
The Relationship between L2 Grit and Intrinsic Reading Motivation of Filipino Pre-service Teachers in Central Mindanao

Jannie Faye S. Nacario

Department of Professional Education, Notre Dame University, Notre Dame Avenue, Rosary Heights 2, Cotabato City, Philippines
jfayenacario@gmail.com

King Arman A. Calingasan

Life Academy International
CCF Worship and Training Center, Pasig City, Metro Manila, Philippines
kingarmancalingasan@gmail.com

Omar K. Pendi

Department of Professional Education, Notre Dame University, Notre Dame Avenue, Rosary Heights 2, Cotabato City, Philippines
omar.k.pendi@gmail.com

Bai Sittie P. Maguing

Department of Professional Education, Notre Dame University, Notre Dame Avenue, Rosary Heights 2, Cotabato City, Philippines
baisittiemaguing@gmail.com

Abstract

This quantitative study analyzed the levels of and the relationship between the second language (L2) grit and intrinsic reading motivation of pre-service teachers majoring in English language education (N=128) and elementary education (N=108) from two universities in Central Mindanao, Philippines. Using a quantitative correlational research design and a cross-sectional survey method, the randomly selected respondents answered the L2 Grit scale and Intrinsic Reading Motivation Scale which both had good internal consistency. The results from the descriptive statistics showed that both groups had high levels of L2 grit and intrinsic reading motivation. Moreover, these variables had a significant positive correlation based on the Pearson product-moment correlation analyses. This means that when the level of students' grit in learning the second language increases, their motivation to read English texts also increases, and vice-versa. Such also indicates that strengthening the intrinsic reading motivation of the learners will most likely encourage the development of their L2 grit. As a non-cognitive concept, grit assists students in accomplishing the long-term goals they have. Hence, pedagogical implications and recommendations for future study are presented.

enthusiasm and persistence in the pursuit of a goal that takes a long process before its fulfillment. Duckworth and Gross (2014) argued that grit is one of the valuable determinants of success. Educators believe that studies focusing on grit direct creative processes toward the production of successful students (Keegan, 2017). In the context of the second language (L2) learning and teaching, the second language-domain-specific grit (henceforth L2 grit) has been recently considered an important personality trait of successful L2 learners because its role is relatively new in this realm (Teimouri et al., 2020).

Concerning language learning success, intrinsic motivation may be regarded as correlative to L2 grit. As defined by Ryan and Deci (2000) based on the self-determination theory, intrinsic motivation is an inner zeal to do an activity that elicits internal gratification. This means that intrinsically motivated learners possess an interest and desire to learn something that gives them personal satisfaction, and they are likely to be successful in the academic endeavor (Teimouri et al., 2020). Moreover, Anjomshoa and Sadighi (2015) asserted that successful English language learning requires a learner to be intrinsically motivated. Learners who have high intrinsic motivation seem to have similar characteristics to gritty students. Both manifest an attitude of resilience, perseverance, and sustained interest in learning without expecting external rewards.

To measure students' grit in learning a second language, Teimouri et al. (2020) constructed and validated a second language-domain-specific grit scale. They also examined the relationship between L2 grit and language

1 Introduction

One of the learners' personalities that are extensively studied by educational psychologists is grit. Duckworth et al. (2007) introduced grit to delineate a person's passion and tenacity to pursue a long-term goal amid challenges and adversities. It is a combination of

achievement in a sample of 191 Persian students who studied an English Translation course. They found that gritty students are more passionate about L2 learning and cognitively engaged in class discussion than less gritty students. Moreover, their analyses indicated a positive relationship between L2 grit and language achievement. Similarly, Alamer (2021) validated his newly developed L2 grit scale which he tested among 213 Saudi students who were studying English as an L2. After analyzing the psychometric properties of his self-constructed survey, Alamer (2021) affirmed that the “L2-grit scale is reliable, valid, and suitable for use in L2 research” (p. 1). Freiermuth et al. (2021), on the other hand, interviewed eight gritty English language students from Japan, Malaysia, Taiwan, and Thailand to detail the characteristics of a gritty L2 learner. They discovered that L2 learners who are gritty have the endurance it takes to learn the English language and delight in the learning process. They are never bored by it and are confident in their ability to communicate in it even if they are not yet fluent.

