The Relationship between Extrovert and Introvert EFL Teachers’ Adversity Quotient and Professional Development

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Abstract
Understanding more about teacher variables has been a major trend of research in the field of ELT over the past decades. Accordingly, the aim of this descriptive study was to explore any possibly significant relationship between introvert and extrovert EFL teachers’ adversity quotient and professional development. In doing so, 120 EFL teachers (60 introverts and 60 extroverts) who were graduate TEFL students aged from 20 to 50 were selected to participate in this study. First, the extrovert and introvert participants were identified using the Eysenck Personality Inventory (EPI); subsequently, the Adversity Quotient Profile (AQP) and the Teaching and Learning International Survey (TALIS) Teacher Questionnaire were administered to the 120 participants. The data analysis which included linear correlation and regression demonstrated that both introvert and extrovert EFL teachers’ adversity quotient and professional development have a significant relationship.

Keywords: teacher variables, extroversion/introversion, adversity quotient, professional development

INTRODUCTION

The field of ELT has witnessed many innovations in the last 60 years or so, one of which is the postmethod. In the postmethod approach, “the teacher is no longer the sage on the stage, but the guide on the side…. the facilitator of the students’ quest to learn” (Akhtar Siddiqui, 2002, p. 13). In fact, the teacher is considered as a researcher (Stenhouse, as cited in Russell, 2013), or as a reflective practitioner (Richards & Lockhart, 1994; Schon, 1987). Accordingly, since the teacher is not just giving instructions anymore, teaching is not considered as a uni-dimensional profession and by merely serving a solid program of instruction, teachers cannot reach effective professional development or PD; rather, there should be a shift away from instruction towards collaboration between the teacher/facilitator and participants and among participants themselves to enhance teachers’ PD (Garet, Porter, Desimone, Birman, & Yoon, 2001; Guskey, 2000, 2003).

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The concept of PD is not a recent development and different scholars have described it in different ways. Joyce, McNair, Diaz, and McKibbin (1976), for example, term it as formal and informal provisions for the improvement of educators as professionals. Gall and Renchler (1985) defined PD as all the endeavors to enhance teachers’ capacity to function as effective professionals. In the words of Fullan (1995), PD is the “sum total of formal and informal learning pursued and experienced by the teacher in a compelling learning environment” (p. 265). Yet, Day (1999) has offered perhaps the most inclusive definition of all, stating that PD “consists of all natural experiences and those conscious and planned activities which are intended to be of direct or indirect benefit to the individual, group, or school” (p. 27).

In order to achieve PD, an ongoing, intended, and systemic process is needed (Loucks-Horsley, Love, Stiles, Mundry, & Hewson, 2003). Recent literature reveals a growing interest in PD initiatives designed to address the PD needs of EFL teachers and a variety of studies have been undertaken in this regard to explore the complexities of effective PD for EFL teachers (e.g. Berliner, 2005; Cando & Villacastin, 2014; Desimone, 2011; Fatemi, Ganjali, & Kafi, 2016; Hochberg & Desimone, 2010).

Different scholars have suggested different terminologies for the concept of PD: Feiman-Nemser (2001) named it professional growth while Warren-Little (1999) called it educational change. There were others such as Joyce and Showers (2002) who took a more unorthodox approach and defined PD within the problem-solving paradigm. Despite assigning different names to it, most scholars agree that PD has a process-based nature (e.g. Day, Elliot, & Kingston, 2005; Fullan, 2001; Futrell, 2005).

According to Broad and Evans (2006), there has been increasing attention to the essential role of deliberate and constant PD in supporting EFL teachers to be responsive to changing complex classroom demands. There are many classroom demands and challenges that a teacher might face; nevertheless, how to react to these challenges can be different from one teacher to another since teachers might have different degrees of adversity quotient (AQ).

