

AM I GRITTY AND READY? MEASURING LEARNERS' GRIT AND COLLEGE READINESS

Anton Lorenz L. Rigodon and Jewish Araneta-Merin
lorenzanton108@gmail.com and jewisharanetamerin@gmail.com

ABSTRACT

Traditionally, a learner's academic achievement is associated with cognitive abilities that parents, peers, and teachers mostly appreciate. However, academic success is not always labeled by cognitive factors but intertwined with non-cognitive abilities that could help achieve careers. Learners' psychological capacities may affect their career choices and how they are ready for college, specifically in the concept of grit - the perseverance and passion for long-term goals. This paper discusses that grit is a determining factor in becoming college-ready. The gathered data prevails that learners' overall grit obtains a moderate level with its domains. Among the Grade 12 learners, most of them are moderately gritty amidst different adversities of their lives wherein females are grittier than males. The relationship between college readiness and overall grit reveals that being gritty has a significant positive relationship with college readiness. The learners' General Pointed Average presents a low positive indirect effect on college readiness, but overall-grit obtains a high positive direct effect on college readiness. In addition, the General Pointed Average of learners is not only a justification that a learner is college-ready but also considers other factors, specifically grit and other psychological and social circumstances. Further, developing and maintaining the grittiness of learners is essential for their growth and aspirations. It is the challenge for educators and guidance advocates to assess the learners' psychological capacities. Thus, it will help to continue and enhance guidance programs in schools that could help address the need for learners' readiness for college and other psychological necessities.

Key words: *grit, college-readiness, academic success, non-cognitive abilities*

INTRODUCTION

Traditionally, a learner's academic achievement is associated with cognitive abilities that parents, peers, and teachers mostly appreciate. However, academic success is not always labeled by cognitive factors but intertwined with non-cognitive abilities that could help achieve careers.

Mainly observed the implementation of the improvement of instruction and competencies in the curriculum targeted that learners will be scholarly equipped to face the challenging global world. However, psychological improvements are slightly set aside in feeding the learners' development and learning. Learners' psychological

capacities may affect their career choices and how they are ready for college, specifically in the concept of grit. Furthermore, the works of literature cited paved the way for education institutions to open the way for comprehensive enhancement of the school's programs and instruction that psychological development caters to during the delivery of the instruction.

Studies and education reform widely recognized that helping educational success by honing learners in their socio-emotional, academic, and non-cognitive skills (Farruggia et al., 2018; Sedlacek, 2017) contributes to addressing different issues in

college readiness of learners. The Philippine Statistics Authority (PSA) showed that a number of the country's 2.36 million unemployed in April 2018, some 19.6 percent, are college graduates and 16.2 percent undergraduates; this could signify the mispath of learners' careers. In addition, researchers found that the K to 12 graduates were college-unready (Mamba et al., 2020). Even in this time of adversity, the Department of Education (DepEd) implemented distance learning (Magsambol, 2020) to develop cognitive and non-cognitive abilities. However, this type of delivery has challenges because of definitional ambiguity (Oliver and Trigwell 2005). The learners are competing for resources and experiencing the challenges of their own motivational and regulatory dispositions and capacities (Hou, 2020).

A non-cognitive skill called grit produces and enhances success in life (Hogan & Wong, 2013; Kelly, Matthews & Bartone, 2014). Also, it helps in addressing and facing this globally challenging world. It is one's potential and character strength in facing a particular challenge (Soutter & Seider, 2013). As the learners experience different adversities like typhoons, pandemics, and socio-economic challenges, grit is essential to develop. Duckworth et al. (2007) stated that grit is the perseverance and passion for long-term goals and can be a reinforcement in achieving success (Reed & Jeremiah, 2017). It proves that grit contributes impact on psychological capacities (Zhang et al., 2018; Mosanya, 2019), academic motivation (Eskreis-

Winkler, Shulman, Beal & Duckworth, 2014), goal orientation (Muenks, Wigfield, Yang & O'Neal, 2017), and learning strategies (Weisskirch, 2018). Furthermore, cultivating learners' grit can alleviate long-term goals (Hernández et al., 2020).

