Research in English Language Pedagogy (2024) 12(4): 673-697

 DOI: 10.30486/RELP.2024.1103742

Original Research

EFL Teachers' Adversity Quotient and Self-Efficacy: A Personality Comparison

Hamid Marashi[1*], *Zahra Araghi*[1]

[1]English Department, Faculty of Foreign Languages, Central Tehran Branch, Islamic Azad University, Tehran, Iran

Submission date: 25-02-2024 Acceptance date: 17-09-2024

Abstract

The role and performance of teachers during their classroom interaction are hugely affected by their personality types. Accordingly, the goal of this research was to investigate whether a significant relationship exists between the adversity quotient and self-efficacy of introverted and extroverted EFL teachers'. Utilizing the Eysenck Personality Inventory among a number of teachers who took part in this study (i.e., nonrandom convenience sampling), 120 participants were originally selected for the present study and subsequently responded to the Teachers' Sense of Efficacy Scale (OSTES) and the Adversity Quotient Profile (AQP). However, in the preliminary descriptive statistics, four outliers disrupting the normality of the scores had to be removed leaving 116 final participants (29 introvert males, 29 introvert females, 29 extrovert males, and 29 extrovert females). Ultimately, a Pearson correction and linear regression were run. The findings portrayed a significantly positive correlation between introvert and extrovert EFL teachers' adversity quotient and self-efficacy. The results of this study could be employed to guide and inform teachers about their personal level of AQ and SE with respect to their standing in the extro-/introversion continuum while the study may also bear implications at the institutional level for both the process of teacher recruitment and in-service training.

Keywords: Adversity quotient; Extrovert; Introvert; Self-efficacy

[*] Corresponding Author's email: hamid.marashi@iauctb.ac.ir

1. Introduction

In the modern era of language teaching which has been coterminous with the transition from finding the one single best method toward post-method, the main focus is shifted to the crucial role that teachers fulfill in the classroom. Accordingly, this dynamic paradigm "enables teachers to theorize from practice and practice what they theorize" (Kumaravadivelu, 1994, p. 27). The prominence of teachers' pivotal stance in the classroom and the quality of their performance is arguably an incontrovertible point in all fields of pedagogy with ELT of course not serving as an exception (Marashi & Assgar, 2019). Teachers' abilities and differences are among the issues which are taken for granted in the post-method debate (Akbari, 2008) in which the teacher is regarded as a researcher (Stenhouse, 2013) or in the words of Richards and Lockhart (1994) as a reflective practitioner.

One such ability and difference among teachers is self-efficacy (SE) which bears an influential impact on their performance. SE is a construct defined by a pioneering scholar Bandura (1991, 1997) in postulating his social cognitive theory as "belief in one's capabilities to organize and execute the courses of action required to produce given attainment" (p. 3). According to Bandura (1994), human behavior is stimulated by the association of two types of expectations as SE and outcome expectancy.

Later on, certain other scholars attempted to associate SE with the educational context. For example, Tschannen-Moran et al. (1998, p. 22) defined teachers' SE as "the teacher's belief in his or her capability to organize and execute courses of action required to successfully accomplish a specific teaching task in a particular context". With the importance attached to it, SE has been researched into extensively in the literature (e.g., Ghanizadeh & Moafian, 2011; Marashi & Dakhili, 2015; Razmjoo & Ayoobiyan, 2019; Schunk & Pajares, 2009; Stephanou et al., 2013).

SE also is an important factor affecting individuals' aspiration and critical and analytical thinking while contributing to the development of the competence to encounter adversity (Hamill, 2003). Indeed, a teacher may seek to overcome the adversities they are faced with in educational settings and different teachers react to these challenges in the classroom with different degrees of adversity quotient (Hema & Gupta, 2015). Adversity quotient (AQ) is a construct proposed by Stoltz (1997) as the ability not only to overcome the problems and obstacles but also to change them into opportunities for greater success.

Mwivanda and Kingi (2019) stated that AQ is one of the main dimensions of one's performance that forms their individual character and potentials. Another definition of AQ stated by Bautista (2015) is the ability that enables individuals, groups, and communities to dominate adverse situations.

Parvathy and Praseeda (2014) noted that AQ is closely linked to one's capacity and ability to go back to a stable condition following an episode of turbulence and upheavals while Vogus and Sutcliffe (2017) believed that AQ helped respond to the questions linked to the challenges in educational situations. Albeit its rather recent introduction within the theory and praxis of education, AQ has been investigated by quite a number of researchers in different fields including ELT perhaps because of its significance in teacher variables (e.g., Calles & Besoyo, 2015; Cando & Villacastin, 2014; Chao-Ying, 2014; Marashi & Rashidian, 2018; Suryanda et al., 2019).

In effect, AQ is closely correlated with the concept of personality psychology as there are other factors which influence reacting to the adversities rooted in one's personality type (Stolz & Weihenmayer, 2008). Accordingly, Parvin (1996, as cited in Rhodewalt, 2008) states that an individual's personality type is indeed the intricate organization of the cognition, emotions, and deeds which give direction and form to a an individual's life – be it amidst adversities or moments of joy. Among the pioneers of studying personality types, Jung and also Myers and Briggs conceptualized extroversion and introversion which was later mainstreamed by the German couple Eysenck and Eysenck (Marashi & Amin-Ranjbar, 2018).

According to Jung (1989), extroversion is "attitude type characterized by concentration of interest on the external object" (p. 369) while introversion is "attitude type characterized by orientation in life through subjective psychic content" (p. 369). Canli (2006) noted that extrovert characters tend to be gregarious and sociable; they have numerous friends, seek elation in all that they do, and look for sensation while bring active and lively. In contrast, introvert characters tend to be private and quiet and prefer to read rather than meet people and speaking with them; introverts tend to avoid excitement and have few but close friends (Silverman, 2012). Introversion/extroversion is arguably the most frequently studied personality variable within ELT and this trend remains very much active in recent times too (e.g., Gan, 2008; Marashi & Naddim, 2018; Prakash et al., 2016; Soleimani et al., 2013; Zafar & Meenakshi, 2012).

2. Review of the Related Literature

2.1. Self-Efficacy

The concept of teachers' SE as discussed above is the degree of their confidence in having the capability to improve students' learning (Bandura, 1994). Correspondingly, teachers' SE as self-perception has a crucial effect in their choosing assignments and activists, their perseverance facing certain challenges, and even during their emotional reactions to hard circumstances where SE ultimately embodies a cognitive modality which functions between an individual's knowledge and actions (Prieto, 2003, as cited in Achurra & Villardon, 2012).

Ozer and Bandura (1990, as cited in Hamill, 2003) assert that self-efficacious teachers are also more inclined to discard negative thoughts about themselves. To this end, a great sense of SE reinforces a specific advantage in main activities, motivation, perseverance, and resilience opposed to the adversities linked to the teaching carrier (Stephanou et al., 2013).

