The Interplay of Perfectionism and Attention Span among Iranian EFL Majors

Malihe Afhami
R. Sahragard
(Faculty Member Of Literature & Humanities, Shiraz University, Iran)

Abstract

The present research aimed at identifying any possible relationship between perfectionism (positive and negative) and attention span among EFL students from both state and private universities (Payam Noor University, Azad University, and Shiraz University) of Shiraz, Fars province. Seventy EFL students (male and female) were selected non-randomly. Terry-Short, Owens, Slade, and Dewey’s (1995) Positive and Negative Perfectionism Scale (PANP) and Brown and Ryan’s (2003) Mindful Attention Awareness Scale (MAAS) were used as research instruments for collecting the necessary data. Data were analyzed using correlation coefficient, regression analysis and independent-samples t-test. The Results indicated that there were significant relationships between negative perfectionism and attention span while there is a non-significant relationship between positive perfectionism and attention span of EFL learners. Regression analysis showed that negative perfectionism could predict attention span significantly among learners. Finally, no differences were found between male and female participants in terms of positive/negative perfectionism and a very small difference was found regarding their attention span.

Keywords: Attention span, Perfectionism, Positive perfectionism, Negative perfectionism.
1. Introduction

Two issues are dealt with here, namely perfectionism and attention span, to come up with the gap in literature. Studies on perfectionism have a long history in both clinical research and personality psychology (Hewitt & Flett, 1991). Perfectionism is a complex psychological phenomena. A major characteristic of perfectionism is to set very high standards, which is not pathological, to the extent that people have the ability to control their standards in line with the restraining factors like time, energy, and resources. Holding high standards may grant people with a sense of goal directedness and purpose. However, no general agreement exists about the definition and measurement of this important construct. Early psychological theorists and researchers defined perfectionism as a unidimensional, maladaptive, unhealthy, and pathological construct (Berns, 1980; Ellis, 1962; Hollender, 1965; Horney, 1950; Missilidine, 1963; Patch, 1984). Though, most contemporary researchers describe it as a multidimensional phenomenon (Frost, Heimberg, Holt, Mattia, & Neunauer, 1993; Frost, Marten, Lahart & Rosenblate, 1990; Hewitt & Flett, 1991; Rice & Slaney, 2002; Slaney, Rice, Mobley, Trippi, & Ashby, 2001).

The length of time that a person can focus on something before getting bored or overloaded with information is called attention span. Most educators and psychologists agree that the ability to focus one’s attention on a task is essential for the success and achievement of one’s goals (Dukette & Cornish, 2009). That amount of time varies from person to person and depends on the kind of activity. According to Ruff and Lawson, people are probable to have a longer attention span while doing an active, hands-on task than listening passively to a presentation (1990).

Moreover, people are more likely to pay longer attention while being entertained than being taught. Christakis et al. (2004) declared that even great teachers get distracted between the two activities done at the same time. Copywriters, reporters, authors, and filmmakers make use of most media devices to capture one’s attention. Estimations for the length of human attention span are extremely inconsistent and depend on the exact definition of attention being used (Wilson et al, 1971).

1.1. Statement of the problem

The effect of these personality factors, perfectionism and attention span, on learning has been overlooked in EFL majors. These fascinating aspects of human beings are what make people distinct from each other. Although it has been widely studied in psychology, it has received the slightest or no attention in the field of English language teaching and learning. This study, therefore, aims to explore these psychological constructs in the area of language learning.

The intricacies around the concept of perfectionism and attention span, the insufficiency of the attention paid to these important personality factors in learning, and the probable interplay between perfectionism and attention span can be encouraging issues for the researchers. Due to the lack of research studies examining the construct of perfectionism in the field of EFL/ESL learning, the present study was an attempt to address this perceived gap.
2. Literature review

This section presents a review of the literature relevant to attention span and perfectionism. As a result, the most prominent studies conducted on these issues are reported.

2.1. Attention span

Our attention span is the length of time a person can concentrate on something before getting bored or overloaded with information. That amount of time varies from person to person and depends on the type of activity. Different people are likely to have a longer attention span while doing an active, hands-on project than listening passively to a presentation (Ruff & Lawson, 1990).