AQ, proposed by Stoltz in 1997, is an emerging conceptual framework for understanding and enhancing all facets of success, and it is considered as the science of human resilience. Stoltz defines AQ as the ability of an individual to face and overcome adversities, problems, or difficulties and also change them into an opportunity for greater achievement. There have of course been different definitions proposed for the construct. Phoolka and Kaur (2012), for instance, assert that AQ can predict resilience and persistence of a person and can be used to enhance the effectiveness of teams, classes, communities, and societies. Shen (2014) argues that AQ can be used to understand how employees adapt to work pressure and fulfill their potentials, aggressively face pressure, and meet the expectations. Matore, Khairani, and Razak (2015) have gone further to trichotomize the definition of AQ accordingly: “First, the conceptual framework to increase all the facets of success; second, the measure of how one responds to adversity; and last, a network of scientific tools based on knowledge to improve one's response towards adversity” (p. 70).
Generally, those with high AQ successfully surpass life’s everyday challenges whether big or small (Cura & Gozum, as cited in Matore et al., 2015). In a sense, AQ predicts how well one withstands adversity and overcomes it and indeed foresees “who will be crushed, who will exceed and fall short of their potential expectations, and who will gives up and prevails” (Canivel, 2010, p. 18).

There are different categorizations for AQ, but the one which seems more internationally appreciated is CORE. Stoltz (1997) proposed these four dimensions for AQ which are: Control, Origin and Ownership, Reach, and Endurance. To begin with, control is the extent to which one thinks s/he is able to positively influence the situation. In other words, it is one’s ability to alter or control an adverse event. Control asks the question of how much one influences an adversity. He also defines origin and ownership as measuring the extent to which individuals hold themselves accountable for improving a situation. It proposes the two questions of who the origin of the adversity was, and how much one owns the outcome of the adversity. Moreover, Stoltz explains that reach is the perception of how far-reaching events would be and it asks how far the adversity would reach into other areas of one’s life. Last but not least, Stoltz describes endurance which is the perception of time over which good or bad events and their consequences would last or endure. It answers the question of how long the adversity lasts.

People with a higher AQ perform optimally while facing adversity. “Actually, they not only learn from these challenges but also respond to them healthier and more rapidly” (Hema & Gupta, 2015, p. 51). Thence, utilizing one’s AQ can help them achieve success in life (Bekhet, 2015; Ibn Ahmad, 2013). In Stoltz’s words (1997), one’s “success is determined by the AQ survival and their ability to overcome difficulties” (p. 8).

According to Stoltz (as cited in Bekhet, 2015), AQ is rooted in three major realms of science: cognitive psychology, psychoneuro-immunology, and neurophysiology. However, Le Thi (2007) considers that AQ borrows heavily from the cognitive branch of personality psychology.

Alongside AQ which shows how a teacher reacts to classroom challenges, one’s personality type can play a role when responding to adversities too. Despite the fact that there are several diverse taxonomies of human personality types, the most comprehensive – though not the most recent – is extroversion and introversion. Studies of the extroversion and introversion dimension of personality factors were initially introduced by Carl Jung in 1933 (Ahmadian & Yadegari, 2011). “Even though extroversion and introversion have been always thought of as being bipolar, in reality, they occur along a continuum which shows one’s degree of outgoingness, and people who fall at the extremes have clear preferences” (Ahmadian & Yadegari, p. 3).

Eysenck and Eysenck (1985) characterize a typical extrovert as a person who tends to be sociable, needs people to talk to, craves excitements, takes chances, and tends to be easy-going and optimistic. Extroverts are “good at interpreting body language and facial expressions, they talk more and tend to take actions with less reflection” (Eysenck,
1965, p. 59). These people are “good at short-term tasks and prefer a quicker, less accurate approach” (Taylor, 1998, p. 10). The extrovert’s activities are directed towards the external world; they like parties, have many friends, need excitement in everything they do, and tend to be gregarious (Zafar & Meenakshi, 2011).

Eysenck and Chan (1982) believe that extroverts are motivated from the outside. When they are feeling bad, low in energy, or stressed, they are likely to look outside themselves for relief. They appear relaxed, confident, and motivated. Extroversion includes such related qualities as assertiveness, warmth, and activity (Senechal, 2011).

By contrast, a typical introvert is quiet, retiring, reserved, plans ahead, and dislikes surprises (Eysenck & Eysenck, 1985). Taylor (as cited in Zafar & Meenakshi, 2011) believes that introverts “talk less and reflect more before acting, like to work independently or with one or two people, may have problems in establishing relationships with others, and are better at long-term tasks” (p. 12). The activities of the introvert are directed inward oneself. Introverts prefer reading rather than talking to others or meeting people, have few, yet close, friends, and usually avoid excitement (Eysenck & Chan, 1982).

