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Meta-Cognitive Learning Strategy, Personality Traits and Grit among Second Language Learners

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ABSTRACT

Aim of the Study: Second language learning acquisition is very common especially in non-English countries. As learning process require multiple strategies to be adopted by the learner, literature stresses the use of meta-cognition in the learning process, and it becomes even more important if the students are involved in language proficiency. The current study aims to investigate the association of meta-cognitive learning strategy, personality traits and grit among second language learners.

Methodology: Data was collected from 300 individuals (*n*=150 male, *n*=150 female) using 12 item Grit Scale, Big five personality inventory and the Strategy Inventory for Language Learning.

Findings: The findings showed that meta-cognitive learning strategy has positive relationship with extroversion, conscientiousness, agreeableness and openness of experience except neuroticism. In the same way, grit was significantly related to extraversion, agreeableness, conscientiousness and openness to experience except neuroticism. Similarly, we found that meta-cognitive learning strategy significantly predicted grit among second language learners. On the basis of gender, significant differences were observed on extroversion, agreeableness, neuroticism and grit.

Conclusion: Overall finding showed the importance of meta-cognitive learning strategy, personality traits and grit among second language learners.

Keywords: Meta-cognitive Learning Strategy, Personality traits, Grit.

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Introduction

Second language acquisition is a lifelong process in which the individual is consistently involved in gaining advanced proficiency. It is a conscious process through which a person learns a language other than his or her native tongue (L1). The use of various learning strategies is vital in second language acquisition. Students use specific activities, such as conversations with friends and fellows, to develop vocabulary, improve pronunciation and establish listening practices which are core factors for language

learning proficiency and which affect their memory, cognition, compensation, meta-cognition, affectivity, and social ability (Scarcella & Oxford, 1992). Literature suggests that successful language learners need to utilize various self-regulatory processes, for example, activating knowledge while monitoring and regulating their learning process (Bui and Kong, 2019). A successful language learner utilizes a combination of all these strategies (Ehrman & Oxford, 1995). Hence, these strategies serve to facilitate processes and actions in second language acquisition which help students reach advanced fluency (Rose & sooraki, 2015).

The concept of meta-cognition was first proposed by Flavell (1976) which states that each individual has knowledge of their own cognitive processes by planning, monitoring and assessing. Meta-cognition is recognized as a successful variable and has gained considerable attention in pedagogy for effective learning of the foreign language (Teng and Zhang, 2020). Although different researchers define meta-cognition in their own way, they all share the common thread which denotes that the individual has an understanding of and command over their learning processes. Meta-cognition consists of two elements i.e., Meta-cognitive awareness or knowledge and meta-cognitive strategies. Meta-cognitive awareness is an individual understanding of his own progress during the learning process. Schraw et al. (2006) document that Meta-cognitive strategies are useful in individual's control over his learning via governing tasks i.e., monitoring, planning, regulation and evaluation of learning. Similarly, Escorcia and Gimenes (2020) through their research have emphasized the role of meta-cognitive strategies in the context of second language learning. Individuals who apply meta-cognitive strategies in the language learning process achieve an advanced level of language acquisition. Students can use meta-cognition to become more aware of the educational processes and approaches that lead to high performance (Zhang, 2005). Based on this knowledge, meta-cognitive language learning styles are among the significant variables that help students to master a foreign language.

As mentioned earlier, second language, often known as an L2, is a language that is not the speaker's first language (L1) but is learned afterwards, usually for academic purposes. Similarly, during the academic learning process an important variable observed mostly related to goal orientation is known as *grit* which refers to persistence and determination toward long term goals. In other words, people with grit work actively and persistently toward obstacles over longer durations to attain the destination without fear of failure. According to Duckworth et al. (2007) this dedication and hard work are vital for people to overcome obstacles on their way to success and acts as a motivator for them to attain their goals. In this regard perseverance and passion and are two aspects of grit, which are essential because it's an independent motivator of achievement and success beyond intellect prowess.

It has been observed that during life personality traits of individuals are important in dealing with the world. Personality is the combination of different behaviors, cognitions, and emotions in the individual that revolve from biological and environmental factors (Corr et al., 2009). Researchers designed various theoretical frameworks for personality such as biological, behavioral, cognitive, psychodynamic, and humanistic approaches. Moreover, they categorized and subcategorized personality traits into different aspects, for example, the Neo-Five personality factors that include Extraversion, Agreeableness, Openness, Conscientiousness and Neuroticism.

