

EARLY CHILDHOOD PRE-SERVICE TEACHERS' ADVERSITY QUOTIENT AND ACADEMIC PERFORMANCE

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ABSTRACT

There is a growing number of studies which delved into the relationship of Adversity Quotient (AQ) and academic performance of students. To add to the growing body of literature on this field, this study aims to determine Early Childhood Education pre-service teachers' AQ and its relation to their academic performance. One hundred twenty-five (125) second- and third-year BECEd students participated in the study. Descriptive correlational-survey design was implemented. The revised Adversity Response Profile (ARP) was utilized to gather data. Mean and Standard Deviation were used to determine the AQ and academic performance of students, Pearson product-moment correlation was used to determine the relationship between AQ and students' academic performance, and content analysis were used to analyze students' answer to the open-ended question. The findings show that BECEd pre-service teachers obtained an average score of 135 (SD = 14.4) which is interpreted as Moderate AQ. In terms of their academic performance, students obtained a grade point average of 1.5 (SD = 0.190) which is interpreted as Very Good. In addition, the result of the study reveals that there is no significant relationship between participants' AQ and academic performance, $r(123) = -0.02$, $p = 0.831$. Further, there is no significant relationship in any of the four dimensions (control, ownership, reach, endurance) of AQ and their academic performance. Since the study reveals that the pre-service teachers have moderate AQ in which the majority of individuals fall on this range, it is recommended that a student-development program be created and implemented to strengthen BECEd students' AQ.

Keywords: Academic Performance, Adversity Quotient, Early Childhood Education, Pre-service Teachers

INTRODUCTION

Due to the uncertainty that the COVID-19 pandemic brought to many people, education of the youth is adversely affected. According to Pokhrel and Chhetri (2021), this pandemic affects 1.6 billion learners in more than 200 countries and has created the biggest interference in the history of the education system. Different research studies state the weaknesses of teachers' limitation on online teaching, lack of infrastructures, non-conducive learning at-home, information gap, and academic excellence among higher education institutions (Pokhrel & Chhetri, 2021). All these challenges created issues and concerns to the lives of students. With this, students need help to face varying adversity.

One specific area of concern among educators in the higher education institution is the adversities that college students face in their life during their college years. Different studies show that college students encounter many adversities related to their studies. These adversities affect them. These intricacies in their program of study are part of students' life in all levels with varying degrees which differ from the way students handle the situations (Laguador & Pesigan, 2013). Studies show that Adversity Quotient (AQ) can help predict who can thrive in the face of adversity. This is vital for the university, to be able to design and develop programs that could help students face and handle difficulties they encounter in their program of study.

According to Kuhon (2020), Intelligence Quotient had been assumed before as a significant aspect for the success of a person. On the other hand, the Adversity Quotient based on various research studies state that it is also a vital factor to obtain higher academic achievement and a brighter future (Kuhon, 2020; Matore, Khairani, & Razak, 2015).

Adversity Quotient (AQ) is generally defined as the ability of an individual to deal with problems and difficulties and how the individual resolves them and then convert it into opportunities for greater achievement (Stoltz, 1997). It is strongly believed and has been stated that AQ is able to bridge the gap for learners to achieve high academic achievement and have better academic performance (Stoltz, 2010).

Devakumar (2012) defines Adversity Quotient as the assessment of a person's ability to respond to life challenges. In the study of Stoltz (1997, 2010), Adversity Response Profile have four dimensions. These are: (1) Control - how well an individual realizes that he or she can control a challenging situation (Stoltz, 1997). However, based on the views of many researchers in various contexts and countries, control constructs are defined as the ability of a person to perceive himself to be able to handle and respond to challenging situations in control, the ability to believe positively, and the ability of an individual to recover after experiencing a challenge or failure. (2) Ownership - comes from two aspects, Origin and Ownership. However, Stoltz changed this construct to eliminate origin, which is the scale of belonging because the origin is part of the ownership dimension. This construct refers to the extent to which the individual identifies the cause of the problem, who is responsible for the problem and to what extent they acknowledge the effects and consequences of facing the challenge (Stoltz, 1997; Stoltz 2010). (3) Reach - measure how well an individual can limit the impact of a challenge on themselves. In other words, it is defined as how well an individual can ensure that the challenges they face will not affect the rest of their lives; such as the impact of health disorders, academic performance and so on (Stoltz, 1997; Stoltz 2010).

