Exploring the Relationships through SEM: How Personality Shapes Reading Willingness and Reading Comprehension

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A B S T R A C T

This study aimed to investigate the interrelationships among willingness to read (WTR), personality types, and reading comprehension. To carry out this survey study, a total of 228 BA English major students were randomly selected through convenience sampling. For the measurement of the study variables, the Willingness to Read questionnaire, personality types inventory, as well as the reading section of the Preliminary English Test were employed. To test the hypothesized model, structural equation modeling was used. After confirming the hypothesized model, the researchers concluded that the proposed model had an acceptable fit with the empirical data. Based on the findings, it was concluded that willingness to read is a significant positive predictor of reading comprehension. Additionally, two direct positive and significant paths leading from the constructs of agreeableness and extroversion to learners' willingness to read were observed. Furthermore, the neuroticism construct was found to be a significant negative predictor of willingness to read. Based on the findings, teachers are advised to play an important role in establishing a supportive communicative environment in classes where reading is encouraged. This can be achieved through the implementation of suitable strategies and methods that take into consideration the learners' differences.

1. Introduction

Individual learner characteristics such as personal attributes, backgrounds, and even beliefs are essential features in acquiring a language. These can impact language learning and may play a significant role in shaping their progress and success (Eddy, 2011; Li & Han, 2024). There are numerous dimensions of learner differences that are confirmed to be effective in the way students learn foreign languages, perform in a real language use situation, and finally achieve different levels of success (Habók & Magyar, 2020; Kormos & Smith, 2023). Dornyei (2005) states that individual differences (IDs)

are the most constant predictors of learning achievement. Among all the factors believed to be in the category of IDs, personality is counted as an organized part of the background "noise" in Second Language Acquisition (Dornyei, 2005) which entails the unique patterns of individuals (Revelle, 2007). Accordingly, in education, personality types have always been an essential area of research for pedagogics and educational psychologists (Godfrey & Koutsouris, 2024).

As for the required skills, reading plays a fundamental role in language teaching and learning generally (Chandra, 2021; Richards & Rodgers, 2014) to the extent that reading is regarded as the basis of all knowledge (Alderson, 2000). In settings where students need to read English materials related to their particular subject, reading skill makes an important contribution. More specifically, reading seems to be an essential skill in the attempt to gain different sources of knowledge at the university level (Knezevic & Halupka, 2015; Pretorius, 2002; Yilmaz, 2012,). Furthermore, reading has a large part in academic success (Lynam, et al., 2024). It is the only readily available source of exposure to the target language (Celce-Murcia & Olshtain, 2000), especially in foreign language teaching where students live in the non-English speaking contexts (Kheirzadeh & Tavakoli, 2012).

Considering the importance of the reading skill as well as personality as a human factor in language teaching and learning, several researchers have made attempts to study the relationships from different perspectives. According to some contemporary studies, there exists a correlation between personality types and reading comprehension ability (Sadeghi, et al., 2011; Safdarian, et al., 2014).

One of the vital factors that is correlated with reading is willingness to read (Anggraeni & Yuliana, 2024). To such an extent that, a learner without this cannot become a reader (Cambria, et al., 2010). According to Fletcher-Campbell, et al. (2009), skilled individual readers can extract meaning from printed text precisely and efficiently. As such, willingness to read (WTR), as a component of the willingness to communicate (WTC) construct, may represent the same psychological preparedness to use the L2 when there is an opportunity (Khajavy, et al., 2016). WTC has been examined by many second/foreign language investigators (e.g. Cao, 2011, 2014; Ghonsooly, et al., 2012; Khajavy, et al., 2016; Peng, 2015; Peng & Woodrow, 2010). Considering personality and WTC research, the literature suggests a significant relationship in a second language (Oz, 2014).

Also, in terms of the psychological context for WTC in English, it is believed that the Big Five personality factors, as the critical predicting elements, have an impact (Buljan & Mlačić, 2024; Oz, et al., 2015). The Big Five factors, including conscientiousness, neuroticism, extroversion, agreeableness, and openness to experience, are among the basic dimensions of personality, the main important ways in which individuals differ in their enduring emotional, interpersonal, experiential, attitudinal, and motivational styles (McCrae & Costa, 1992). In education, personality types have always been an essential area of research for educators and educational psychologists alike (Mustoip, et al., 2024; Nirokar, et al., 2024; Safdarian, et al., 2014). While the important functions of personality traits and willingness to read in reading success are highlighted in the literature, there seems to be a lack of studies to find the personality and willingness to read predictors of reading success.

2. Literature Review

Research has emphasized the significance of individual differences in the context of second language acquisition (Doörnyei, 2005, 2006; Khajavy & Aghaee, 2024; Teng, 2024). Individual differences meaningfully affect human thinking and behaviour, and investigators have, therefore, proved the relationship between the variation in language learning outcomes and various learner characteristics (Hiver, et al., 2024; Dörnyei, 2005, 2006; Oz, 2014; Piniel, 2024) as well as achievements (Ozer & Benet-Martinez, 2006). The following sections entail the description of the study variables, including personality types, willingness to read, and reading comprehension.

2.1 Personality Types

In every field of study associated with human characteristics, personality is instrumental in determining the preference for one modality over another for performing an action (Cachero, et al., 2023; Coenen, et al., 2021; Ehrman & Dornyei, 1998).

The groundwork for the big factors goes back to the research by Allport and Odbert (1936). They gathered descriptions "to distinguish the behavior of one human being from that of another" (p.24) and offered some classifications, one of which was personality traits. Literature demonstrates that personality is linked to learning styles, and learning is often reliant on reading skills. Thus, it is reasonable to assume a relationship between personality and reading comprehension (Efendi, 2021; Gray, 1999; Husain, et al., 2024; Ulin, 2020). Additionally, many learners attribute their failure in reading tests to the difficulty of reading comprehension texts, but some reasons can be traced back to emotional variables, including personality, which is of utmost significance (Chou, 2021; Zaccoletti, et al., 2020).

Other researchers (Tupes & Christal, 1961) reevaluated the data gathered to establish the basis for a five-factor model of personality. The factors identified were agreeableness, emotional stability, dependability, surgency, and culture. Later, other investigators also provided support for the model (Norman, 1963; Smith, 1967; Hakel, 1974). Furthermore, Norman (1963) adapted the factors' names as conscientiousness, extraversion or surgency, culture (openness), emotional steadiness, and agreeableness, which were named the "Normans' Big Five." Other researchers confirmed the validity of the model (Norman & Goldberg, 1966). There are arguments about the terminology and the explanation of factors. Today, many researchers consider that there are five main personality traits.