We are also more likely to pay attention and concentrate longer while being entertained than being taught. Christakis et al (2004) stated that great presenters and teachers successfully get distracted between the two activities done at the same time. Copywriters, reporters, and filmmakers design most forms of media to keep one’s attention – to essentially take over one’s concentration. Electronic media such as computer games, internet sites, video and audio programs, etc. limit our minds very well. Most educators and psychologists agree that the ability to focus one’s attention on a task is fundamental for the achievement of one’s goals.

Estimates for the length of human attention span are highly variable and depend on the precise definition of attention being used (Wilson et al, 1971).

Dukette and Cornish (2009) talked about the attention span for focused attention and sustained attention and stated that focused attention is a short-term response to a stimulus that attracts attention. The attention span for this level is very brief, with a maximum span, without any lapse at all, that may be as short as 8 seconds. This level of attention is attracted by a ringing telephone, or other unexpected occurrences. After a few seconds, it was likely that the person will look away, return to a previous task, or think about something else.

Sustained attention was the level of attention that produces the consistent results on a task over time. If the task was handling fragile objects, such as hand-washing delicate crystal glasses, then a person showing sustained attention would stay on task and would not break any dishes, but a person who loses focus may break a glass or may stop washing the dishes to do something else. Most healthy teenagers and adults were unable to sustain attention on one thing for more than about 20 minutes at a time although they could choose repeatedly to re-focus on the same thing. This ability to renew attention permitted people to “pay attention” to things that last for more than a few minutes, such as long movies.

Ruff and Lawson (1990) argued that attention span, as measured by sustained attention, or the time spent continuously on task, varies with age. Older children were capable of longer periods of attention than younger children.

For time-on-task measurements, Dukette and Cornish (2009) suggested that the type of activity used in the test affects the results, as people are generally capable of a longer attention span when they were doing something that they find enjoyable or intrinsically motivating. Attention is also increased if the person was able to perform the task fluently, compared to a person who had difficulty performing the task, or to the same person when he or she was just learning the task.
According to them, fatigue, hunger, noise, and emotional stress reduced time on task. Common estimates for sustained attention to a freely chosen task range from about five minutes for a two-year-old child, to a maximum of around 20 minutes in older children and adults. They added, after losing attention from a topic, a person may restore it by taking a rest, doing a different kind of activity, changing mental focus, or deliberately choosing to refocus on the first topic (Dukette & Cornish, 2009).

To measure the attention span many different tests had been used in different populations and in different times but their validity and reliability were always questioned. Lindsey et.al (2004) argued that some tests measure short-term, focused attention abilities (which is typically normal in people with attention deficit hyperactive disorder), and others provided information about how easily distracted the test-taker is (typically a significant problem in people with attention deficit hyperactivity disorder). Tests like the DeGangi’s Test of Attention in Infants (TAI) and Wechsler Intelligence Scale for Children-III (WISCIII) were commonly used to test issues related to the attention system in young children when interviews and self-reported questionnaires are not adequate.

These tests were typically criticized as not actually measuring attention, or as being inappropriate for some populations, or as not providing useful information. Variability in test scores could be produced by small changes in the testing environment. For example, test-takers will usually remain on task for longer periods of time if the examiner was obviously present in the room than if the examiner was absent (Lindsey et.al, 2004). In their fascinating article on the benefits of being present: mindfulness and its role in psychological well-being, Brown and Ryan (2003) argued that attention was the process of focusing conscious awareness, providing insightful sensitivity to a limited range of experience. In fact, awareness and attention were intertwined such that attention continually pulls ‘figures’ out of the ‘ground’ of awareness, holding them focally for varying lengths of time. Therefore, they developed a measure for testing this attention or mindfulness in human beings called Mindful Attention Awareness Scale (MAAS). Many studies then showed that the MAAS measure was a unique quality of consciousness that was related to a variety of well-being constructs, that differentiates mindful individuals from others, and that was associated with attention span (Aellig et al, 2009; VanDam et al 2009).