As learners develop grit, it can relate to their readiness for college. Being college-ready is a learner's ability to be admitted and succeed in college (Conley, 2007; Barnes, Slate & Rojas-LeBouef, 2010; Barnes & Slate, 2013). In academic institutions, a learner is college-ready by achieving the required grade (Bridgeman, 1991; Kobrin, Patterson, Shaw, Mattern & Barbuti, 2008). However, studies claim that non-cognitive factors such as student personality traits can be helpful to succeed in college (Porter & Polikoff, 2012). Navarro et al., (2018) found that learners who obtain higher non-cognitive skills are more likely to excel in their college academic achievements and are associated with subjective academic expectations of college success and objective performance (Nichols, 2018). Paat et al. (2020) confirm that, as cognitive abilities, some non-cognitive traits like grit are essential in influencing college readiness.

In the number of various researches regarding grit and college readiness, thus this article discusses that grit is a determining factor in becoming college-ready. For its results obtained, it could help institutions design and enhance strategies for developing and cultivating grit in learners, which is essential for the college readiness of learners

THEORETICAL FRAMEWORK

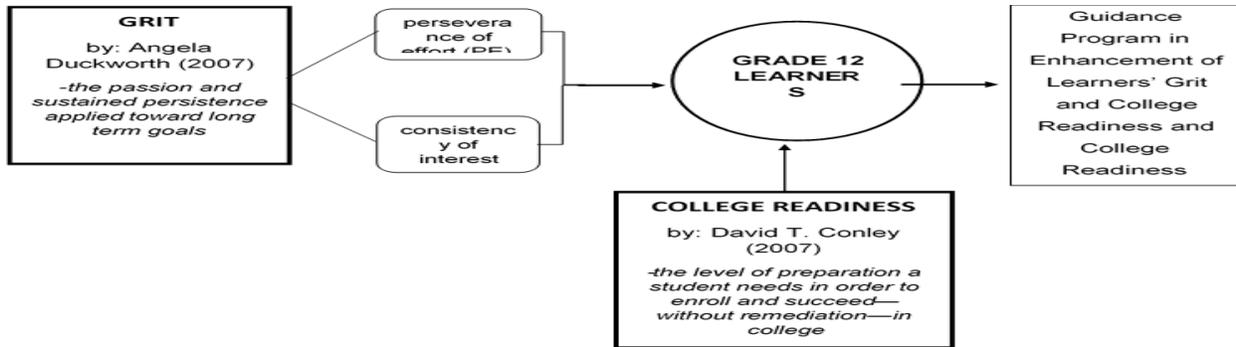


Figure 1. Conceptual Framework of the Study

THEORETICAL BACKGROUND

The study will anchor the theory of grit by Angela Duckworth. She defines *grit* as the trait of having passion and perseverance for long-term goals (Duckworth et al., 2007). Duckworth and her colleagues (2007) divided grit into two interrelated dimensions: consistency of interests and perseverance of effort. Consistency of interests means the constant showing of interest and effort; on the other hand, they define perseverance of effort as the heightened intensity of persistence even after experiencing concrete setbacks or failures. It can assess in two types; The 12-item Original Grit Scale (Duckworth et al., 2007) and the 8-item Short Grit Scale (Duckworth & Quinn, 2009) focuses on assessing grit as an individual difference construct.

The concept of college readiness is inspired by the concept of David T. Conley. He conceptualizes the comprehensive conception of college readiness, built on four facets: critical cognitive strategies, fundamental content knowledge, academic behaviors, and contextual skills and

knowledge Conley (2007). First, *Cognitive Strategies* mean the development of the cognitive and metacognitive capabilities of incoming learners: analysis, interpretation, precision, accuracy, problem-solving, and reasoning. Next is *Content Knowledge* which means being knowledgeable of essential skills in college like information and communication skills. In addition, *academic behavior* contributes to the readiness of a learner: time management, strategic study skills, awareness of one's proper performance, persistence, and the ability to utilize study groups.

College readiness can be defined as the level of preparation a student needs to enroll and succeed—without remediation—in a credit-bearing general education course. (Conley, D.T., 2007).

The college-ready student is proficient in the four elements of the model (Conley, 2007): *Key Cognitive Strategies* - the success of a well-prepared college student. The student develops cognitive strategies that help them learn about knowledge from various disciplines. These include problem formulation and problem-

solving, research, reasoning, argumentation, proof and precision, and accuracy. (b) *Academic knowledge* and skills consist of big ideas, key concepts, and vocabulary that create the structure of the various disciplines and subjects. (c) *Academic Behaviors* include self-awareness, self-monitoring, and self-control. Moreover, lastly (d) *Contextual Skills and Awareness* consists of the privileged information necessary to apply successfully to college, obtain financial needs, school policies and programs, scholarships, and understand how the college operates as a system and culture.