Because L2 grit has been lately explored in L2 learning and teaching, only a few studies on this research topic have provided empirical data. To date, most L2 grit studies have focused on the development and validation of the L2 grit scale (e.g., Alamer, 2021; Teimouri et al., 2020). Consequently, the present study adopts and modifies the available L2 grit scale from the previous research to explore the relationship of this personality trait with a different yet related construct in L2 learning, i.e., intrinsic reading motivation. Another research gap was found in the study of Freiermuth et al. (2021). Although they identified enjoyment or intrinsic motivation as one of the factors that influence L2 grit, they failed to specify what type of intrinsic motivation was referred to by the participants. In addition, Freiermuth et al. (2021) determined motivation as a factor through qualitative analysis only. This psychological construct is chosen because to the best of our knowledge, no efforts have been made to examine the relationship between L2 grit and intrinsic reading motivation. Furthermore, the current research addresses the issue of homogeneity of the sample as one of the limitations pointed out by Alamer (2021). According to him, future researchers must consider using samples from different language learning environments. Therefore, this study is conducted in the

Philippines, a multicultural and multilingual learning context where English is considered a second de jure official language. Unlike past studies, this research analyzes the constructs mentioned above using the survey responses from two different groups of language learners (i.e., students majoring in English and students studying elementary education). Diversity of the language learning contexts and language learners may provide an in-depth understanding of grit as an L2 learning construct and the utilization of the L2 grit scale (Alamer, 2021).

1.1 Theoretical Framework

In language learning and academic success, personality and motivation are two of its most important determinants (Kelsen & Liang, 2019). Termed as a trait, Roccas et al., (2002, p. 790) defined personality as “what people are like” and that it may be positive or negative. Specifically, it deals with a collection of underlying traits that determine the actions, thoughts, and feelings of an individual (Medford & McGeown, 2012). Recently, Brandt et al. (2021) have described broadly one’s personality as to how one behaves towards something. Concerning the present study, grit and motivation may be commonly mistaken as constructs with an entirely similar identity. Although previous studies have shown a relationship between the said variables, their distinct roles in the completion of goals must be emphasized. First, grit, according to Duckworth et al. (2007), has been considered a personality that entails the capacity to persevere and maintain dedication toward a long-term objective. Second, they suggested the possibility of grit assuming a narrow component of the five-factor model of personality.

The Big Five framework proposes five primary factors of personality that account for the individual differences among people (Medford & McGeown, 2012). In the academic setting, it influences not only the learners’ accomplishments but also their language learning as the same framework draws the individual disparity by determining one’s attitude, cognition, motivation, temperament, and learning styles (Kelsen & Liang, 2019). The five dimensions of personality include (1) agreeableness, (2) extraversion, (3) neuroticism, (4) openness to experiences, and (5) conscientiousness. Through various contexts, earlier researchers have utilized the same model

to predict individual differences (Roccas et al., 2002). Moreover, among the identified personality factors, conscientiousness is most closely associated with grit. Credé et al. (2017) found substantial evidence for the link between grit and conscientiousness in their study. This corroborated the argument of Roberts et al. (2012) that despite being separately developed constructs, the two variables have clear relationships.

According to Roberts et al. (2009), individual differences in terms of one's inclination to be industrious, obedient, organized, responsible, and self-controlled are best described in a spectrum of constructs called conscientiousness. They also postulated that in its hierarchical structure, the upper level can be separated into two aspects: proactive and inhibitive. On the lower level of proactive conscientiousness, however, resides industriousness. Roberts et al. (2012) described industrious people as those who work hard, strive for excellence, and persevere despite obstacles. This description is similar to that of grit, particularly its subcomponent, that is, perseverance of effort. In the study by MacCann et al. (2009), perseverance of effort was found to have a positive relationship with the industrious facet of conscientiousness. In simpler words, grit is among the essential features of human personality and has significant behavioral implications (Costa & McCrae, 1992, as cited in Komarraju & Karau, 2005).

