

Science Behind Educational Resilience: Managing Teachers' Adversity Quotient Towards the Academic Success in a Philippine Schools District

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Abstract— This study investigated the teachers' adversity quotient level in the post-pandemic era. This was conducted among the 506 randomly selected elementary and high school teachers in one of the Congressional Districts in the Philippines. The data were gathered using the Adversity Quotient Profile. Means and standard deviations were used for the descriptive analysis. For inferential statistics, the t-test for independent samples was used set at .05 and computations were done through the Statistical Package for the Social Sciences (SPSS) software V. 25. Results of the study showed that the teachers' general Adversity Quotient (AQ) is low. Regardless of their highest educational attainment, length of service, and academic rank, teachers' AQ did not differ which implies an innate academic resilience among the teachers in both academic levels in the basic education. Moreover, teachers during the pandemic grappled with constraints along with the adversities, which have influenced them even after the heightened COVID-19. Even when teachers were confronted with unlimited issues at home, in school, and the community, they could perform satisfactorily. In return, teachers must undergo debriefing on what they have endured during the pandemic and engage in psychosocial activities such as sports camps, exercise sessions, spiritual practices, recollections, and retreats. A conducive work environment equates to sustained management of both internal and external adversities—a science of resilience in education—wherein stakeholders and educational leaders could set up team-building programs and collaborative initiatives to decrease work-related stress that could have been worsened by the aftermath of the pandemic.

Keywords— adversity quotient, post-pandemic adversities, teachers, academic success.

I. INTRODUCTION

When the COVID-19 pandemic hit the world, daily lives were transformed. The variety of losses the people individually and collectively experienced during the COVID-19 pandemic is wide-ranging from small, inconsequential losses like staying at home for several days to more painful losses like the death of a family member (Castrelion, et al., 2021).

In the field of education, the COVID-19 crisis brought the Department of Education to rethink and reinvent its systems (Paulino, et. al., 2022; Malayas, et al., 2022). Even with the fact that before the COVID-19 pandemic, school systems were already being questioned (Azorín, 2020), many education systems in developed and developing economies alike relied heavily on passive forms of learning to promote the critical and individual thinking needed in today's innovation-driven economy (Azorín, 2020). The sudden shift in the instruction modes has resulted in enormous problems among teachers and learners (Oyedotun, 2020). Marginalized children, young adults, economically challenged, emigrants, and displaced people are considered the most vulnerable members of society. They are seen as those

who have suffered dramatically from losing access to education (Kooli, 2021).

The Department of Education in the Philippines has implemented the Basic Education- Learning Continuity Plan (LCP) to ensure that teaching and learning continue at schools even after closures. This plan was formulated to guide schools as they reopened in October 2020 to deliver quality education despite the risks and circumstances. The main priority of the BE-LCP is to protect the health, safety, and well-being of learners, teachers, and personnel to prevent transmission of COVID-19, ensure that the K-12 curriculum continues, deploy various learning delivery modalities, provide teachers and school leaders with training, orient parents and stakeholders and make sure that returning school is safe (DepEd_LCP_July3, n.d.). Different problems were encountered while implementing the BE-LCP, like learners having difficulty learning alone, insufficient funds for producing learning materials, and teachers being overwhelmed with different roles (The New Normal in Basic Education - ACCRALAW, n.d.). These problems may have added to the burden on the teachers since they are at the forefront of LCP implementation. A study reported that 92.8 percent of teachers experienced

emotional weariness, worry, agony, or anxiety due to confinement and distant learning (Espino-Díaz et al., 2020). Those adversities, the changing circumstances before or after the pandemic, significant stress, and anxiety may affect teachers' performance.

This study explored the relationship between the teachers' adversity quotient and their performance during the pandemic. While teachers must meet the developmental needs of learners with consideration to their emotional, social, physical, cognitive, and spiritual well-being, this research endeavor looked into the need to reassess the teachers' developmental and anticipated needs to turn threats into opportunities. Anchored on the epistemology of objectivism, highlighting truth and meaning that reside within an object and is independent of human subjectivity, this has taken positivism as its stance and adhered to factual knowledge gathered among teachers in the basic education processed through a rigid statistical analysis (Crotty, 1998) to avoid biases.