The reach construct indicators involves three key concepts -- the individual's ability to identify the challenges he faces and not to influence the other side of his life, the individual's ability to limit the challenge from being influenced by other problems in his life, and the individual's ability to work immediately to overcome the challenges. And (4) Endurance - measures how long a challenge can take. In other words, this construct is defined as to how far the individual is able to withstand the challenge and to what extent the problem of the challenge will continue (Stoltz, 1997; Stoltz 2010). The three key concepts for endurance indicators are the ability of the individual to anticipate the duration of the challenge to be fulfilled in his or her life, the individual's ability to anticipate the time period in which the challenge will end in life, and the individual's ability to find a solution to the challenge.

One of the research priorities of Philippine Normal University is on Teacher Quality Enhancement. In this research area, key factors which affect the pre-service and in-service teacher's preparation, training, and performance are looked into. College students are the hope of society and the way they live will affect not only their lives but also the community where they belong (Aprilia, 2018).

This study looked into the relationship of Adversity Quotient with Academic Performance of BECEd students with the intent that the comparison will bring to light aspects for possible evidence-based aspects for Student-Development Program. These aspects could improve students' AQ level and in turn, improve their academic performance as well as their well-being. According to Devakumar (2012), adversity quotient can be improved, rewired and strengthened. Thus, the results of this study is beneficial to the university as it continues to propose and design programs that could help, assist, and guide students as they finish their academic journey.

Hence, this study aims to determine pre-service teachers' adversity quotient and its relation to their academic performance. Moreover, it explores the relationship between the AQ and academic performance of BECEd pre-service teachers, while also identifying the key aspects necessary to prepare a program to enhance their Adversity Quotient.

RELATED STUDIES FOR ADVERSITY QUOTIENT AND ACADEMIC PERFORMANCE

Kuhon (2020) conducted a study on college students' Adversity Quotient and their academic performance in terms of their grade in the English subject. Participants of the study were freshmen college students. The researcher used the Adversity Quotient Questionnaire. There are three levels in the AQ questionnaire based on the obtained score or points – climbers, campers, and quitters. Climbers are those who got 41 to 60 points in the questionnaire. It is considered as the highest level in the AQ questionnaire. The second level is the campers. Campers are those who got 21 to 40 points. Quitters is the lowest level whose score falls between 0 to 20. Findings of the study show that 65.5% of the participants were classified as Climbers. In addition, findings of the study show that those who are considered as Climbers also showed a better academic performance in terms of their English subject. In addition, 37.5% of the participants were classified as Campers and no participants were classified as Quitters. Result of the study shows that students with a high level of AQ also perform better in terms of academic achievement.

Yazon (2019) conducted a descriptive-correlational study on preservice teachers' AQ and their Mathematics and English language proficiency. 103 preservice teachers were included in the study. Stolz's AQ Questionnaire was modified and used. A Mathematics and English Language Proficiency Test was also developed and utilized. Findings of the study show that there is no significant correlation between AQ and the Mathematics proficiency of the preservice teachers. Further, results of the study show that among the four dimensions of AQ, the Ownership dimension shows a statistically significant relationship with the preservice teachers' English language proficiency.

Khairani and Abdullah (2018) conducted a cross-sectional study among 325 college undergraduates from two schools to measure their Adversity Quotient, overall academic well-being, and the relationship between AQ and academic well-being. Findings of the study show that there is no significant difference in the mean score of AQ between male and female students. The researchers claim that gender is not a factor in students' AQ. Additionally, there

is a significant difference between the AQ scores between 1st and 2nd year students and 1st and 3rd year students. The findings point out that age is an important factor for AQ. Further, the result of the study shows that there is a high and positive correlation between AQ and academic well-being of students. The study also suggest that AQ is a good predictor of academic well-being of undergraduates and that AQ can help increase the academic well-being of students. Finally, Khairani and Abdullah (2018) suggested that university stakeholders should foster students' AQ.