Mol (2006) specifically talked about the attention span in individuals with different age ranges and said that the average attention span of a person is 2-5 minutes times their age so a 5-year-old would have an average attention span of 10-25 minutes. Elementary education often helped to extend or develop attention span in children. A common myth, quoted by many teachers, was that a person’s attention span was 10 + person’s age minutes, and that anything taught after that was not taken in, but by taking a 5-10 minute broke after this time would help the class recover and replenished their attention span, but there was no evidence that this was actually successful.

2.2. Perfectionism
Although Hamachek (1978) put forward two types of perfectionism—“normal” versus “neurotic”—at the end of the 1970’s, the dominant view of the 1980’s was that perfectionism was always
neurotic, dysfunctional, and indicative of psychopathology (e.g., Burns, 1980; Patcht, 1984). It means that scholars treated it as a unidimensional character. But his influential explanation of perfectionism passionately laid the base for the current debate with regard to the definition of this personality trait by proposing that perfectionism is not a unitary concept and supporting its multidimensionality.

The definition of perfectionism has been a controversial issue. There are also different instruments to measure this construct. Over the past two decades researchers have supported multidimensional view of perfectionism (e.g., Dunkley et al., 2006; Frost, et al., 1990; Hewitt & Flett, 1991; Slaney, et al., 2001). Furthermore, some of them restated that this construct is much more difficult and complex than initially perceived (Bell et al., 2010; Haring, Hewitt, & Flett, 2003; Zhang & Chai, 2012). A multidimensional perspective takes into consideration both intrapersonal and interpersonal aspects (Frost, et al., 1990; Hewitt & Flett, 1991). In fact, this new viewpoint has included adaptive dimensions of the construct.

Researchers can investigate different components of the construct. They can boost their comprehension of how these components may relate to many social and psychological factors through this new perspective. The next three multidimensional measures have influenced the development of a richer understanding of the construct: Frost Multidimensional Perfectionism Scale (MPS-F) by Frost et al. (1990), Hewitt and Flett Multidimensional Perfectionism Scale (MPS-HF) by Hewitt and Flett (1991), Almost Perfect Scale-Revised (APS-R) by Slaney et al. (2001).

Perfectionism has originated from psychopathology. So it can be related to many negative psychological effects (Flett, Hewitt, & Dyck, 1989; Ranieri et al., 1987; Rosen, Murkofsky, Steckler, & Skolnick, 1989; Stoeber & Otto, 2006; Thompson, Berg, & Shatford, 1987). Regarding perfectionism, different studies showed that this construct is related to low contentment with life (Stoeber et al., 2008), embarrassment and defeat (Wyatt and Gilbert 1998), low apparent social support (Sherry et al., 2013), lack of trust, low level of competency, and low physical health and high negative affect and self-criticism (Dunkley et al., 2003; McGrath et al., 2012), evaluative concerns and poor self-esteem (Flett, Hewitt, & De Rosa, 1996), paranoia (Blankstein & Dunkley, 2002). Moreover, perfectionistic concerns have strong relationship with disorders such as depression, social phobias, eating disorders, and obsessive-compulsive disorder (e.g., Halmi et al., 2005, Shafran & Mansell, 2001; Sherry et al., 2013).

Furthermore, perfectionistic strivings (i.e. self-oriented perfectionism, Personal Standards, and Organization) are associated with positive characteristics (Stoeber & Otto, 2006). Particularly, increasing evidence suggests its relations with high self-esteem and self-confidence, high conscientiousness, agreeableness, positive effect, satisfaction with life, self-actualization, social adjustment, resourcefulness and self-efficacy, motivation, academic adaptation, higher achievement, positive contentment of personal tasks, humane social attitudes (individuals care more about other people), perceived more social support (Blankstein & Dunkley, 2002; Dunkley et al., 2000; Dunkley et al., 2012; Molnar et al., 2006., Stoeber et al., 2008; Stoeber & Kersling, 2007; Stoeber & Otto, 2006).
There are a few studies in the literature which point out the relationship between perfectionism and language learning. Gregerson and Horwitz (2002) addressed the aforementioned relationship in a study. They assessed the relationship between perfectionism and language learning with a focus on language anxiety. The researchers recorded comments of anxious and non-anxious language learners as the students watched themselves interact in an oral interview. According to their results, the reactions of the students to their oral performance indicated that anxious and non-anxious foreign language learners differ in terms of their reports of perfectionist tendencies. Anxious learners reported high standards for their English performance, tendency toward procrastination, great worry over the opinions of others, and high level of concern over their errors. Consequently, students who are found more anxious tended to be more perfectionists.