Helgoe (2008) emphasizes that introverts get more excited by ideas than by external activities; they hold the ability to step back, be calm, and get perspective. She also notes that they might have many people around them, but they choose their own path and that solitude is the source of power for introverts since they prefer to spend their time alone as an alternative to spending it with companions. Correspondingly, Thompson (2012) believes that introverts have positive attributes; they are good at listening, planning, long-term concentration on tasks, taking time to reflect, and finally acting independently. In line with Thompson's positive attributions, Silverman (2012) mentions that introverts try to be perfect in schools, keep all negative feelings inside, and then take them home and express them to the person they trust – usually their mothers.

In line with what has been discussed so far, the present research was conducted to study the relationship between introvert and extrovert EFL teachers’ AQ and PD. Accordingly, the following null hypotheses were raised:

H₀₁: There is no significant relationship between extrovert EFL teachers’ adversity quotient and professional development.

H₀₂: There is no significant relationship between introvert EFL teachers’ adversity quotient and professional development.

H₀₃: Extrovert EFL teachers’ adversity quotient significantly predicts their professional development.

H₀₄: Introvert EFL teachers’ adversity quotient significantly predicts their professional development.
METHOD

Participants

Through convenient non-random sampling, 60 extrovert and 60 introvert EFL teachers were selected to participate in the study. These 120 were selected through their scoring on the Eysenck Personality Inventory. They were all graduate students of TEFL, Islamic Azad University at Central Tehran and were aged 20-50, both male and female, who had passed at least one TEFL course. Also, all participants enjoyed at least three years of teaching experience.

Instrumentation

Eysenck Personality Inventory (EPI)

The EPI was designed by Eysenck and Eysenck (1975), and then revised by Eysenck, Eysenck, and Barrett (1985). It has 48 items of yes/no type which assess three different qualities of an individual’s personality. The E score reveals how extrovert one is while the N score measures one’s neuroticism. The Lie score assesses the extent to which one tries to seem socially desirable. Accordingly, 24 items are correspondent to extroversion, 15 to neuroticism, and nine to the Lie score.

Each item carries one point. Velicer and Stevenson (1993) validated the EPI. They reported reliabilities of 0.88 and 0.84 for males and females, respectively, for the extroversion section of the EPI. This section of the EPI achieved alpha coefficients of 0.78, 0.83, 0.85, and 0.87 in the four groups of their study (685 undergraduate students). The time allocated to this questionnaire is 15 minutes.

Adversity Quotient Profile (AQP)

The AQP version 9.1 is a questionnaire developed by Stoltz (2000) to measure individuals’ response to adversity. It measures four dimensions of AQ, namely, control, ownership, reach, and endurance. The questionnaire contains 20 questions with a five-point scale and the AQ score varies from 20 to 100. A high AQ score shows an individual is more effective in response to adversity conditions. Grandy (2009) validated the AQP in terms of convergent or internal validity and discriminant or external validity. Also, the four subscales of AQ demonstrate excellent discriminant validity with scale intercorrelations ranging from 0.28 to 0.72. He also reported the Cronbach Alpha of 0.82 for control, 0.83 for ownership, 0.84 for reach, 0.80 for endurance, and 0.91 for AQ. The time allocated to answer the whole questionnaire is 10 minutes.

Teaching and Learning International Survey (TALIS) Teacher Questionnaire

The TALIS teacher questionnaire was designed in 2013 by the International Association for the Evaluation of Educational Achievement (IEA) in the Netherlands for the Organization for Economic Cooperation and Development (OECD) in Paris. Initially, the TALIS was administered in the Netherlands, Germany, and Canada for an OECD survey. In the course of time, however, this number grew to 23. The TALIS consisting of 43
questions and five different sections offers the opportunity for teachers and principals to provide input into education analysis and policy development.

The first section of the TALIS is *Background Information* with six questions that elicit personal data about the participants, e.g. their age, time spent teaching, and education. The second section of this questionnaire is PD which regards those activities that develop an individual’s skills, knowledge, expertise, and other characteristics as a teacher. This section contains five questions and 28 Likert-scale sub-questions. The next sections are *Teacher Appraisal and Feedback* with eight questions, *Teaching Practices, Beliefs and Attitudes* with four questions, and *Teaching in Schools* with 13 questions.