As for that, the researchers also recommend a number of ways for students to improve their AQ. First, undergraduates must be able to identify their strengths and use this to control their challenges. Another is for the college students to take "ownership" of challenges so that they are in a better position to counter them. Next is for students to master how to deal with challenges so that it will not affect other aspects of their life. Lastly, it is vital that undergraduates have a positive outlook in life.

It is supported by the study of Masnan and Radzi (2015) that states how a higher AQ can positively influence their ability to cope with challenges in educational settings, ultimately enhancing their academic outcomes. Numerous studies highlight the vital role that coping mechanisms and resilience play in pre-service teachers, claiming that good teaching practices and solid pedagogical knowledge raise their adversity quotient (AQ), which in turn improves academic performance and better prepares them for roles in early childhood education in the future (Masnan & Radzi, 2015; Masnan, Anthony, & Zainudin, 2019; Osman, Mohamad Jaafar, & Rohaizad, 2024).

A study conducted by Aprilia (2018) described the Adversity Quotient of college students. 330 college students participated in the study using incidental sampling. The researcher used a quantitative descriptive method. A 15-item self-report questionnaire was derived from the Adversity Response Profile (ARP) and was utilized in the study. Results of the study show that most of the respondents are in the Camper level and then followed by Climber level. 2.99% of the male respondents are in the Quitter level while there was none in the female respondents at this level. Further, the research shows that there is a significant relationship between AQ and gender of the participants while there is no significant relationship between the AQ and students' participation in organizations.

A study was conducted by Matore, et al. (2015) shows that among 1,845 students from 5 polytechnics in Malaysia regarding the influence of Adversity Quotient on their academic achievement. The researchers used regression analysis to determine the relationship of students' AQ and their academic achievement. Findings of the study showed that AQ is positively associated with students' academic achievement but did not have much influence on it. The results show that students' AQ explained only 0.9% variance on their academic achievement. The researchers concluded that AQ is not the only predictor variable to the academic achievement of the polytechnic students.

Vinas and Malabanan (2015) conducted a study to determine the Adversity Quotient of 100 college students and identify their coping strategies to different adversities. Qualitative and quantitative research methods were utilized in the study. The researchers utilized two instruments to gather data for the study. First, they adapted the Stolz' Adversity Quotient Response Test. Second, they used an unstructured questionnaire to determine the coping strategies of the participants. Finding of the study shows that college students have a moderate adversity quotient. In addition, the result of the study reveals that participants' coping strategies include: their ability to determine their adversities; immediately coping within the situation,

rebuilding confidence and comprising strong network after every adversity. Furthermore, results of the study show that the GWA and AQ of the respondents have significant relationship. The authors suggest that enhancement programs can be provided to students to enhance their Adversity Quotient.

Bakare's (2013) study included 3,892 Senior Secondary students using multi-stage sampling techniques to determine the prediction effects of students' AQ and other student-teacher constructs on students' academic achievement in Mathematics and English Language. Results of the study show that 62% of the participants have Moderate AQ; 21% have Low AQ; and 17% have High AQ. Further, the result of the study shows that students' AQ and teacher self-efficacy positively predicted students' academic achievement in Mathematics and English Language.

A research study was conducted by Huijuan (2009) to investigate the AQ and academic performance of selected college students. The researcher utilized a randomized sampling technique to include 280 participants from first to fourth year level. Descriptive-comparative-correlational research design was implemented in the study. The study used the Adversity Response Profile (ARP). Frequency, percentile, t-test, and Pearson product-moment correlation were used to analyze the data gathered. Findings of the study reveal that 61.07% of the respondents have a Low AQ; 22.14% have Below Average AQ; 15.36% have Average AQ; 0.71% have Above Average AQ; and 0.71% have High AQ. In addition, the research shows that there is no significant difference between the male and female AQ. Further, there is a significant difference between the AQ of the respondents based on their courses and year levels. Finally, the result of the study also reveals that there is a significant relationship between the AQ level and academic performance of the students. Based on the result of the study, the researcher suggests that a Guidance Program be developed to improve, enrich, and strengthen the students' AQ.