In a study conducted by Pishghadam and Akhondpoor (2011), a sample of 300 junior and senior students of English in Mashhad universities filled out Ahwaz Perfectionism Scale (2000) and Spielberger’s State/Trait Anxiety Inventory (1983). Students’ grades of four skills (reading, speaking, listening, and writing) and GPA were collected through the questionnaires. Findings showed that there was a negative significant relationship between skills of reading, speaking, listening, GPA, and perfectionism in addition to a positive significant relationship between learner perfectionism and learner anxiety. The study also used t-test analysis. By separating successful and unsuccessful students concerning their scores of the four skills and GPA, perfectionism level of successful and unsuccessful groups were contrasted. The result of the t-test confirmed the results of the correlational analysis except for GPA. On the whole, the results of this study showed how perfectionistic trends in language learners were correlated with low academic achievement and poor performance in language skills.

In another study which was performed by GhorbanDordinejad and Farjad Nasab (2013), the researchers inspected the association of perfectionism and English language achievement among high school third graders in Chenaran, a city in Iran, mediated by foreign language classroom anxiety. In this project, 239 students (110 males and 129 females) took part for evaluating their levels of perfectionism and foreign language classroom anxiety by means of the Almost Perfect Scale-Revised and Foreign Language Classroom Anxiety Scale. Participants’ grades on their final English test were utilized to assess their English achievement. The results did not show strong correlations between perfectionism and participants’ English achievement ($F = .515$, $p > .05$); though, their mean English score was lower for maladaptive perfectionists. Moreover, foreign language classroom anxiety was significantly and negatively correlated with English achievement ($r = -.357$, $p < .01$). The findings of analysis disclosed a significant positive relationship between perfectionism and foreign language anxiety, and maladaptive perfectionists were more anxious than adaptive and non-perfectionists. The results did not maintain the hypothesis about foreign language anxiety as a mediator of the correlation between perfectionism and English achievement.

2.3. Objective of study
The objective of the present study is the probable association of perfectionism and attention span of Iranian EFL students. Also whether Iranian EFL majors’ attention span can be predicted by
their positive and negative perfectionist behavior or not. The study also looks at male and female participants’ performance on perfectionism and attention span.

2.4. Research questions
In order to keep up with the objectives, the following research questions are formulated:
1. Is there any relationship between perfectionism as a psychological trait (both positive and negative) and Iranian EFL majors’ attention span?
2. Can Iranian EFL majors’ attention span be predicted by their positive and negative perfectionistic behavior?
3. Are there any statistically significant differences between male and female participants in terms of their perfectionism and attention span?

2.5. Significance of the study
This study was important and novel as it represented the first scholarly attempt concurrently to discover the relationship between perfectionism and attention span which are two important psychological constructs. In addition the policy makers, language-planners, curriculum designers, and especially the learners and teachers can benefit from the findings of this study. For the teachers it can raise their awareness of perfectionist individuals, and their attention span. It also informs them about the benefits of perfectionism, and this helps the teachers to deal with perfectionistic students and make use of these advantages to improve their learning. the findings of this study can also let the teachers be more sensitive to their students’ attention span and make the best use of their attention .This study will also have benefits for the students as it may make them aware of such personality traits and also let them recognize their areas of weaknesses and strengths by guiding them in reconstructing their personality. So that they feel more responsible for their personal learning. As a matter of fact, when teaching methods of the instructors and the students’ learning styles do not match each other, learners will become exhausted soon and will be less attentive. Furthermore, they will be disappointed with themselves, the course, and the curriculum (Felder & Henriques, 1995).