REVIEW OF RELATED LITERATURE

Grit. A non-cognitive skill produces and enhances success in life (Hogan & Wong, 2013; Kelly, Matthews & Bartone, 2014). It is one's potential and character strength in facing a particular challenge (Soutter & Seider, 2013). Duckworth et al. (2007) stated that grit is the perseverance and passion for long-term goals and can be a reinforcement in achieving success (Reed & Jeremiah, 2017). Further, Duckworth et al. (2007). found that grit varied with age. With that, gritty juniors were more likely to graduate from high school their senior year (Eskreis- Winkler, Shulman, Beal, & Duckworth, (2014). Therefore, it is likely that grit doesn't provide enough discriminative power among younger students, perhaps because their interests are not stable yet. The benefits of persistent effort have not yet made themselves readily apparent. Also, grit is associated with academic productivity and engagement (Hodge et al., 2017)

A qualitative study conducted by De Vera et al. (2015) investigated the factors contributing to grit in a non-western context. It stated that social support was essential to

passion and perseverance in achieving personal and work goals. Grit is also different from other psychological constructs, such as conscientiousness characterized by diligence and achievement orientation (Alhadabi & Karpinski, 2019; Southwick et al., 2019), which involves consistency in developing a specific interest or endeavor and persisting over complex tasks over a long time. In terms of sex, Jaeger and his colleagues (2010) found out that females reported higher grit than males and that non-honors and athlete engineering students were grittier than honors and non-athlete engineering students.

College Readiness. In academic institutions, a learner is college-ready by achieving the required grade (Bridgeman, 1991; Kobrin, Patterson, Shaw, Mattern & Barbuti, 2008). Being college-ready is a learner's ability to be admitted and succeed in college (Conley, 2007; Barnes, Slate & Rojas-LeBouef, 2010; Barnes & Slate, 2013). Navarro (2018) found that learners who obtain higher non-cognitive skills are more likely to excel in their college academic achievements and are associated with subjective academic expectations of college success and objective performance (Nichols et al., 2018).

Researchers posited that college readiness highlights the students will admit to the tertiary level (Greene & Foster, 2013). In which Conley (2007) reinforced that being college ready is someone who cannot just be admitted to college but be successful in college life. According to Porter and Polikoff (2012), "a well-designed and validated readiness assessment could help schools and states provide more uniform expectations for the students in the country." However, in the Philippines, there is no standardized test to measure college

readiness. A study posited creating a standardized college readiness test that is reliable and valid with high validity and reliability to measure Filipino students that are more contextualized, gender-fair, and criterion-referenced (Tamayo et al., 2020).

Grit and College Readiness. It proves that grit contributes impact on psychological capacities (Zhang et al., 2018; Mosanya, 2019), academic motivation (Eskreis-Winkler, Shulman, Beal & Duckworth, 2014), goal orientation (Muenks, Wigfield, Yang & O'Neal, 2017), and learning strategies (Weisskirch, 2018).

Hwang et al. (2020) suggested that students with a lower level of grit must not just focus on their academic achievements but also focus on their career and emotional capacities. Hwang et al. (2020) suggested that students with a lower level of grit must not just focus on their academic achievements but also focus on their career and emotional capacities. It justifies that perseverance of effort can mediate different personality factors; indirectly predictor by academic and career-related maladjustment via perseverance, not consistency. In addition, students with a lower level of consistency of interest are likely to be confused and tend to change their career choices, leading to emotional disturbance.

Various studies confirmed a significant relationship between grit and different constructs; life-course accomplishment (Abuhassan & Bates, 2015); improvement of goal attainment (Sheldon et al., 2015); psychological well-being (Goodman et al., 2017); value and self-efficacy (Muenks et al., 2016, 2017); self-esteem (Weisskirch, 2016); a growth mindset (Duckworth et al., 2007; Hochanadel & Finamore, 2015); pursuing

engagement and pleasure in life (Von Culin et al., 2014). Furthermore, it identified that cultivating learners' grit can alleviate long-term goals (Hernández et al., 2020).

Some studies cite that grit and academic performance present a positive relationship among university students (Lee & Sohn, 2017; Flanagan & Einarson, 2017). Pate et al. (2017) found that grit is an independent predictor of the high academic performance of student pharmacists in the US. In Taiwan, a self-report claims that the higher academic performance, the higher their satisfaction in the study by Lin & Chang (2017). Also, among Latinos, grit was positively associated with academic achievement only in the study by O'Neal et al. (2016).