Thus, the Big Five provides a useful classification of personality that predicts key life outcomes, such as achievement in school and work, physical and mental health, and social behavior (Furnham & Cheng, 2024; Nießen, et al., 2002; Ozer & Benet-Martinez, 2006). There are different variations of the Big Five. Two of these forms were defined and established by Goldberg (1981, 1990) and McCrae and Costa (1992). However, Goldberg's (1981, 1990) role is significant in defining the personality factors that are represented by different personality traits found in natural language. Goldberg's investigation in this area (1992) is of utmost importance due to its comprehensiveness. Goldberg labeled the factors in his model as intellect, agreeableness, emotional stability, surgency (extraversion), and conscientiousness. He also provided inventories (consisting of 50 and 100 items) to assess traits associated with the five factors. Not having reached an agreement on the five factors,

McCrae and Costa (1992) studied the prominent aspects of personality. Later, their research focused on examining the personality dimensions that were not clearly described. They named the five factors in their model as: Agreeableness, Extraversion, Openness to experience, Conscientiousness, and Neuroticism. The significant measurement of these five factors is the renamed NEO inventory by McCrae and Costa (1992), which evaluates different personality factors and traits. Since the 1990s, there has been a growing interest in understanding how personality impacts academic success, and a consensus has been reached in their definitions. The descriptions of the five factors are consistent with other scholars as follows:

Conscientiousness describes individuals as being "strong-willed, determined, reliable, competent, disciplined, organized, and responsible" (McCrae & Costa, 1996). Individuals with high scores in this aspect are reliable and accountable, while individuals with low scores are undependable and messy (Robbins, et al., 2009). Conscientious individuals may have a need for achievement (Thomas & Segal, 2006; Meyer, et al., 2024; Sparfeldt & Schwabe, 2024).

Extraversion defines people who are "outgoing, sociable, bold, energetic, assertive, active, and adventurous" (McCrae & Costa, 1996). An extrovert seeks excitement to experience positive feelings. Extraverts' sociability is a result of their sensitivity to reward (Chia & Tan, 2024). This implies that extraverts find social situations satisfying. Consequently, "they engage in more social behavior as a means of satisfying their reward need" (Thomas & Segal, 2006, p. 52).

Agreeable individuals are "flexible, cooperative, sympathetic, helpful, courteous, modest, and compliant" (McCrae & Costa, 1996). Those with a high level of agreeableness are perceived as helpful, trusting, and sincere, while those with low scores in this category are unpleasant and unfriendly (Parks, 2024; Robbins et al., 2009). Agreeable individuals may not always say yes and agree to everything (Bahri, et al., 2020)

Neurotic people are emotionally stable and can handle stress, while also not being impulsive (McCrae & Costa, 1996; Nilsen, et al., 2024). Characteristics associated with positive emotional stability include self-confidence and calmness, whereas being depressed, anxious, and worried are associated with a high negative score (Dong, et al., 2024; Karamitrou, et al., 2024; Robbins et al., 2009).

Openness to experience describes a person who is "aesthetic, imaginative, curious, sensitive, and eccentric" (McCrae & Costa, 1996). This category of personality focuses on an individual's range of interests. Accordingly, based on these descriptions, it is believed that all traits and features can be categorized under openness to experience (Shaver, 2024).

2.2 Willingness to Read

In the present study, Willingness to Read is a construct of WTC (Khajavy, et al., 2016). According to McIntyre and his colleagues WTR is readiness to read a text given the choice and opportunity (Khajavy, et al., 2016). Despite all the commonalities such as the 'readiness to start a behavior', WTR and WTC can be different in that one is productive while the other is receptive. Thus, the sources of willingness for communication which may mean speaking can be different from that of reading (Khajavy & Ghonsooly, 2017).

Though WTR is believed to be influential in the learning process as a substantial part of our learning is dependent on our reading (Borsipour Golkhatmi, et al., 2020), there is not much research on it. Among few studies done in the area, Khajavy and Ghonsooli (2017) focusing on possible selves and self-confidence highlight that "L2 learning experience, ideal L2 self, and communication confidence positively and significantly predicted WTR, and L2 learning experience was the strongest predictor of WTR" (p.1). While WTR can be a construct of WTC, a pyramid construct of L2 WTC comprises both characteristic and situational aspects (MacIntyre, et al., 1998; MacIntyre & Legatto, 2010). These aspects incorporate different psychological, contextual, and linguistic variables. Consequently, as a personality attribute there might exist some correspondence between personality types as traits and this construct.

2.3 Reading Comprehension

Reading is considered as one of the most essential academic skills (Devi & Suroto, 2024). In spite of the prominence of reading, it is a problematic area for many students. And this seems true even if the learners have an extensive linguistic knowledge; consequently, it might be suggested that there are some other factors involved in the process of reading comprehension (Bagheri & Faghih, 2012). Reading comprehension as an unrestricted foundation of information has been one of the significant elements in second/foreign language tests. It also contributes to both educational and professional life of many learners (Alfassi, 2004; AlKialbi, 2015; Zhang, 2008). This skill is described as the practice of constructing meaning by using a variety of intricate procedures that include language, word understanding, word familiarity, and fluency (Allen & McNamara, 2020; Cain, et al., 2004; Fang, 2023; Nuzzaci, et al., 2020).

Second language (L2) reading is a multifaceted intricate process in that it engages the interaction of a wide range of elements (Kushki & Nassaji, 2024; Lane & Kennedy, 2024). As a result, though most of the reviews on L2 reading investigation start with an effort to answer the question 'what is reading', almost all of them continue to state that it is such a multifaceted notion that no description of reading, which is obviously stated, empirically supported and hypothetically unquestionable, has been presented (e.g. Aebersold, & Field, 1997; Alderson, 2000; Bernhardt, 1991; Grabe & Stoller, 2002).

Grabe (2009) asserts that a correct description of reading will require to explain what fluent readers do when they read, what processes are employed by them, and how these procedures work together to make a general concept of reading. By considering that no single statement could confine the difficulty of reading, Grabe (2009) notes that, reading could be conjured as a multifaceted arrangement of procedures – procedures that are speedy, professional, interactive, tactical, flexible, evaluative, decisive, comprehending, learning, and linguistic (p. 14). Reading researchers carry out different studies to clarify how the reader and the text elements interrelate and how this interaction leads in reading comprehension to pave the way for the conceptualization of numerous reading models, each focusing on different features of reading (Ferris & Hedgcock, 2023; Minaabad & Khoshkholgh, 2012).