II. REVIEW OF RELATED LITERATURE

The Adversity Quotient (AQ) is a construct developed by Dr. Paul Stoltz concerned with human elasticity or toughness. According to Stoltz (1997), teachers with a high Adversity Quotient are expected to manage the challenges that they face in their work. Schools in the post-pandemic time face enormous adversities that teachers must overcome.

Through the AQ Profile, teachers' adversity quotient was classified as Low, Moderate, or High. Those with low AQ are said to have a low drive, energy, performance, tenacity, and a tendency to overthink matters. At the same time, persons with moderate AQ underutilize their potential as problems take a significant toll on them, making it difficult for them to ascend. On the other hand, those who possess a high AQ perceive themselves as physically healthier, fit, energetic, less stressed, and optimistic. They maintain an appropriate perspective on events and responses, enabling them to continue despite obstacles (Stoltz, 1997.). In the study of Effendi et al. (2016), AQ has a high potential and should be given attention by educators and education policymakers in developing effective programs to reduce student problems. The study linked AQ with other intelligence such as Emotional Quotient (EQ) and Spiritual Quotient (SQ). It was established that AQ, at par with EQ and IQ, can determine a person's success. However, it was found that AQ and IQ are not significantly correlated; thus, it contradicts previous

studies that IQ is the sole determinant of an individual's success. On the other hand, Pino & Merin (2021) studied educators' adversity quotient that presented them with rising above challenges during the time of the pandemic. This included 40 educators. The findings indicated that instructors, on average, have a moderate AQ. This follows that the AQ level of the teachers who participated in the study is not far behind the standard set by Stoltz.

Before the pandemic, a study on the Adversity Quotient level and faculty members' teaching performance was conducted at West Visayas State University – Lambunao Campus. The study showed a strong link between adversity quotient and teaching performance because the faculty members had a “high” adversity quotient and a “very satisfactory” level of teaching performance. When classified according to teachers' academic rank and length of service, it showed a significant difference among teachers' adversity quotient. The result of Pearson's r showed a significant relationship between the level of adversity quotient and the teaching performance of faculty members on the campus (Bautista, 2014). For TechVoc schools in Cavite, a study to determine the Adversity Quotient of teachers while withstanding the challenges in the 21st century was done. Findings described that teachers have low AQ but demonstrated a high level of performance. There is a significant relationship between designation and teachers' performance (Profeta, 2016). Considering another construct, motivation, a study showed that motivation and AQ played a key role in improving teachers' performance. The study in Indonesia involved elementary school teachers using their performance documents and survey questionnaire. It focused on the contribution of AQ and motivation to teachers' performance (Putu et al., 2021). Teachers performing well may be promised career success. Another significant study reviewed is that of Castano (2019), which involved teachers' intelligence, emotional, and adversity quotient. The study revealed that teachers' adversity quotient was ‘average’, implying that teachers manage and overcome challenges easily. While AQ has been positioned as a significant construct in teachers' performance during the pandemic, it is joined with emotional intelligence and organizational citizenship behavior in promoting teachers' performance when they need to deal with abnormal situations such as the COVID-19 pandemic. This is according to the study of Alifuddin and Widodo (2021), which later suggested that schools should increase the Emotional Intelligence,

Adversity Quotient, and Organizational Citizen Behavior to achieve teachers' competence. In contrast, the study of Cando and Villacastin (2014) before the pandemic, determined a significant relationship between the AQ, emotional quotient, and teachers' performance at Cebu Institute of Technology-University. The study found that their AQ was average. Teachers' performance had a low relationship with AQ and EQ. This implies that the teacher's ability to deal with personal problems and comprehend their own and others' emotions have no connection with the outcome of their teaching performance (Marie et al., 2014).

Another was the study by Alifuddin and Widodo (2021) which showed that AQ significantly influenced the performance of teachers. Conducted with 450 junior high school teachers in Indonesia through accidental sampling, it investigated the effect of AQ on performance mediated by psychology capital through path analysis, descriptive statistics, and correlational matrix. With the result, it was concluded that performance could be improved through AQ and PsyCap. This is corroborated by the study on the effects of adversity quotient and spiritual quotient on teacher performance. Accordingly, the empirical data about the effect of AQ and spiritual quotient on the performance of Al-Azhar Elementary School teachers, in Depok City separately or simultaneously, indicated that AR has a significant positive influence on teacher performance (Muztaba et al., 2020). A study in Indonesia analyzed the effect of adversity and resilience on the performance of middle school teachers in Raya City was conducted. Having 218 participants, it showed that there is a positive and significant influence between adversity on teachers' performance and a partially positive and significant influence between resilience and performance (Tonich & Basrowi, 2018).