3. Method
In this section, participants, instruments, and data collection and analysis procedures are presented.

3.1. Participants
Participants for this study were 70 [35 (50%) female and 35 (50%) male] undergraduate and graduate students majoring in English literature, and TEFL. The respondents’ average age was 23.32 years with the minimum age being 18 years and the maximum age being 40 years. Due to a host of limitations, particularly time restrictions, convenience or subjective, they were selected non-randomly from both state and private universities in Shiraz, Iran (Payam Noor University, Azad University, and Shiraz University).
3.3. Instruments

In addition to a demographic section in the questionnaire, two questionnaires were utilized in the process of collecting data for the present study.

3.3.1. Mindful Attention Awareness Scale
Data on the attention span of the EFL majors was collected through a self-reported attention span questionnaire named Mindful Attention Awareness Scale (MAAS) developed by Brown and Ryan (2003). This attention span measure included 15 items rated on a six-point Likert-type scale ranging from 1 (strongly agree) to 5 (strongly disagree). Those with low scores are likely to have a great deal of trouble in keeping their attention on a task and completion of the task. People who have short attention spans tend to skip from one project to another one and are known to be quite disorganized, but it is the reverse in those with high scores on MAAS. Higher scores reflect higher levels of attention span.

Convergent and divergent validity of the test were determined by Brown and Ryan (2003). Cronbach’s alpha for a sample of students was .82 and for an adult sample was .87. Test-retest reliability data over a 1-month time period suggest mindfulness-based attention, as indexed by the MAAS, is stable (i.e. no significant differences in MAAS scores between time 1 and time 2; Brown & Ryan, 2003).

A validation procedure must be added in order that the results of a questionnaire could be reliably compared when used in different cultures. The scale adaptation methodology used for this study was that of the translation-back translation procedure. The final version was prepared which was based on the comparison made of the two translations. It was similar to the original MAAS both linguistically and conceptually. The internal consistency of the scale, evaluated with Cronbach’s alpha statistics is 0.782. In the item by item analysis of the alpha value, the scale behaves homogeneously and irrelevant items that may harm the alpha of the MAAS did not appear. Using the split-halves Reliability coefficient with the Spearman-Brown correction, a value of 0.86 was obtained.

3.3.2. Positive and Negative Perfectionism Scale (PANP)
The PANPS is a 40-item self-report inventory designed by Terry-Short et al. (1995) to evaluate the levels of Positive and Negative Perfectionism. Responses are made on a five-point Likert Scale ranging from 1 (‘strongly disagree’) to 5 (‘strongly agree’). Scores for positive perfectionism (items 2, 3, 6, 9, 14, 16, 18, 19, 21, 23, 24, 25, 28, 29, 30, 32, 34, 35, 37, and 40) and negative perfectionism (items 1, 4, 5, 7, 8, 10, 11, 12, 13, 15, 17, 20, 22, 26, 27, 31, 33, 36, 38, and 39), each with 20 questions, can range from 20 to 100. Scores are summed separately for positive and negative perfectionism, with greater values indicating higher levels of perfectionism. The present study used the PANPS because it is a multidimensional scale that differentiates between two types of perfectionism and gives an equal emphasis to both positive and negative perfectionism.

It is believed that a validation procedure must be done in order that the results of a questionnaire could be reliably compared when used in different cultures. The scale adaptation methodology used was that of the translation-back translation procedure. The same procedure
which was used for the MAAS scale was used for PANP, too. The final version was similar to the original PANP both linguistically and conceptually. This study’s internal consistency of the scale, evaluated with Cronbach’s alpha statistics was 0.817 for Positive Perfectionism and .671 for Negative Perfectionism.

3.4. Data collection procedures
The study took place in the second term of 2015-2016 academic year. In order to answer the research questions of the study and collect the necessary data, two questionnaires (PANP and MAAS) were administered. With the initial permission of the relevant English departments, the questionnaires, along with demographic information sheet were distributed in sessions of give-and-collect during the students’ regular course hour. The objectives of administrating the questionnaires were explained orally for the participants before asking them to complete the questionnaires. They had enough time to go over the questionnaire and answer them, so the items were completed without a strict time limit and answering the items took no more than 25 minutes in total. Each questionnaire was assigned a number to keep the anonymity of the respondents and also to follow-up on non-respondents.