According to Costa & McCrae, (1998), extraversion as one of the factors of Neo five factor personality traits, is defined as being outgoing, talkative, high on positive affect (feeling good) and having positive inclinations to interact with others. People who exhibit extraversion have a tendency to enjoy human interaction and are also passionate to learn from their surroundings (Lucas & Diener, 2001). Different educational institutes and social research centers have concluded that extroverted pupils learn new languages more quickly than students who have an introverted orientation.

Similarly, another crucial factor of personality is conscientiousness. Conscientiousness is defined as focused, competent and self-disciplined behavior (Costa & McCrae, 1998). Individuals high on conscientiousness are relatively more proficient in language learning and other academic activities. A

high conscientiousness score is a key predictor of academic and non-academic achievements. In other words, this domain contains the feature of accomplishment need. Such individuals are organized, persistent and dependable showing that they will be successful in all activities related to workplace or academic activities. In the literature, the personality trait of conscientiousness has been linked with job success in a variety of academic and occupational settings. Moreover, conscientiousness ranges over a broad spectrum that describes individual differences in terms of self-discipline, hard work and well-mannered behaviors (Maccann & Roberts 2009). It also signals how well a task is done and how seriously duties are taken. Conscientious people have a tendency to be more competent and organized in every sphere of life.

Openness to experience is characterized by work ethic, compassion, experience, innovative ideas, creativity, curiosity, and diversity of experience (Costa & McCrae 1998). Furthermore, it includes six core components which are imagination, artistic sensibility, and responsiveness to inner sentiments, appreciation for diversity, critical thinking, and confronting power. Individuals with high scores in this category perform better in academia. They are more artistic and emotionally intelligent as compared to people who are closed off to experience. They're also more likely to believe in bizarre or far-fetched claims (Ambridge, 2014).

The agreeableness trait is concerned with social harmony in individuals within a group setting or in isolation. People who exhibit this trait are usually considerate, compassionate, loyal, and dependable, as well as cooperative and ready help others even if they have to keep other people interests ahead of their own. People who are agreeable have a natural predisposition to be optimistic. Agreeableness is considered to be beneficial in learning-related environments, academic performance (Vedel, 2014) and self-regulated activity. Moreover, agreeableness has a predominantly important role in learning language. People with this trait are consistently involved in taking language classes and cooperate with their classmates and teachers to perform at the highest capacity.

Next, *neuroticism* in an individual is the presence of unpleasant emotions such as hostility, anxiety, or depression in a person. It may refer to an emotional instability. It is observed that second language learning is positively linked to all traits except neuroticism (Teimouri et al., 2022). Moreover, Neuroticism is also reported to be negatively connected with academic achievement, life satisfaction, and well-being in the majority of studies (Chamorro & Furnham 2003; Laidra et al. 2007). Learners who are high on neuroticism have much less energy to achieve their goals and accomplishing relevant work.

Personality types influence how an individual thinks and learns. As a result, it is a significant component of language learning, along with important linguistic, affective, motivational and demographic variables (Carrell et al., 1996). Personality and language learning, like several other constructs, have a two-way relationship, which means that both of these variables affect each other (Ellis, 1985).

Though grit has been examined in second and foreign language learning and been positively associated with language learning (Alamer, 2021), but second-language (L2) researchers are yet to use concrete grit studies or the grit scale to explore grit in language learning. However, a study of L2 literature reveals that some characteristics and properties of grit have been studied for decades. The research by Naiman (1978) on effective language learners was designed to link active language learning to aptitude, personality qualities, behaviors, and motivation, all of which are attributes of grit, demonstrating grit's relation to previous L2 studies.

Purpose of Present Study

Over the past few years grit has been the topic of debate by many researchers. They have studied grit as a psychological construct and considered critical predictor of success. For example, various researchers have conducted meta-analytical studies to examine grit and big five personality traits by focusing on relationships among all dimensions of personality factors in relation to grit and academic performance. Based on their findings, we can observe a link between the five personality dimensions and grit in the

general population. However, over the course of the literature review, we also uncovered that there is sparse research conducted on the relationship between grit and personality factors among language learners. In addition to this scarcity in literature, we also observed an inconsistency regarding the nature of the relationship between grit and personality traits relevant to second language learning. Therefore, the present study will explore and analyze the exact nature of the relationship of all these variables in the Pakistani context, as well as the impact of personality traits on this link.