The number of the empirical studies conducted on SE in the ELT literature is quite significant unanimously demonstrating the significance of this construct. A sample of such studies are discussed below. Stephanou et al. (2013) reported that teachers' SE had a positive impact on the efficacy beliefs at the school level and their job satisfaction. Soltaninezhad and Ghaemi (2018) demonstrated that SE bore a significant impact on lowering students' test anxiety. Achurra and Villardon (2012) declared that, "Teachers with a higher perceived level of overall efficacy had students with greater perceptions of learning than teachers with a lower level of SE" (p. 368). It has also been proven that teachers' burnout is negatively correlated with their SE (Skaalvik & Skaalvik, 2007). Caprara et al. (2013) demonstrated that teachers' SE determines students' achievement while Marashi and Azizi-Nassab (2018) concluded that teachers' SE was correlated with their language proficiency.

2.2. Adversity Quotient

According to Stoltz (1997), each individual can be a quitter, camper, or climber considering their AQ based on "four dimensions called CO_2RE: Control, Origin and Ownership, Reach, and Endurance" (p. 23). CO_2RE can measure one's AQ through answering questions such as how much a person can control and affect the problem, what the source of the problem is and who is responsible for it, how much one's ability to react is, and how long the problem

lasts. Stoltz further declared that AQ is originated from three main domains of science, i.e., cognitive psychology, psychoneuroimmunology, and neurophysiology.

Stoltz (2000) explained that AQ foresees how well one can tolerate difficulties, dominate it, and anticipate who will be forced inward by compression, who will overpass their expectations in implementation and potential, and who stops and overcomes. AQ is the lifelong ascendant to each person which demonstrates how people tolerate when some who may be both smart and well-prepared may not succeed and give up (Hema & Gupta, 2015). In addition, there exists a myriad of adverse conditions such as destitution, rarity of resources, and exacerbation of social and political troubles as a result of unfair circumstances (Phoolka & Kaur, 2012).

There are different types of adversities and stress for teachers at school. Examples include the amount of assignments that should be marked, the stress for giving correct scores, responding to the parents because of the students' poor performance in their exams (Hema & Gupta, 2015) and also certain other adversities such as superficial relationship between teachers and students, inappropriate institutional environment and overloaded curriculum, unreasonable rules system, negative orientation, and exaggerated inabilities rather than abilities (Santos, 2013).

A number of empirical studies – albeit not many – have been reported on AQ in the literature. For instance, Mwivanda and Kingi (2018) concluded a significantly positive relationship between teachers' AQ and students' performance while Marashi and Fotoohi (2017) demonstrated a positive correlation between the AQ and professional development of introverted and extroverted EFL teachers. Ghassemi-Fam and Nosratinia (2022) concluded that, "Both novice and experienced EFL teachers' AQ was a significant predictor of their SE" (p. 179). In another study, Marashi and Naghibi (2020) showed the same go-togetherness between introvert and extrovert teachers' AQ and classroom management.

2.3. Extroversion/Introversion

Sharp (1987, as cited in Ahour & Nourzad, 2014) noted that extroverts are mostly interested in the acceptance of external subjects and happenings. They can affect and be affected at the same time by the events around them and they prefer to be in noisy and crowded places because they are interested in being with friends and also their living environment. Compared to extroverts, introverts get their energy from within and they are not interested

in passing time with other people. They may believe that if they fill their hours with activities involving other people's attendance, they wear themselves out (Kahnweiler, 2009).

Eysenck (1965) suggested that extroverts are "good at interpreting body language and facial expressions, they talk more and tend to take actions with less reflection" (p. 158) and are adept in short-term tasks and opt for fast and less accurate approaches (Dimler et al., 2007). On the contrary, introverts talk less and instead reflect more before taking action; they prefer independent work and often encounter difficulty in establishing relationships with others (Chamorro-Premuzic, 2007).

As Brown (2000, p. 155) has noted, "Extroversion is the extent to which a person is deep-seated to receive ego enhancement, self-esteem, and a sense of wholeness from other people as opposed to receiving the affirmation within oneself". Furthermore, Depue (2006) stated that affiliation – being warm, friendly, and loving – and agency, i.e., the power of being in leadership positions and the sense of efficacy in achieving success, are two independent traits that are rooted from the interpersonal nature of extroversion.

3. Purpose of the Study

Drawing on their rather extended literature review (a very brief selection of which of course could be presented above in the interest of brevity), the researchers realized that while SE and extroversion/introversion have been investigated in the ELT literature quite substantially, AQ remains perhaps a novelty. Hence, more research is warranted on this construct to understand how it correlates with other teacher variables.

Accordingly, in chronological continuity of the study by Marashi and Fotoohi (2017) showing the significant correlation between introverted and extroverted EFL teachers' AQ and professional development, Razmjoo and Ayoobiyan's (2019) study revealing that the different dimensions of SE had a positive relationship with teachers' resilience, Marashi and Naghibi's (2020) investigation demonstrating the go-togetherness between introvert and extrovert teachers' AQ and classroom management, and finally Ghassemi-Fam and Nosratinia (2022) concluding that the AQ of novice and experienced EFL teachers significantly predicted their SE, the researchers conducted this research to elucidate any correlation between introvert/extrovert EFL teachers' AQ and SE.

Of particular significance driving this research was to see that while the moderator variable of being novice/experienced has been overcome by the AQ construct in the latter

study noted above, extroversion/introversion which is a reported prominent factor in ELT studies often playing a decisive role would be ruled out as bearing such prominence. In other words, would AQ outweigh this substantial personality variable in its relationship with SE? In line with the above argument, the researchers formulated the following four research questions:

Q_1: Is there any significant relationship between introvert EFL teachers' adversity quotient and self-efficacy?

Q_2: Is there any significant relationship between extrovert EFL teachers' adversity quotient and self-efficacy?

Q_3: Does introvert EFL teachers' adversity quotient significantly predict their self-efficacy?

Q_4: Does extrovert EFL teachers' adversity quotient significantly predict their self-efficacy?

4. Method

4.1. Participants

A total of 226 teachers sat for the Eysenck Personality Inventory (described below) and as not all teachers were clearly extroverts and introverts and a number of them did not answer the questionnaire completely, 120 EFL teachers aged 20-45 all selected through nonrandom convenience sampling were selected based on their performance on the questionnaire. The teachers were selected from several language schools in Tehran. Furthermore, a total of four teachers were excluded from the sample as they were proven to be outliers through the descriptive statistical analysis thus leaving 116 final participants (29 introvert males, 29 introvert females, 29 extrovert males, and 29 extrovert females). Table 1 displays certain pertinent demographic details concerning the participants.