3.5. Data Analysis
To facilitate data entry and data analysis, a code book was developed to specify the question numbers, variable names, and values of the variables. The data of the questionnaires went through several statistical procedures to answer the study’s research questions. The statistical analyses were conducted using Statistical Package for Social Sciences (SPSS). In general, descriptive statistics were used to demonstrate frequencies, percentages, means, and standard deviations. Correlational design was used for determining the relationships of the variables (perfectionism and attention span). Next, regression analysis was run in order to explore the predictive ability of the positive and negative perfectionism of EFL majors’ attention span. Finally, for comparing male and female participants in terms of perfectionism and attention span, another independent-samples t-test was used. The results of the descriptive and inferential statistics are presented in the form of tables and figures in the next section.

4. Result
4.1.1. Statistical Description of the Collected Data
In the output presented below, the information which is requested for each of the variables is summarized. This table provides some information concerning the other continuous variables as follows:

<table>
<thead>
<tr>
<th>Major</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>70</td>
<td>18</td>
<td>40</td>
<td>23.31</td>
<td>4.210</td>
</tr>
<tr>
<td>EFL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total perfectionism</td>
<td>70</td>
<td>84</td>
<td>176</td>
<td>135.44</td>
<td>17.483</td>
</tr>
<tr>
<td>Total attention span</td>
<td>70</td>
<td>19</td>
<td>76</td>
<td>43.89</td>
<td>12.223</td>
</tr>
</tbody>
</table>
Regarding the EFL participants, the mean for negative perfectionism is 60.87, with a standard deviation of 10.423, a minimum score of 26 and a maximum score of 83. Positive perfectionism is shown with the mean 74.57, a standard deviation of 10.774, a minimum score of 34 and a maximum score of 96. The total mindful attention span is indicated by a mean of 43.89 with standard deviation 12.23, a minimum score of 19 and a maximum score of 76. Finally, the total mean of perfectionism is 135.44 with a standard deviation of 17.483, a minimum score of 84 and a maximum score of 176.

4.1.2. Results of Correlational Analysis
The next step is to correlate the variables and their sub-categories together. Pearson correlation was run to discover whether there is any relationship between perfectionism as a personality trait (both positive and negative) and Iranian EFL and Persian literature majors’ attention span.

<table>
<thead>
<tr>
<th>Major</th>
<th>Negative perfectionism</th>
<th>Positive perfectionism</th>
<th>Total perfectionism</th>
<th>Total attention span</th>
</tr>
</thead>
<tbody>
<tr>
<td>EFL</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>Pearson Correlation</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>N</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negative perfectionism</td>
<td>70</td>
<td>.360**</td>
<td>.002</td>
<td>.000</td>
</tr>
<tr>
<td>Positive perfectionism</td>
<td>70</td>
<td>.831**</td>
<td>.000</td>
<td>.023</td>
</tr>
<tr>
<td>Total perfectionism</td>
<td>70</td>
<td>.831**</td>
<td>.000</td>
<td>.023</td>
</tr>
<tr>
<td>Total attention span</td>
<td>70</td>
<td>.928</td>
<td>.023</td>
<td>.272*</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

As shown in Table 4.2., there was a low negative correlation between this two variables (positive perfectionism and attention span) that was, r: -.011, n=70, p<.0005 for the EFL participants. The non-significant obtained relationship is probably due to chance since the significance level is high (Sig. 2-tailed=.928, p<.05). As it is stated, positive perfectionism is
negatively correlated with attention span. This means high scores on positive perfectionism are associated with low scores on attention span.

This procedure was also used for examining the relationship between negative perfectionism and attention span. There was a moderate positive correlation between the two variables (negative perfectionism and attention span) that was statistically significant, r: .467, p<.0005. The obtained relationship is probably not due to chance and more likely reflects a real relationship since the significance level is low (Sig. 2-tailed=.000, p<.05). As shown in Table 4.2, negative perfectionism positively correlated with attention span. So high scores on negative perfectionism are associated with high scores on attention span. A correlation of r: .467, means 21.8 per cent shared variance.

