondents who will take chances of resorting to pro-social or healthy behavior like engaging schoolwork, completing assigned tasks by adults in school, having a good relationship with peers and more open to social network while they get connected within the school.[26]

The data shows that as the SC of the respondents skewed to the right direction which means the scores are leaning to the highest point, the AQ scores are observably leaning to the lowest direction which means it decreases. The connections still intact but they may become unstable due to their vulnerability of the problem in school. They may be crushed emotionally, accustomed to it, or just ignore the problem at hand.

This study highlighted the importance of school attachment between teacher-student relationships and commitment to learning or their investment to the group. Group development model suggests that the "bonds" or related term "school bonding" was associated with pro-social others resulted to decreased delinquency, positive emotional link, and commitment.[26]

It demonstrates that there was a positive correlation between control and adult support. It shows that there was a significant relationship at 95% level of confidence between control and adult support. The r-value was greater than the p-value. Therefore, reject the null hypothesis. It implies that the higher degree of control over adverse situations the stronger the feeling of being connected to adult support. People tend to perceive that they can still influence others whatever happens next. They have the tendency to influence the adults in school especially if they can witness that adults are dedicating their time, energy, and interest on themselves as well as their learning.[17] It illustrated that there was a positive correlation between control and belongingness to peer group. This shows that there was a significant relationship at 95% level of confidence between control and belongingness to peer group. Therefore, the null hypothesis was rejected. It implies that the higher the degree of control over adverse situations, the stronger the feeling of being attached to peer group. Most of the respondents have a high degree of control over problems in life and display a high ability to influence situations especially when it complicates.

Table 6 Frequency and Percentile Distribution of the Scales of SC

SC Sales	Frequency	Percentile	Verbal Description
Adult Support	38	38	Neutral
Belongingness to Peer Group	40	40	Neutral
Commitment to Education	22	22	Strongly Agree
School Environment	26	26	Agree
Overall SC	35	35	Neutral

n=100; Legend: High (5pts); Above Average (4pts); Average (3pts); Below Average (2pts); Low (1pt)

Table 7 Relationship between Control and SC Scales of the Respondents

AQ Scales	SC SCALES											
	Adult Support			Belongingness to Peer Group			Commitment to School			School Environment		
	r-value	*p-value*	*Int.*	*r-value*	*p-value*	*Int.*	*r-value*	*p-value*	*Int.*	*r-value*	*p-value*	*Int.*
Control	0.737	0.155	S	0.756	0.139	S	0.114	0.855	NS	0.358	0.554	NS

n=100; 0.05 level of significance

Table 8 Relationship between Ownership and SC Scales of the Respondents

AQ Scales	SC SCALES											
	Adult Support			Belongingness to Peer Group			Commitment to School			School Environment		
	r-value	*p-value*	*Int.*	*r-value*	*p-value*	*Int.*	*r-value*	*p-value*	*Int.*	*r-value*	*p-value*	*Int.*
Ownership	0.533	0.355	S	0.569	0.317	S	0.006	0.993	NS	0.088	0.888	NS

n=100; 0.05 level of significance

Table 9 Relationship between Endurance and SC Scales of the Respondents

AQ Scales	SC SCALES											
	Adult Support			Belongingness to Peer Group			Commitment to School			School Environment		
	r-value	*p-value*	*Int.*	*r-value*	*p-value*	*Int.*	*r-value*	*p-value*	*Int.*	*r-value*	*p-value*	*Int.*
Endurance	0.449	0.448	S	0.479	0.414	S	-0.131	0.834	NS	0.035	0.955	NS

n=100; 0.05 level of significance

Table 10 Relationship between Total AQ and Total SC of the Respondents

AQ Scales	SC SCALES											
	Adult Support			Belongingness to Peer Group			Commitment to School			School Environment		
	r-value	*p-value*	*Int.*	*r-value*	*p-value*	*Int.*	*r-value*	*p-value*	*Int.*	*r-value*	*p-value*	*Int.*
Total AQ	0.484	0.408	S	0.516	0.373	S	-0.128	0.838	NS	0.041	0.948	NS