Table 1

Demographic Data of the 116 Participants

Category	Subcategory	Frequency
Gender	Male	58
	Female	58
Age	Under 20	4
	20-29	52
	30-39	44
	40-49	16

Years of Experience	1-3	42
	4-10	38
	11-16	21
	17-20	13
	Over 20 years	2
Academic Degree	Undergraduate student	5
	BA	30
	Master's student	40
	MA	34
	PhD student	7

4.2. Instruments

In order to carry out this research, the instruments below were utilized:

4.2.1. Eysenck Personality Inventory (EPI)

The EPI was designed by Eysenck and Eysenck (1964) and then revised in 1992. The instrument consists of 57 yes/no items assessing three varying features of an individual's personality: E manifesting the degree of one's extroversion, N illustrating the degree of neuroticism, and the Lie score representing the social desirability that one seeks. Among the total 57 items, 24 correspond with extroversion, 24 with neuroticism, and 9 with the Lie score. Those whose scores are below 10 would be introverts and those scoring above 15 are regarded extroverts. The ones scoring 10-15 are considered as being ambiverts.

Velicer and Stevenson (1993) validated the EPI reporting reliabilities of 0.88 and 0.84 for males and females, respectively. The alpha coefficients of the extroversion section stood at 0.78, 0.83, 0.85, and 0.87 in their study which comprised a total of 685 participants. The standard time allocated for responding to the EPI is 15 minutes.

4.2.2. Adversity Quotient Profile (AQP)

The AQP was designed by Stoltz (2000) to assess the response made by an individual to difficult conditions and measures the quad-partite dimensions of adversity (CO_2RE, described earlier). The AQP includes 14 scenarios with four 10-point scale questions for each scenario. The score for each of the four dimensions ranges from 10 to 50 with the overall score varying from 40 to 200. A high total score on the AQP demonstrates that the individual can response more effectively to adverse conditions.

Grandy (2009) demonstrated both the internal and external validity of the AQP. The four subscales of AQ manifest excellent discriminant validity; the range of the scale inter-

correlations varies from 0.28 to 0.72. Grandy also reported the following Cronbach Alpha values: 0.82 for control, 0.83 for ownership, 0.84 for reach, and 0.80 for endurance. He also reported 0.91 for the entire AQP. The time required to complete the AQP is 8-10 minutes and the website (www.peaklearning.com) automatically provides immediate results.

4.2.3. Teachers' Sense of Efficacy Scale

The teachers' Sense of Efficacy Scale (known as the Ohio State Teacher Efficacy Scale or OSTES) was designed by Tschannen-Moran and Woolfolk Hoy (2001) as a self-assessment tool. The OSTES seeks a more thorough understanding of the different issues which produce hardships for teachers during their school interventions. The tool contains 24 items within three subscales: instructional strategies, classroom management, and student engagement.

These 24 questions mostly begin with "How much can you do…?" and are followed by five values of 1-9 from nothing (1) to a great deal (9). Furthermore, the validity and reliability of this questionnaire has been examined through three studies by Tschannen-Moran and Woolfolk Hoy (2001) who reported the Alpha of 0.94 for the entire scale, 0.87 for student engagement, 0.91 for instructional strategies, and 0.90 for classroom management. The time required to complete this questionnaire is 30 minutes.

4.3. Data Collection Procedure

To accomplish the purpose of this study and collect the data required to answer the questions, the procedure described below was conducted. The initial step in collecting data for the present study was finding the sample. Once the researchers were able to find the teachers willing to cooperate (a total number of 226), they arranged the sessions with them to administer the questionnaires. The teachers taught at different language schools and so the researchers were obliged to hold different sessions for them. In these sessions, the researchers ensured the teachers that their scores on the questionnaires would be used only for the purpose of this research. Should they wish to respond to the questionnaires, they could fill the EPI and OSTES during the sessions and would have to allocate another 8-10 minutes to respond to the online AQP after completing the first two. The teachers were also told that if they were interested to be informed of their scores, they would need to tick the box next to their email address. The researchers did their best to provide the above instructions in a unified manner in all settings.

At this point, the EPI was first distributed followed by the OSTES. Next, the researchers collected both instruments and reminded the respondents to check the instruction emailed to them containing the link to the AQP together with the instructions of how to fill it in their own free time; the researchers further asked them to respond to the AQP online within less than 48 hours.

4.4. Data Analysis Procedure

Once there were 120 participants (out of the original 226) whose scores on the EPI showed there were two groups of 60 extroverts and 60 introverts (with 30 male and 30 female teachers in each personality group), the researchers were able to conduct the statistical analyses required, i.e. the descriptive statistics including mean and standard deviation and inferential statistics comprising correlation and regression with all the required prerequisites.

5. Results

5.1. Descriptive Statistics

5.1.1. Self-Efficacy Questionnaire (OSTES)

After the selection of the 60 extroverted and 60 introverted teachers (as detailed in the previous section), the researchers distributed the OSTES. Table 2 contains the descriptive statistics of this administration. As displayed in the table below, the SE scores of the introverts bore a mean and the standard deviation of 169.29 and 27.22, respectively, while the same indices for the extroverts were 158.55 and 31.93, respectively.

Table 2

Descriptive Statistics of the SE Scores of the Introverts and Extroverts

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	
						Statistic	Std. error
Introverts' SE	60	121	215	169.29	27.225	-.117	.314
Extroverts' SE	60	58	216	158.55	31.932	-.580	.314
Valid N (listwise)	60						

Furthermore, the scores represented normality (-0.117 / 0.314 = -0.372 and -0.580 / 0.314 = -1.847). The above statistics are presented in the following histograms.