METHODOLOGY

This study collected and examined data using descriptive research design in order to determine pre-service teachers' Adversity Quotient and its relation to their academic performance. Specifically, correlative survey was used to gather a large number of data that can be analyzed for frequencies, averages, patterns, and correlations. It was then supported by an unstructured interview. It is used to determine whether the relationship between 2 variables – Adversity Quotient and academic performance, is positive, negative, or neutral.

Total enumeration was applied as a sampling technique in which all of the BECED pre-service teachers of the Philippine Normal University - Manila campus were included in the study. There were 51 2nd year undergraduate students or 53.13% of the total 2nd year population answered the survey. For the 3rd year undergraduate students, 74 out of 130 or 56.92% of the total 3rd year population answered the survey. In total, 125 out of 227 or 55.07% of the undergraduate students participated in the study.

Table 1. Summary of the participants.

Undergraduate Levels	Total Number of Enrolled Students	Participants in the study
2 nd year	96	51
3 rd year	130	74
TOTAL	227	125

The researchers used a questionnaire as the primary data gathering instrument which is divided into three parts. The first part of the questionnaire includes Stolz' Adversity Quotient Response Test. This study adapted and utilized the AQ Questionnaire developed by Paul G. Stolz. Adversity Response Profile (ARP) by Stoltz (1997) has internal consistency reliability by Cronbach's coefficient alpha of 0.86. The test is intended to determine how people respond to adversity and how it can help to increase productivity. It has four dimensions - Control, Ownership, Reach, and Endurance. The Control scale measures the degree of control the person perceives that he or she has over adverse events. Ownership is the extent to which the person owns, or takes responsibility for, the outcomes of adversity or the extent to which the person holds himself or herself accountable for improving the situation. Reach is the degree to which the person perceives good or bad events reaching into other areas of life. Endurance is the perception of time over which good or bad events and their consequences will last or endure.

The second part contains the grades of the participants from the 21 BECED specialization courses. The third part is an open-ended question which was included in the survey questionnaire to support the result of the ARP survey. The researchers transformed the survey questionnaire to a Google form for accessibility of the participants. The ARP was adapted and went through experts' validation. Then, it was distributed online to BECED pre-service teachers.

The study went through a set of data analysis. Results from statistical analysis were supported with the answers from open-ended questions.

Table 2. Data analysis of the study.

Parts of the questionnaire	Data Analysis
Adversity Response Profile	Mean, Standard Deviation
Academic Performance	Mean
Relationship between AQ and Academic performance	Pearson Product Moment Correlation Coefficient
Open-ended question	Content Analysis

RESULTS, DISCUSSIONS, AND IMPLICATIONS

The AQ of BECED Pre-service Teachers

Based on the result of the Adversity Response Profile (ARP) survey, the BECED pre-service teachers obtained an average score of 135 (SD = 14.4) which can be classified as Moderate AQ. According to the interpretation of the ARP, Moderate AQ has an average score which falls between 135-160. This is similar to the result of the study of Bakare (2013) and Vinas and

Malabanan (2015) which shows that the majority of the participants in their study have Moderate AQ.

Characteristics of individuals with Moderate AQ include the following:

1. They fare well with many difficulties;
2. When adversities mount, they become fatigued;
3. Adversities may wear down individuals unnecessarily;
4. They may at times become demoralized or overwhelmed; and
5. As they strengthen their AQ, they will discover newfound strength and fortitude in dealing with all sorts of challenges.

In terms of the four dimensions of the Adversity Quotient, participants obtained highest in Control dimension with average of 19.70 (SD = 2.59); followed by the Ownership dimension with average of 19.24 (SD = 2.66); third is the Reach dimension with an average of 15.30 (SD = 4.10); and finally, their lowest is the Endurance dimension with an average of 13.30 (SD = 3.25).