The score range of this questionnaire is from 34 to 118. This teacher questionnaire was validated by OECD (2010) through a study conducted in 12 countries with 4000 schools and more than 70 thousand teachers and principals. The reported reliabilities (Cronbach’s Alpha) in each country are as follows: Australia 0.92, Belgium 0.94, Brazil 0.86, Denmark 0.94, Hungary 0.81, Italy 0.77, Korea 0.94, Lithuania 0.82, Malaysia 0.89, Mexico 0.88, Spain 0.87, and Turkey 0.90. The TALIS takes 15 minutes to answer.

**Procedure**

The researchers asked the instructors at Islamic Azad University at Central Tehran to spare the 45 minutes of one session of their classes. They then explained to the students that they were conducting a study and asked those who had over three years of teaching experience to participate in the study by filling the questionnaires should they want to only.

The researchers further explained that they were going to distribute three questionnaires in class. All participants were encouraged to fill in the questionnaires without asking any questions from the researchers or anybody else. They would also let them know that if they wanted to be informed about their personality type, meaning extroversion or introversion, they could tick the box next to their email address.

The above preliminary explanation took approximately three minutes after which the EPI questionnaire was distributed among the participants. In the presence of the researchers, all of those willing to participate, answered the questions in the next 15 minutes. After that, the EPI was gathered and the TALIS was distributed again allowing the participants 15 minutes to respond. Next, the TALIS questionnaires were gathered and the AQ profile was distributed among the participants. After 10 minutes, these questionnaires were gathered.

Of course, to eliminate the possible sequence effect, the three questionnaires were distributed in no particular order from one class to another. Although they were distributed similarly within each class.

Once the researchers had 60 extrovert and 60 introvert EFL teachers who had filled the AQ and TALIS questionnaires, they engaged in the data analysis.
RESULTS

Descriptive Statistics

AQ

Once the 60 extrovert and 60 introvert teachers were selected (as described in detail earlier), the researchers administered the AQ profile. The descriptive statistics of this administration appear below in Table 1.

Table 1. Descriptive Statistics of the Scores of the Participants on the AQ Profile

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Skewness Statistic</th>
<th>Std. error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introverts AQ</td>
<td>60</td>
<td>62</td>
<td>97</td>
<td>80.88</td>
<td>7.720</td>
<td>-.227</td>
<td>.309</td>
</tr>
<tr>
<td>Extroverts AQ</td>
<td>60</td>
<td>68</td>
<td>98</td>
<td>85.52</td>
<td>6.594</td>
<td>-0.515</td>
<td>.309</td>
</tr>
<tr>
<td>Valid (listwise)</td>
<td>60</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As is seen in the above table, the mean and the standard deviation of the scores of the introvert teachers stood at 80.88 and 7.720, respectively, while those of the extroverts were 85.52 and 6.594, respectively. Furthermore, the scores represented normalcy with the skewness ratio falling within ±1.96 (-0.227 / 0.309 = -0.735 and -0.515 / 0.309 = -1.667). In addition, the reliability of the scores in this administration was 0.89.

TALIS

Next, the 60 extrovert and 60 introvert teachers sat for the TALIS. The descriptive statistics of this administration appear below in Table 2.

Table 2. Descriptive Statistics of the Scores of the Participants on the TALIS

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Skewness Statistic</th>
<th>Std. error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introverts PD</td>
<td>60</td>
<td>72</td>
<td>113</td>
<td>91.70</td>
<td>9.845</td>
<td>.465</td>
<td>.309</td>
</tr>
<tr>
<td>Extroverts PD</td>
<td>60</td>
<td>74</td>
<td>114</td>
<td>96.65</td>
<td>9.299</td>
<td>.179</td>
<td>.309</td>
</tr>
<tr>
<td>Valid (listwise)</td>
<td>60</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As is seen in the above table, the mean and the standard deviation of the scores of the introvert teachers stood at 91.70 and 9.845, respectively, while those of the extroverts were 96.65 and 9.299, respectively. Furthermore, the scores represented normalcy with the skewness ratio falling within ±1.96 (0.465 / 0.309 = 1.505 and 0.179 / 0.309 = 0.579). The reliability of the scores of the participants in this administration was 0.90.