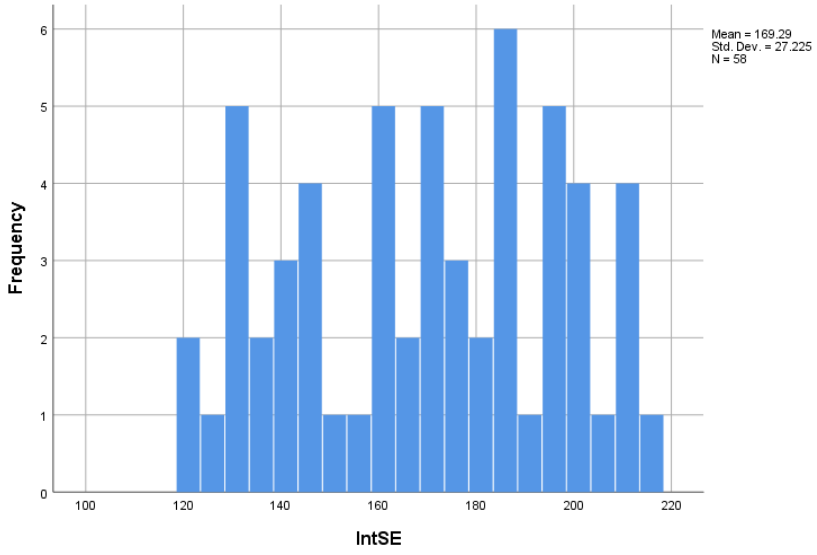

Figure 1

Descriptive Statistics of Introverts' SE Scores

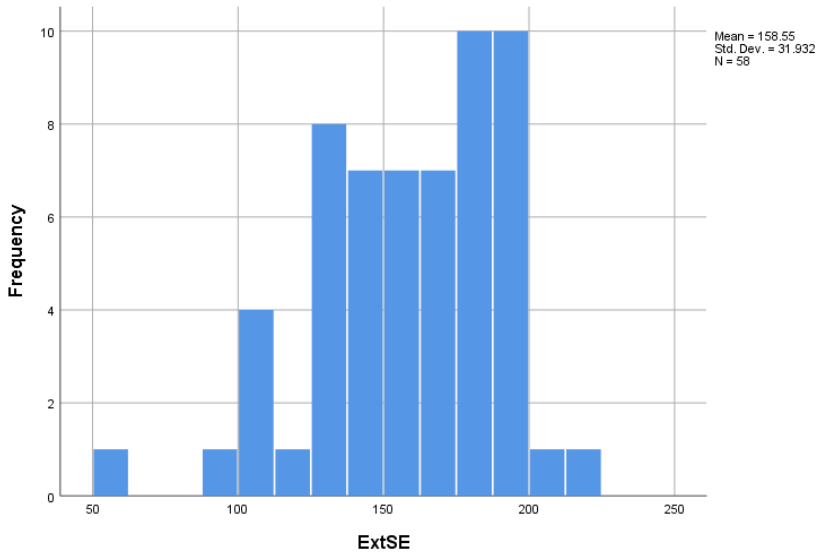

Figure 2

Descriptive Statistics of Extroverts' SE Scores

Figure 2 delineates one outlier among the extrovert group; nevertheless, as the scores represented normality (Table 2), the researchers did not feel the need to remove this participant's score.

5.1.2. Adversity Quotient Profile (AQP)

Following the OSTES, the participants took the online AQP. Table 3 contains the descriptive statistics of this administration. As shown in the table below, introverts' scores had a mean and standard deviation of 121.85 and 17.12, respectively, while mean and standard deviation of the extroverts were 117.45 and 15.37, respectively.

Table 3

Descriptive Statistics of the AQ Scores of the Introverts and Extroverts

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	
						Statistic	Std. error
Introverts AQ	60	93	170	121.85	17.124	.823	.309
Extroverts AQ	60	83	177	117.45	15.367	1.313	.309
Valid N (listwise)	60						

The scores did not represent normality (0.823 / 0.309 = 2.66 and 1.313 / 0.309 = 4.29) as the skewness ratios were above 1.96. The above statistics are presented in the following histograms for a more vivid understanding.

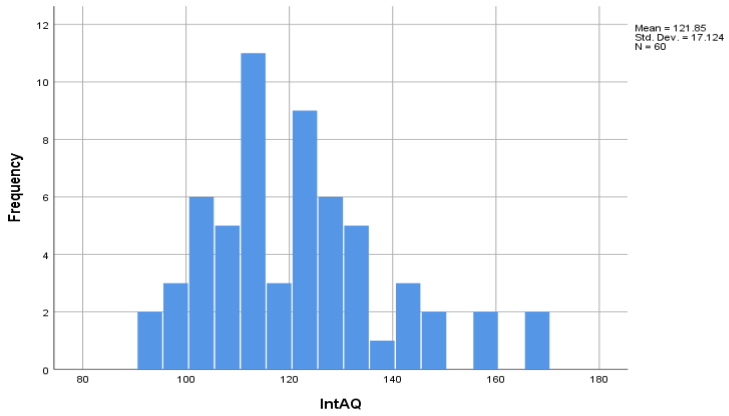

Figure 3

Descriptive Statistics of Introverts' AQ Scores

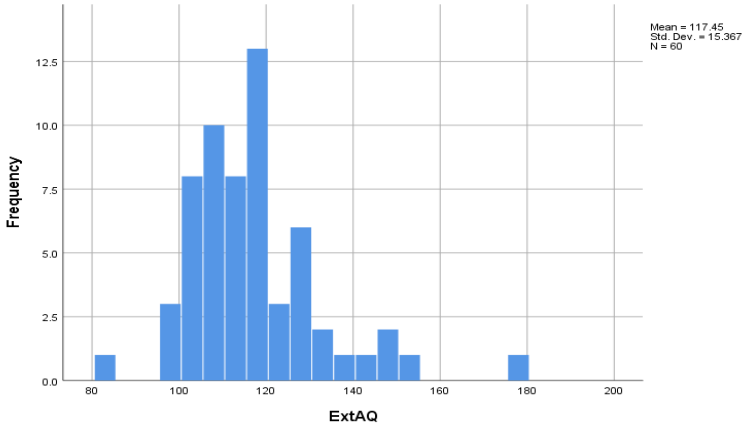

Figure 4

Descriptive Statistics of Extroverts' AQ Scores

As can be seen from the above two histograms, there were four outliers in both groups (two in each) who were the cause of the scores' being skewed. Accordingly, they were removed; Table 4 below represents the descriptive statistics of the participants' AQ scores once the outliers were removed.

The table shows that the mean and the standard deviation of the introverts' AQ scores were 120.24 and 14.98, respectively and the same indices for extroverts were 117.02 and 12.70, respectively. Also, the scores represented normality (0.508 / 0.314 = 1.623 and 0.576 / 0.314 = 1.834) as the skewness ratios were above 1.96.

Table 4

Descriptive Statistics of the AQ Scores of the Introverts and Extroverts (Outliers Removed)

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	
						Statistic	Std. error
Introverts AQ	58	93	157	120.24	14.982	.508	.314
Extroverts AQ	58	97	152	117.02	12.697	.576	.314
Valid N (listwise)	58						

It should be noted that the scores of the four outliers removed from the AQP were also removed from the OSTES and the two sets of scores of 116 participants on the two questionnaires were utilized for inferential statistics.

5.2. Testing the Null Hypotheses

5.2.1. First Null Hypothesis

To test the first null hypothesis, i.e., there is no significant relationship between introvert EFL teachers' AQ and SE, the Pearson Correlation Coefficient was utilized. First, the necessary assumptions were checked, i.e., linearity, normality, and homoscedasticity of the sets of scores. For linearity, Figure 5 shows a scatterplot of the two variables.

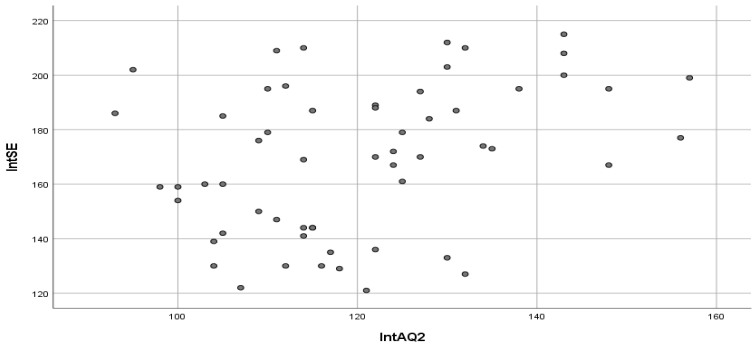

Figure 5

Scatterplot of Introverts' AQ and SE Scores

According to the scatterplot, a nonlinear relationship did not exist between the two variables and the assumption was met. Regarding normality of the distributions, Tables 2 and 4 reveal an acceptable range for skewness ratios falling within ±1.96. As for homoscedasticity, the residuals plot was checked (Figure 6).

