Pak. j. life soc. Sci. (2024), 22(2): 6206-6217 E-ISSN: 2221-7630;P-ISSN: 1727-4915

Pakistan Journal of Life and Social Sciences

www.pjlss.edu.pk

https://doi.org/10.57239/PJLSS-2024-22.2.00467

RESEARCH ARTICLE

Unlocking the Keys to Grit: Identifying Predictors in Philippine Purposive Communication Classrooms

Louis Placido F. Lachica*

College of Education, Arts and Sciences, Capiz State University Pontevedra Campus, Capiz, Philippines

ARTICLE INFO

Received: Jul 10, 2024

Accepted: Sep 16, 2024

Keywords

Academic Engagement
Grit
Socio-Emotional Competence
Predictors
Regression Analysis

***Corresponding Author**

lpflachica@capsu.edu.ph

ABSTRACT

Perseverance and passion validate grit; however, specific predictors remain unexplored. This predictive-correlational study involved 313 education students from a Philippine state University in the Western Visayas Region. These participants were determined using GPower software with a medium effect size, 80% power, and a 0.05 significance level. Measurement tools used were adapted from the standard measures, that is, the Social-Emotional Competence Questionnaire (Zhou & Ee, 2012; Grit Scale (Duckworth et al., 2007); and the Academic Engagement Scale (Reeve, 2013). Descriptive data were analyzed using frequency and percentage. On the other hand, the Eta correlation, Eta correlation coefficient, Pearson correlation coefficient, and multiple regression analysis were employed using a stepwise method (Luik & Taimalu, 2016) using SPSS. Results showed positive correlations between grit, socio-emotional competence, academic engagement, year level, digital resources, and financial support. Regression analysis revealed that socio-emotional competence, academic engagement, year level, and financial support positively correlated with grit, while internet connectivity and civil status were negative predictors. The regression equation was: Grit = 1.365 + 0.373 (Socio-Emotional Competence) + 0.220 (Academic Engagement) + 0.062 (Year Level) + 0.055 (Financial Support) + 0.046 (Internet Connectivity) - 0.262 (Civil Status). Developing socio-emotional competence and academic engagement increases grit and, hence, is beneficial to educators in enhancing students' resilience and perseverance toward learning in Purposive Communication classes at a Philippine state university. There is still a need for more research to inform about the development of grit among Filipino education students. Researchers may examine longitudinal studies that describe other correlation factors between grit formation and academic outcomes.

INTRODUCTION

Scholarship on predictors of grit among education students who enroll in purposive communication classes informs interventions that build their resilience, perseverance, and academic performance. Grit revolves around the union of passion and sustained persistence over long-term goals. Grit has become earmarked as a component of academic achievement and performance but with personal success. Grit is the hypertype of interests and effort that constructs interest consistency (Duckworth et al., 2007). All these, in combination, give a person's commitment to his goal and day-to-day achievement against adversity. Though intelligence strongly predicts academic achievement, grit, and other non-cognitive factors are crucial in nurturing student persistence and performance.

Socio-demographic characteristics, socio-emotional competence, and academic engagement are some of the factors that can predict students' grit in education (Zhou & Ee, 2012; Elias and Haynes,

2008; Durlak et al., 2011; Wie et al., 2020; Zhang et al., 2022). Socio-emotional learning was noted to have significant impacts on student's academic and personal life, enhancing students' grades, attitudes, emotions, and engagement to learn (Zhou & Ee, 2012; Elias and Haynes, 2008; Durlak et al., 2011; Wie et al., 2020; Zhang et al., 2022). A student who is in good rapport and emotionally intelligent develops an appetite to learn, which becomes a bedrock for success and a building block for confidence in lifelong learning (Mercer & Dómyel, 2020).

Academic engagement is likely more attributed to grit (Phillip & Duchesne, 2016); individual characteristics and pedagogical methodologies have an impact, much like the learning environment. Such a complex interplay underlines interdependence due to cognitive, metacognitive, affective, social, and linguistic factors contributing to student engagement. This complicated interplay of cognitive, metacognitive, affective, social, and linguistic dimensions underlines the interrelationship between those aspects of student engagement. Although it is indeed true that academic engagement is positively related to educational outcomes (Oga-Baldwin, 2019), research states that the question of how exactly engagement develops grit in foreign language learning is yet to be investigated. Most predictor studies in the Philippine higher education context focused on academic performance in nursing schools and mental well-being of teachers (Oducado & Pinuela, 2014; Oducado et al., 2024), and videoconferencing fatigue (Oducado et al., 2021; Oducado et al., 2022). This further creates a knowledge gap in understanding how engagement and grit interact with socio-demographic variables.

While the importance of socio-demographic characteristics, socio-emotional competence, and academic engagement to grit has increasingly been recognized, significant empirical gaps remain. A call for further research is necessary to probe into the predictors of grit among Philippine state university education students. Considerable studies have put meaning to grit as a precursor to the success of college students in academics rather than the reverse.