Moreover, although past studies introduce the notion of meta-cognitive learning strategy in relation to grit and examine its relationship with academic performance, there are few studies which showcase the distinct association between meta-cognitive learning strategies and grit among L2 learning individuals. The present study will fill this gap by detailing the interplay of these variables and help in indigenizing western concepts into Pakistani society.

Objectives of the Study

1. To explore the relationship of meta-cognitive learning strategy with grit and personality traits among second-language learners.
2. To find out the role of meta-cognitive learning strategy in grit among second language learners.
3. The find out differences on the basis of gender in meta-cognitive learning strategy, personality traits and grit among second language learners.

Hypotheses

1. Significant relationships exist between meta-cognitive learning strategy, grit and personality traits among second-language learners.
2. Meta-cognitive learning strategy is a significant predictor of grit among second language learners.
3. Differences exist on the basis of gender in meta-cognitive learning strategy, personality traits and grit among second language learners.

Method

In the current study, a cross-sectional method was employed to reveal the relationship between meta-cognitive learning strategy, personality traits and grit among second language learners.

Participants

Sample size was determined by sample size equation (N=300). We used convenient/ purposive sampling technique for the collection of data and requisite information from both male and female students enrolled in English language courses. The age range of sample was 16 to 30 years. The sample of the study was approached from different government and private universities of Islamabad and Rawalpindi. They were enrolled in English language courses from different universities of Islamabad. Individuals above 30 years of age were excluded. Similarly, data sets with incomplete responses were also excluded.

Measures

***12 item Grit Scale*:** Grit was operationalized in terms of 12 item Grit Scale. This scale is comprised of 12-items to measures the extent of grit in the individuals on a five point likert scale. The scale can yield a maximum score of 5 (extremely gritty), and the minimum score of 1 (not at all gritty). The inter consistency of the scale is 0.85 (Duckworth et al., 2007).

***Big Five Personality Inventory*:** Five personality traits were operationalized in the term of big five personality inventory (John et al. 1991). This scale assesses the most global personality domains in the adult population, including extraversion, agreeableness, conscientiousness, neuroticism and openness to experience. It consists of short phrases (44 items) that the respondent answers on a likert scale, ranging

from 1 (disagree strongly) to 5 (agree strongly). The internal consistency coefficients of the subscales of the BFI ranged between .75 and .86, indicating acceptable internal consistency.

***Strategy Inventory for Language Learning*:** Meta-cognitive learning strategy was operationalized by using subscale of the *Strategy inventory for language learning*. The subscale of meta-cognitive strategies has 9 items. The responses are scored on a five-point scale ranging from *1 never or almost never true of me*, to *5 always or almost always true of me*. The score ranges from 1.0 to 5.0 (low average to high average). The reliability coefficients range from .67 (Hong–Nam & Leavell, 2006) to .95 (Dreyer & Oxford, 1996).

Data Analysis

For data analysis, SPSS version 21 was used. Correlation coefficient was run to explore the relationship between and among variables. Similarly, the simple linear regression analysis was performed to determine the role of meta-cognitive learning strategy on grit among second language learners.

In addition to this, the independent sample t -tests was carried out to compare differences in meta-cognitive learning strategy, personality traits and grit between groups based on gender.

Results

Table 1: *Frequencies and percentages of demographic variables of Study* (*N* = 300)

Variables	Categories	*f*	%
Age	16-21	88	29
	22-30	212	71
Gender	Male	150	50
	Female	150	50
Employment Status	Employed	79	26
	Unemployed	22	74
Education	Undergraduate	270	9
	Postgraduate	10	3

Note: F= frequency, %= Percentage

Table above reveal the frequency and percentages of the all the demographic variables in the present study. The sample comprised of 300 students both male and female who were enrolled in various English courses. The age range of the sample was 16-21 comprising 29% and 22-30 comprising 71% of the samples. Employment status frequency for employed was 26% and for unemployed was 74%. Similarly, 90% of the sample was undergraduate and 31% was postgraduate.