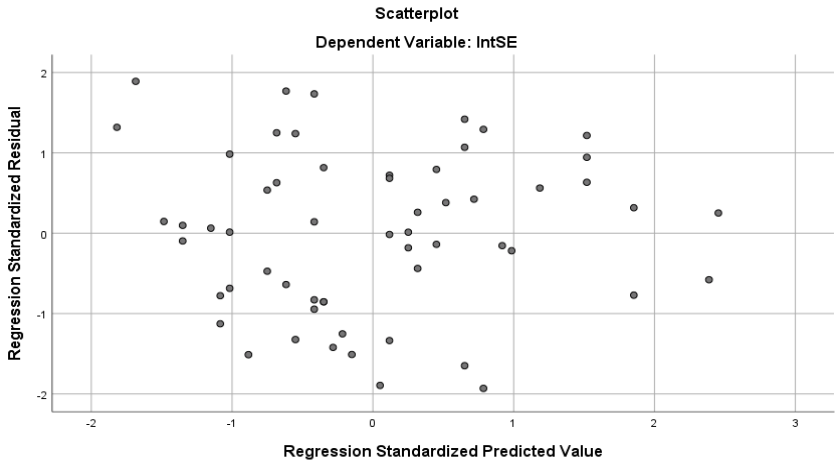

Figure 6

Plot of Studentized Residuals for Introverts' SE Scores

Figure 6 shows a homogeneous variance which proves the homoscedasticty of the scores (Pallant, 2007). The researchers thus ran the correlation for the first null hypothesis (Table 5).

Table 5

Correlation of the Introverts' AQ and SE Scores

	Introverts' AQ	Introverts' SE
Introverts' AQ		
Pearson Correlation	1	.348**
Sig. (2-tailed)		.007
N	58	58
Introverts' SE		
Pearson Correlation	.348**	1
Sig. (2-tailed)	.007	
N	58	58

**Correlation is significant at the 0.01 level (2-tailed)

As clarified in Table 5, the correlation ($r = 0.348$, $p = 0.007 < 0.05$) was significant at the 0.05 level.

Table 6

Correlation Report

No of cases	R	Sig (2-tailed)	R^2
58	.348	.007	.121

According to Table 6 above, R^2 or the effect size was 0.121 which is moderate (Larson-Hall, 2010). Hence, the first null hypothesis was rejected. In other words, there is a significant relationship between introvert teachers' AQ and SE.

5.2.2. Second Null Hypothesis

The researchers again ran the Pearson Correlation Coefficient to test the second null hypothesis, i.e., there is no significant relationship between extrovert EFL teachers' AQ and SE. Figure 7 shows that there is no nonlinear relationship between the two sets of scores, i.e., linearity is met.

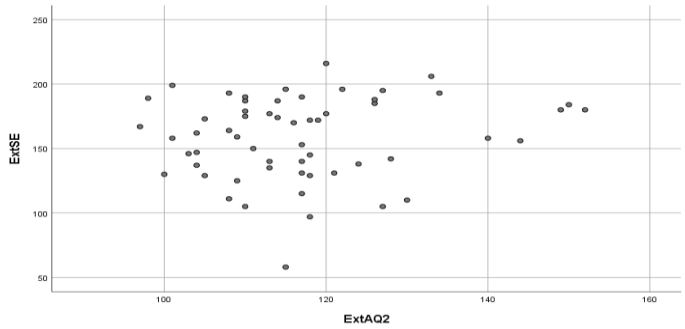

Figure 7

Scatterplot of Extroverts' AQ and SE Scores

Normality of the distributions had already been established. As for homoscedasticity, the residuals plot was checked and established (Figure 8).

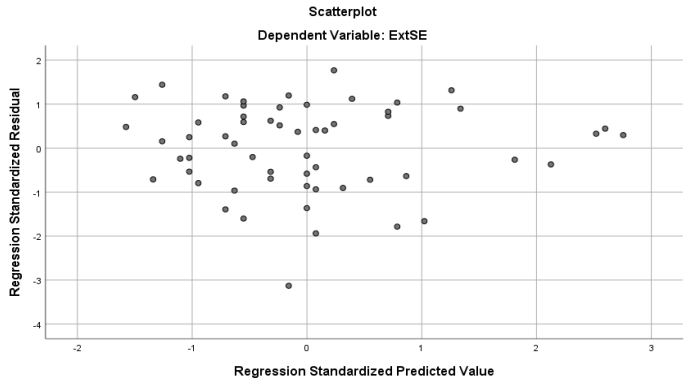

Figure 8

Plot of Studentized Residuals for Extroverts' SE Scores

Following the proof for the assumptions, the correlation was run (Table 7).

Table 7

Correlation of the Extroverts' AQ and SE Scores

	Extroverts' AQ	Extroverts' SE
Extroverts' AQ		
Pearson Correlation	1	.437**
Sig. (2-tailed)	.	.04
N	58	58
Extroverts' SE		
Pearson Correlation	.437**	1
Sig. (2-tailed)	.04	.
N	58	58

**Correlation is significant at the 0.01 level (2-tailed)

Table 7 shows the correlation (r = 0.437, p = 0.04 < 0.05) which was significant at the 0.05 level. According to Table 8 below, the common variance stood 0.191, i.e., a strong effect size (Pallant, 2007); accordingly, the second null hypothesis was rejected meaning that there is a significant relationship between extrovert teachers' AQ and SE.

Table 8

Correlation Report

No of cases	R	Sig (2-tailed)	R^2
58	.437	.04	.191

5.2.3. Third Null Hypothesis

In order to test the third null hypothesis, i.e., introvert EFL teachers' AQ does not significantly predict their SE, running a linear regression was required. The results of the ANOVA ($F_{1,56} = 7.714$, p = 0.007 < 0.05) proving significant are displayed in Table 9.

Table 9

Regression Output: ANOVA Table[a]

Model		Sum of squares	df	Mean square	*F*	Sig.
1	Regression	5115.152	1	5115.152	7.714	.007[b]
	Residual	37132.866	56	663.087		
	Total	42248.017	57			

[a.] Predictors: (constant), Introverts' AQ

[b.] Dependent variable: Introverts' SE

The standardized beta coefficient (B = 0.632, *t* = 2.777, *p* = 0.007 < 0.05) in Table 10 reveals that the significance of the model in that introvert teachers' AQ is a significant predictor of their SE.

Table 10

Regression Output: Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	*t*	Sig.
		B	Beta			
1	(Constant)	93.266	27.581		3.381	.001
	Introverts' AQ	.632	.228	.348	2.777	.007

[a.] Dependent variable: Introverts' SE

Although the normality of the scores was checked previously, the residuals table (Table 11) also demonstrated that there were no outstanding outliers since the Cook's distance values fell below 1 while Mahalanobis distance values did not surpass 15.