A student with skill may be proficient, but lacking the willingness, cannot become a reader (Cambria, et al., 2010). It is her/his will influence that governs whether she reads extensively and

regularly and grows into a student who appreciates and benefits literacy. Therefore, motivation is considered as the other half of reading (Cambria et al, 2010; Mason, et al., 2023; Talwar, et al., 2023; van der Sande, et al., 2023).

There is currently a growing concentration on the active role of readers in the reading process. It is the reader who employs the knowledge to comprehend texts. One important aspect that a reader brings to the text is reading strategies. According to Duffy (1993), such strategies help readers deal with challenges when trying to derive meaning from texts. Readers use such strategies to enhance their comprehension and address any difficulties they might face (Vahdat et al., 2016). Moreover, reading comprehension is defined as the capacity to decide how and where to utilize reading resources efficiently in order to achieve the reading goal in a given comprehension situation (Wagner & Sternberg, 1987; Knoll, 2000). This highlights the significance of individual differences as well as the personality traits of the readers.

2.4 The Proposed Model of the Study

Reading comprehension is a fundamental factor in language skill and has a basic significance in academic places (Yilmaz, 2012). Considering personality as another important factor in learning a language, it seems that the relationship between these two has been untouched in this context.

However, much of the research on WTC is focused on speaking (Ghonsooly, et al., 2012; Khajavy et al. 2016; Oz, et al., 2015; Peng & Woodrow, 2010). Still, WTC is not limited merely to speaking, and it comprises other skills as well, including reading (MacIntyre, et al. 1998; MacIntyre, 2007; Khajavy et al, 2016). It is conceivable that a student may be willing to speak in English, but not to read in English (Khajavy et al, 2016). While most of the research has focused on WTC (e.g. Baghaei, 2013, Ghoonsoly, Khajavy & Asadpour, 2012), few studies have examined the relationship of WTR with personality types and reading comprehension.

To propose the hypothesized model for the present study, a careful review of the literature was done. According to Byrne (2010), model specification is based on the knowledge of the theory, empirical research or both of them. Thus, for the present study, the justification for this model's specification is mostly based on the previous studies on WTR and personality type. A review of the recent studies demonstrates that personality types and reading comprehension are correlated with each other (Husain, et al., 2024; Sadeghi et al, 2011; Safdarian et al, 2014; Samosir, et al., 2023). Also, a relationship between some dominants of the personality types and willingness to read is reported (Cardenas Canto, et al., 2023; Khajavy, et al., 2016).

This study involves seven latent variables, each consisting of observed variables. It was assumed that five types of personality and the level of WTR predict the learners' reading scores. The following figure (Figure 1) demonstrates the proposed model of the present study.
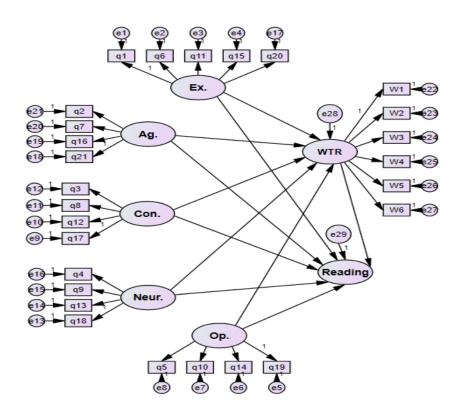
Figure 1 The proposed model of the study

Note: Ex. =Extroversion, Ag. =Agreeableness, Con. =Conscientiousness, Neur. =Neuroticism, Op=Openness to Experience, and WTR= Willingness to read.

3. Methodology

The current study was a cross-sectional survey. It is the most general type of survey design that is applied in education (Creswell, 2012). To test the proposed model, structural equation modelling (SEM) was run. SEM as a robust statistical procedure combines factor analysis and regression. A key benefit of SEM over multiple regression is incorporating the latent variables. Thus, each latent variable is characterized by multiple observed variables (Khajavy et al., 2016).

3.1 Participants and Setting

The target population for the present study included BA TEFL majoring students in Iran. purposeful convenience procedure was employed to collect data. The 228 samples included both females and males from different universities. The age range of the participants was between 18 and 25. However, it needs to be mentioned that 350 questionnaires and reading tests were distributed among the students and 228 questionnaires and tests were returned by the participants (122 questionnaires were not returned) which means that based on the return rate formula calculation the return rate was 65.14% for this study.

3.2 Instrumentation

To measure the students' willingness to read, Khajav et al (2016) WTR questionnaire was adapted. It is a six-item questionnaire comprising of 6-point Likert scale that ranged from 1 (never) to six (always). The internal reliability of this instrument is reported as 0.86. The validity of the WTR questionnaire was reported by Khajavy et al. (2016).

To determine the students' personality type, Khormaee's 2014 inventory was used. It includes 21 items concerning the five domains of the personality encompassing extraversion, agreeableness, openness, neuroticism, and conscientiousness. Every domain is assessed through four items, except for the extraversion that is assessed by five items. The reported internal consistencies of these subscales were as follows based on Khormaee (2014): extraversion (=.80), agreeableness (= .79), openness (= .87), consciousness (= .72), and neuroticism (= .88). Each item was based on the participants' views on a five- point Likert scale including disagree, slightly disagree, neutral, slightly agree and agree. The validity of the five-factor personality type questionnaire was reported by Khormaee (2014).

To assess the students' reading comprehension ability, the reading section of the standard PET was used. This test includes 35 items each of which carries one mark. It has five sections; the first section includes five items which are multiple choice and the second part has five items and there are letters from A to H which have to be matched with the numbers of items. The third part has 10 items based on the true/false format. The last part includes five items which are multiple choice. This test measured the level and knowledge of the students in reading.

4. Data Analysis

In order to investigate the structural relationships, the proposed model as illustrated in Figure 1, was assessed through Amos 24. A number of fit indices were analyzed to conclude the adequacy of the model fit. To do so the chi-square must not be significant and also the ratio of chi-square to degree of freedom should be below 2 or 3. Moreover, the Normed Fit Index (NFI), Goodness of Fit Index (GFI), as well as Comparative Fit Index (CFI) should all exceed a threshold of .90. Furthermore, the Root Mean Square Error of Approximation (RMSEA) must preferably be around .06 or .07 as stated by Schreiber et al. (2006).

Some modifications were made to the model as some measurement models had no data adequacy. Accordingly, two non-significant paths were removed. Error terms of two agreeableness items (2 and 7) were correlated because each pair of these items referred to the same content. The Goodness of fit indices before and after modification can be seen in Table 1.