Testing the Null Hypotheses

First Null Hypothesis

To verify the first hypothesis, i.e. whether a significant relationship existed between extroverts teachers’ AQ and PD, the Pearson Correlation Coefficient had to be run. Prior
to this of course, the assumptions for running this parametric test, i.e. linearity, normality, and homoscedasticity of the two distributions of scores were checked.

**Table 3.** Correlation of the Extrovert Participants’ Scores on the AQ and TALIS

<table>
<thead>
<tr>
<th>Extroverts’ AQ</th>
<th>Extroverts’ PD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>1</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.</td>
</tr>
<tr>
<td>N</td>
<td>60</td>
</tr>
</tbody>
</table>

**Table 4.** Correlation of the Introvert Participants’ Scores on the AQ Profile and TALIS

<table>
<thead>
<tr>
<th>Introverts’ AQ</th>
<th>Introverts’ PD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>1</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.</td>
</tr>
<tr>
<td>N</td>
<td>60</td>
</tr>
</tbody>
</table>

As demonstrated by Table 3 above, the correlation came out to be significant at the 0.01 level (r = 0.893, p = 0.0001 < 0.05). Furthermore, R² (or common variance) which is the effect size for correlation came out to be 0.798. This is a strong effect size (Larson-Hall, 2010). As a result, the researchers were able to reject the first null hypothesis. In other words, there is a significant relationship between extrovert teachers’ AQ and PD.

**Second Null Hypothesis**

To test the second hypothesis, i.e. whether a significant relationship existed between introverts teachers’ AQ and PD, again the Pearson Correlation Coefficient had to be run. Again the prerequisites were checked first.

As demonstrated by Table 4 above, the correlation came out to be significant at the 0.01 level (r = 0.949, p = 0.0001 < 0.05). Furthermore, R² (or common variance) which is the effect size for correlation came out to be 0.901. This too is a strong effect size (Larson-Hall, 2010). As a result, the researchers were able to reject the second null hypothesis. In other words, there is a significant relationship between introvert teachers’ AQ and PD.
Third Null Hypothesis

To verify the third hypothesis, i.e. whether extrovert teachers’ AQ was a significant predictor of their PD or not, a linear regression was run. Table 5 below represents R and R square for this regression analysis.

Table 5. Model summary – R and R Square

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R square</th>
<th>Adjusted R square</th>
<th>Std. error of the estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.893a</td>
<td>.797</td>
<td>.794</td>
<td>4.223</td>
</tr>
</tbody>
</table>

a. Predictors: (constant), Extroverts’ AQ  
b. Dependent variable: PD

As reported in Table 5, the R came out to be 0.893 and R square 0.797. Table 6 reports the results of the ANOVA ($F_{1,58} = 228.002, p = 0.0001 < 0.05$) which proved significant.

Table 6. Regression Output: ANOVA Table

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of squares</th>
<th>df</th>
<th>Mean square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>4067.056</td>
<td>1</td>
<td>4067.056</td>
<td>228.002</td>
<td>.000b</td>
</tr>
<tr>
<td>Residual</td>
<td>1034.594</td>
<td>58</td>
<td>17.838</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>5101.650</td>
<td>59</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (constant), Extroverts’ AQ  
b. Dependent variable: PD

Table 7 demonstrates the standardized beta coefficient ($B = 0.893, t = 15.100, p = 0.0001 < 0.05$) which reveals that the model was significant meaning that extrovert teachers’ AQ could predict significantly their PD.

Table 7. Regression Output: Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Beta</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>-11.033</td>
<td>7.152</td>
<td>-1.543</td>
<td>.128</td>
</tr>
<tr>
<td>Extroverts’ AQ</td>
<td>1.259</td>
<td>.083</td>
<td>.893</td>
<td>15.100</td>
</tr>
</tbody>
</table>

a. Dependent variable: Extroverts’ PD

Although normality of the distributions was checked for correlation in the previous sections, the residuals table (as demonstrated in Table 8 below) also verified the absence of outstanding outliers as the Cook’s distance values did not exceed 1 and Mahalanobis distance values did not exceed 15.
Hence, the third null hypothesis of the study was also rejected. In other words, extrovert teachers’ AQ could predict significantly their PD.