Table 11

Regression Output: Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	5.0978	7.5172	6.1927	.41371	29
Std. Predicted Value	-2.646	3.202	.000	1.000	29
Standard Error of Predicted Value	.100	.337	.135	.044	29
Adjusted Predicted Value	4.9794	7.4890	6.1938	.41557	29
Residual	-3.37662	3.22706	.00000	1.43011	29
Std. Residual	-2.355	2.251	.000	.998	29
Stud. Residual	-2.362	2.257	.000	1.003	29
Deleted Residual	-3.39648	3.24348	-.00112	1.44712	29
Stud. Deleted Residual	-2.389	2.280	.000	1.007	29
Mahalanobis Distance	.001	10.250	.995	1.570	29
Cook's Distance	.000	.099	.006	.013	29
Centered Leverage Value	.000	.050	.005	.008	29

[a.] Dependent Variable: Introverts' SE

5.2.4. Fourth Null Hypothesis

To verify the fourth null hypothesis, i.e., extrovert EFL teachers' AQ does not significantly predict their SE, the researchers ran another linear regression. The outcome of the ANOVA ($F_{1,56} = 1.065$, $p = 0.04 < 0.05$) proved significant (Table 12).

Table 12

Regression Output: ANOVA[a] *Table*

Model		Sum of squares	df	Mean square	*F*	Sig.
1	Regression	1084.938	1	1084.938	1.065	.04[b]
	Residual	57035.406	56	1018.489		
	Total	58120.345	57			

[a.] Dependent variable: Extroverts' SE

[b.] Predictors: (constant), Extroverts' AQ

The standardized beta coefficient (B = 0.344, $t = 1.032$, $p = 0.04 < 0.05$) reveals the significance of the model meaning that extrovert teachers' AQ could predict significantly their SE.

Table 13

Regression Output: Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	*t*	Sig.
		B	Beta			
1	(Constant)	118.343	39.183		3.020	.004
	Extroverts' AQ	.344	.333	.137	1.032	.04

[a.] Dependent variable: Extroverts' SE

Although the normality of the scores had been checked previously, the residuals table (Table 14) also demonstrated that there were no outstanding outliers since the Cook's distance values fell below 1 while Mahalanobis distance values did not surpass 15.

Table 14

Regression Output: Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	151.67	170.57	158.55	4.363	29
Std. Predicted Value	-1.577	2.755	.000	1.000	29
Standard Error of Predicted Value	4.190	12.378	5.612	1.922	29
Adjusted Predicted Value	149.80	169.09	158.43	4.347	29
Residual	-99.859	56.423	.000	31.633	29
Std. Residual	-3.129	1.768	.000	.991	29
Stud. Residual	-3.157	1.784	.002	1.004	29
Deleted Residual	-101.656	57.470	.118	32.491	29
Stud. Deleted Residual	-3.451	1.821	-.005	1.028	29
Mahalanobis Distance	.000	7.591	.983	1.648	29
Cook's Distance	.000	.090	.014	.017	29
Centered Leverage Value	.000	.133	.017	.029	29

[a.] Dependent Variable: Extroverts' SE

6. Discussion

In congruence with the findings of the present research, different studies have been completed by various researchers indicating the relationship between AQ and certain other variables pertinent to language teaching/learning. In this regard, Huijuan (2009) revealed that there was a positive correlation between AQ and academic performance. The findings of the study by Bautista (2015) also showed that AQ and the leadership style of students

have a significant relationship. Moreover, Cando and Villacastin (2014) showed a significant association between the AQ and teaching performance of teachers.

In terms of SE, Lane et al. (2004) claimed that the students' perceived SE had a significant impact on increasing their academic success. The results of their study signaled also a significant relationship between SE and self-esteem, a result which was also corroborated by Jerusalem and Schwarzer (1992). Wolters and Pintrich (1998) too stated that there is a positive correlation between SE and general academic performance including learning English. In a somewhat different study in terms of those who took part, Napora (2021) showed a significant correlation among SE, self-esteem, ego-resiliency dimensions, and a positive life orientation. Furthermore, Stephanou et al. (2013) demonstrated that teachers' SE had a positive impact on their overall school efficacy, beliefs, and job satisfaction.

As reported in this study, the AQ of both introvert and extrovert teachers not only significantly correlated with their SE but also predicted the latter significantly. The underlying reason for this is perhaps what Marashi and Naghibi (2020) have elaborated in that a teacher's being extrovert or introvert does not necessarily determine the go-togetherness of AQ with certain other constructs such as classroom management (as indicated in their study), professional development (as demonstrated by Marashi and Fotoohi, 2017), and SE – as is concluded by Razmjoo and Ayoobian (2019) and in the present study. That is to say that the role of the personality construct compared to AQ in determining these variables is only secondary. In other words, a teacher's AQ is vividly more of a decisive factor than their personality variable or even their being novice or experienced (as was demonstrated by Ghassemi-Fam and Nosratinia, 2022) when it comes to several performance constructs, their SE included.

Albeit not reported in the results section due to the space restrictions that had to be observed in writing the manuscript, the researchers had also included gender as a moderator variable and thus conducted a cross-gender data analysis as well. The outcome of the aforesaid analysis clearly corroborated the main findings of the study; in other words, AQ and SE were significantly correlated among the four subcategories of male extroverts, female extroverts, male introverts, and female introverts. The predictability factor held as well. Hence, not only the very often decisive personality variable of introversion/extroversion but also gender was indeed not a determining factor in the existing correlation between SE and

AQ.

7. Conclusion

With respect to the fact that teachers bear an indispensable role within the educational system, the recognition and improvement of certain crucial aspects of human behavior as AQ and SE may have remarkable effects on their performance. Accordingly, the results of this study could be employed to guide and inform teachers about their personal level of AQ and SE both with respect to and regardless of their standing in the extro-/introversion continuum. In other words, teachers may be in encouraged to learn about their own level of AQ and SE in the spirit of observance of the paradigm that a teacher's self-cognition may enhance their teaching performance.

This study may also bear implications at the institutional level for both the process of teacher recruitment and in-service training. As has been demonstrated by several previous studies on the correlation between AQ and other teacher variables, AQ is also correlated with SE regardless of teachers' degree of the personality trait of extroversion and introversion. Hence, educational trainers and managers may wish to boost both applicant and current teachers' AQ through holding courses for them in this regard resting assured that the higher a teacher's AQ, the more successful that teacher would be in SE – as concluded in this study – and certain other attributes as pointed out in this research.

As elaborated earlier, this go-togetherness extends extro-/introversion; that is to say that, investment on teachers' AQ seems to be a more viable guarantee for teachers' success in the classroom from different aspects compared to focusing on their personality trait. This case is perhaps especially valid amidst the often pervasive notion that extrovert teachers outperform their introvert counterparts while the finding of this study highlight the irrelevance of extro-/introversion in the AQ/SE equation. Consequently, introverted teachers need not to feel discouraged and rather than being constantly pushed to alter the personality variable – which in all effect cannot necessarily be subjected to change effectively – teachers can be motivated to concentrate on furthering their AQ which would accordingly pave the grounds for a rise in their SE without needing to be concerned with their personality variable.