Table 2: *Descriptive Statistics and Reliability estimates of Variable of the study (N = 300)*

					Range			
Scales	***k***	**α**	***M***	***SD***	**Actual**	**Potential**	**Skewness**	**Kurtosis**
TSIFLL	9	.87	31.15	7.06	15-45	9-45	.09	-.44
Big five Inventory	44	.87	145.6	12.61	109-176	44-220	-.34	-.01
Extraversion	8	.51	28.73	4.51	11-38	8-40	-.21	.22
Conscientiousness	9	.54	30.69	4.66	16-39	9-45	.25	-.42
Agreeableness	9	.52	32.17	5.00	21-45	9-45	-.12	-.48
Neuroticism	8	.51	27.31	5.49	11-40	8-40	.01	-.23
Openness to experience	10	.80	38.83	6.37	19-47	10-100	-.54	.74
Item Grit Scale	12	.66	38.57	6.33	23-56	12-60	.09	-.32

Note. TSIFLL= The Strategy Inventory for Language Learning, *k*=number of items, α= alpha reliability, *M*= mean, *SD*= standard deviation,

Table no. 2 shows psychometric properties for the variables of the study. Values of skewness and kurtosis indicate that data was distributed normally. Alpha reliability coefficients values reveal that the instruments used in the study fall in acceptable levels reliability index (i.e., a > .50).

Table 3: *Correlation matrix of Meta-cognitive learning strategy, Personality traits subcategories and Grit among students who were enrolled in English courses (N =300).*

Variables	**1**	**2**	**3**	**4**	**5**	**6**	**7**
MCLS	-	.169**	.104	.198**	.408**	-.019	.370**
Grit		-	.128*	.405**	.132*	-.247**	.194**
Extraversion			-	.353**	.132*	-.342**	.280**
Conscientiousness				-	.402**	-.378**	.294**
Agreeableness					-	-.140*	.361**
Neuroticism						-	.044
Openness to experience							-

Note, **p<.01,*p<.05, MCLS= Meta-cognitive Learning Strategy

Table 3showed that meta-cognitive learning strategy has a positive relationship with grit (*r = .169**, p< .01*) and also significant relation with the conscientiousness *(r = .198**, p< .01*), agreeableness (*r= .408**, p< .01*) and openness to experience (*r= .370** p <.01*). However, Meta-cognitive learning strategy revealed a non-significant negative correlation with neuroticism (*r* = -.019) whereas a non-significant positive relationship with extraversion among students (*r= .104*).

Furthermore, results showed that Grit is positively related to extraversion *(r= .128* p <.05* conscientiousness (*r= .405** p <.01*), agreeableness (*r= .132* p <.05*), *05)* and openness to experience *(r= .194** p <.01),* however grit revealed significant negative relationship with neuroticism *(r= -.247** p <.01).*

Results further showed that extraversion has a positive relationship with conscientiousness *(r= .353** p <.01),* agreeableness *(r= -.132* p <.05)* and openness to experience *(r= .280 ** p <.01),* while an inverse relationship with neuroticism *(r= -.342** p <.01).* Similarly, conscientiousness is positively related to agreeableness *(r= .402** p <.01),* openness to experience *(r= .294** p <.01)* and negatively related to neuroticism *(r= -.378** p <.01).* Moreover, Agreeableness has an inverse relationship with neuroticism *(r= -.140* p <.05)* while a significant positive relationship openness to experience *(r= .361** p <.01).* Neuroticism has positive relationship with openness to experience *(r=.044).*

Table 4: *Linear Regression Analysis of Meta-cognitive learning strategy on grit among* students *who are enrolled in English language courses (N=300)*

					95% CL	
Variable	***B***	***S.E***	***β***	***p***	***LL***	***UL***
Constant	33.85	1.63		.000	30.63	37.07
MCLS	1.51	.05	.169*	.003	.05	.25
R	.169					
R^2	.028					
ΔF	8.73					

Note, B= Unstandardized Coefficient, β= Standardized Coefficient, S.E= Standard Error, p= Significant Value, R= Correlation, R^2 = Correlation Square, ΔF= F change MCLS= Metacognitive Learning Strategy

The table no. 4 shows the role of meta-cognitive learning strategy in predicting grit among students who are enrolled in English courses. The linear regression analysis reveals that meta-cognitive strategy is a positive significant predictor of grit (β= .169*, *p*<.05) among students who are enrolled in English courses. Moreover, value ofR^2 =.028 explained 2% variance in the outcome variable by the predictor.