As mentioned earlier, motivation plays a crucial role in learning a target language. Brandt et al. (2021) described motivation as the cause for people's actions towards something. Medford and McGeown (2012) asserted that there exist various theories of motivation, but intrinsic and extrinsic are most often employed in reading studies, which is also the focus of this endeavor. This explains that an intrinsically motivated reader finds such activity to be fundamentally engaging or delightful. On the other hand, an extrinsically motivated reader takes part in a reading activity because of separable factors, for example, receiving a reward or avoiding a penalty. Furthermore, Schiefele et al. (2012) found that high domain-specific intrinsic motivation is equivalent to high success expectations and subsequent desire to demonstrate effort. In addition, intrinsically motivated students are depicted as those who maintain interest as they pursue a personal objective (Ryan & Deci, 2000). This

corresponds to a grit subcomponent that is concerned with the consistency of interest (CI).

The relationship between personality and motivation has been evidenced by several studies. In a study by Komarraju and Karau (2005), they argued that high openness to experiences is tantamount to greater academic motivation. Moreover, a similar study yielded results showing conscientiousness and openness to experiences accounting for 17% of the variance in the learners' intrinsic academic motivation (Komarraju et al., 2009). According to other research, an individual's personality may be associated with distinct sub-facets of motivation in various ways. Clark and Schroth (2010) reported that intrinsically motivated students, in terms of acquiring knowledge and completing tasks, were both conscientious and agreeable. On the one hand, learners who were intrinsically motivated toward simulation experiences were likely under the personality factor of openness to experience. Although these past studies have found a link between personality and motivation, their different roles in terms of accomplishing goals must be considered. Motivation explains why one behaves, whereas grit tells how one behaves (Brandt et al., 2021). This, then, resonates with the assumption of the present study that when students are intrinsically motivated in reading, they also have a high level of L2 grit and vice versa.

1.2 Statement of the Problem

In this study, the respondents are pre-service teachers who specialize in English language education and elementary education. Part of the objectives of the study is to determine levels of their L2 grit and intrinsic reading motivation. Most importantly, this present research aims to examine the relationship between intrinsic reading motivation and L2 Grit of the pre-service teachers from two universities in Central Mindanao, Philippines. It specifically attempts to answer the following research questions:

- What is the level of L2 grit and intrinsic reading motivation of students majoring in English and students studying elementary education?
- Is there a significant relationship between L2 grit and intrinsic reading motivation

of students majoring in English and students studying elementary education?

2 Methodology

2.1 Research Design

The present study employed a quantitative survey research method to derive quantitative descriptions in measuring the relationships between variables of the selected sample population (Creswell & Creswell, 2018). Further, the relationship between L2 grit and intrinsic reading motivation was assessed using survey tools, resulting in numerical data that can be evaluated using statistical processes. In line with this, the study followed the cross-sectional survey to draw information on particular phenomena at one period of time (Kelley et al., 2003).

2.2 Research Setting

The current research endeavor was conducted at two universities in Cotabato City, Philippines. Both academic institutions offer education courses such as Bachelor of Elementary Education (BEEd) and Bachelor of Secondary Education (BSEd) - major in English which are essential for this study. It is appropriate to conduct this study in this setting because the target respondents were available in both schools.

2.3 Research Respondents

The respondents for the present study were 236 Filipino college students (N = 191 female; N = 38 male; N = 7 preferred not to reveal their biological sex) from two higher educational institutions in Central Mindanao: a private and a state university. Out of 384 pre-service teachers majoring in English and 149 in elementary education learning English as a second language (L2), 128 (33%) and 108 (72%) from each group responded respectively. In this study, participating students who were specializing in English were heavily exposed to the said language because most of their course works were related to English pedagogy, literature, and linguistics. Meanwhile, participating students who were studying elementary education took English as a minor subject; as a result, they had lesser exposure to English as compared to the former group of respondents. English as a Second Language (ESL) is a term that is used to refer to specialized methods of teaching the English language to individuals whose first language is not English.

The respondents' age ranged from 18 to 26 years old with 19 years old being the modal age, and they were mostly freshmen (38.6%).

Moreover, the study followed a multi-stage clustering by beginning with the identification of clusters or groups, followed by the collection of names of individuals belonging to those clusters, and finally extraction of samples from them (Creswell & Creswell, 2017). Ultimately, the study drew from a random sampling technique to provide everyone an equal chance of being selected (Creswell & Creswell, 2017) and prevent biases.