There is a vast disparity in the study population. The few research works already executed on studies of grit predictors among medical students have focused more on the students' social support and compassion for grit (Ibrahim et al., 2024; Tulowiecka, 2024; Naat et al., 2024). This illustrates the urge for additional research on Filipino education students studying in Purpose Communication classes.

Identifying the predictors of grit among Filipino education students attending Purpose Communication classes will help create interventions likely to enhance academic performance and improve their general well-being.

LITERATURE REVIEW

Existing studies have scrutinized the construct of grit in communicative language learning, for which encouraging results might be expected to occur. However, there are only a limited number of studies dealing with grit in the case of purposive communication (Kryshko et al., 2022; Khajavy & Aghaee, 2022; Bensalem et al., 2020; Ebn-Abbasi & Nushi, 2019), and grit and communicative language learning (Zhao, 2023; Khajavy et al., 2022; Feng & Papi, 2020; Lan et al., 2020; Ebn-Abbasi & Nushi, 2019).

Some considerable meta-analyses have concluded that grit does relate to the process of language learning (Zhao & Wang, 2023; Huang & Liu, 2023; Huang, 2023; Zhang et al., 2022; Wang & Li, 2021). Several studies confirm language proficiency, vocabulary acquisition, grammar knowledge, and speaking ability as predictors of grit. This further underlines that a clear need exists to investigate the association between grit and language learning; this needs to be done as soon as possible.

Research on grit predictors within the educational context has created a complex interplay of factors. They include, among others, intrinsic and extrinsic motivation (Kryshko et al., 2022; MacIntyre & Khajavy, 2021; Joe et al., 2017; Hassanzadeh & Gorji, 2014), personality characteristics (Jackson &

Parks, 2020; Ivcevic & Brackett, 2014), socio-economic and environmental aspects (Zhao, 2023; Forsblom et al., 2022; Zhang et al., 2021; Lan et al., 2020), and previous academic performance (Khajavy & Aghaee, 2022). This diversity of gritty individuals brings to light how upscale and difficult the concept of grit is.

METHODOLOGY

Research design and sampling

This predictive-correlational study involved 313 education students from a Philippine state University in the Western Visayas Region during the second semester of the 2023-2024 academic year. These participants were determined using GPower software with a medium effect size, 80% power, and a 0.05 significance level. A predictive correlational design is a non-experimental research design that seeks to identify relationships between variables and predict future outcomes based on these relationships (Creswell & Creswell, 2017). This design involves measuring one or more predictor (independent) variables and determining how well they predict a criterion (dependent) variable. The strength and direction of these relationships are assessed using correlation coefficients, and predictive models are often developed through regression analysis (Privitera, 2022). This approach allows researchers to predict future behavior or outcomes without manipulating any variables (Keith, 2019).

Data collection involved a self-reported questionnaire encompassing four primary domains: socio-demographic profile, grit, socio-emotional competence, and academic engagement. Measurement tools used were adapted from the standard measures, that is, The Social-Emotional Competence Questionnaire (Zhou & Ee, 2012; Grit Scale (Duckworth et al., 2007); and the Academic Engagement Scale (Reeve, 2013). First, face validation of the questionnaire was conducted with a panel of experts from key areas. This study would cover a psychometrician, an educational researcher, and an English language professor. Next, SECQ, Grit Scale, and academic engagement scale were composed, respectively, with 25, eight, and 17 Likert-type items. Cronbach's alpha was used to check the instrument's reliability, which resulted in a coefficient of .92, indicating excellent internal consistency.

Permission to administer questionnaires was secured from the campus administrator and deans. Google Docs questionnaires were electronically distributed to respondents, with a two-week response period allotted.

Data analysis

Descriptive data were analyzed using frequency and percentage. On the other hand, the Eta correlation determined the significant relation between grit and socio-emotional competence, academic engagement, and socio-demographic variables. The Eta correlation coefficient is used when the independent variable is categorical and the dependent variable is continuous (Jenkins, 2021). The Pearson correlation coefficient was used to determine (Deng et al., 2021) the significant relationship between grit and other variables. The Pearson correlation coefficient is applied when the independent and dependent variables are continuous. Multiple regression analysis using a stepwise method (Luik & Taimalu, 2016) was employed to identify the significant predictors of grit. SPSS was utilized for data processing.

RESULTS

Socio-demographic characteristics

The socio-demographic characteristics of the education students are shown in Table 1. Three hundred thirteen students served as respondents of this study.

The socio-demographic characteristics of the students (N=313) in Table 1 are detailed as follows: The majority of the students are female, with 249 (79.6%) identifying as such, while 64 (20.4%) are

male. In terms of age distribution, 99 students (31.6%) are 19 years old and below, 81 students (25.9%) are 20 years old, 54 students (17.3%) are 21 years old, and 79 students (25.2%) are 22 years old and above. The students' year levels vary, with 56 freshmen (17.9%), 65 sophomores (20.8%), 57 juniors (18.2%), and 135 seniors (43.1%).