Furthermore, Hidayat et al. (2018) studied prospective mathematics teachers in Indonesia by collecting data using an AQ questionnaire. It was found that AQ created a positive impact on the development of mathematical argumentation abilities of pre-service mathematics teachers. On the other hand, the significance of teachers' AQ was not limited to their productivity but also resonated with learners' performance. Supporting preceding data, the study of Mwivanda and Kingi (2019) on the effects of teachers' AQ on student academic performance in Public Secondary Schools in Kenya showed that the 441 teachers who participated revealed a positive and significant correlation between their AQ

and students' academic performance. Considering the demographic variables on AQ, the study of Mwivanda & Kingi (2019) stipulated the teachers' highest educational attainment was significantly related to their AQ. Meanwhile, in a study investigating the influence of demographic variables on Adversity Quotient, it was found that the difference in gender and educational background did not have a significant effect on AQ. On the length of service, the AQ of those who worked for 5-10 years was the highest and was significantly superior to those who worked for 3-5 years.

On the other hand, the AQ was not only tested on teachers but on school heads as well. Jimenez (2021) conducted a study on the adversity and emotional quotients of public elementary school heads amidst COVID-19. The descriptive-correlational study in Central Luzon resulted that school heads' AQ falls within the "above average" which indicated that they are above the normal capacity to address challenges, difficulties, setbacks, and demands.

Studies outside the education systems were also conducted concerning adversity quotient. The study of (Adiong, et al., 2019) on emotional intelligence, AQ, and work performance among selected mental health service providers in Cavite, Philippines. It involved 130 participants through purposive sampling and quota sampling and resulted in the emotional quotient of the participants being high while their AQ was low. The relationship between AQ and work performance was highlighted. Supporting this notion is the study in Davao City, Philippines, wherein even employees had an average level of AQ and had high job performance levels. The employees' job performance was not significantly related to their AQ, reporting a p-value of .12 (Padua & Marlon, 2021).

Studies on the impact of the COVID-19 pandemic also discovered teachers' high levels of anxiety or stress (Baloran & Hernan, 2021). The teacher workforce is also at risk of suffering significant declines in the coming years (Kaufman & Diliberti, 2021). Despite all this gathered evidence, there is still a lack of empirical studies on AQ after an academic disruption which can be attributed to teachers' highest educational attainment, length of service, and academic rank.

III. METHODOLOGY

This cross-sectional study design looked into the data at a single point in time in December 2022. The

participants in this type of study were selected based on particular variables of interest (Cherry, 2022)—the AQ of elementary and high school teachers amidst the uncertain time.

In the study, 506 participants were randomly selected from 2, 727 Teachers and 299 Master teachers in the district using Cochran’s formula which is appropriate for large and small populations (Statistics How To, 2023).

The participants were categorized according to their educational attainment, length of service, and academic rank. Of the total number of participants, 269 (53.2%) were Baccalaureate Degree holders while 237 (46.8%) held Graduate Degrees. There were 258 (51.0%) who have taught for less than 15 years while 248 (49.0%) have served their school for more than 15 years.

This study used a published and validated Adversity Quotient® Profile, a web-based device obtained through PEAK Learning Inc., by Stoltz. It is an interactive questionnaire that assesses a person’s typical pattern of behavior to adverse circumstances containing the CORE subscales (dimensions) Control, Ownership, Reach, and

Endurance, which collectively make up and describe an individual’s AQ.

IV. RESULTS AND DISCUSSION

Teachers’ AQ level is low, which falls between the 40-111 range. The standard deviation, 12.99, showed a broad dispersion of the means, indicating that teachers’ adversity quotient is heterogeneous. The teachers undoubtedly endure various needless hardships and have negative, frequently unreasonable internal dialogues that prevent people from escaping the mental boxes they unwittingly put themselves in.

They cannot take action to improve problems because of this negative thought habit. This is in contrast to the study by Abaña, Isidro, & Cabrera (2016) before the pandemic period, which indicated that the overall AQ of the respondents fell on average. It shows that the participant’s ability to overcome difficulties is fair, and they do not always falter in any problem they may encounter. Nevertheless, participants should improve their AQ because they continue to be weakened by fatigue and at times when challenges arise. Most often, when their AQ is low, the situations will overwhelm them, making it impossible for them to respond constructively.