2.4 Research Instruments

L2 Grit Scale. In measuring the L2 grit of college students, this study adopted the validated survey questionnaire of Teimouri et al. (2020). It consists of two components: perseverance of effort (PE) and consistency of interest (CI) in learning a language. The consistency of interest calculates the interest in studying L2, while perseverance of effort assesses the learners' persistence in achieving their goals in L2 learning. This five-point Likert scale from 1 to 5 (not at all like me to very much like me) was acceptable in the present study as it had an internal consistency of 0.794.

Intrinsic Reading Motivation Scale. The present study modified the Reading Motivation Survey created by Guthrie et al. (2009) to measure students' intrinsic reading motivation. There were originally four variables, i.e., intrinsic motivation, avoidance, self-efficacy, and perceived difficulty. However, only seven items under intrinsic reading motivation in their research with the same Likert response format (from 1= never to 4= always) were adopted. After pre-testing this instrument, the intrinsic reading motivation scale was also found acceptable considering its 0.724 internal consistency.

2.5 Data Collection and Analysis Procedures

Considering the ethical concerns and requirements for conducting research with our target participants, we submitted official letters of request to the College of Education deans of one private and one state university in Central Mindanao. An informed consent letter was included in the correspondence, which detailed the aim, procedures for participation in the study, risks, and benefits, as well as the consent form for the participants. A full printed copy of

our survey questionnaire was also included in our submission. After the approval, they sent us the official lists of students enrolled in English and Elementary Education courses.

We, then, immediately conducted a pre-testing of instruments twice among the 23 third-year English major students from one of the targeted schools. The first attempt yielded unreliable results, specifically with the avoidance scale under reading motivation. Thus, the same respondents were requested to answer the same questionnaire again. They were also instructed to accomplish the survey with careful consideration and truthfulness. However, the same problem occurred after the second accomplishment and therefore led to the decision of removing the avoidance scale.

After the pre-testing of the instruments, we sent the web-based survey to the respondents via email. In analyzing the relationship between L2 grit and intrinsic reading motivation, the Pearson product-moment correlation using SPSS was utilized. Before that, however, reverse coding was used to accurately analyze the score of the results. The objective of reverse scoring is to recode responses so that a high score corresponds to a low score on the scale. On a 5-point scale, for instance, a four becomes a two, and vice versa.

3 Results and Discussion

3.1 Levels of L2 Grit and Intrinsic Reading Motivation

Table 1 summarizes the findings from the descriptive analysis of ESL students' and English majors' L2 grit and their intrinsic reading motivation. It reveals that both groups have high levels of intrinsic reading motivation and L2 grit, which implies that whether learners are specializing in English or simply studying English, they are most likely to be gritty and intrinsically motivated to read English texts.

Results concerning L2 grit confirm that students majoring in English have remarkable grit in L2 learning ($M = 3.58$, $SD = 1.027$). Considering that they receive substantial inputs in the English language as they learn its fundamentals, such a result is barely surprising. It is expected that English majors will most likely be gritty in learning the English language because it is their specialization. They have been exposed to academic coursework related to English pedagogy, linguistics, and literature since their first year at the university. The same

expectation was confirmed in the study of Teimouri et al. (2020) in which English-major students, whose future line of work was heavily dependent on their communicative skills in the English language, had high levels of L2 grit. Additionally, it is important to note that these English majors were under the teacher education program that prepares students for an English language teaching career. Hence, if these students aim to obtain an English teaching job after graduation, they will surely set a long-term goal and persevere to achieve it.

Table 1.
L2 Grit and Intrinsic Reading Motivation of Filipino Pre-service Teachers

	Mean	SD	Interpretation
Pre-service English Teachers			
L2 Grit	3.58	1.027	High
Intrinsic Reading Motivation (IRM)	3.20	0.774	High
Pre-service Elementary Teachers			
L2 Grit	3.39	1.061	High
Intrinsic Reading Motivation (IRM)	3.23	0.792	High

Note: 1.00-2.49 = Low IRM; 2.50-4.00 = High IRM
1.00-2.99 = Low L2 Grit; 3.00-5.00 = High L2 Grit

As Duckworth et al. (2007) explained, pursuing English programs is similar to joining a marathon that requires mastery of the target language despite the frustrations its journey necessarily entails. Thus, in order to develop the necessary skills related to English teaching or learning, one must possess grit. For instance, the pre-service teachers from the study of Zawodniak et al. (2021) confessed awareness of their weaknesses in English language learning, but they were firm in addressing and possibly eliminating their identified weaknesses.