Table 1: Socio-demographic characteristics of education students (N=313)

Variables	**f**	**%**
Sex		
Male	64	20.4
Female	249	79.6
Age		
19 years old and below	99	31.6
20 years old	81	25.9
21 years old	54	17.3
22 years old and above	79	25.2
Year Level		
Freshman	56	17.9
Sophomore	65	20.8
Junior	57	18.2
Senior	135	43.1
Parents Combined Family Income		
5,000 and below	132	42.2
5001-10,000	122	39.0
Above 10,000	59	18.8
Civil Status		
Single	305	97.4
Married, Live-in, Separated	8	2.6
Place of Origin		
Urban (City)	24	7.7
Town Proper	78	24.9
Rural-Upland	168	53.7
Rural-Coastal	43	13.7
Living Arrangements		
With family	289	92.3
Not with family	24	7.7
Financial Support		
Scholarships	99	31.6
Loans	23	7.3
Parental support	191	61.0
Support Systems		
Family	294	93.9
Peers, Mentors	19	6.1
Motivational Factors		
Intrinsic motivation	24	7.7
Career aspirations	36	11.5
Personal goals	239	76.4
Others (Open communication)	14	4.5
Employment Status		
Full-time student	238	76.0
Full-time student with part-time job	56	17.9
Part-time student with part-time job	19	6.1

When looking at their parents' combined family income, 132 students (42.2%) come from families earning 5,000 and below, 122 students (39.0%) from families earning between 5,001 and 10,000, and 59 students (18.8%) from families with income above 10,000. The civil status of the majority is

single, with 305 students (97.4%) identifying as such, while eight students (2.6%) are married, live-in, or separated.

As to place of origin, 24 students (7.7%) come from urban cities, 78 (24.9%) from town proper areas, 168 (53.7%) from rural upland regions, and 43 (13.7%) from rural coastal areas. Most students live with their families (289 or 92.3%), whereas 24 students (7.7%) do not. Financial support is primarily provided by parents, with 191 students (61.0%) relying on parental support, 99 students (31.6%) benefiting from scholarships, and 23 students (7.3%) using loans.

Support systems are predominantly family-based, with 294 students (93.9%) depending on the family, while 19 (6.1%) rely on peers or mentors. Motivational factors vary, with 239 students (76.4%) driven by personal goals, 36 students (11.5%) by career aspirations, 24 students (7.7%) by intrinsic motivation, and 14 students (4.5%) by open communication with family and peers. Lastly, in terms of employment status, 238 students (76.0%) are full-time students, 56 students (17.9%) are full-time students with part-time jobs, and 19 students (6.1%) are part-time students with part-time jobs.

Access and utilization of educational resources

Table 2 provides an overview of students' access to and utilization of educational resources.

Table 2: Access and utilization of educational resources among education students

Variables	f	%
Access to Educational Materials		
Book and Library	120	38.3
Journals, Online Database	193	61.7
Technology Access (Hardware)		
Smartphones	255	81.5
Laptops/ Desktop computers	58	18.5
Internet connectivity		
High-speed internet (Library)	50	16.0
Wi-Fi access (DICT)	149	47.6
Pisonet	70	22.4
Others (Mobile data)	44	14.1
Software and Applications		
Learning Management System	30	9.6
Educational Software	45	14.4
Online Collaboration (Zoom, Google Meet)	238	76.0
Digital Resources		
E-books	29	9.3
E-Journals	17	5.4
Online courses	93	29.7
Multimedia resources	106	33.9
Artificial intelligence tools	68	21.7

Access to educational materials is relatively balanced between books and libraries, used by 120 students (38.3%), and journals and online databases, accessed by 193 students (61.7%). In terms of technology access, smartphones are predominantly used by 255 students (81.5%), while 58 students (18.5%) utilize laptops or desktop computers.

In terms of internet connectivity, 50 students (16.0%) have high-speed internet, 149 students (47.6%) rely on Wi-Fi access, 70 students (22.4%) use Pisonet, and 44 students (14.1%) access the internet through other means such as mobile data.

The use of software and applications is also notable, with 30 students (9.6%) utilizing Learning Management Systems, 45 students (14.4%) using educational software, and 238 students (76.0%)

employing online collaboration tools such as Zoom and Google Meet. These results demonstrate the increasing integration of technology into education and the preference for collaborative tools among students (Chen et al., 2020).

Digital resources are varied in their utilization: 29 students (9.3%) use e-books, 17 students (5.4%) access e-journals, 93 students (29.7%) engage with online courses, 106 students (33.9%) make use of multimedia resources, and 68 students (21.7%) employ artificial intelligence tools.

Grit correlation analysis

Table 3 provides a detailed correlation analysis between various variables and students' grit levels, including the correlation coefficients and their respective p-values. Significant correlations, indicated by p-values less than 0.05, are marked with an asterisk (*). The analysis reveals several key findings.