4.1.3. Results of Regression Analysis
A linear regression analysis as a statistical tool was run to find the answer to the second research question, i.e. exploring whether EFL majors’ English attention span can be predicted by their positive and negative perfectionistic behavior. It is used for predicting and finding their causal effect of the two variables.

The outputs generated from this analysis are presented in Tables below:

<table>
<thead>
<tr>
<th>Major</th>
<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>EFL</td>
<td></td>
<td>.505</td>
<td>.255</td>
<td>.233</td>
<td>10.707</td>
</tr>
</tbody>
</table>

Table 4.3, indicates the coefficient of regression demonstrated as R square which displays how much of the variance in the dependent variable (total attention span) is explained by the model (which includes the variables of positive and negative perfectionism). In this case, the value is .255. Expressed as percentage, this means our model explains 25.5 per cent of the variance in attention span.

The assumptions including normality, linearity, homoscedasticity, independence of residuals, and multicolinearity were all checked. It was concluded that the regression model is a significantly good fit and the independent variables (positive and negative perfectionism) have been able to significantly predict the variance in the dependent variable (attention span of EFL learners).
Table 4.4. Coefficients

<table>
<thead>
<tr>
<th>major</th>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>EFL</td>
<td>(Constant)</td>
<td>22.690</td>
<td>10.130</td>
<td>.541</td>
<td>2.240</td>
</tr>
<tr>
<td>Negative perfectionism</td>
<td>.635</td>
<td>.133</td>
<td>.541</td>
<td>4.786</td>
<td>.000</td>
</tr>
<tr>
<td>Positive perfectionism</td>
<td>-.234</td>
<td>.128</td>
<td>-.206</td>
<td>-1.823</td>
<td>.073</td>
</tr>
</tbody>
</table>

The table in the output which is labelled as Coefficients indicates which of the variables included in the model contributed to the prediction of the dependent variable. (See Table 4.4.). In fact the data presented in this table shows whether and to what extent the independent variables have been able to predict the variance in the dependent variable. Scanning the Sig. column tells us whether the variables are making statistically significant unique contribution to the equation. Negative perfectionism is making a statistically significant unique contribution. As it is shown in the Table, the Sig. value for negative perfectionism (independent variables) is .000 which is less than .05. This means that negative perfectionism has been able to predict the variance in attention span of EFL learners and so it can make a unique contribution. Positive perfectionism is not making a statistically significant unique contribution. As it is shown in the Table, the Sig. value for positive perfectionism (independent variables) is .073 which is more than .05. This means that positive perfectionism has not been able to predict the variance in attention span of EFL learners, so it cannot make a unique contribution to the prediction of the dependent variable.

In order to interpret the result and see the weighting of the independent variables (positive and negative perfectionism) that have significantly predicted the variance in the dependent variable (attention span), the Beta values should be considered. Beta indicates the effects that one standard deviation unit change in the independent variable has on the dependent variable. In this case, the largest beta coefficient is .541, which is for negative perfectionism. This means that this variable (negative perfectionism) makes the strongest unique contribution to explaining the dependent variable (attention span), when the variance explained by all the other variables in the model is controlled for. It is good to note that the beta value for positive perfectionism is .128 which is smaller than the beta value of negative perfectionism (.541).

4.1.4. Results of the Independent-Samples T-test

Answering the last research question is possible through using another independent-samples t-test. As the last question of the study deals with comparing males and females participants concerning the two variables (positive/negative perfectionism and attention span), the mentioned statistical technique was used.
Table 4.5. Independent Samples Test

<table>
<thead>
<tr>
<th></th>
<th>Levene's Test for Equality of Variances</th>
<th>t-test for Equality of Means</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>Sig.</td>
</tr>
<tr>
<td>total attention span</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equal variances assumed</td>
<td>.101</td>
<td>.751</td>
</tr>
<tr>
<td>Equal variances not assumed</td>
<td>-2.022</td>
<td>145.327</td>
</tr>
<tr>
<td>negative perfectionism</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equal variances assumed</td>
<td>1.188</td>
<td>.277</td>
</tr>
<tr>
<td>Equal variances not assumed</td>
<td>1.042</td>
<td>153.753</td>
</tr>
<tr>
<td>Positive perfectionism</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equal variances assumed</td>
<td>.243</td>
<td>.623</td>
</tr>
<tr>
<td>Equal variances not assumed</td>
<td>-.217</td>
<td>151.732</td>
</tr>
</tbody>
</table>