As is demonstrated in Table 1, the chi-square value (1450.11), the chi-square/df ratio (3.03), GFI (.90), CFI (.90), and RMSEA (.08), lie within the acceptable fit thresholds. Therefore, it can be concluded that the suggested model aligned well with the empirical data.

Table 1

Goodness of Fit Indices

	X2	df	X2/df	GFI	CFI	RMSEA
Acceptable fit			<3	>.90	>.90	<.08
Model	1450.11	478	3.03	.89	.88	.08
Revised model	1380.15	462	2.98	.92	.90	.07

Figure 2 is a demonstration of the strength of the causal relationships between the variables. The relationships are found based on the standardized estimates (beta coefficients (β)) as obtained through the analysis of standardized independent variables. The magnitude of the coefficients reveals the association between independent variables and the dependent variable. This shows the predictive power of the independent variable. Also, it shows the effect size. It needs to be mentioned that a higher magnitude of the standardized estimate confirms a stronger correlation and predictive power. The schematic representation that follows (Figure 2) highlights the relationships among personality type, willingness to read, and reading comprehension scores.
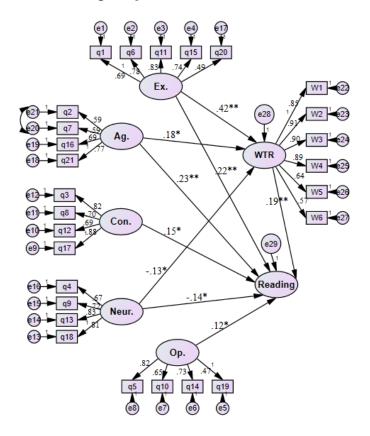

Figure 2 The representation of the relationships among variables

Note: Ex. =Extroversion, Ag. =Agreeableness, Con. =Conscientiousness, Neur. =Neuroticism, Op=Openness to Experience, and WTR= Willingness to read.

To answer the first research question concerning the possible relationship between willingness to read and reading comprehension scores, SEM was conducted. As indicated in Figure 2, willingness to read is a positive significant predictor of their reading comprehension scores (β= .19, p<0.01). In addition, Pearson correlation analysis indicate that there is a moderate positive significant relationship between learners' willingness to read and their reading comprehension scores. Table 2 summarizes the results of correlational analysis.

Table 2

Correlation between students' WTR and reading comprehension scores

		Reading
WTR	Pearson Correlation	.35**
	Sig. (2-tailed)	.00
	N	228

**Correlation is significant at the level of 0.01

As Table 2 depicts, there is a moderate positive significant relationship between learners' willingness to read and their reading comprehension scores (r=.35, p<.01).

To answer the second research question concerning the possible relationship between willingness to read and personality type, the results of SEM revealed two direct positive and significant paths leading from agreeableness (β= .18, p<0.01) and extroversion (β= .42, p<0.01) to learners' willingness to read. Besides, neuroticism was a significant negative predictor of willingness to read (β= -.13, p<0.05). However, no significant path was found between openness (β= .12, p=.211), conciseness (β= .15, p=.137) and willingness to read (β= .19, p<0.05). The non-significant paths (from openness and conciseness to WTR) were deleted.

Additionally, Pearson correlation analysis indicated that WTR correlated positively and moderately with two sub-factors of personality types. Table 3 presents the statistical results.

Table 3

Correlation between students' willingness to read and personality type

	1	2	3	4	5	6
1. Extroversion	1.00					
2. Agreeableness	.35**	1.00				
3. Conscientiousness	.15*	.15*	1.00			

	1	2	3	4	5	6
4. Neuroticism	-.32**	-.25**	-.10	1.00		
5. Openness to Experience	.34**	.29**	.30**	-.20**	1.00	
6. WTR	.49**	.26**	.09	-.22**	.10	1.00

**Correlation is significant at the level of 0.01
*Correlation is significant at the level of 0.05

As Table 3 illustrates, among the five sub-factors of personality types, Extroversion has the highest correlation (r=.49, p<.01). In addition, there is a weak positive and significant relationship between Agreeableness and WTR (r=.35, p<.01), and a weak negative significant relationship between Neuroticism and WTR (r=-.32, p<.01). However, there is no significant relationship between Conscientiousness (r=.15, p=110), Openness to Experience (r=.34, p<.01), and WTR.

To answer the last research question concerning the possible relationship between reading scores and personality type, again SEM was conducted. As indicated in Figure 2, all the five sub-factors of personality type, except Neuroticism, are positive significant predictors of the reading scores: Extroversion (β= .22, p<0.01), Agreeableness (β= .23, p<0.01), Conscientiousness (β= .15, p<0.05), Neuroticism (β= -.14, p<0.05), and Openness to Experience (β= .12, p<0.05). Table 4 displays the results of correlation.

Table 4

Correlation between students' reading score and personality type

	1	2	3	4	5	6
1. Extroversion	1.00					
2. Agreeableness	.35**	1.00				
3. Conscientiousness	.15*	.156*	1.00			
4. Neuroticism	-.32**	-.25**	-.104	1.00		
5. Openness to Experience	.34**	.29**	.30**	-.20**	1.00	
6. Reading score	.35**	.35**	.19*	-.25**	.17*	1.00

**Correlation is significant at the level of 0.01
*Correlation is significant at the level of 0.05

As the data in Table 4 shows, among the five sub-factors of personality types, Extroversion has the highest correlation (r=.35, p<.01) with the reading score. In addition, there is a moderate positive and significant relationship between Agreeableness and reading score (r=.35, p<.01), and a weak positive significant relationship between Conscientiousness (r=15, p<.05), Openness to

Experience (r=34, p<.05) and reading score. However, a negative significant relationship between Neuroticism and reading scores can be observed (r=-.32, p=.000).

5. Discussion and Conclusion

The present study findings confirmed a moderate positive significant relationship between EFL learners' willingness to read and their reading comprehension scores. Other resaercers (Cambria et al, 2010; Mason, et al., 2023; Talwar, et al., 2023; van der Sande, et al., 2023) have also highlighted this fact in the literature related to the reading skill. Among the five sub factors of personality types, the highest correlation was found between extroversion and willingness to read. This finding is in line with Omidvari, et al., (2016) and Nurianfar, et al. (2014). Moreover, Brown (1973) had stated that perhaps a correlation could be observed between extroversion and reading comprehension.