In short, educational establishments perhaps require to start allocating a proportionate share to boosting teachers' AQ with more studies such as the present one concluding the correlation and prediction power of this construct vis-à-vis major teacher variables, SE in this case. Hence, the more AQ is emphasized among teachers, the higher the outcomes and

gains for the learners which of course is per se defined as the prime mission of educational establishments.

Last but not least, in the process of conducting this study and with respect to the conclusions, the following recommendations and suggestions for future studies to be carried out by those interested in this research domain occurred to the researchers which are presented below. Firstly, the same study can be replicated among differing socio-ethnic denominations and cohorts to substantiate the generalizability of its findings. Secondly, this research could be conducted with certain other moderator variables including impulsiveness/reflectiveness or field-dependence/independence to see whether those variables too would be sidelined when it comes to the AQ/SE dynamic. Finally, the participant teachers' professional criteria such as proficiency level, university degree, and their years of teaching experience can be controlled in other studies again to investigate the degree of the generalizability of the results of this study.

References

Achurra, C., & Villardon, L. (2012). Teachers' self-efficacy and student learning. *The European Journal of Social and Behavioral Sciences, 2*(2), 366-383. http://dx.doi.org/10.15405/FutureAcademy/ejsbs(2301-2218).2012.2.17.

Ahour, T., & Nourzad Haradasht, P. (2014), The comparative effect of using competitive and cooperative learning on the reading comprehension of introvert and extrovert EFL learners. *Advances in Language and Literary Studies, 5*(4), 206-215. http://dx.doi.org/10.7575/aiac.alls.v.5n.4p.206.

Akbari, R. (2008). Post-method discourse and practice. *TESOL Quarterly 42*(4), 641-652. http://dx.doi.org/10.1002/j.1545-7249.2008.tb00152.x.

Bandura, A. (1991). Social cognitive theory of self-regulation. *Organizational Behavior and Human Decision Processes, 50*(2), 248-287. http://dx.doi.org/10.1016/0749-5978(91)90022-L

Bandura, A. (1994). Self-efficacy. In V. S. Ramachaudran (Ed.), *Encyclopedia of human behavior, Vol. 4.* (pp. 71-81). Academic Press.

Bandura, A. (1997). *Self-efficacy: The exercise of control.* Freeman.

Bautista, M. J. (2015). Adversity quotient and teaching performance of faculty members. *International Journal of Science and Research Publications, 5*(3), 1-6.

Brown, H. D. (2000). *Principles of language learning and teaching.* Addison Wesley Longman.

Calles, A. B., & Besoyo, L. M. (2015). Personal characteristics and adversity quotient of academic administrators among selected state universities and colleges in Eastern Visayas, Philippines. *Journal of Society and Technology 5,* 122-129.

Cando, J. M. D., & Villacastin, L. (2014). The relationship between adversity quotient and emotional quotient and teaching performance of college PE faculty members of CIT university. *International Journal of Science: Basic and Applied Research 18*(2), 345-367.

Canli, T. (2006). Genomic imaging of extroversion. In T. Canli (Ed.), *Biology of personality and individual differences* (pp. 93-115). Guilford Press.

Capara, G. V., Barbaranelli, C., Steca, P., & Malone, P. S. (2013). Teachers' self-efficacy beliefs as determinants of job satisfaction and students' academic achievement: A Study at the school level. *Journal of School Psychology, 44*(6), 473-490.

Chao-Ying, S. (2014). A study investigating the influence of demographic variables on adversity quotient. *Journal of Human Resource and Adult Learning, 10*(1), 22-32.

Chamorro-Premuzic, T. (2007). *Personality and individual differences*. Blackwell.

Depue, R. A. (2006). Interpersonal behavior and the structure of personality: Neurobehavioral foundation of agentic extraversion and affiliation. In T. Canli (Ed.), *Biology of personality and individual differences* (pp. 60-92). Guilford Press.

Dimler, M., Goldstein, L. Kohlberger, B., & Kim-Prieto, C. (2007). Introversion. In R. Baumeister & K. Vohs (Eds.), *Encyclopedia of social psychology* (pp. 503-504). Sage.

Eysenck, H. (1965). *Facts and fiction in psychology.* Penguin.

Eysenck, H. J., & Eysenck, S. B. G. (1964). *Manual of the Eysenck Personality Inventory*. Educational and Testing Service.

Gan, Z. (2008). Extroversion and group oral performance: A mixed quantitative and discourse analysis approach. *The Hong Kong Institute of Education, 23*(3), 24-42.

Ghanizadeh, A., & Moafian, F. (2011). The relationship between Iranian EFL teachers' sense of self-efficacy and their pedagogical success is language institutes. *The Asian EFL Journal, 13*(2), 249-272.

Ghassemi-Fam, M., & Nosratinia, M. (2022). Experienced and novice EFL teachers' adversity quotient and their self-efficacy: Inspecting the predictive capacities. *Journal of Language and Translation, 12*(1), 171-182. http://dx.doi.org/10.30495/ttlt.2022.689094.

Grandy, J. (2009). Psychometric properties and analysis of the AQ Profile online version 9.1. Retrieved on September 12, 2021, from http://www.peaklearning.com.

Hamill, S. K. (2003). Resilience and self-efficacy: The importance of efficacy beliefs and coping mechanism in resilience adolescents. *Colgate University Journal of the Science, 35*, 115-146.

Hema, G., & Gupta, S. (2015). Adversity quotient for prospective higher education. *The International Journal of Indian Psychology, 2(3)*, 49-64.

Huijuan, Z. (2009). AQ and academic performance among college students at St. Joseph College, Department of Psychology, Quezon City. Unpublished doctoral dissertation retrieved on February 15, 2021 from: http://www.peaklearning.com/documents/PEAK_GRI_huijuan.pdf.

Jerusalem, M., & Schwarzer, R. (1992). Self-efficacy as a resource factor in stress appraisal processes. In R. Schwarzer (Ed.), *Self-efficacy: Thought control of action* (pp. 195–213). Hemisphere Publishing Corp.

Jung, C. G. (1989). *Memories, dreams, reflections*. Random House.

Kahnweiler, J. (2009). *The introverted leader: Building on your quiet strength*. Berrett-Koehler.

Kumaravadivelu, B. (1994). The post-method condition: (E)merging strategies for second/foreign language teaching. *TESOL Quarterly, 28*(1), 27-48. http://dx.doi.org/10.2307/3587197.

Lane, J., Lane, A. M., & Kyprianou, A. (2004). Self-efficacy, self-esteem, and their impact on academic performance. *Social Behavior and Personality: An International Journal, 32*(3), 247-256. http://dx.doi.org/10.2224/sbp.2004.32.3.247.

Larson-Hall, J. (2010). *A guide to doing statistics in second language research using SPSS*. Routledge.

Marashi, H., & Dakhili, M. (2015). Self-efficacy and anxiety among EFL learners with different kinds of multiple intelligences. *Theory and Practice in Language Studies, 5*(12), 2636-2645. https://dx.doi.10.17507/tpls.0512.28.