**Fourth Null Hypothesis**

To verify the fourth hypothesis, i.e. whether introvert teachers’ AQ was a significant predictor of their PD or not, a linear regression was run (Table 9).

Table 8. Regression Output: Residuals Statistics

<table>
<thead>
<tr>
<th></th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Predicted Value</td>
<td>5.0978</td>
<td>7.5172</td>
<td>6.1927</td>
<td>.41371</td>
<td>60</td>
</tr>
<tr>
<td>Std. Predicted Value</td>
<td>-2.646</td>
<td>3.202</td>
<td>.000</td>
<td>1.000</td>
<td>60</td>
</tr>
<tr>
<td>Standard Error of Predicted Value</td>
<td>.100</td>
<td>.337</td>
<td>.135</td>
<td>.044</td>
<td>60</td>
</tr>
<tr>
<td>Adjusted Predicted Value</td>
<td>4.9794</td>
<td>7.4890</td>
<td>6.1938</td>
<td>.41557</td>
<td>60</td>
</tr>
<tr>
<td>Residual</td>
<td>-3.37662</td>
<td>3.22706</td>
<td>.00000</td>
<td>1.43011</td>
<td>60</td>
</tr>
<tr>
<td>Std. Residual</td>
<td>-2.355</td>
<td>2.251</td>
<td>.000</td>
<td>.998</td>
<td>60</td>
</tr>
<tr>
<td>Stud. Residual</td>
<td>-2.362</td>
<td>2.257</td>
<td>.000</td>
<td>1.003</td>
<td>60</td>
</tr>
<tr>
<td>Deleted Residual</td>
<td>-3.39648</td>
<td>3.24348</td>
<td>-.00112</td>
<td>1.44712</td>
<td>60</td>
</tr>
<tr>
<td>Stud. Deleted Residual</td>
<td>-2.389</td>
<td>2.280</td>
<td>.000</td>
<td>1.007</td>
<td>60</td>
</tr>
<tr>
<td>Mahalanobis Distance</td>
<td>.001</td>
<td>10.250</td>
<td>.995</td>
<td>1.570</td>
<td>60</td>
</tr>
<tr>
<td>Cook’s Distance</td>
<td>.000</td>
<td>.099</td>
<td>.006</td>
<td>.013</td>
<td>60</td>
</tr>
<tr>
<td>Centered Leverage Value</td>
<td>.000</td>
<td>.050</td>
<td>.005</td>
<td>.008</td>
<td>60</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Extroverts’ PD

As reported in Table 9, the R came out to be 0.949 and R square 0.901. Table 10 reports the results of the ANOVA ($F_{1,58} = 529.100$, $p = 0.0001 < 0.05$) which proved significant.

Table 9. Model summary – R and R Square

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R square</th>
<th>Adjusted R square</th>
<th>Std. error of the estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.949a</td>
<td>.901</td>
<td>.900</td>
<td>3.121</td>
</tr>
</tbody>
</table>

c. Predictors: (constant), Introverts’ AQ
d. Dependent variable: PD

Table 11 demonstrates the standardized beta coefficient ($B = 0.949$, $t = 23.002$, $p = 0.0001 < 0.05$) which reveals that the model was significant meaning that extrovert teachers’ AQ could predict significantly their PD.
Table 10. Regression Output: Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>-6.222</td>
<td>4.276</td>
<td>-1.455</td>
<td>.151</td>
</tr>
<tr>
<td>Introverts' AQ</td>
<td>1.211</td>
<td>.053</td>
<td>.949</td>
<td>23.002</td>
</tr>
</tbody>
</table>

Dependent variable: Introverts' PD

Although normality of the distributions were checked for correlation in the previous sections, the residuals table (as demonstrated in Table 11 below) also verified the absence of outstanding outliers as the Cook’s distance values did not exceed 1 and Mahalanobis distance values did not exceed 15.