Table 5: *Mean, SD and t-values in Meta-cognitive learning strategy, Personality traits and grit along Gender (N=300).*

Variables	**Male (*n*=150)**		**Female (*n*=150)**				**95%CI**		**Cohen's**
	M	***SD***	***M***	***SD***	***t (298)***	***p***	***LL***	***UL***	***d***
Metacognitive Learning strategy	31.19	7.72	31.11	6.36	.098	.92	-1.52	1.68	0.013
Personality traits	144.1	12.56	147.1	12.52	2.06	.91	-5.83	-.136	0.239
Extraversion	26.27	3.89	24.81	4.96	2.84	.00	.453	2.48	0.338
Conscientiousness	27.78	4.79	26.06	4.37	3.24	.13	.677	2.76	0.647
Agreeableness	32.60	5.12	34.11	4.79	2.63	.00	-2.63	-.379	0.304
Neuroticism	22.31	5.06	26.31	5.17	6.76	.00	-5.16	-2.83	0.781
Openness to experience	35.21	5.00	35.88	4.36	1.23	.22	-1.73	.400	0.142
Grit	39.82	6.26	37.31	6.17	3.48	.00	1.09	3.92	0.403

Note. *p< .05, **p < .01, *M*=Mean; *SD*=Standard Deviation; *LL*= Lower Limit; *UL*=Upper Limit;

Table 5 illustrates that there is significant difference in extraversion (t=2.84, p<0.005), neuroticism (t=6.76, p<0.005), grit (t=3.48, p<.005) and agreeableness (t=2.63, p<.005) between male and female students in present sample, whereas no significant differences were observed in meta-cognitive learning strategy, conscientiousness and openness to experience between male and female students who are enrolled in English courses.

Discussion

Following Flavell definition of meta-cognition it has remained the interest of analysis and inquiry as a multidimensional concept by researchers over decades. The literature review provides remarkable insights aimed at exploring the possible relationships between meta-cognition and various constructs, including resilience, grit, learning capabilities, and academic performance (Kocak & Boyaci, 2010; Vettori et al., 2020).In order to build on this literature and provide original findings in a new setting, the aim of the current study is to examine meta-cognitive learning strategies in relation to grit and personality traits among individuals learning a second language in Pakistan. For this purpose, the following hypotheses were tested systematically by the researchers.

Consistent with our first hypothesis, a positive relationship of all personality traits except neuroticism was observed with meta-cognitive learning strategies among second language learners. Such finding is self-explanatory and maybe described by the fact that individuals who score higher on conscientiousness and meta-cognitive learning strategies are more self-disciplined and self-controlled, which may directly enhance language learning (Aminah et al., 2017, Ayhan and Turkyilmaz, 2015). Similarly, extrovert individuals are talkative, assertive and motivated to engage socially. However, (Graziano & Tobin, 2009) agreeable individuals are likable, affable, and responsive to the needs of others. These two variables appear to be learning activators which employ meta-cognitive strategies to aid language learning (Aminah et al., 2017, Ayhan & turkyilmaz, 2015; Fazeli, 2012). Moreover, individuals who are curious about their inner and outer worlds open to novel ideas and unconventional values are likely to show a higher tendency to use all types of meta-cognitive strategies (Kang, 2012; Fazeli, 2012, Ackerman & Heggestad, 1997; Blickle, 1996; Farsides & Woodfield, 2003; Noftle & Robins, 2007; Öz, 2014; Zhang, 2010). Meanwhile, neuroticism has been observed as negatively linked with meta-cognitive learning strategies. This finding is consistent with the hypothesis due to the fact that the presence of neurotic traits in individuals render them disinclined towards using meta-cognitive learning strategy, which in turn impacts the process of language learning (Bouchard et al., 2008; Debreli and Demirkan, 2015; Zhang et al., 2005).

Similarly, all personality traits except neuroticism showed significant positive relationship with grit. Individuals with higher scores on conscientiousness and grit may be directly involved in enhancement of language learning (Credes et al., 2021, Duckworth et al., 2007). Similarly, openness to experience manifests itself in a general appreciation for art, imagination, curiosity, and a range of new experiences. Likewise, extroversion is defined by a tendency to be assertive, outgoing and motivated to seek social contact. Agreeable people, on the other hand, are mostly friendly, empathetic and pleasant to others' needs (Graziano & Tobin, 2009). The above-mentioned variables are predominately used to overcome hurdles and regulate the learning process. As learning language is a long-term and time-consuming process, individuals must be proactively engaged in activities that facilitate and enhance their language acquisition process (Duckworth, 2013; Goldberg 1990; Rimfeld et al. 2016).