Marashi, H., & Fotoohi, M. (2017). The relationship between extrovert and introvert EFL teachers' adversity quotient and professional development. *Journal of Applied Linguistics and Language Research, 4*(3), 156-170. https://www.jallr.com/index.php/JALLR/article/view/577/pdf577.

Marashi, H., & Amin-Ranjbar, A. (2018). Creativity vis-à-vis speaking among extrovert and introvert EFL learners. *Indonesian EFL Journal, 4*(1), 11-22. https://dx.doi.10.25134/ieflj.v4i1.794.

Marashi, H., & Azizi-Nassab, F. (2018). EFL teachers' language proficiency, classroom management, and self-efficacy. *International Journal of Foreign Language Teaching and Research, 6*(22), 89-102. https://sanad.iau.ir/Journal/jfl/Article/990723.

Marashi, H., & Rashidian, S. (2018). EFL teachers' adversity quotient, personal growth initiative, and pedagogical success. *Journal of Teaching Language Skills, 37*(3), 93-139. https://dx.doi.10.22099/jtls.2019.32783.2661.

Marashi, H., & Assgar, F. (2019). EFL teachers' effective classroom management and learners' anxiety and learning strategies. *Iranian Journal of Language Teaching Research, 7*(2), 65-82. https://dx.doi.10.30466/ijltr.2019.120698.

Marashi, H., & Naddim, R. (2019). Using information and opinion gap tasks to improve extrovert and introvert learners' speaking. *Applied Research on English Language, 8*(2), 187-206. https://dx.doi.10.22108/are.2019.113273.1371.

Marashi, H., & Naghibi, Z. (2020). Adversity quotient and classroom management among Iranian EFL teachers: An analysis of personality styles. *Journal of Modern Research in English Language Studies, 7*(4), 1-23. https://dx.doi.10.30479/jmrels.2020.11880.1473.

Mwivanda, M., & Kingi, P. M. (2019). Teachers' adversity quotient dimension of control and students' academic performance in secondary schools in Kenya: *Journal of Education and Training, 6*(1), 83-94. http://dx.doi.org/10.5296/jet.v6i1.14373.

Napora, W. (2021). De ego-resiliency, self-efficacy, and life orientation predict self-esteem of top world magicians? An international study. *Psychological Thought, 14*(1), 195-210. https://dx.doi.org/10.37708/psyct.v14i1.578.

Pallant, J. (2007). *Survival manual: A step by step guide to data analysis using SPSS for Windows.* Allen & Unwin.

Parvathy, U., & Praseeda, M. (2014). Relationship between adversity quotient and academic problems among student teachers. *IOSR Journal of Humanities and Science, 19*(11), 23-26. http://dx.doi.org/10.9790/0837-191172326.

Phoolka, S., & Kaur, N. (2012). Adversity quotient: A new paradigm to explore. *International Journal of Contemporary Business Studies, 3*(4), 67-79.

Prakash, S., Singh, A., & Yadav, K. S. (2016). Personality (introvert and extrovert) and professional commitment effect among B. Ed teacher educator students. *The International Journal of Indian Psychology, 3*(2), 43-49.

Razmjoo, S. A., & Ayoobiyan, H. (2019). On the relationship between teacher resilience and self-efficacy: The case of Iranian EFL teachers. *Journal of English Language Teaching and Learning, 11(23),* 278-282.

Rhodewalt, F. (2008). *Personality and social behavior.* Taylor and Francis.

Richards, J. C., & Lockhart, C. (1994). *Reflective teaching in second language classroom.* Cambridge University Press.

Santos, M. C. J. (2013). Assessing the effectiveness of the adapted adversity quotient program in a special education school. *Journal of Arts, Science, and Commerce, 3*(4), 13-24.

Schunk, D. H., & Pajares, F. (2009). Self-efficacy theory. In K. R. Wentzel & A. Wigfield (Eds.), *Handbook of motivation at school* (pp. 35-53). Routledge.

Silverman, L. (2012). *Introversion and giftedness.* Gifted Development Center.

Skaalvik, E. M., & Skaalvik, S. (2007). Dimensions of teacher self-efficacy and relations with strain factors, perceived collective teacher efficacy, and teacher burnout. *Journal of Educational Psychology, 99*, 611-625.

Soleimani, H., Jafarigohar, M., & Ramezi, A. (2013). Extroversion/introversion and test performance of Iranian EFL students on multiple choice and true/false reading comprehension test. *International Journal of English and Education, 2*(2), 211-224.

Soltaninezhad, M., & Ghaemi, F. (2018). The mediator role of learning strategies in the relationship between academic self-efficacy and test anxiety. *Iranian Journal of Learning and Memory, 1*(2), 7-13.

Stenhouse, C. R. (2013). Safe enough in here? Patients' expectations and experiences of feeding safe in an acute psychiatric inpatient ward. *Journal of Clinical Nursing, 21*(22), 3109-3119. http://dx.doi.org/10.1111/jocn.12111.

Stephanou, G., Gkavras, G., & Doulkeridou, M. (2013), The role of teachers' self-and collective-efficacy

beliefs on their job satisfaction and experienced emotions in school. *Psychology, 4*, 268-278. http://dx.doi.org/10.4236/psych.2013.43A040.

Stoltz, P. G. (1997). *Adversity quotient: Turning obstacles into opportunities.* Wiley.

Stoltz, P. G. (2000). *Adversity quotient at work.* Harper Business.

Stoltz, P. G., & Weihenmayer, E. (2008). *The adversity advantage: Turning everyday struggles into everyday greatness.* Simon & Schuster.

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

Tschannen-Moran, M., Woolfolk Hoy, A., & Hoy, W. K. (1998). Teacher efficacy: Its meaning and measure. *Review of Educational Research, 68*(2), 202-248. http://dx.doi.org/10.3102/00346543068002202.

Tschannen-Moran, M., & Woolfolk Hoy, A. (2001). Teacher efficacy: Capturing an elusive construct. *Teaching and Teacher Education*, *17*(7), 783-805. http://dx.doi.org/ 10.1016/S0742-051X(01)00036-1.

Velicer, W., & Stevenson, J. (1993). The relationship between item format and the structure of the Eysenck Personality Inventory. *Applied Psychological Measurement*, *12*(2), 293-304.

Vogus, J. T., & Sutcliffe, M. K., (2007). Organizational resilience: Toward a theory and agenda. *Conference: Proceedings of the IEEE International Conference on Systems, Man and Cybernetics*. http://dx.doi.org/10.1109/ICSMC.2007.4414160.

Wolters, C. A., & Pintrich, P. R. (1998). Contextual differences in student motivation and self-regulated learning in mathematics, English, and social studies classroom. *Instructional Science, 26*, 27-47. http://dx.doi.org/10.1023/A:1003035929216.

Zafar, S., & Meenakshi, K. (2012). A study of the relationship between extroversion-introversion and risk-taking in the context of second Language acquisition. *International Journal of Research Studies in Language Learning, 1*(1), 33-40. http://dx.doi.org/10.5861/ijrsll.2012.v1i1.42.