Table 3. Descriptive Statistics for Adversity Quotient and its Dimensions.

	ARP	C	O	R	E
N	125	125	125	125	125
Mean	135	19.7	19.24	15.29	13.34
Standard deviation	14.4	2.59	2.659	4.097	3.251

Stoltz (1997) defines the Control dimension of AQ as the ability of an individual to realize that he or she can control challenging situations. Individuals with high Control perceive themselves to have the ability to handle adversities, think positively, and recover from failures. Based on the result of the study, BECEd got the highest average on the Control dimension with 19.70 (SD = 2.59). In relation to the Control dimension, some of the students' answers reveal that they have some degree of control when facing challenging situations. Some of the students' answers are:

Student 6: I always assess things before I start it and I practice to focus on things that matters to me. I calm myself and think of 2 to 3 plans or possible solutions that I can do to address my situation.

Student 11: I always look at the positive side of life.

Student 38: I always pray. "Never give up" is what I think when situations are not that good. I also get advice from the people closest to me like my family and close friends.

However, individuals with poor control over adversities often have negative thoughts and do not have a high level of determination in the face of challenges. In connection to this, some of the students' answers are:

Student 2: I let the situation take its course as it is beyond my control.

Student 35: Most of the times when I am faced with difficult circumstances in life I tend to hibernate. I isolate myself with everyone and everything.

Student 40: I panic.

Student 51: I really don't ask for help and I distance myself to everyone.

Student 97: Breakdown cause I do not know what to do then sleep to temporarily forget about the situation

Even if the participants have the highest average on the Control dimension, these answers from the students show that some of them have difficulty handling challenging situations. These negative responses from the participants show that they need to develop coping strategies to be able to handle adversities that they face.

Ownership dimension is the second highest dimension among the respondents with an average of 19.24 (SD = 2.66). The Ownership dimension of AQ refers to the ability of an individual to identify the root cause of a challenge, difficulty, or problem, who is responsible for the problem and to what extent they acknowledge the effects and consequences of facing the challenge (Stoltz, 2010). Individuals with high Ownership can explain the cause and acknowledge the existence of the challenge. Students' answer reflects some of these characteristics described in the Ownership dimension. In relation to this, some of the students' answers are:

Student 14: First I process everything and know the reasons and factors why it happened. Then, I always adjust to the situation. Adapt. Find a solution. If I can't do something about it, I will accept it and do my best to never experience it again.

Student 63: I gave myself time to think. I clear my mind and focus on what was happening and create a plan A to C.

Student 125: First I assess myself on what is the right thing to do. Second, I analyze the situation such as thinking of what will happen, and what are the causes of my actions. Lastly, I will make sure that everything will go smoothly before putting my idea into action.

However, individuals who are low in the Ownership dimension are not often aware of the cause of the problem and ignore the potential impact of the problem they are facing. In connection to this, a student shared:

Student 16: I just go with the flow whatever happens I just accept what the consequences will be.

BECeD students have an average of 15.30 (SD = 4.10) in the Reach dimension. This is their third highest dimension in AQ. The Reach construct of AQ relates to an individual's ability to limit the impact of the challenges they face to ensure that it does not affect other aspects of their lives. Individuals with high Reach dimension are able to identify the challenges they face and not allow these challenges to affect other parts of their life; they have the ability to work immediately to overcome the challenges. In relation to this, some of the students' answers are:

Student 22: First, I compose myself and immediately think of possible solutions to that particular problem. I also pray and ask for the Lord's guidance.

Student 59: Sometimes I do act fast in order to solve the problems.

Student 86: Address it as soon as possible.

Student 91: When facing difficult circumstances, as much as possible I try to separate my personal and academic life. My way of overcoming these challenges is to immediately address it and find an immediate solution to overcome the challenges.