n=100; 0.05 level of significance

There was a positive correlation between ownership and adult support. It shows that there was an influence between ownership and adult support of the respondents at 0.05 level of significance. The r-value was greater than the p-value. Therefore, the null hypothesis was rejected. Ownership was significantly related to adult support. It implies that the higher the level of ownership the stronger they feel connected to adult support. Students who take accountability of the outcomes of the adverse life

situation are strongly attached to the adult support, care, attention, and time. Students tend to face challenges in life when they are supported by adults. There was a positive correlation between ownership and belongingness to peer group. It showed that ownership influenced belongingness to peer group of the respondents at 0.05 level of significance. The r-value was greater than the p-value. Therefore, rejected the null hypothesis. Ownership affected belongingness to peer group. It implied that the higher level of ownership the stronger they felt engaged and attached to peers. This implies that students have a high degree of personal responsibility of getting engaged in solving difficulties that associates their belongingness to peers.

There was a small but negligible correlation that exists between endurance and adult support at 0.05 level of significance. The r-value was greater than the p-value. Therefore, rejected the null hypothesis. The respondents with a high level of endurance have strong affection for adult support. This means that those students who were aware how far they can manage the problem will affect their involvement with adults in school. There was a positive correlation that existed between endurance and belongingness to a peer group at 0.05 level of significance. The r-value was greater than the p-value. Therefore, rejected the null hypothesis. The respondents with a high level of endurance have strong affection for their peer group. This means that those students who were aware of how far they can handle life's problems will affect their engagement with peer group or they will influence other aspects of their life. They have high capacity to see past situations as long lasting. It is up to them whether they take that problem negatively or positively.

The total AQ reveals that there was a small positive correlation in terms of adult support. The r-value was greater than the p-value. This implied that the ability of the respondents to face challenges in day-to-day life was associated with their connections with adults in school like administrators, faculty, and staff. They feel being cared if they see adults in school devoting their time, energy, and interest for their learning.[17] The total AQ revealed that there was a positive correlation in terms of belongingness to peer group. The r-value was greater than the p-value. This implied that the ability of the respondents to face challenges in day-to-day life situations was related to their engagement with peer group. Students who have more friends inside the school most likely elicit healthy behavior or pro-social behavior like involvement in school activities, regular school attendance as well as adherence to school rules and classroom management routines while students who have more friends outside the school most likely display risky behavior or anti-social behavior like school

dropouts, missing school activities and classroom task, sexual ideation etc.[17] The total AQ reveals that there was a negative relationship in terms of commitment to education. The r-value was less than the p-value. The AQ of the respondents was not affected with their commitment to education. They were still committed to finishing their studies with all the hardships they were facing in life. The total AQ revealed that there was no significant relationship in terms of the school environment. The r-value was less than the p-value. The AQ of the respondents was not influenced by their school environment. This was inconsistent to the study of Bakare in 2015,[3] that the school ownership type included their school environment does matter in the achievement of students. Students will continually deal with their daily problems even if the environment was favorable or not; risky or healthy if they pursue their studies.

Finally, the total AQ did not affect the respondents' commitment to education and school environment. They can still withstand the adversities in life since they were committed to finishing studies and engaged themselves in whatever school environment. They were still attached in school amid uncertainties and limited opportunities in life viewed in the respondents' profile of low income and erratic means of livelihood of their family.

Respondents' dedication was personally invested by involving school activities and completing academic tasks. Challenges will always be a part of their lives even if they were bombarded with heavy tasks like reporting to school regularly, meeting with teachers and peers; and facing with all the rigors in school, catching reports, research, and assignment. The more they reach life goals the more they feel connected to school.

Table 11 showed that there was no correlation between reach and adult support. The r-value was less than the p-value. Reach dimension will not directly affect their SC. However, not all dimensions of AQ affect the SC of the respondents, like reach dimension which was not significantly related to all levels of School Connections. It was the ability of the respondents to influence the problem at hand or divert the attention of problems to other areas in their life or how far can they extend adversity into other aspects of their life. The ability to solve problems at hand or in some areas of their life does not affect their engagement to school. It was up to them whether they would take it positively or negatively. They may be shaken when problems become tough and heavy. This can have a negative effect on others and their pessimism in solving problems. They may agonize unnecessary stressful life and have the potential that they can improve as they enhance their range of handling problems.[23]

This means that the respondents have a low level of reach which did not affect adult support. A

student may perceive the events happening in their lives either good or bad. Thus, they can carry problems on a day-to-day basis without necessarily keeping things in perspective. Their ability to make things happen either positive or negative way has no bearing whether adults in school care for them or not.