In addition, there were weak positive and significant relationships between agreeableness and WTR, and a weak negative significant relationship was found between neuroticism and WTR. However, no significant relationships were found among conscientiousness, openness, and WTR. Among the five sub factors of personality types, the highest correlation existed between extroversion and reading. Also, a moderate positive and significant relationship was between agreeableness and reading score, and weak positive significant relationships were between conscientiousness, openness and reading score. However, a negative significant relationship was between neuroticism and reading score. A moderate significant positive relationship was found among extraversion, openness, agreeableness, consciousness and WTR. In addition, there was a slight correlation between neuroticism and WTR. Neuroticism negatively correlated with WTR. Furthermore, all types of personalities, except for neuroticism, as well as reading comprehension showed a positive significant relationship with WTR.

Similar findings are reported by other researchers. During 1970s, Millot and Cranney (1976) conducted a study to observe the associations between personality type and learning style in relation to reading comprehension. The conclusions demonstrated that there was a significant relationship among these variables. On the other hand, Busch (1982) in a study employing the Eysenck Personality Questionnaire observed a significant correlation between the participants' introversion personality type preference and their reading performance.

Personality as an imperative individual difference that directs behavior and donates to the social forms of viewpoint, performance, and emotion should be considered by both teachers and language learners (Phares, 1991). Accordingly, teachers have an important role in establishing a supportive communicative environment in class that encourages reading. It is significant that teachers attend to the dominant personality types of the learners while they decide to apply their classroom techniques, strategies, and approaches. By means of suitable strategies and methods, considering the learner' differences, teachers can generate and improve learners' WTR and reading comprehension. By conducting classroom activities which call for more enthusiasm, collaboration, imagination, and responsibility teachers can trigger WTR and reading comprehension in extrovert, open, and thorough learners. Likewise, the learners' anxiety as a fundamental feature of neuroticism should be reduced through providing a more comforting classroom situation in which their chance for reading is improved because the lack of practice in reading can deter learners from recognizing

themselves to be proficient and knowledgeable readers of English and it enhances anxiety among learners which can in turn reduce their WTC. By considering individual differences in learners, teachers can understand which learners are less willing to read, as an instance an anxious person who is not willing to read, and by considering these factors, teachers can support the improvement and encouragement or find a technique to aid the unwilling students.

References

Aebersold, J. A., & Field, M. L. (1997). From reader to reading teacher: Issues and strategies for second language classroom. Cambridge UP.

Alderson, J. C. (2000). Assessing reading. Cambridge University Press.

Alfassi, M. (2004). Reading to learn: Effects of combined strategy instruction on high school students. The journal of educational research, 97(4), 171-185. https://doi.org/10.3200/JOER.97.4.171-185

AlKialb, A. S. (2015). The Place of Reading Comprehension in Second Language Acquisition. Journal of Literature, Languages and Linguistics, 6, 14-21. https://jcolang.uobaghdad.edu.iq/index.php/JCL/article/view/164

Allen, L. K., & McNamara, D. S. (2020). Defining deep reading comprehension for diverse readers. In Handbook of Reading Research, Volume V (pp. 261-276). Routledge.

Allport, G. W., & Odbert, H. S. (1936). Trait-names. Psychological Review Company. https://doi.org/10.1037/h0093360

Anggraeni, H., & Yuliana, Y. G. S. (2024). An Analysis of Students' Reading Interest in Journal Articles. ETERNAL (English Teaching Journal), 15(2), 420-430. DOI:10.26877/eternal.v15i2.609

Baghaei, P. (2013). Development and psychometric evaluation of a multidimensional scale of willingness to communicate in a foreign language. European journal of psychology of education, 28(3), 1087-1103.

Bagheri, M. S., & Faghih, M. (2012). The relationship between self-esteem, personality type and reading comprehension of Iranian EFL students. Theory and practice in language studies, 2(8), 16-41.

Bahri, S. B., Al-Hidabi, D. A. Y., Abdullah, N. M. S. A. N., & Kartika, B. (2024). The Social Skills of Homeschooler: A Case Study Exploring the Perception of Religiously Minded Muslim Parents in Jakarta. Progresiva: Jurnal Pemikiran dan Pendidikan Islam, 13(01), 1-18. DOI: https://doi.org/10.22219/progresiva.v13i01.30954

Bernhardt, E. B. (1991). A psycholinguistic perspective on second language literacy. Aila Review, 8(1991), 31-44.

Borsipour Golkhatmi, B., Pishghadam, R., & Naji Meidani, E. (2020). The Role of Sensory Emotions in Increasing Willingness to Read in EFL Learners. Publicaciones. Facultad de Educación y Humanidades del Campus de Melilla, 49.

Brown, H.D. (1973). Affective variables in second language acquisition. Language learning, 23(2), 231-244. DOI: https://doi.org/10.1111/j.1467-1770.1973.tb00658.x

Buljan, T., & Mlačić, B. (2024). Relationship between personality traits, reading tendencies, and empathy. International Journal of Personality Psychology, 10, 41-48. https://doi.org/10.21827/ijpp.10.41425

Busch, D. (1982). Introversion-extraversion and the EFL proficiency of Japanese students. Language learning, 32(1), 109-132. https://doi.org/10.1111/j.1467-1770.1982.tb00521.x

Byrne, B. M. (2010). Structural Equation Modelling with AMOS: Basic Concepts, Applications, and Programming. Lawrence Erlbaum.

Cain, K., Oakhill, J., & Bryant, P. (2004). Children's reading comprehension ability: Concurrent prediction by working memory, verbal ability, and component skills. Journal of educational psychology, 96(1), 31.

Cambria, E., Speer, R., Havasi, C., & Hussain, A. (2010). SenticNet: A Publicly Available Semantic Resource for Opinion Mining. Commonsense Knowledge. In: Proceedings of the 2010 AAAI Fall Symposium Series on Common Sense Knowledge, pp. 14–18.

Cao, Y. (2011). Investigating situational willingness to communicate within second language classrooms from an ecological perspective. System, 39(4), 468-479. https://doi.org/10.1016/j.system.2011.10.016

Cao, Y. K. (2014). A sociocognitive perspective on second language classroom willingness to communicate. TESOL Quarterly, 48(4), 789-814. https://doi.org/10.1002/tesq.155

Cachero, C., Rico-Juan, J. R., & Macià, H. (2023). Influence of personality and modality on peer assessment evaluation perceptions using Machine Learning techniques. Expert Systems with Applications, 213, 119150. https://doi.org/10.1016/j.eswa.2022.119150

Cardenas Canto, P., Dimitrova, V., Sherman, S., & Flint, S. W. (2024). Does personality matter: examining the value of personality insights for personalized nudges that encourage the selection of learning resources. Frontiers in Artificial Intelligence, 7, 1211142. https://doi.org/10.3389/frai.2024.1211142

Celce-Murcia, M., & Olshtain, E. (2000). Discourse and context in language teaching. Cambridge university press.