Table 11. Regression Output: Residuals Statistics

<table>
<thead>
<tr>
<th></th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Predicted Value</td>
<td>68.84</td>
<td>111.21</td>
<td>91.70</td>
<td>9.346</td>
<td>60</td>
</tr>
<tr>
<td>Std. Predicted Value</td>
<td>-2.446</td>
<td>2.088</td>
<td>.000</td>
<td>1.000</td>
<td>60</td>
</tr>
<tr>
<td>Standard Error of</td>
<td>.403</td>
<td>1.072</td>
<td>.547</td>
<td>.161</td>
<td>60</td>
</tr>
<tr>
<td>Predicted Value</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjusted Predicted</td>
<td>68.15</td>
<td>111.03</td>
<td>91.67</td>
<td>9.362</td>
<td>60</td>
</tr>
<tr>
<td>Residual</td>
<td>-5.052</td>
<td>9.263</td>
<td>.000</td>
<td>3.094</td>
<td>60</td>
</tr>
<tr>
<td>Std. Residual</td>
<td>-1.619</td>
<td>2.968</td>
<td>.000</td>
<td>.991</td>
<td>60</td>
</tr>
<tr>
<td>Stud. Residual</td>
<td>-1.633</td>
<td>3.030</td>
<td>.005</td>
<td>1.011</td>
<td>60</td>
</tr>
<tr>
<td>Deleted Residual</td>
<td>-5.139</td>
<td>9.652</td>
<td>.034</td>
<td>3.219</td>
<td>60</td>
</tr>
<tr>
<td>Stud. Deleted Residual</td>
<td>-1.657</td>
<td>3.274</td>
<td>.012</td>
<td>1.033</td>
<td>60</td>
</tr>
<tr>
<td>Mahalanobis Distance</td>
<td>.000</td>
<td>5.983</td>
<td>.983</td>
<td>1.302</td>
<td>60</td>
</tr>
<tr>
<td>Cook’s Distance</td>
<td>.000</td>
<td>.208</td>
<td>.020</td>
<td>.041</td>
<td>60</td>
</tr>
<tr>
<td>Centered Leverage</td>
<td>.000</td>
<td>.101</td>
<td>.017</td>
<td>.022</td>
<td>60</td>
</tr>
<tr>
<td>a. Dependent Variable</td>
<td>Introverts' PD</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Hence, the fourth null hypothesis of the study was also rejected. In other words, introvert teachers’ AQ could predict significantly their PD.

DISCUSSION

In line with the results of the present study, there have been some studies by different scholars signifying associations between AQ and job performance. Huijuan (2009), for example, found that AQ has a significant relationship with academic performance. Also, Cando and Villacastin (2014) demonstrated a significant relationship between EFL teachers’ AQ and their teaching performance.

Moreover, Jalili and Mall-Amiri (2015) observed that extrovert EFL teachers are better than introvert EFL teachers at managing adult EFL classes. Another study by Hajimohammadi (2011) discovered that EFL teachers’ extroversion has a positive relationship with their self-correction as compared to introverts. Yet, in this study, both introverts and extroverts had a positive correlation between their AQ and PD.

As the researchers expected, both groups showed a positive correlation between their AQ and PD. One possible reason for this might be that while a teacher deals with the
problems in the classroom, that person is gradually gaining professional experiences. Therefore, as time goes by, the more challenging those problems are, the more experiences the teacher gains and, hence, the more PD is gained.

The researchers also assume that while extrovert EFL teachers and introvert EFL teachers have different approaches in their classroom, they both learn from their experience and grow to become better teachers with higher levels of AQ and PD.

CONCLUSION

Teachers are the most essential and the most influential features of a pedagogical environment. Their success translates into better learning of learners. Should teachers intend to increase their PD and thence their output, they can easily access the AQ growth techniques online or in any other form of written literature. Of course, they can always return to their peers for a more localized and professionalized experience in order to overcome classroom difficulties. Consequently, teachers would benefit from a higher level of PD.

If the educational system benefits from more successful and elevated teachers, the whole system would enjoy better outcomes whilst a weaker group of inexperienced teachers could easily become a reason for the educational system to collapse. In order to have more experienced and successful teachers, educational systems can come up with strategies to increase their teachers’ AQ level. For instance, they can send teachers to decision-making classes or have those with higher AQS lecture the others, enabling them to deal with the classroom problems better, faster, and in a more efficient way.

The following recommendations for future research are based upon the results of this study:

1. Replicating this research among different cultural groups seems critical in order to be able to generalize the findings.

2. A gender comparison based on the performance of female and male EFL teachers on the two constructs may provide further detailed information about the issue at stake.

3. It might be useful to seek the relationship between EFL teachers’ PD and other factors in order to find other predictors of their PD.

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