There was no significant correlation between reach and belongingness to peer group. This means that the respondents have a low level of reach which did not affect belongingness to peer group. A student may perceive events happening in their lives either good or bad. They can carry such problems on a day-to-day basis without necessarily keeping things in containing adversity. They can still face tough problems even if they belong in their peer group or are outcasts from their friends.

It further revealed that there was no significant correlation between scales of control and commitment to education; scales between control and school environment were not influencing each other; scales between ownership and commitment to education were not affecting each other; and scales between ownership and school environment were significantly related; reach and commitment to education were not influencing each other; scales between reach and school environment and between endurance and commitment to education have no bearing with each other. Lastly, the scales between endurance and school environment were not significantly related. Students' ability to overcome adverse life situations did not affect their commitment to education and school environment. It implies that they were still committed to finishing their studies even if they were facing hardships in life in such a manner that the majority of them were low-income earners and no fixed means of living.

Adjusting to life's challenges is too dragging, indefinite, if not fixed or temporary while they are connected in school. These are the people who will just wait at the bottom of their dreams and watch other successful people going up the pedestal. They are labelled as "Quitters".[4] They have the tendency to give up easily and may surrender when attacked with obstacles. They will leave their dreams for they have encountered trials in pursuing such situations. It implies that they may suffer unnecessarily in several ways by low levels of

energy, enthusiasm, performance, and lack of persistence.[19] Thus, they will resort to dropping school attendance, missing classroom tasks and activities or disengaging from support group or peer group as well as they become alienated of the environment.

It described how individuals will respond to the challenges in school as they engage themselves. The more resilient one is, the more effective one can respond to challenges, the more gratifying life the better was the academic success. They can easily adjust to become successful in pursuing their studies.

They remain engaged to remain with long-term goals in life which were to graduate their studies amidst the enormous difficulties. With all these challenges, they were hopeful to surmount, to improve and to ascend the quality of life. The more problems they encountered the higher was their challenge to test and survive.

Table 12 showed the computed Correlation Coefficient (Pearson r). This revealed that AQ affected SC of the respondents. The r-value was greater than the p-value. This means that the AQ of the respondents influenced their feeling of being connected to the school. As AQ ability decreased the levels of SC increased or it is the other way around like if their SC decreased their AQ ability increased. There was an inverse proportion between AQ and SC. The higher the ability to face day-to-day challenges in their academic tasks the stronger the feeling of being connected to the school. It implies that whatever turmoil they will encounter later in life they still have the gutfeel of finishing their studies. Thus, AQ was found to influence the levels of school connections of the respondents. However, not all dimensions of AQ affected their SC. As the AQ of the respondents decreased the SC increased. AQ scores skewed going to the declining direction of abilities while the SC scores skewed going to the higher likelihood of getting connected to the school. There was an inverse influence of overcoming challenges in life while they were getting more attached to school. Problems for them were part of the challenges and somehow there were certain factors that inspired them to continue their college life.

Table 11 Relationship between Reach and Scales of SC

AQ Scales	SC SCALES											
	Adult Support			Belongingness to Peer Group			Commitment to School			School Environment		
	r-value	p-value	Int.	r-value	p-value	Int.	r-value	p-value	Int.	r-value	p-value	Int.
Reach	-0.029	0.964	NS	0.009	0.988	NS	-0.463	0.432	NS	0.416	0.486	NS

n=100; 0.05 level of significance

Table 12 Correlation Coefficient between Over-all AQ and SC of the Respondents

Variables	N	r-value	p-value	Interpretation	Decision
AQ & SC	100	0.61	0.28	Significant	Reject Ho

0.05 level of significance

CONCLUSION

AQ was a predictor of the overall SC of the education students. Their ability to deal with problems in life may it be simple or complex, influenced their belief in pursuing their academic dreams to succeed. The more resilient an individual is; the more strengthened life would be in their connections with academic challenges. Based on the findings of the study, the researchers highly suggested that they should be consistent in handling difficult situation as time passed through and keep in mind their accountabilities during tough times especially accomplishing academic tasks since majority of the respondents got average AQ. Respondents who have low AQ should try to be resilient and respond to adversities constructively. Avoidance and denial will lead to disappointment, low performance in school or even health problems.