Given that literature on L2 grit is still scarce, the presented assumption can also be drawn from the Commission on Higher Education (CHED) Memorandum Order No. 75, s. 2017 under Article IV, Section 6.3.1 which requires pre-service English teachers to use

English, when teaching language and literature, as a global language in a multilingual context. This implies that they are provided multiple opportunities to immerse themselves in practicing the target language, whereas these opportunities may encompass a variety of language learning experiences, depending on where the task at hand sits on the spectrum of its difficulty. Hence, as grittier learners of the English language, English majors are expected to keep thriving until they display their desired level of proficiency in the target language.

Similarly, learners majoring in elementary education have high levels of L2 grit ($M = 3.39$, $SD = 1.061$). This connotes that the majority of them may also be as passionate and persevering in learning the second language as the English majors are. A possible reason for this is the goal they have in learning it. Duckworth et al. (2007) emphasized that having not only passion and perseverance but also a long-term goal is the quality of a gritty individual. To achieve that goal, a person must demonstrate a strong desire and resilience despite setbacks or difficulties in the learning process. It can be inferred that these pre-service elementary teachers who have taken English subjects since grade school may have long-term objectives of learning the second language. Although they do not specialize in English like the English majors, these learners showed grit in L2 learning.

The results of this study can be supported by the English language attitude of Filipino adults across professions as surveyed by Mahboob and Cruz (2013). They found that majority of their respondents, across ESL communities, preferred English to be taught as a subject in school and be used as a language of instruction, which led them to claim that “English is the language that is perceived to be worthy of investment” (Mahboob & Cruz, 2013, p. 10). Most Filipinos devote their time to learning this language because English still holds a hegemonic position in the Philippines (Mahboob & Cruz, 2013). English continues to be the language in various societal domains in the country such as education and business and is a key to local and international job opportunities. Additionally, this positive attitude towards English can have an impact on one’s behavior. For instance, Hein et al. (2020) claimed that a positive attitude serves as a stimulus for one to take action and manifest perseverance, while others are withdrawing in the face of change and setbacks. They also

argued that attitudes toward lifelong learning, as well as general learning strategies, were found to predict one component of grit – the persistence of effort (PE). Thus, when students invest in this language, it may mean that they have the goal to acquire it and develop the necessary linguistic skills no matter how tedious the process is. As a result, the pre-service English and elementary teachers in this study may have developed high L2 grit through the years of studying to improve their English language skills that will help them achieve their career goals.

When it comes to reading, intrinsically motivated learners experience genuine pleasure and maintain interest while doing the said activity. They are further described as those who spend their time and effort, especially when developing a thorough knowledge of the texts they read, while also employing appropriate reading strategies (Hebbecke et al., 2019). In this study, the data above indicate that both English majors ($M = 3.20$, $SD = 0.774$) and ESL learners ($M = 3.23$, $SD = 0.792$) are highly intrinsically motivated readers of English texts. This corroborates the assumption made specifically on English majors having the tantamount intrinsic reading motivation to their L2 grit because their future careers heavily utilize English as a second language.

As mentioned earlier in this paper, interest can also complement one’s reading motivation (Alhamdu, 2015). Moreover, such a claim suggests that learners’ motivation to read increases when the text piques their interest. In other words, they are most likely to have higher reading motivation when both are taken into consideration. Based on the definition of intrinsic reading motivation provided by Ryan and Deci (2000), it can be surmised that the respondents of this study have the inner zeal to read English reading materials that give them personal satisfaction.

3.2 Relationship between L2 Grit and Intrinsic Reading Motivation

Table 2 presents the correlation data between L2 grit and intrinsic reading motivation of ESL students with the Pearson correlation coefficient as the statistical treatment. The analysis reveals that the L2 grit and intrinsic reading motivation of the said group have a low positive significant relationship ($r = .357$, p -value $< .000$). This suggests that when ESL students have a high level of grit in L2 learning,

they will most likely have a high level of intrinsic reading motivation as well.