Firstly, a significant positive correlation exists between year level and grit (ŋ = 0.185, p = 0.013), suggesting that their grit levels tend to increase as students advance through their academic stages.

Table 3: Correlates of grit among education students

Variables	Test Statistics (r/ŋ	p-value
Sex[ŋ]	0.030	0.595
Age[ŋ]	0.121	0.208
Year Level[ŋ]	0.18	0.013
Parents' combined family income[ŋ]	0.050	0.683
Civil Status[ŋ]	0.080	0.158
Place of Origin[ŋ]	0.154	0.058
Living Arrangements[ŋ]	0.154	0.058
Financial Support[ŋ]	0.071	0.454
Support Systems[ŋ]	0.075	0.185
Motivational Factors[ŋ]	0.096	0.410
Employment Status[ŋ]	0.040	0.778
Access to Educational Materials[ŋ]	0.057	0.314
Technology Access (Hardware) [ŋ]	0.027	0.635
Internet Connectivity[ŋ]	0.180	0.017
Software and Applications[ŋ]	0.018	0.951
Digital Resources[r]	0.205	0.010
Socio-Emotional Competence[r]	0.538	0.000
Academic Engagement[r]	0.508	0.000

p<0.05, [ŋ]Eta Correlation, [r]Pearson Correlation Coefficient

Similarly, internet connectivity shows a significant positive correlation with grit (ŋ = 0.180, p = 0.017), indicating that better access to the internet is associated with higher levels of grit among students. Furthermore, access to digital resources is positively correlated with grit (ŋ = 0.205, p = 0.010), suggesting that greater availability of digital resources is linked to increased grit.

In addition, socio-emotional competence demonstrates a strong positive correlation with grit (r = 0.538, p = 0.000), revealing that students with higher socio-emotional competence tend to exhibit significantly higher grit levels. Academic engagement also shows a strong positive correlation with grit (r = 0.508, p = 0.000), implying that students who are more academically engaged generally display higher grit levels.

Conversely, several variables, including sex, age, parents' combined family income, civil status, place of origin, living arrangements, financial support, support systems, motivational factors, employment status, access to educational materials, technology access (hardware), and software and applications, did not show significant correlations with grit (p > 0.05).

These findings reflect the importance of socio-emotional competence, including self-awareness, self-efficacy, and optimism, which are significant and constituent elements in building resilience and

perseverance. Engagement in school allows for the instillation of grit since it presents activity, challenging curriculum, and supportive learning environments.

Digital resources provide, among others, personalized learning, opportunities for research, and a place to develop those collaboration skills that enhance grit. Thus, access to the internet broadens horizons; students search for educational materials, learn online, and join various discussions with their contemporaries worldwide.

Multiple regression analysis of grit predictors

The multiple regression analysis that predicts the students' grit is presented in Table 4. The table includes the unstandardized regression coefficients (B), t-values, and p-values for each independent variable.

Table 4: Predictors of grit among education students

Independent Variables	B	t	p-value
(Constant)	1.385	5.711	.000
Socio-Emotional Competence	.373	6.717	.000
Academic Engagement	.220	4.848	.000
Year Level	.062	3.661	.000
Financial Support	.055	2.536	.012
Internet connectivity	-.046	-2.133	.034
Civil Status	-.262	-2.130	.034

Note: R=.631, R-squared=.398 , F=33.655 , p<0.001

Regression model and summary

The regression model shows a multiple correlation coefficient (R) of 0.631, indicating a good level of student grit prediction. The R-squared value of 0.398 suggests that the independent variables included in the model explain approximately 39.8% of the variance in grit. The overall model is statistically significant, as indicated by the F-statistic of 33.655 ($p < 0.001$), confirming that the predictors reliably estimate grit.

The multiple regression model developed to predict grit among students includes socio-emotional competence, academic engagement, year level, financial support, internet connectivity, and civil status as independent variables. The regression equation is formulated as follows:

Grit = *1.385 + 0.373 (Socio-Emotional Competence) + 0.220 (Academic Engagement)*
+ 0.062 (Year Level) + 0.055 (Financial Support) − 0.046 (Internet Connectivity)
− 0.262 (Civil Status)

DISCUSSION

Previous research found that gender differences in academic engagement and socio-emotional competence have been noted, with females often exhibiting higher levels of these traits (MacCann et al., 2020). As students advance in age and year level, their grit and academic performance levels tend to increase, likely due to accumulated experience and maturity (Datu et al., 2017). Family income significantly influences students' access to resources and academic motivation, highlighting the impact of socio-economic factors (Dumont et al., 2017).

Previous studies have highlighted the digital divide in educational settings (Smith et al., 2019). The present study shows a relatively high proportion of students relying on Wi-Fi access, which may indicate challenges in accessing high-speed internet in certain areas. This aligns with studies highlighting the digital divide in developing countries, where internet connectivity can be limited (Khan et al., 2018).