The development of school programs to enrich their psycho-social formation like support group, personalized learning or through classroom follow-up of advisory classes and mentoring measures were one of the recommendations. As regards to the overall AQ and SC, the school must provide varied and meaningful classroom activities to cater to the diverse needs of students; trainings and seminars to enhance SC while diverting their attention or problems into better involvement in school, increase participation for co-curricular and extra-curricular activities to keep them busy in school and create sense of belongingness to their peers in school across the curricular programs, provide some bodily exercises in the classroom or part of morning calisthenics so it will help them in their coping mechanism in times of academic hang-over since they were low in their reach of adversity, and provide group development sessions like peer counseling and peer facilitating; problem solving and decision making strategies for them to develop endurance in overcoming difficulties and limit their reach of adversities.

It was also recommended to replicate the study and explore broader samples and larger areas of study. It will be challenging to conduct other studies to establish relationship of AQ in another angle or other psychological constructs like predicting AQ in terms of Reach dimension since it was the lowest score, revalidation of AQ dimensions and coping skills, predicting SC and teacher efficacy.

REFERENCES

1. Philippine Star. Basic education statistics in the Philippines. 2021. Available from: https://www.teacherph.com/deped-basic-education-statistics-school-year-2020-2021/.
2. Menesini E, Palladino BE & Nocentini A. Emotions of moral disengagement, class norms, and bullying in adolescence: A multilevel approach. *Merrill-Palmer Quarterly*. 2015; 61(1), 124-143. Available from https://doi.org/10.13110/merrpalmquar1982.61.1.0124.
3. Bakare BM. Students' adversity quotient and related factors as predictors of academic achievement in the west African senior school certificate examination in southwestern Nigeria. Ibadan (Nigeria): University of Ibadan. 2015. Available from https://www.peaklearning.com/documents/PEAK_GRI_bakare2.
4. Paul SG. *Adversity Quotient: Turning Obstacles into Opportunities.* Canada: John Willey and Sons, Inc; 2010.
5. Witt C. *Factors Affecting School Connectedness Among Agricultural Education Students: A Mixed Methods Study.* Dissertation. 2012. Available from http://hdl.handle.net/2346/45179.
6. Krammer I, Schrank B, Pollak I, Stiehl KA, Nater UM, Woodcock KA. Early adolescents' perspectives on factors that facilitate and hinder friendship development with peers at the time of school transition. *Journal of School Psychology.* 2023; 98:113-132.
7. Lee MF. Psychological Resilience of Employees in Adversity Quotient: Malaysian Perspective in Facing Challenges. *Journal of Technical Education and Training.* 2023; 15(1): 93-101.
8. Pate CM, Maras MA, Whitney SD & Bradshaw CP. Exploring psychosocial mechanisms and interactions: Links between adolescent emotional distress, school connectedness, and educational achievement. *School Mental Health.* 2017; 9: 28-43. Available from https://doi.org/10.1007/s12310-016-9202-3.
9. Fabris MA, Settann IM, Longobardi C & Marengo D. (2023). Sense of belonging at school and on social media in adolescence: Associations with educational achievement

and psychosocial maladjustment. *Child Psychiatry & Human Development.* 2023. https://doi.org/10.1007/s10578-023-01516-x

10. Resnik P, Moskowitz S, & Panicacci A. Language learning in crisis mode: The connection between LX grit, trait emotional intelligence and learner emotions. *Journal for the Psychology of Language Learning.* 2021; 3(2): 99-117. Available from http://www.jpll.org/index.php/journal/article/view/74.