Table 2.
Relationship Between L2 Grit and Intrinsic Reading Motivation of Pre-service Elementary Teachers

Variables	r	p-value
L2 Grit	0.35	0.000
Intrinsic Reading Motivation	.7	

Note: Significant at the .01 level (2-tailed)
N= 108

Similarly, Table 3 shows the correlation data between the same variables of students specializing in English. The same analysis found a low positive significant relationship ($r = .371$, $p\text{-value} < .000$) between L2 grit and intrinsic reading motivation, indicating that English majors who tend to have high levels of L2 grit may also become highly intrinsically motivated readers.

Table 3.
Relationship Between L2 Grit and Intrinsic Reading Motivation of Pre-service English Teachers

Variables	r	p-value
L2 Grit	0.37	0.000
Intrinsic Reading Motivation	1	

Note: Significant at the .01 level (2-tailed)
N= 128

At the beginning of a long-term journey to learn a second language, students must reflect on their interest in and intended effort in doing so (Cavilla, 2017). The results presented above are consistent with the research conducted by Changlek and Palanukulwong (2015). In their study, one major statistical finding revealed a significant and positive correlation between intrinsic and extrinsic motivation and grit among high achievers who are learning English as a foreign language. Particularly between intrinsic motivation and perseverance of effort, the same study found a significant and positive but weak relationship. This positive relationship implies that gritty people are more focused on their goals, and such is demonstrated when they get obsessed, as Lehrer (2011) would describe it, with particular activities like reading, in relation to the present study. We can expect, therefore, that intrinsically motivated language learners

have the strength to endure when confronted with a difficult task, i.e., reading extremely challenging texts. Gritty students can overcome their fear of failure as they welcome challenges as part of the learning process. They recognize that mastering the target language requires a lot of reading, spanning from simple to complex materials, along with other activities that develop their skills. This reinforces Keegan's (2017) argument that one's personality and motivation are important determinants in language acquisition and educational accomplishments. Existing studies have also discovered that grit is associated with a variety of beneficial outcomes which include academic motivation (Eskreis-Winkler et al., 2014), persistence in accomplishing difficult tasks (Lucas & Nordgren, 2015), and even in delivering outstanding performances such as nationwide spelling competitions (Duckworth et al., 2010).

However, the low correlation between the variables examined in the present study can possibly be explained by the context in which the L2 grit is measured. This indicates that despite both variables heading in the same direction, they do not necessarily have a linear correlation. It should be emphasized that most of the studies conducted on grit came from the Western culture, i.e., the United States, a country whose society is thought to be individualistic (Hofstede, 2001). In order to investigate the potential variances of grit, cultural theories must be considered. The self-construal theory of Markus and Kityama (1991) was used extensively to explain this phenomenon. This theory describes Western individualistic societies as people who view themselves with an autonomous identity, free of their social context (independent self-construal), and capable of pursuing their own goals (Markus & Kitayama, 1991). Contrastingly, the collective societies from the East, or other cultures, see themselves as inherently interdependent components of society (interdependent self-construal). In other words, they share a fundamental connection with one another. As per empirical evidence, past studies among Asian communities revealed that learners usually invest a lot of their time in studying to broaden their academic achievements and maintain a 'face.' This approach to academic success is greatly encouraged in the East (King, 2015) but not from the end of Western students. Taken as a maladaptive approach by the latter group, they

do not recommend it as an effective way of gaining learning success (Elliot & Murayama, 2008).

Datu et al. (2016) further added that studies focusing on other cultures, such as the Asian contexts, are still in the marginalized area considering the very little research done. They also pointed out that the situation within the said community may be different, considering their collective values, social conventions, and traditions. Such major differences necessitate the investigation of the applicability of the concept of grit in a collectivist society. Hence, there is a high possibility that the Western individualistic concept of grit might not be appropriate for collective societies. This, then, calls for a modified model of grit that is more culturally applicable in a collectivist society like the Philippines.

Furthermore, grit entails long periods of time by definition. Given that the present study used a cross-sectional survey, this could have also played a factor in such results. Thus, there is a great possibility that measuring grit for a single period of time, by merely answering the questionnaire, and amongst a collective society may be simply not entirely appropriate.