STATEMENT OF THE PROBLEM

This study aims to identify the learners' grit as determinants of their college readiness. In particular, this study will focus on the Grade 12 learners in Presentation of Mary School of Clarin. Grit is examined based on two (2) domains namely consistency of interest and perseverance of effort. On the other hand, College readiness is measured based on learners' GPA and Landmarks College Readiness Scale.

Specifically, this study will answer these following questions:

1. What is the level of the learners' grit based in specific domains?
2. What is the learners' status in college readiness based on the instruments utilized?
3. Is there a significant relationship between learner's grit and college readiness?

4. Is there a significant effect between learners' grit, general pointed average and college readiness?

5. What program to develop in cultivating learners' grit and college readiness based on the results of the study?

RESEARCH METHODOLOGY

The study is quantitative by nature, and it is descriptive-correlational by its design.

The study will utilize three instruments and resources. First, measuring grit uses the Grit-Scale developed by Duckworth and her colleagues (2007). It comes in a 12-item statement rated as 1-5. It also has two (2) dimensions, namely, the perseverance of effort (PE) and consistency of interest (CI). The test's internal consistency is high, as it ranges from 0.77 to 0.90 based on previous studies (Duckworth et al., 2007; Duckworth & Quinn, 2009). The instrument showed to be reliable at both a lower- (Cronbach's alpha) and upper-level (composite reliability) limit. Secondly, the Landmarks

College Readiness Scale measures college readiness by determining learners' academic skills, self-understanding, self-advocacy, executive function, and motivation (Landmark College, 2009). This instrument is used mainly by some researchers in measuring college readiness. Lastly, the GPA of learners based on CHED's College Readiness Standards will determine the learners' college readiness in terms of cognitive achievements.

In gathering data, the researcher distributed questionnaires to the 46 senior high school grade 12 learners of Presentation of Mary School of Clarin, 25 were males, and 21 were females. Following the ethical standards during the conduct of the study is observed.

In the treatment and analysis of the data, the study uses Pearson-r correlation to measure the relationship of the variables. Mediation analysis is conducted to measure the effect of the three variables namely: Grit, General Pointed Average, and College Readiness

PRESENTATION, ANALYSIS AND INTERPRETATION

Table 1. Learners' Grit and College Readiness

Descriptive Statistics ▼

Descriptive Statistics ▼

	College Readiness		Overall Grit		GPA		Consistency of Interest		perseverance of Effort	
	female	male	female	male	female	male	female	male	female	male
Valid	21	25	21	25	21	25	21	25	21	25
Missing	0	0	0	0	0	0	0	0	0	0
Mean	4.476	3.920	4.286	4.000	89.667	86.160	25.048	24.320	26.714	23.480
Std. Deviation	0.602	0.572	0.463	0.408	3.638	3.804	2.247	4.460	2.935	2.725
Minimum	3.000	3.000	4.000	3.000	81.000	81.000	21.000	14.000	23.000	16.000
Maximum	5.000	5.000	5.000	5.000	95.000	94.000	30.000	38.000	33.000	28.000

Learners' Grit

The respondent's level of grit falls in $SD=0.453$, which implies that the majority of the learners' status is moderately gritty. The respondents' grit based on different domains differs. Based on the responses, consistency of interest ($SD=3.604$) obtained a higher score than the perseverance of effort ($SD=3.231$) among learners' grit. Males obtained higher scores of inconsistency of interest than females ($SD=4.460 > 2.247$). However, it identifies that females scored higher in the perseverance of effort than males ($SD=2.935 > 2.725$).

Further, Duckworth et al. (2007) found that grit varied with age. Likely, grit does not provide enough discriminant power among younger students, perhaps because their interests are not stable. The benefits of persistent effort have not yet made themselves readily apparent. It was justified that gritty learners were more likely to graduate from high school (Eskreis-Winkler, Shulman, Beal, & Duckworth, (2014). Based on the results, this will represent a probability that these respondents will graduate in their high school year this school year based on their level of grit which is in moderation. In addition, the data shows that females have a higher range of gritty than male learners. It jives with Jaeger and his colleagues (2010) study that females reported higher grit than males.