Contrariwise, individuals who are low in the Reach dimension do not demonstrate the ability to limit the impact nor work immediately to overcome adversities. In connection to this, some students said:

Student 75: I use other pending tasks to cover up my problems. I tend to overwork myself when I'm too stressed out and then sleep a lot.

Student 120: When things are just too much for me, I often have extreme emotional breakdowns for days.

Among the four dimensions of AQ, the Endurance dimension is the lowest of the BECED students with an average of 13.30 (SD = 3.25). The Endurance construct of AQ determines how long the individual can bear challenges (Stoltz, 1997; Stoltz, 2010). It includes the ability of the individual to anticipate the duration of the challenge to be fulfilled in his or her life, to anticipate the time period in which the challenge will end in life, and to find a solution to the challenge. Some of the students' answers that reflect these characteristics are:

Student 10: I think of my goals so I can keep myself motivated to go through the challenges.

Student 46: I think positive and keep motivating myself until I face or overcome the challenges. I also tend to take a break so that I can think properly on what I should do.

Student 78: I try to look for every possible solution to solve the problem. When I feel hopeless, I seek help from others, mostly friends and family.

Student 99: First, I will still be positive no matter what happens and look for the brighter side of the situation. And I believe that these circumstances in my life will pass. All I need is my faith in our Almighty, ask for His guidance and give me strength to face the situations and look for my inspiration which is my family that motivates me when I'm down.

On the other hand, individuals who are low in the Endurance dimension do not demonstrate the ability to limit the impact nor work immediately to overcome adversities. In connection to this, some students stated:

Student 8: Go with the flow.

Student 26: Just accept the consequences.

Student 41: I tried to avoid addressing the problems.

Student 66: Sometimes I also delay things by running away to my current situations.

The Academic Performance of BECED Pre-service Teachers

Participants obtained a Grade Point Average of 1.50 (SD = 0.190) in the 21 BECED specialization courses which is interpreted as Very Good in the Philippine Normal University - Manila grading system. A 1.5 grade point scale is equivalent to 92%-94.99%. This implies that BECED pre-service teachers performed fairly well in their academic performance in terms of their specialization courses.

Table 4. Descriptive Statistics for the Grade Point Average.

	Average Grade
N	125
Mean	1.5
Standard deviation	0.190

Relationship between BECEd Pre-service Teachers AQ and Academic Performance

A Pearson correlation coefficient was computed to assess the linear relationship between ARP and Grade point average of the participants. Result shows that there is no correlation between the two variables, $r(123) = -0.02$, $p = 0.831$. Table 5 shows the Correlation between ARP and Average Grade of pre-service teachers. Thus, result of the study fails to reject the null hypothesis which states that there is no significant relationship between Adversity Quotient and academic performance of BECEd pre-service teachers.

Table 5. Correlation between ARP and Average Grade.

		ARP	Average Grade
ARP	Pearson's r	—	
	p-value	—	
Average Grade	Pearson's r	-0.019	—
	p-value	0.831	—

A Pearson correlation coefficient was computed to assess the linear relationship between the Control dimension and Average Grade of the participants. There was very weak correlation between the two variables, $r(123) = 0.04$, $p = 0.660$. Table 6 shows the correlation between Control Dimension and Average Grade of the participants.

Table 6. Correlation between Control Dimension and Average Grade.

		C	Average Grade
C	Pearson's r	—	
	p-value	—	
Average Grade	Pearson's r	0.040	—
	p-value	0.660	—

A Pearson correlation coefficient was computed to assess the linear relationship between Ownership dimension and Average Grade of the participants. There was no correlation between the two variables, $r(123) = -0.11$, $p = 0.208$. Table 7 shows the correlation between Ownership Dimension and Average Grade of the participants.

Table 7. Correlation between Ownership Dimension and Average Grade.

		O	Average Grade
O	Pearson's r	—	
	p-value	—	
Average Grade	Pearson's r	-0.113	—
	p-value	0.208	—

A Pearson correlation coefficient was computed to assess the linear relationship between Reach dimension and Average Grade of the participants. There was no correlation between the two variables, $r(123) = -0.03$, $p = 0.720$. Table 8 shows the correlation between Reach Dimension and Average Grade of the participants.