Meanwhile, neuroticism has a negative relationship with grit because of its adverse impact on language learning. People scoring high on neuroticism would exhibit the presence of neurosis which may in turn affect the process of language acquisition (Rimfeld et al. 2016, Duckworth, 2013, Goldberg 1990).

The second hypothesis assuming the predictive role of meta-cognitive learning strategies in grit among second language learners was supported by the present data. This shows that two variables may help the students to excel as successful learners by combining meta-cognitive techniques with an element of passion and perseverance (as defined by GRIT) that helped students to learn second language more efficiently (Meijer et al., 2006; Nietfeld et al., 2005; Veenman & Spaans, 2005; Vrugt & Oort, 2008; Young & Fry, 2008).

Another significant objective of the study was to examine differences in study variables on the basis of gender of the respondents. The results showed several interesting findings across the stated demographics on the study variables.

The findings revealed significant differences in extroversion, agreeableness, neuroticism and grit between males and females. The results showed that male respondents scored higher on extroversion and grit as compared to female respondents. Therefore, it may be assumed that male participants used more interpersonal strategies for communication. Males are relatively more determined in their behavior and are more task-oriented for long term goals. Evidently, these two traits are advantageous in language learning (Dewaele & Furnham, 2000; Sidek, 2012). On the other hand, females showed high neuroticism and agreeableness as compared to males, probably because they are more vulnerable and less emotionally stable. This is consistent with the literature review and prior studies as women are more nurturing, tender-minded, altruistic and warm in their behaviors (Costa & Macrae, 2001).

Conclusion

The current piece of study was carried out to explore the relationship of meta-cognitive learning strategies, personality traits and grit among second language learners. For this purpose data was collected from 300 individuals and the findings showed that meta-cognitive learning strategies has a positive relationship with extroversion, conscientiousness, agreeableness and openness of experience, and a negative relationship with neuroticism. In the same way, grit showed a significant positive relationship with extraversion, conscientiousness, agreeableness and openness of experience, and a negative relationship with neuroticism. Similarly, we found that meta-cognitive learning strategies significantly predict grit among second language learners. On the basis of gender, a significant difference was observed on extroversion, agreeableness, neuroticism and grit. Overall, the findings showed the importance of meta-cognitive learning strategies, personality traits and grit among second language learners in the Pakistani context.

Limitations

There are few limitations and suggestions for the present study. As data was collected from Islamabad/Rawalpindi, therefore we assume that there was no heterogeneity among the sample. Ideally,

future studies may include samples that are nationally representative for validating our results across Pakistan.

Also, the sample in this study has not been divided into groups according to the duration each student was enrolled in English language learning courses. Rather, the findings are general, which can be applied to all English language learners irrespective of the duration of the courses. Future studies may also include an equal number of respondents from each category of such language learning courses, as our study assumes that the duration of the said courses may have an impact on the study variables.

Secondly, a similar limitation is related to the participants, since the existing sample is restricted to those students who are enrolled in various English language course, the results cannot be generalized over an entire student population. Ideally, data should be collected from all educational settings to have an inclusive representation. Moreover, a portion of thedata was also collected during the pandemic from online sources, so their responses might have been impacted by the educational crisis caused by the pandemic.

Moreover, the data was collected from adolescents and young adults. Older adults were not part of the study and in future research should also include them as the part of the sample to maximize the external validity of the phenomena**.**

Implications and Suggestions

The findings suggest that there is a need for further research and practice in the area of grit and meta-cognitive learning strategies across the education sector. Based on our findings, we assume that besides individual personality elements that may influence the development and maintenance of grit and meta-cognitive learning strategies, few situational and environmental factors may also play a role. Therefore, in future more studies might be planned which will preferably account for all environmental and situational factors accounting for grit and learning strategies. Similarly, longitudinal research can also be carried out on grit and meta-cognitive learning strategy in foreign languages.

This study also touches upon the numerous benefits of meta-cognition and grit in English language learners. In light of the findings of this study it can be safely said that meta-cognition learning strategies should be inculcated in students enrolled in all levels of language learning. Given the pedagogical implications of this research and the current gaps in this sphere of work, it's suggested to conduct further studies and experiments.

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Conflict of Interest

Authors have no conflict of interest.

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