Chandra, P. R. (2021). Reading Skill: A Key to the Development of Language Acquisition. The Creative launcher,6 (4), 176-186. https://doi.org/10.53032/tcl.2021.6.4.27

Chia, K. H., & Tan, D. M. K. (2024). Neural correlates of the big five personality traits: Understanding the brain basis of openness, conscientiousness, extroversion, agreeableness, and neuroticism. The Asian Educational Therapist, 2(2), 43-59.

Chou, M. H. (2021). The mediating role of achievement emotions in the relationship between instructional clarity, English proficiency, and reading strategies. Educational Psychology, 41(5), 582-601. DOI:10.1080/01443410.2021.1882660

Coenen, J., Borghans, L., & Diris, R. (2021). Personality traits, preferences and educational choices: a focus on STEM. Journal of Economic Psychology, 84, 102361. https://doi.org/10.1016/j.joep.2021.102361

Creswell, J. W. (2012). Educational research: Planning, conducting, and evaluating quantitative. Prentice Hall.

Devi, A. P., & Suroto, S. (2024, July). Explicit reading strategy instruction in an online reading classroom. In ELT Forum: Journal of English Language Teaching, 13 (2), 125-136. https://doi.org/10.15294/elt.v13i2.1639

Dong, T. H., Chen, S., & Tseng, W. T. (2024). The relationship between neuroticism and L2 anxiety: A meta-analysis. System, 123, 103293. https://doi.org/10.1016/j.system.2024.103293

Dornyei, Z. (2005). The psychology of the language learner. Lawrence Erlbaum Associates.

Dornyei, Z. (2006). Individual differences in second language acquisition. AILA review, 19(1), 42-68. https://doi.org/10.1075/aila.19.05dor

Duffy, G. G. (1993). Rethinking strategy instruction: Four teachers' development and their low achievers' understandings. The Elementary School Journal, 93(3), 231-247. https://doi.org/10.1086/461724

Eddy, E. (2011). On the involvement of cognitive processes in the acquisition of English grammar by Slovak learners. Univerzitnej knižnice PU.

Ehrman, M. E., & Dornyei, Z. (1998). Interpersonal dynamics in second language education: The visible and invisible classroom. Sage Publications.

Efendi, M. A. (2021). The Effectiveness of Using Jigsaw in Teaching Reading Comprehension across Different Personality. English Teaching Journal and Research: Journal of English Education, Literature, and Linguistics, 1(1), 41-50. https://doi.org/10.55148/etjar.v1i1.223

Fang, Z. (2023). Demystifying academic reading: A disciplinary literacy approach to reading across content areas. Taylor & Francis. DOI: 10.4324/9781003432258

Fletcher-Campbell, F., Reid, G., & Soler, J. (Eds.). (2009). Understanding difficulties in literacy development: issues and concepts. Sage.

Furnham, A. (1999). The saving and spending habits of young people. Journal of Economic Psychology, 20(6), 677-697. https://doi.org/10.1016/S0167-4870(99)00030-6

Furnham, A., & Cheng, H. (2024). The Big-Five personality factors, cognitive ability, health, and social-demographic indicators as independent predictors of self-efficacy: A longitudinal study. Scandinavian Journal of Psychology, 65(1), 53-60. https://doi.org/10.1111/sjop.12953

Ghonsooly, B., Khajavy, G. H., & Asadpour, S. F. (2012). Willingness to communicate in English among Iranian non–English major university students. Journal of language and Social Psychology, 31(2), 197-211. https://doi.org/10.1177/0261927X124385

Godfrey, E., & Koutsouris, G. (2024). Is personality overlooked in educational psychology? Educational experiences of secondary-school students with introverted personality styles. Educational Psychology in Practice, 40(2), 159-184. https://doi.org/10.1080/02667363.2023.2287524

Goldberg, L. R. (1981). Language and individual differences: The search for universals in personality lexicons. Review of personality and social psychology, 2(1), 141-165.

Goldberg, L. R. (1990). An alternative" description of personality": the big-five factor structure. Journal of personality and social psychology, 59(6), 1216. https://doi.org/10.1037/0022-3514.59.6.1216

Goldberg, L. R. (1992). The development of markers for the Big-Five factor structure. Psychological assessment, 4(1), 26.

Grabe, W. (2009). Reading in a second language: Moving from theory to practice. Cambridge University Press.

Grabe, W., & Stoller, F. (2002). The nature of reading abilities. In W. Grabe & F. Stoller (Eds.), Teaching and researching reading (pp. 9-39). Pearson

Gray, W. R. (1999). Tuning in to The Conversation: Twenty-five Years Later. The Journal of Popular Culture, 33(2), 123-130. DOI: 10.1111/j.0022-3840.1999.3302_123.x

Habók, A., & Magyar, A. (2020). The role of students' approaches in foreign language learning. Cogent Education, 7(1), 1770921. https://doi.org/10.1080/2331186X.2020.1770921

Hakel, M. D. (1974). Normative personality factors recovered from ratings of personality descriptors: The beholder's eye. Personnel psychology, 27(3), 409-421. https://doi.org/10.1111/j.1744-6570.1974.tb01164.x

Hiver, P., Al-Hoorie, A. H., Vitta, J. P., & Wu, J. (2024). Engagement in language learning: A systematic review of 20 years of research methods and definitions. Language teaching research, 28(1), 201-230. DOI: https://doi.org/10.1177/13621688211001289

Husain, B., Wardiman, S. S., Purnawarman, P., & Abasa, Z. (2024). Blended learning intervention on the students' reading comprehension achievement with different personality traits. JEES (Journal of English Educators Society), 9(1), 28-38.