Table 8. Correlation between Reach Dimension and Average Grade.

		R	Average Grade
R	Pearson's r	—	
	p-value	—	
Average Grade	Pearson's r	-0.032	—
	p-value	0.720	—

A Pearson correlation coefficient was computed to assess the linear relationship between Endurance dimension and Average Grade of the participants. There was very weak correlation between the two variables, $r(123) = 0.06$, $p = 0.511$. Table 9 shows the correlation between Reach Dimension and Average Grade of the participants.

Table 9. Correlation between Endurance Dimension and Average Grade.

		E	Average Grade
E	Pearson's r	—	
	p-value	—	
Average Grade	Pearson's r	0.059	—
	p-value	0.511	—

Research studies conducted regarding the relationship of adversity quotient and academic performance of students yield inconsistent results. There are studies that support the positive correlation between academic performance and adversity quotient of students (Bakare, 2013; Parvathy & Praseesa, 2014; Kuhon, 2020; Phoolka & Kaur, 2012; Vinas and Malabanan, 2012; Huijuan, 2009; Cura & Gozum, 2011).

However, there are also studies which show that there is no correlation between the academic performance and Adversity Quotient of students (Yazon, 2019; Matore, Khairani, Razak, 2015; Sia, 2001; Anik & Lydia, 2006; Priska, 2010; Indah, 2010; Arstity, 2012). Result of this study reveals that BECED pre-service teachers' Adversity Quotient has no significant relationship with their academic performance. Further, no dimensions in AQ show any correlation with the academic performance of students.

Aspects to Consider in a Student-Development Program to Enhance the AQ of BECED Pre-service Teachers

Based on the result of this study, BECED students have a Moderate AQ Level. Characteristics of individuals with moderate AQ are:

1. They fare well with many difficulties;
2. When adversities mount, they become fatigued;
3. Adversities may wear down individuals unnecessarily;
4. They may at times become demoralized or overwhelmed; and
5. As they strengthen their AQ, they will discover newfound strength and fortitude in dealing with all sorts of challenges.

Considering the participants' average score on the four dimensions of AQ, they had the lowest score on the Endurance dimension followed by the Reach dimension, then the Ownership dimension and finally, the Control dimension. This means that in creating a student-development program, these four dimensions should be considered and lessons should start from the Endurance dimension, followed by the Reach dimension, then the Ownership dimension, and finally the Control dimension. Table 10 shows the suggested lessons and objectives in a student-development program to enhance the AQ of BECED Pre-service Teachers.

Table 10. Suggested Lessons and Objectives in a Student-Development Program to Enhance the AQ of BECED Pre-service Teachers.

AQ Dimensions	BECED ARP Mean Result	What it is (Description)	What it determines (Aspects that may be Considered in Creating Student-Development Program)	Suggested Lesson and Objectives
Endurance	13.34	This determines how long an individual can bear challenges. It includes the ability to:		
		1. Anticipate the duration of the challenge to be fulfilled in his/her life	Perseverance	Lesson 1: I can Persevere -> Identify ways on how an individual can persevere in difficult situations;

continued

				-> Develop perseverance among students during difficult situations.
		2. Anticipate the time period in which the challenge will end in his/her life; and	Hope and Optimism	Lesson 2: I am Hopeful and Optimistic -> Recognize situations on how a person can develop hope and optimism; -> Develop hope and optimism among students in dealing with life adversities.
		3. Find solutions to the challenge.	Problem-solving	Lesson 3: I am a Problem-Solver -> Identify the problems they face in life; -> Analyze the problems they face in life; -> Find or create solutions to the problems they face in life.
Reach	15.29	This relates to an individual's ability to limit the impact of the challenges they face to ensure that it does not affect other aspects of their lives. It includes the ability to:		
		1. Identify the challenges they face and not allow these challenges to affect other part of their life; and	Overcoming adversity	Lesson 4: I can Overcome Challenges -> Help students to cope with the adversities in life; -> Capacitate students to face real life situations and adversities; -> Develop ways on how to limit the effects of problems/ challenges in other parts/ aspects of one's life.
		2. Work immediately to overcome the challenges.	Taking Actions	Lesson 5: I can do it! ->Analyze different situations to overcome life adversities;

continued

-> Identify ways to overcome problems/ challenges immediately.