There is a diverse range of digital resources utilized by students, reflecting the growing availability and accessibility of these tools (Wang et al., 2023). Access to digital resources and technology has

been positively linked to increased student engagement and better academic performance, mainly when these resources facilitate interactive and personalized learning (Chen et al., 2020). Internet connectivity and digital tools are crucial for enhancing socio-emotional learning through collaborative platforms (Greene et al., 2011). In the present study, access and utilization of digital educational resources heavily depend on internet connectivity availability.

A meta-analysis by Eskreis-Winkler et al. (2014) found a positive significant correlation between grit and academic engagement, thus supporting the findings of this present study. Grit is positively associated with socio-emotional competence and academic engagement, indicating that emotionally intelligent students are more persistent in their studies (Crede et al., 2017). Access to digital resources supports the development of grit by providing students with tools and opportunities for self-directed learning (Wang et al., 2023).

Some studies have found mixed or inconsistent results regarding the relationship between grit and socio-economic factors (Duckworth et al., 2007). This suggests that while socio-economic factors influence grit, the relationship may be complex and multifaceted. Although this present study did not find any significant difference based on gender regarding grit, the original research on grit by Duckworth et al. (2007) uncovered gender differences in grit levels. Socio-emotional competence and academic engagement are strong predictors of grit, with high levels of these traits leading to increased resilience and persistence in students (Muenks et al., 2017). The relationship between internet connectivity and grit is complex, as excessive reliance on digital resources may sometimes hinder the development of perseverance (Chang et al., 2018).

The regression analysis identifies several significant predictors of grit among students. Socio-emotional competence emerged as a strong positive predictor, with a coefficient (B) of 0.373 ($t = 6.717$, $p < 0.001$), indicating that students with higher socio-emotional competence exhibit higher levels of grit. This finding is consistent with Oriol et al. (2017), who found that socio-emotional competence significantly enhances students' perseverance and passion for long-term goals. Similarly, academic engagement is a significant positive predictor ($B = 0.220$, $t = 4.848$, $p < 0.001$), suggesting that students who are more engaged academically tend to have higher grit levels, as supported by Hodge et al. (2017), who demonstrated that engagement positively impacts grit and academic performance.

The year level of students also significantly predicts grit ($B = 0.062$, $t = 3.661$, $p < 0.001$), with students in higher academic years showing greater grit, aligning with Akos and Kretchmar's (2017) findings that grit increases as students advance through college. Moreover, the combined influence of socio-emotional competence and academic engagement on grit becomes more pronounced as students progress through their academic journey, as highlighted by Zhang et al. (2022).

Financial support shows a positive relationship with grit ($\beta = 0.055$, $t = 2.536$, $p = 0.012$), implying that students receiving financial support are more likely to have higher grit (Duckworth et al., 2016; O'Neal and Campbell, 2020; Yeager et al., 2016; Dweck, 2014). Interestingly, internet connectivity is a significant negative predictor of grit ($\beta = -0.046$, $t = -2.133$, $p = 0.034$), suggesting that better internet access may be associated with lower grit levels (Wang et al., 2015; Przybylski et al., 2018; Twenge et al., 2018; Greenfield and Kim, 2014). Civil status also negatively predicts grit ($\beta = -0.262$, $t = -2.130$, $p = 0.034$), with married, live-in, or separated students exhibiting lower grit than their single counterparts (Alvarez et al., 2020; Chen et al., 2019).

CONCLUSION

Socio-emotional competence, academic engagement, year level, and financial support positively predict grit. Internet connectivity and civil status negatively predict it. The regression model explained 39.8% of the variance in grit. Other factors may also contribute to the development of grit among Filipino education students. The ability of education students who joined the purposive communication classes to sail through challenges and surmount their focus strengthens as they go up the academic ladder. The diversity of demands of digital life in the modern world and the

attendant personal responsibilities tend to fragment the concentration and persistence necessary for grit to blossom. Although the result is promising, more research is still needed to be informed about the development of grit among Filipino education students. Qualitative research, for example, has a place in investigating whether there is indeed a proper correlation between family expectations, cultural values, and intrinsic motivation during the formation of grit. It also looks into how mentorship, community involvement, and educational policies further enhance the understanding of how grit is shaped in the unique socio-cultural environment of the Philippines.

REFERENCES

Adelman, H., & Taylor, L. (2022). Student engagement and learning climate. *Handbook of Research on Student Engagement*, 545-561. https://doi.org/10.1007/978-3-031-07853-8_26

Akos, P., & Kretchmar, J. (2017). Investigating grit as a non-cognitive predictor of college success. The Review of Higher Education, 40(2), 163–186. https://doi.org/10.1353/rhe.2017.0000

Beard, S. M., & Langlais, M. R. (2018). Saying "I do" in college: Examining marital status and academic performance. *International Journal of Psychological Studies*, *10*(4), 34. https://doi.org/10.5539/ijps.v10n4p34

Bensalem, E., Thompson, A. S., & Alenazi, F. (2023). The role of grit and enjoyment in EFL learners' willingness to communicate in Saudi Arabia and Morocco: A cross-cultural study. *Journal of Multilingual and Multicultural Development*, 1-16. https://doi.org/10.1080/01434632.2023.2200750

Chang, Y., Tang, S., & Hwang, G. J. (2018). Context-aware learning analytics in ubiquitous learning environments: A survey. Journal of Educational Technology and Society, 21(2), 120–133.