11. Allen K, Kern ML, Vella-Brodrick D, Hattie J & Waters L. What schools need to know about fostering school belonging: A meta-analysis. *Educational Psychology Review.* 2018. https://doi.org/10.1007/s10648-016-9389-8.

12. Abid N & Akhtar M. Relationship between academic engagement and academic achievement: An empirical evidence of secondary school students. *Journal of Educational Research.* 2020; 23(1): 48. Available from https://jer.iub.edu.pk/journals/JER-Vol-23.No-1/3.pdf.

13. Chapman R. *Development of School Connectedness as a Component of an Injury Prevention Program for Early Adolescents.* Queensland University of Technology. 2013. Available from https://eprint.qut.edu.au/63484.

14. Uslu F and Gizir S. School belongingness of adolescents: The role of teacher-student relationship, peer relationships and family involvement. *Educational Successes: Theory and Practice.* 2017. https./dx.doi.org/10.12738/esto.2017.1.0104

15. Matore MEEM, Khairani AZ, & Razak NA. The Influence of AQ on the Academic Achievement among Malaysian Polytechnic Students. *International Education* Studies; 2015; 8(6): 69-74. Available from https://eric.ed.gov/?id=EJ1067779.

16. Villagonzalo RR. *Intelligence Quotient, Emotional Quotient, Spiritual Quotient, And Adversity Quotient® And The Academic Performance of Students.* Thesis. City of Koronadal: St. Alexius College. 2016. Available from https://www. peaklearning. com/documents/PEAK_GRI_Villagonzalo. pdf

17. Menesini E, Palladino BE & Nocentini A. Emotions of moral disengagement, class norms, and bullying in adolescence: A multilevel approach. *Merrill-Palmer Quarterly.* 2015; 61(1): 124-143.

18. Pate CM Maras MA, Whitney SD & Bradshaw CP. Exploring psychosocial mechanisms and interactions: Links between adolescent emotional distress, school connectedness, and educational achievement. *School Mental Health.* 2017; 9: 28-43.

19. Amparo MM. *The level of adversity quotient and social skills of student leaders at De La Salle Lipa.* Master's Thesis, College of Education, Arts and Sciences, Dela Salle, Lipa, Batangas City, Philippines. 2015. Available from https://www.peaklearning.com/wp-content/uploads/2019/05/PEAK_GRI_Amparo.pdf.

20. Cornista GA & Macasaet CJ. *Adversity Quotient® and Achievement Motivation of Selected Third Year and Fourth Year Psychology Students of De La Salle Lipa, Ay 2012-2013.* Undergraduate Thesis. Philippines: De La Salle Lipa, Batangas. 2013. Available from https://www. peaklearning. com/documents/PEAK_GRI_cornistamacasaet. Pdf.

21. Huijuan Z. *The Adversity Quotient and Academic Performance Among College Students at St. Joseph College, Quezon City.* Undergraduate Thesis. St. Joseph's College Quezon City. 2009. Available from http://peaklearning.com/grp_research.html.

22. Beri N & Kumar M. Cognitive Style of secondary school students in relation to adversity quotient. *International Journal for Research in Social Science and Humanities Research.* 2016; 2(1): 1-15.

23. Sigit DV, Suryanda A, Suprianti E & Ichsan IZ. The effect of adversity quotient and gender to learning outcome of high school students. *International Journal of Innovative Technology and Exploring Engineering.* 2019; 8(6C2): 34-37.

24. Bryan J, Day-Vines NL, Griffin D & Moore-Thomas C. The disproportionality dilemma: Patterns of teacher referrals to school counselors for disruptive behavior. *Journal of Counseling & Development.* 2012; *90*(2): 177-190.

25. Kading M. School Connectedness: An Analysis of Students' Relationship with Their School. *Councelor Education Capstones.* 2015; 31 Available from https://openriver.winona.edu/counseloreducationcapstones/31.

26. Chapman R. *Development of School Connectedness as a Component of an Injury Prevention Program for Early Adolescents.* Queensland University of Technology. 2013. Available from https://eprint.qut.edu.au/63484.