Table 4.5 (independent-sample t-test) includes all of the critical pieces of information. The output above provides the reader with the results of Levene’s test for equality of variances. The significance level of Levene’s test for attention span, positive perfectionism, and negative perfectionism are .75, .62, and .27, respectively. As Sig. values for all the three mentioned variables are larger than .05, the first assumption of equal variances is accepted, and the results of the t-test are given based on the fact that the variances are equal.

The t-test which is conducted to compare the attention span scores for males and females displays that there is a significant difference in scores for males and females; t (68): -2.029. This conclusion is obtained through referring to the column labelled Sig. (2-tailed) which is below the required cut-off of .05 (Sig.: .044<.05.). The magnitude of the differences in the means of male and female respondents (mean difference: -3.901, 95% CI: -7.699 to -.104) is very small (eta squared: .03). Eta-squared shows the effect size, which reveals the proportion of total variability in the dependent variable accounted by the variation in the independent variable. In this case, gender accounts for about .03 % of the variability in the dependent variable.

With regard to positive perfectionism scores, the results of t-test shows that there is no significant difference in males and females scores; t (68): -.215, p: .830 (two-tailed) >.05. The magnitude of the differences in the means (mean difference: -.383, 95% CI: -3.906 to 3.140) is very small (eta squared: 0.0002). In this case gender accounts for about 02 % of the variability in the dependent variable (positive perfectionism).
The results of comparing males’ and females’ scores of negative perfectionism also is in line with the previous variables (positive perfectionism). This means that there is no significant difference in males and females scores with regard to negative perfectionism; t (68): 1.025, p=.307 (two-tailed) >.05. The magnitude of the differences in the means of male and female respondents (mean difference: 2.228, 95% CI: -2.068 to 6.525) is very small (eta squared: 0.006). In this case, gender accounts for about .006 % of the variability in the dependent variable (negative perfectionism).

5. Conclusion
The aim of the present study was to investigate the relationship between perfectionism as a personality trait (both positive and negative) and attention span of EFL learners. In addition, determining whether this construct (perfectionism) could be a predictor of EFL learners’ attention span was another significant target of this study. Finally, comparing the gender of participants regarding perfectionism and attention span was also addressed. In the same vein, a set of research questions was constructed to guide the data collection and analyses.

After collecting the data, some statistical procedures were utilized in order to analyze the results of the study. In fact, data analysis was performed in three steps:

The Results indicated that there was a significant relationship between negative perfectionism and attention span while there was a non-significant relationship between positive perfectionism and attention span of EFL learners. The results of multiple regression, when the effect of both variables (positive and negative perfectionism) was examined concurrently, showed that both sides of perfectionism were significant predictors of the attention span of EFL. Finally, no differences were found between male and female participants in terms of positive/negative perfectionism and a very small difference was found regarding their attention span.

6. Suggestions for Further studies
The initial motivation for this study came from the lack of research that has addressed the construct of perfectionism and attention span in the domain of learning. However, this study tried to fill the important gap in the still insufficient body of literature on its topic. With these considerations, the call for more research studies to shed further light on the topic of perfectionism and attention span among EFL learners and other majors should be emphasized.

The topic of the present study can be further explored in different institutes in order to evaluate the attention span and perfectionistic tendencies of learners in different levels. With regard to the perfectionism scale, future studies can use other scales of perfectionism and include more subscales. Attention system has three different main networks: the alerting, orienting, and executive function. Any of these networks may be tested out in participants’ attention system. Researchers can work on the extent of these relationships, and see if they persist across different ages and educational levels. In the review of the related literature, different kinds of attention such as sustained attention, attention fatigue, etc. have been considered in this research study. Those interested can work on each of these and find their significance regarding language learning.
References