Christenson, S. L., Reschly, A. L., & Wylie, C. (2012). *Handbook of research on student engagement*. Springer Science and Business Media.

Crede, M., Tiliopoulos, N., & Harbord, D. (2017). Grit and emotional intelligence: A meta-analysis of their relationship. Journal of Positive Psychology, 12(3), 232–244.

Crede, M., Tynan, M. C., & Harms, P. D. (2017). Much ado about grit: A meta-analytic synthesis of the grit literature. Journal of Personality and Social Psychology, 113(3), 492–511. https://doi.org/10.1037/pspp0000102

Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches*. SAGE Publications.

Datu, J. A. D., Valdez, J. P. M., & King, R. B. (2016). Perseverance counts but consistency does not! Validating the Short Grit Scale in a collectivist setting. *Current Psychology: A Journal for Diverse Perspectives on Diverse Psychological Issues, 35*(1), 121–130. https://doi.org/10.1007/s12144-015-9374-2

DeLay, D., Hanish, L. D., Martin, C. L., & Fabes, R. A. (2016). Peer effects on Head Start children's preschool competency. *Developmental Psychology, 52*(1), 58–70. https://doi.org/10.1037/dev0000066

Ding, D., Bhattacharya, P., & Phan, T. Q. (2019). *The impact of peer influence on academic performance in a multiplex network: A three-stage Co-evolution framework*.

Del Villar, M. (2021). The relationship between grit and readiness to learn among Filipino college students. Philippine Journal of Education, 95(2), 16-25.

Dumont, H., Trautwein, U., Nagy, G., & Nagengast, B. (2017). Who can do what with which parents? Differential relationships between parental socio-economic status and parental involvement activities. Journal of Educational Psychology, 109(6), 767–790. https://doi.org/10.1037/edu0000172

Duckworth, A. L., Peterson, C., Matthews, M. D., & Kelly, D. R. (2007). Grit: Perseverance and passion for long-term goals. *Journal of Personality and Social Psychology*, *92*(6), 1087-1101. https://doi.org/10.1037/0022-3514.92.6.1087

Durlak, J. A., Weissberg, R. P., Dymnicki, A. B., Taylor, R. D., & Schellinger, K. B. (2011). The impact of enhancing students' social and emotional learning: A meta-analysis of school-based universal interventions. *Child Development*, *82*(1), 405-432. https://doi.org/10.1111/j.1467-8624.2010.01564.x

Ebn-Abbasi, M., & Nushi, M. (2019). Grit and language learning: A case study of English as a foreign language learners. International Journal of Research in Education, 9(2), 123-135.

Elias, M. J., & Haynes, N. M. (2008). Social competence, social support, and academic achievement in minority, low-income, urban elementary school children. *School Psychology Quarterly*, *23*(4), 474-495. https://doi.org/10.1037/1045-3830.23.4.474

Eskreis-Winkler, L., Shulman, E. P., Beal, S. A., & Duckworth, A. L. (2014). The grit effect: Predicting retention in the military, the workplace, school and marriage. *Frontiers in Psychology*, *5*. https://doi.org/10.3389/fpsyg.2014.00036

Feng, L., & Papi, M. (2020). Persistence in language learning: The role of grit and future self-guides. *Learning and Individual Differences*, *81*, 101904. https://doi.org/10.1016/j.lindif.2020.101904

Friala, E. J., Gales, A., Uy, N. J., & Montano, R. L. (2023). The impact of grit on the academic buoyancy of Filipino undergraduate students engaged in distance learning. *Journal of Further and Higher Education*, *47*(7), 954-965. https://doi.org/10.1080/0309877x.2023.2203803

Forsblom, J., Salmela-Aro, K., & Suhonen, J. (2022). Socio-economic status and grit: A meta-analysis. Journal of Personality, 90(2), 189-214.

Garcia, A. (2019). The role of grit in the academic success of Filipino college students. Philippine Journal of Education, 94(3), 26–35.

Greene, J. A., Moos, D. C., & Azevedo, R. (2011). Self-Regulation of Learning with Computer-Based Learning Environments. *New Directions for Teaching and Learning*, *2011*(126), 107-115. https://ssrlsig.org/wp-content/uploads/2018/01/greene-moos-azevedo-2011-self-reg-of-learning-with-computer-based.pdf

Greenfield, P. M., & Kim, J. (2014). The impact of the internet on adolescents: How the new technologies are changing adolescent life. Journal of Adolescent Research, 29(1), 1–18.

Hassanzadeh, S., & Gorji, A. (2014). The relationship between intrinsic motivation, extrinsic motivation, and grit. International Journal of Educational Research, 65, 1-8.