4 Conclusion

Over the past few years, the growing interest in grit does not seem to slow down anytime soon. Various studies have already highlighted its importance across different domains, including the realm of language learning. Previously conducted research studies have proven that grit, as a non-cognitive construct, can help a learner succeed in achieving their identified long-term goals (Duckworth et al., 2007; Duckworth & Gross, 2014). In fact, motivation has been among the various factors that are associated with grit, particularly in language learning (Changlek & Palanukulwong, 2015; Chen et al., 2020; Feng & Papi, 2020). In line with this, the present study discovered that learners of English as an L2 and student teachers specializing in the said language are highly gritty individuals who are also intrinsically motivated learners. Contrary to the presumptions made at the onset of this study, results demonstrated that their differences in terms of their focus of study do not necessarily determine the level of grit they have in L2 learning. However, as Datu et al. (2016) would suggest, L2 Grit scales need to be culturally

sensitive, too. Nevertheless, this does not necessarily negate the link determined between the variables. This can, instead, mean that stimulating students' intrinsic reading motivation can also improve their L2 grit. Additionally, the researchers only used pure quantitative methods which might have different possible results if they used different designs in research, such as qualitative research design or mixed method research design in the current study.

5 Recommendations

The relationship between grit and motivation has been established in previous studies. However, linguistic research particularly focusing on language-specific grit seems scant. A mixed-methods study offering a qualitative perspective on the subject and the participants' complex viewpoints may be done as a follow-up. Moreover, several studies across different fields have been stressing the importance of grit, for it almost always guarantees success among those who possess it. In the landscape of academics, there have been empirical data that prove its crucial role in positive academic outcomes (Datu et al., 2016).

The importance of developing L2 grit is highlighted in this study as it positively correlates with intrinsic reading motivation. Thus, the present research recommends identifying teaching strategies that specifically increase the L2 grit of the students to be tested (Alamer, 2021). Conducting grit intervention studies shall help our teachers plan their teaching strategies or practices that promote L2 grit, as well as intrinsic reading motivation, among the learners. This will further shed light on how teachers can provide the help needed by the students in class.

While the literature provides a few strategies that foster L2 grit in students, Duckworth (2013), in her appearance at the TED Conference, suggested that a growth mindset is a good idea for building grit. This means that teachers can use teaching strategies that promote a growth mindset in learning as it also develops the grit of the students (Zhao et al., 2018). For example, English language teachers should praise the reading effort of the students who positively view effort-ability relationships (Calingasan & Plata, 2022), provide process-focused criticism (Dweck, 2008), help students set and achieve a learning goal instead of a performance goal (Dweck & Yeager, 2019), and

give them challenging learning tasks (Grant & Dweck, 2003). Duckworth (2013) believed that fostering a growth mindset among individuals is one of the ways to build grit. In fact, gritty individuals are more successful than those who have higher IQs. According to the study by Schwinger et al. (2009) and Wolters (1998), college students have a set of motivational regulation strategies associated with increased effort, academic performance, and persistence. With this, we can infer that a growth mindset would be a great help to boost the motivational regulation strategies of college students in pursuing their long-term goals and it is also a way to increase their grit at the same time.

Moreover, in order to contribute to the growing body of literature on L2 grit, it is first suggested that an L2 Grit Scale, acknowledging the significant differences among collective societies, be developed. Grit may be a personality that anyone can have, but not everyone views it so similarly. Cultural factors may play a crucial part in how one evaluates grit. Hence, for the purpose of gathering as accurate data as possible, a culturally sensitive L2 grit scale must be proposed, examined, and validated for further use.

Lastly, future language researchers may opt to conduct studies that involve ESL in-service teachers. Teimouri et al. (2020) asserted that investigating language teachers' grit and their motivation in teaching is of equal importance. Given that they have first-hand experience in facilitating an ESL classroom, it would be interesting to see just how gritty they are. This trait can be reflected in their teaching practices or in their professional development in general. As someone who always deals with the element of spontaneity common to the teaching profession, it is also of interest to know how they confront difficult situations that arise within the language classroom. Hence, it would be much better to also conduct an interview that shall allow a more in-depth understanding of the variable being examined.

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