Ownership 19.24 This refers to an individual's ability to explain the cause and acknowledge the existence of the challenge. It includes the ability to:

1. Identify the root cause of a challenge, difficulty, or problem;	Determining cause of problems	Lesson 6: I can Point it out -> Analyze challenges and difficulties that one faces in life; -> Determine the cause of challenges and difficulties that one faces in life.
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2. Identify who is responsible for the problem; and	Responsibility	Lesson 7: I am Responsible -> Develop students' sense of responsibility.
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3. To what extent they acknowledge the effects and consequences of facing the challenge.	Acknowledging consequences	Lesson 8: I can Embrace the Consequences of My Actions -> Develop students' ability to acknowledge the extent of the effects of the challenges they face.
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Control 19.70 This relates to an individual's ability to realize that he/she can control challenging situations. It includes the ability to:

1. Perceive themselves to have the ability to handle adversities;	Self-awareness Self-regulation Self-control	Lesson 9: I can Handle Adversities -> Develop self-awareness; -> Determine ways to self-regulate; -> Develop self-control; -> Develop capability to
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continued

		handle challenging situations.
2. Think positively; and	Positive self-talk	Lesson 10: I am a Positive Thinker
	Alternative ways on solving problems	-> Use positive self-talk; -> Think and focus on a positive alternative outcome of a situation.
3. Recover from failures.	Recovering from adversities	Lesson 11: I can Recover from Failures
		-> Reflect on wrong decisions made in the past that cause failures; -> Develop strategies to recover from wrong decisions and failures.

Eleven lessons are suggested based on the aspects that are considered in developing the four dimensions of an individual's Adversity Quotient - 3 lessons for the Endurance dimension, 2 lessons for the Reach dimension, 3 lessons for the Ownership dimension, and 3 lessons for the Control dimension. These lessons are intended to develop the skills included in each dimension of the Adversity Quotient.

CONCLUSION AND RECOMMENDATIONS

Resilience, as many believe, is one of the important aspects needed by individuals to be able to survive, thrive, and become successful in this fast evolving society. Educators and researchers underscore the importance of developing and strengthening students' Adversity Quotient as it is the ability that enables individuals to overcome the challenges and difficulties they face in their life.

Based on the result of the study, a number of conclusions can be drawn. First, BECED pre-service teachers have Moderate AQ which means that they fare well with many difficulties that they face in their personal and academic life. Second, their academic performance is categorized as Very Good which means that students are able to perform fairly well in their specialization courses. Third, there is no significant relationship between BECED students' AQ and academic performance. Although previous studies have shown that there is a significant relationship between AQ and academic performance of students, this study adds to the literature that shows that there is no significant relationship between the two variables. Furthermore, considering the result of the students' ARP Mean score, there are aspects that

should be considered in creating a student-development program to strengthen their AQ. Developing students' ability to control the difficulties they are experiencing; making them aware of the cause of challenges and acknowledging them; giving them the strategy for them to be able to limit the impact of the problems they deal with and resolve it immediately; and having the capacity to endure the adversities they encounter in life are some of the skills that should be included in this student-development program. These skills included in the four dimensions of AQ play a vital role in ensuring not only academic achievement but also personal and professional success of students in the future.

Based on the findings and conclusions of this study, the following recommendations are provided: 1) A student-development program be developed and implemented to strengthen the AQ of BECEd pre-service teachers as part of Philippine Normal University's Teacher Quality Enhancement Programs; 2) Activities that develop the four dimension of AQ may be integrated in the teacher-education curriculum; and 3) Another study may be conducted to include a larger sampling of students.

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