Table 1. Elementary and Secondary Teachers’ Level of Adversity Quotient

Category		SD	M	Description
Entire Group		12.99	110.14	Low
Educational Attainment	Baccalaureate	11.94	110.50	Low
	Post-Baccalaureate	14.10	109.73	Low
Length of Service	Below 15 Years	12.94	110.62	Low
	Above 15 Years	13.04	109.64	Low
Academic Rank	Teacher	12.73	110.02	Low
	Master Teacher	13.53	110.38	Low

Note: AQ Level High (167-200) Above Average (148-166) Average (125-147) Below Average (112-12) Low (40-111)

Meanwhile, even after the pandemic, wherein adversities encountered by teachers were enormous, the AQ level of teachers in the study of Pino and Merin (2021) fell far behind Stoltz’s standard. The varied and low results of teachers’ AQ levels may be prompted by their different educational backgrounds, length of services, academic ranks, economic status, spiritual quotient, burnout, stress level, etc. There is also a possibility that their response was prompted by their different experiences during the pandemic. Perhaps the work-from-home setup worked well with teachers who

belonged to the aged group and those with comorbidities, while some may not have liked it.

Another possible cause could be the heavy workload given to teachers during the modular, limited face-to-face, and full-blast, face-to-face classes. During the first implementation of the distance learning setup, some teachers were assigned to be module writers, and editors, who were given tasks they encountered the first time. Some teachers were also tasked with creating online classes using platforms they barely knew. There might be young and newly hired teachers who may have

been surprised by the workload after the pandemic, while the tenured and experienced ones are already good at facing adversities in life.

Other possible causes that might affect the low turnout of AQ among teachers could be the challenges brought about by the lack of network and an internet connection and difficulties in preparing, acquiring, and dispensing learning materials during the pandemic due to limited physical interactions.

V. CONCLUSIONS

Based on the findings presented, the following conclusions were drawn:

Teachers during the pandemic grappled with their adversities, which may have influenced them even after COVID-19. Despite the adversities, they possessed the ability to survive by utilizing their potential. They could carry out learning continuity plans and results-based actions as a practitioner in the field. Even when teachers were confronted with unlimited issues at home, school, and in the community, they could still perform their duties and responsibilities as they managed their academic resilience accordingly.

Educational attainment, length of service, and academic rank do not influence teachers' adversity quotient but may become an anchor used by teachers in addressing various issues and challenges in implementing various delivery modalities. All these can be attributed to the science of resilience in the context of teachers in basic education.

VI. RECOMMENDATIONS

Aside from the mandated professional education and consultations from their colleagues, teachers may need to undergo debriefing on the endured adversities during the pandemic. School administrations may involve teachers in psychosocial activities such as sports camps, exercise sessions, recollections, and retreats to improve their AQ. The school may develop a program that will help improve the teachers' AQ as well. In addition, wellness programs, symposia, and sessions with counselors and psychologists can be sustainable resource to encourage teachers to use strategies and explore the science of resilience in the academic context.

All these help achieve better learning outcomes and foster academic success which address the needs of the learners in particular and the larger community.

Development programs for teachers and focusing on improving their AQ should be integrated into the crafting of the school improvement plan and the learning continuity plan. Perhaps, this could make them more involved with the school's objectives and anchor their objectives to the school's plans for recovery and learning continuity amidst the constraints of natural disasters or any other pandemic. These could increase teachers' commitment and accountability for successful curriculum implementation. Thus, educators must nurture their AQ not only to strive but also to foster positive effects on learning outcomes.

VII. FURTHER STUDY

Further studies on the current topic may be conducted with the expansion of the variables. The four variables of adversity quotient: control, ownership, reach, and endurance could also be examined for a robust study on a teacher's resilience. This could address specific issues and concerns of teachers on to what extent they can influence their problems, how they perceive their accountability with the situation they are in, and to what extent the adversity extends beyond the situation they have. Also, during the pandemic and post-pandemic period, teachers faced several situations that might have affected their perceptions of their capacities. Studies involving the same constructs could be done after a few years wherein teachers could acclimate to the new normal.

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