Karamitrou, A., Comoutos, N., Brisimis, E., Latinjak, A. T., Hatzigeorgiadis, A., Theodorakis, Y., ... & Krommidas, C. (2024). The role of big five personality traits, basic psychological need satisfaction, and need frustration in predicting athletes' organic self-talk. Sustainability, 16(4), 1579. https://doi.org/10.3390/su16041579

Khajavy, G. H., & Aghaee, E. (2024). The contribution of grit, emotions and personal bests to foreign language learning. Journal of Multilingual and Multicultural Development, 45(6), 2300-2314. https://doi.org/10.1080/01434632.2022.2047192

Khajavy, G. H., & Ghonsooly, B. (2017). Predictors of willingness to read in English: testing a model based on possible selves and self-confidence, Journal of Multilingual and Multicultural Development, DOI: 10.1080/01434632.2017.1284 853

Khajavy, G. H., Ghonsooly, B., Hosseini Fatemi, A., & Choi, C. W. (2016). Willingness to communicate in English: A microsystem model in the Iranian EFL classroom context. TESOL Quarterly, 50(1), 154-180. https://doi.org/10.1002/tesq.204

Kheirzadeh, Sh., & Tavakoli, E. (2012). The causes of reading difficulty: The perception of Iranian EFL post-graduate and under-graduate students. Journal of Language Teaching and Research, 3 (1), 147-152. doi:10.4304/jltr.3.1.147-152

Khormaee, F., & Farmani, A. (2014). Psychometric properties of the short form of NEO-FFI 60-item personality scale. Psychological methods and models, 4(16), 29-39.

Knezevic, L., & Halupka-Rešetar, S. (2015). The influence of orientation and perceived language competence on ESP students' willingness to read. ESP Today: The Journal of English for Specific Purposes at a Tertiary Level, 3, 64-82.

Kormos, J., & Smith, A. M. (2023). Teaching languages to students with specific learning differences. Channel View Publications.

Kushki, A., & Nassaji, H. (2024). L2 reading assessment from a sociocultural theory perspective: The contributions of dynamic assessment. Education Sciences, 14(4), 342. https://doi.org/10.3390/educsci14040342

Lane, J. M., & Kennedy, T. J. (2024). Braiding the Ropes: Adding Second or Additional Language Acquisition to Reading and Writing Metaphors. Education Sciences, 14(8), 901. https://doi.org/10.3390/educsci14080901

Li, C., & Han, Y. (2024). Learner-internal and learner-external factors for boredom amongst Chinese university EFL students. Applied Linguistics Review, 15(3), 901-926. https://doi.org/10.1515/applirev-2021-0159

Lynam, S., Cachia, M., & Stock, R. (2024). An evaluation of the factors that influence academic success as defined by engaged students. Educational Review, 76(3), 586-604. https://doi.org/10.1080/00131911.2022.2052808

MacIntyre, P. D. (2007). Willingness to communicate in the second language: Understanding the decision to speak as a volitional process. The Modern Language Journal, 91(4), 564-576. https://doi.org/10.1111/j.1540-4781.2007.00623.x

MacIntyre, P. D., Dörnyei, Z., Clément, R., & Noels, K. A. (1998). Conceptualizing willingness to communicate in a L2: A situational model of L2 confidence and affiliation. The Modern Language Journal, 82(4), 545-562. https://doi.org/10.1111/j.1540-4781.1998.tb05543.x

MacIntyre, P. D., & Legatto, J. J. (2010). A dynamic system approach to willingness to communicate: Developing an idiodynamic method to capture rapidly changing affect. Applied Linguistics, 32(2), 149-171. https://doi.org/10.1093/applin/amq037

Mason, L. H., Meadan, H., Hedin, L. R., & Cramer, A. M. (2023). Avoiding the struggle: Instruction that supports students' motivation in reading and writing about content material. In Motivating Writers in Class (pp. 70-96). Routledge.

McCrae, R. R., & Costa, P. T. (1992). Four ways five factors are basic. Personality and individual differences, 13(6), 653-665. https://doi.org/10.1016/0191-8869(92)90236-I

McCrae, R. R., & Costa, P. T., Jr. (1996). Toward a new generation of personality theories: Theoretical contexts for the five-factor model. In J. S. Wiggins (Ed.), The five-factor model of personality: Theoretical perspectives (pp. 51-87). Guilford Press.

Meyer, J., Lüdtke, O., Schmidt, F. T., Fleckenstein, J., Trautwein, U., & Köller, O. (2024). Conscientiousness and cognitive ability as predictors of academic achievement: Evidence of synergistic effects from integrative data analysis. European Journal of Personality, 38(1), 36-52. https://doi.org/10.1177/08902070221127065

Millot, R., & Cranney, A. G. (1976). Personality correlates of college reading and study skills. Journal of Reading Behavior, 8(3), 335-336. https://doi.org/10.1080/10862967609547187

Minaabad, M. S., & Khoshkholgh, F. F. (2012). Investigating the effect of genre-based pedagogy on English for specific purpose learners' reading comprehension. World Applied Sciences Journal, 18(2), 251-260. DOI: 10.5829/idosi.wasj.2012.18.02.487

Mustoip, S., Al Ghozali, M. I., Fadhlullah, M. Z. F., & Assenhaji, S. A. Y. (2024). Influence of Introverted and Extroverted Personalities on English Learning Interaction for Elementary School Students. Elsya: Journal of English Language Studies, 6(1), 33-45.

Nießen, D., Danner, D., Spengler, M., & Lechner, C. M. (2020). Big five personality traits predict successful transitions from school to vocational education and training: a large-scale study. Frontiers in psychology, 11, 1827. https://doi.org/10.3389/fpsyg.2020.01827

Nilsen, F. A., Bang, H., & Røysamb, E. (2024). Personality traits and self-control: The moderating role of neuroticism. PloS one, 19(8), e0307871. https://doi.org/10.1371/journal.pone.030787

Nirokar, M., Rezvani, Z., & Banisi, V. (2024). Investigating the relationship between personality types and academic achievement in second year elementary school students. School education in the third millennium, 1(3), 1-5. DOI: 10.22034/JSETM.2023.429326.1023

Norman, W. T. (1963). Toward an adequate taxonomy of personality attributes: Replicated factor structure in peer nomination personality ratings. The Journal of Abnormal and Social Psychology, 66(6), 574. https://doi.org/10.1037/h0040291

Norman, W. T., & Goldberg, L. R. (1966). Raters, ratees, and randomness in personality structure. Journal of Personality and Social Psychology, 4(6), 681. https://doi.org/10.1037/h0024002

Nurianfar, Y., Azizi, A., & Gowhary, H. (2014). The Analysis of Reading Strategies used by Extrovert and Introvert Intermediate Students in Ilam Province, Iran. Journal of Novel Applied Sciences, 3(12), 1392-1402.

Nuzzaci, A. (2020). When "knowing how to read texts" means understanding and inferring meanings. Brolly, 3(1), 7-39.

Omidvari, A., Azizinia, H., & Rezaei, M. (2016). The Impact of Extroversion vs Introversion on Intermediate EFL Learners' Reading Comprehension. Extensive Journal of Applied Sciences, 4(3), 90-96.