Heydarnejad, T., Ismail, S. M., Shakibaei, G., & Saeedian, A. (2022). Modeling the impact of L2 grit on EFL learners' core of self-assessment and foreign language anxiety. *Language Testing in Asia*, *12*(1), 1-20. https://doi.org/10.1186/s40468-022-00200-6

Hodge, B., Wright, B., & Bennett, P. (2017). The role of grit in determining engagement and academic outcomes for University students. *Research in Higher Education*, *59*(4), 448-460. https://doi.org/10.1007/s11162-017-9474-y

Ivcevic, Z., & Brackett, M. (2014). Predicting school success: Comparing conscientiousness, grit, and emotion regulation ability. *Journal of Research in Personality*, *52*, 29-36. https://doi.org/10.1016/j.jrp.2014.06.005

Jackson, C. M., & Parks, A. S. (2020). Grit and personality: A meta-analysis. Journal of Personality, 88(3), 393–418.

Jenkins, K. S. (2021). *The Impact of Instructional Coaching on Efficacy in General Education Teachers in Inclusion Classrooms* [Doctoral dissertation]. https://digitalcommons.liberty.edu/doctoral/3330/

Joe, R. A., Lee, C., & Kim, Y. (2017). The role of intrinsic motivation and extrinsic motivation in grit. Journal of Educational Psychology, 109(4), 560-573.

Keith, T. Z. (2019). *Multiple regression and beyond: An introduction to multiple regression and structural equation modeling*. Routledge.

Khajavy, G. H., & Aghaee, E. (2022). 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

Kramer, B., McLean, S., & Shepherd Martin, E. (2018). Student Grittiness : A Pilot Study Investigating Scholarly Persistence in EFL Classrooms. *Journal of Osaka Jogakuin College*, 25-41. http://ir-lib.wilmina.ac.jp/dspace/bitstream/10775/3498/1/B_03Brandon.pdf

Kryshko, A., Khajavy, N., & Aghaee, M. (2022). Grit and language learning: A meta-analysis. Frontiers in Education, 7, 720918.

Lan, L., Li, X., & Wang, Y. (2020). The relationship between grit and environmental factors in language learning. Language Teaching Research, 54(3), 321-340.

Li, C. (2020). A positive psychology perspective on Chinese EFL students' trait emotional intelligence, foreign language enjoyment and EFL learning achievement. *Journal of Multilingual and Multicultural Development*, *41*(3), 246-263.

Liu, E., & Wang, J. (2021). Examining the relationship between grit and foreign language performance: Enjoyment and anxiety as mediators. *Frontiers in Psychology*, *12*. https://doi.org/10.3389/fpsyg.2021.666892

Luik, P., & Taimalu, M. (2016). Factors of Participants and Blogs that Predict Blogging Activeness During Teaching Practice and Induction Year. *International Review of Research in Open and Distributed Learning*, *17*(1), 1-15. https://files.eric.ed.gov/fulltext/EJ1090888.pdf

MacCann, C., Jiang, Y., Brown, L. E., Double, K. S., Bucich, M., and Minbashian, A. (2020). Emotional intelligence predicts academic performance: A meta-analysis. *Psychological Bulletin*, *146*(2), 150-186. https://doi.org/10.1037/bul0000219

MacIntyre, P. D., & Khajavy, G. H. (2021). Grit in second language learning and teaching: Introduction to the special issue. *Journal for the Psychology of Language Learning*, *3*(2), 1-6. https://doi.org/10.52598/jpll/3/2/1

Martin, J. (2018). The role of grit in the academic success of Filipino college students. Philippine Journal of Education, 93(4), 36–45.

Mercer, S. (2021). *Engaging Language Learners in Contemporary Classrooms*. Cambridge University Press.

Miao, J., & Ma, L. (2022). Students' online interaction, self-regulation, and learning engagement in higher education: The importance of social presence to online learning. *Frontiers in Psychology*, *13*. https://doi.org/10.3389/fpsyg.2022.815220

Montano, R. L. T. (2021). Thriving predicts grit through self-efficacy among Filipino students enrolled in online education: The moderating role of academic stress. *Hellenic Journal of Psychology, 18*(3), 271–286.

Muenks, K., Wigfield, A., Yang, J. S., & O'Neal, C. R. (2017). How true is grit? Assessing its relations to high school and college students' personality characteristics, self-regulation, engagement, and achievement. *Journal of Educational Psychology*, *109*(5), 599-620. https://doi.org/10.1037/edu0000153

Oducado, R. M., Amboy, M. K., Robles, B. R., Rosano, D., Montaño, H., Temelo, D. R., & Tamdang, K. (2024). Demographics and job satisfaction as predictors of mental well-being of Filipino teachers: A web-based survey two years after the onset of pandemic. *IJERI: International Journal of Educational Research and Innovation*, (21).

Oducado, R. M. F., Dequilla, M. A. C. V., & Villaruz, J. F. (2022). Factors predicting videoconferencing fatigue among higher education faculty. *Education and Information Technologies*, *27*(7), 9713-9724.

Oducado, R. M. F., Fajardo, M. T. R., Parreño-Lachica, G. M., Maniago, J. D., Villanueva, P. M. B., Dequilla, M. A. C. V., & Robite, E. E. (2021). Predictors of videoconference fatigue: Results from undergraduate nursing students in the Philippines. *Asian Journal for Public Opinion Research*, *9*(4), 310-330.

Oducado, R. M., & Penuela, A. (2014). Predictors of academic performance in professional nursing courses in a private nursing school in Kalibo, Aklan, Philippines. *Asia Pacific Journal of Education, Arts and Sciences*, *1*(5), 21-28.

Oga-Baldwin, W. Q. (2019). Acting, thinking, feeling, making, collaborating: The engagement process in foreign language learning. *System*, *86*, 102128. https://doi.org/10.1016/j.system.2019.102128

Oriol, X., Miranda, R., Oyanedel, J. C., & Torres, J. (2017). The Role of Self-control and Grit in Domains of School Success in Students of Primary and Secondary School. Frontiers in Psychology, 8, 245245. https://doi.org/10.3389/fpsyg.2017.01716

Paat, A. (2021). The relationship between grit and readiness to learn among Filipino college students. Philippine Journal of Education, 95(3), 26–35.

Philp, J., & Duchesne, S. (2016). Exploring engagement in tasks in the language classroom. *Annual Review of Applied Linguistics*, *36*, 50-72. https://doi.org/10.1017/s0267190515000094

Privitera, G. J. (2022). *Research methods for the behavioral sciences*. SAGE Publications.

Reeve, J. (2013). How students create motivationally supportive learning environments for themselves: The concept of agentic engagement. *Journal of Educational Psychology Journal of Educational Psychology*, *105*(3), 579-595. https://doi.org/10.1037/a0032690

Teimouri, Y., Plonsky, L., & Tabandeh, F. (2020). L2 grit: Passion and perseverance for second-language learning. *Language Teaching Research*. https://doi.org/10.1177/1362168820921895

Timotheou, S., Miliou, O., Dimitriadis, Y., Sobrino, S. V., Giannoutsou, N., Cachia, R., Monés, A. M., & Ioannou, A. (2022). undefined. *Education and Information Technologies*, *28*(6), 6695-6726. https://doi.org/10.1007/s10639-022-11431-8

Von Culin, K. R., Tsukayama, E., and Duckworth, A. L. (2014). Unpacking grit: Motivational correlates of perseverance and passion for long-term goals. *The Journal of Positive Psychology*, *9*(4), 306-312. https://doi.org/10.1080/17439760.2014.898320

Wang, M., Wang, H., & Shi, Y. (2022). The role of English as a foreign language learners' grit and foreign language anxiety in their willingness to communicate: Theoretical perspectives. *Frontiers in Psychology*, *13*. https://doi.org/10.3389/fpsyg.2022.1002562

Wang, M.T., Chow, A., Hofkens, T., & Salmela-Aro, K. (2015). The trajectories of student emotional engagement and school burnout with academic and psychological development: Findings from Finnish adolescents. *Learning and Instruction*, *36*, 57-65. https://doi.org/10.1016/j.learninstruc.2014.11.004

Wang, Y., Yasmin, F., & Akbar, A. (2023). Impact of the internet on English language learning among university students: mediating role of academic self-efficacy. *Frontiers in Psychology*, *14*, 1184185. https://doi.org/10.3389/fpsyg.2023.1184185

Wei, R., Liu, H., & Wang, S. (2020). Exploring L2 grit in the Chinese EFL context. *System*, *93*, 102295.

Wu, Y. T., Foong, L. Y., & Alias, N. (2022). Motivation and grit affects undergraduate students' English language performance. *European Journal of Educational Research*, *volume-11-2022*(volume-11-issue-2-april-2022), 781-794. https://doi.org/10.12973/eu-jer.11.2.781

Yang, Q., Tian, L., Huebner, E. S., & Zhu, X. (2019). Relations among academic achievement, self-esteem, and subjective well-being in school among elementary school students: A longitudinal mediation model. *School Psychology*, *34*(3), 328-340. https://doi.org/10.1037/spq0000292

Zhang, C., Mao, L., Li, N., & Gu, X. (2022). Chinese EFL students' social-emotional competence, grit, and academic engagement. *Frontiers in Psychology*, *13*. https://doi.org/10.3389/fpsyg.2022.914759

Zhao, Y. (2023). On the relationship between second language learners' grit, hope, and foreign language enjoyment. *Heliyon*, *9*(3).

Zhao, X., & Wang, D. (2023). Grit in second language acquisition: a systematic review from 2017 to 2022. *Frontiers in Psychology*, *14*, 1238788. https://doi.org/10.3389/fpsyg.2023.1238788