Oz, H. (2014). Big Five personality traits and willingness to communicate among foreign language learners in Turkey. Social Behavior and Personality: an international journal, 42(9), 1473-1482. https://doi.org/10.2224/sbp.2014.42.9.1473

Oz, H., Demirezen, M., & Pourfeiz, J. (2015). Willingness to communicate of EFL learners in Turkish context. Learning and Individual Differences, 37, 269-275. https://doi.org/10.1016/j.lindif.2014.12.009

Ozer, D. J., & Benet-Martinez, V. (2006). Personality and the prediction of consequential outcomes. Annual Rev. Psychol., 57, 401-421. https://doi.org/10.1146/annurev.psych.57.102904.19012

Parks, E. S. (2024). On being nice: Conceptualizing the communication of niceness through relational prioritization, care, and adaptability. Communication Monographs, 1-20. https://doi.org/10.1080/03637751.2024.2316830

Peng, J. E., & Woodrow, L. (2010). Willingness to communicate in English: A model in the Chinese EFL classroom context. Language learning, 60(4), 834-876. https://doi.org/10.1111/j.1467-9922.2010.00576.x

Peng, J. E. (2015). L2 motivational self system, attitudes, and affect as predictors of L2 WTC: An imagined community perspective. The Asia-Pacific Education Researcher, 24(2), 433-443.

Phares, E. J. (1991). Introduction to personality. HarperCollins.

Piniel, K. (2024). Investigating Foreign Language Anxiety: Lessons for Research Into Individual Differences. Springer Nature. DOI: 10.1007/978-3-031-55844-3

Pretorius, E. J. (2002). Reading ability and academic performance in South Africa: Are we fiddling while Rome is burning? Language Matters, 33, 169-196. https://hdl.handle.net/10520/EJC59668

Richards, J. C., & Rodgers, T. S. (2014). Approaches and methods in language teaching. Cambridge university press.

Revelle, W. (2007). Experimental approaches to the study of personality. In B. Robins, Fraley, and R. Krueger (Eds), Handbook of research methods in personality psychology (pp. 37-61). Guilford Press.

Robbins, S. P., Judge, T. A., Odendaal, A., & Roodt, G. (2009). Organizational Behavior: Global and South African Perspectives. Pearson Southern Africa.

Sadeghi, N., Kasim, Z. M., Tan, B. H., & Abdullah, F. S. (2011). Learning styles, personality types and reading comprehension performance. English Language Teaching, 5(4), 116-123. http://dx.doi.org/10.5539/elt.v5n4p116

Safdarian, Z., Ghyasi, M., & Farsani, M. A. (2014). How Reading Strategy Use And Personality Types Are Related?. Reading, 14(1).

Samosir, D. A., Silalahi, D. E., & Marpaung, T. I. (2023). Personality Type of EFL Learners on reading comprehension at Smp N 2 Tapian Dolok. Jurnal Ilmu Sosial dan Humaniora, 1(4), 218-226. https://doi.org/10.58540/isihumor.v1i4.439

Schreiber, J. B., Nora, A., Stage, F. K., Barlow, E. A., & King, J. (2006). Reporting Structural Equation Modeling and Confirmatory Factor Analysis Results: A Review. The Journal of Educational Research, 99(6), 323-337. https://doi.org/10.3200/JOER.99.6.323-338

Shaver, K. G. (2024). Descriptions of personality. In Psychological foundations of the entrepreneurial mindset (pp. 73-88). Edward Elgar Publishing. https://doi.org/10.4337/9781788977357.00011

Smith, G. M. (1967). Usefulness of personality in educational research. Educational and Psychological Measurement, 27, 967-984. https://doi.org/10.1177/001316446702700445

Sparfeldt, J. R., & Schwabe, S. (2024). Academic procrastination mediates the relation between conscientiousness and academic achievement. Personality and individual differences, 218, 112466. https://doi.org/10.1016/j.paid.2023.112466

Talwar, A., Magliano, J. P., Higgs, K., Santuzzi, A., Tonks, S., O'Reilly, T., & Sabatini, J. (2023). Early academic success in college: Examining the contributions of reading literacy skills, metacognitive reading strategies, and reading motivation. Journal of College Reading and Learning, 53(1), 58-87. https://doi.org/10.1080/10790195.2022.2137069

Teng, L. S. (2024). Individual differences in self-regulated learning: Exploring the nexus of motivational beliefs, self-efficacy, and SRL strategies in EFL writing. Language Teaching Research, 28(2), 366-388. https://doi.org/10.1177/13621688211006881

Thomas, J. C., & Segal, D. L. (Eds.). (2006). Comprehensive Handbook of Personality and Psychopathology, Personality and Everyday Functioning (Vol. 1). John Wiley & Sons.

Tupes, E.C., & Christal, R.E. (1961). Recurrent Personality Factors based on Trait Ratings. US Air Force.

Ulin, S. (2020). The Link between Personality Types and Reading Comprehension Achievement of the Eleventh Grade Senior High School Students. Edukasi: Jurnal Pendidikan dan Pengajaran, 57-68. DOI: https://doi.org/10.19109/ejpp.v7i1.5698

Vahdat, S., GhooniabadiShooshtari, Z., & Ghafoori, S. (2016). The relationship between personality traits and cognitive/meta-cognitive strategies in reading comprehension: a case study of Iranian EFL learners at college level. International Journal of Language Learning and Applied Linguistics World, 11(2), 13-29.

Van der Sande, L., van Steensel, R., Fikrat-Wevers, S., & Arends, L. (2023). Effectiveness of interventions that foster reading motivation: A meta-analysis. Educational Psychology Review, 35(1), 21.

Wagner, R. K., & Sternberg, R. J. (1987). Executive control in reading comprehension. Executive control processes in reading, 3, 3.1-21.

Yılmaz, C. (2012). An Investigation into Turkish EFL Students' Attributions in Reading Comprehension. Journal of Language Teaching and Research, 5, 823-828. doi:10.4304/jltr.3.5.823-828

Zaccoletti, S., Altoè, G., & Mason, L. (2020). Enjoyment, anxiety and boredom, and their control-value antecedents as predictors of reading comprehension. Learning and Individual Differences, 79, 101869. https://doi.org/10.1016/j.lindif.2020.101869

Zhang, L. J. (2008). Constructivist pedagogy in strategic reading instruction: Exploring pathways to learner development in the English as a second language (ESL) classroom. Instructional Science, 36(2), 89.