The range of scores obtained by the learners regarding their grit could manifest that they developed their grit through the influence between their parents and peers. They are not just focusing on graduating in the high school year but on being consistent and persevering in their dreams like career,

family, and reaching a goal in life. A qualitative study conducted by De Vera et al. (2015) investigated the factors contributing to grit in a non-western context. It stated that social support was essential to passion and perseverance in achieving personal and work goals. Grit is also different from other psychological constructs, such as conscientiousness characterized by diligence and achievement orientation (Alhadabi & Karpinski, 2019; Southwick et al., 2019), which involves consistency in developing a specific interest or endeavor and persisting over complex tasks over a long time.

College Readiness

In academic institutions, a learner is college-ready by achieving the required grade (Bridgeman, 1991; Kobrin, Patterson, Shaw, Mattern & Barbuti, 2008). College readiness was measured based on the Landmarks College Readiness Scale and the General Pointed Average of the Learners. Based on the data, the attitude towards college readiness of the learners is high ($x=4.198$), and their GPAs ranged from satisfactory to outstanding. However, females obtained higher in the college-readiness test and their general pointed average.

With the data gathered from the sample population regarding the college readiness of the learners, both attitude and academic performance of the learners signifies that they have the eagerness and readiness for college, and as well as they performed well in their academic responsibilities in order for them to reach college. Also, most learners who obtained a higher attitude towards college readiness have obtained a satisfactory level on their General Pointed Average. It presents that learners not only learn in their academic

endeavors but also they include how they are ready for college emotionally, psychologically, and mentally. Hence, it is in line with the concept of Conley (2007) about college readiness. He stated that a learner is college-ready if he develops and is proficient in the four elements of this model, namely: Key Cognitive Strategies,

Academic Knowledge and Behavior, and Contextual Skills and Behaviors. Thus, as Conley (2007) stated, College readiness can define the level of preparation a student needs to enroll and succeed—without remediation—in a credit-bearing general education course

Learners' Grit and College Readiness

Correlation

Pearson's Correlations

Variable		College Readiness	Overall Grit	GPA	Consistency of Interest	perseverance of Effort
1. College Readiness	Pearson's r	—				
	p-value	—				
2. Overall Grit	Pearson's r	0.531	—			
	p-value	< .001	—			
3. GPA	Pearson's r	0.498	0.161	—		
	p-value	< .001	0.284	—		
4. Consistency of Interest	Pearson's r	0.353	0.682	0.371	—	
	p-value	0.016	< .001	0.011	—	
5. perseverance of Effort	Pearson's r	0.260	0.642	0.028	0.203	—
	p-value	0.081	< .001	0.855	0.176	—

Table 1.2 Pearson-r Correlation between Grit and College Readiness

The table indicates a significant positive relationship between learners' college readiness and overall grit (p-value=<.001). It also presents a significant positive relationship between the learners' GPA and College Readiness. Therefore, if the value of college readiness increases, the value of the learners' General Pointed Average and the overall Grit score increases.

It proves that grit contributes impact on psychological capacities (Zhang et al., 2018; Mosanya, 2019), academic motivation (Eskreis-Winkler, Shulman, Beal & Duckworth, 2014), goal orientation (Muenks, Wigfield, Yang & O'Neal, 2017), and learning strategies (Weisskirch, 2018). Furthermore, this could be in line with the study of Akos and Kretchmar (2017) that self-report grit total score significantly predicted GPA in undergraduate students

However, it contradicts the study of Paat et al.(2020), which reveals that K-12 graduates admitted to the respondent university are "mostly gritty," and a more significant proportion of

them are college-unready. It manifests that learners are gritty does not mean they are college-ready. Being gritty is not only an aspect that can justify their readiness in college but also will consider some factors they are facing. Being gritty can also be used to face challenges in life, obtain a consistent dream, and believe that they can achieve it with perseverance.

Table 1.3 Mediation Analysis between Grit and College Readiness

Mediation Analysis ▼

Parameter estimates ▼

Direct effects

	Estimate	Std. Error	z-value	p	95% Confidence Interval	
					Lower	Upper
Overall Grit → College Readiness	0.607	0.161	3.775	< .001	0.292	0.922

Note. Delta method standard errors, normal theory confidence intervals, ML estimator.

Indirect effects ▼

	Estimate	Std. Error	z-value	p	95% Confidence Interval	
					Lower	Upper
Overall Grit → GPA → College Readiness	0.014	0.073	0.190	0.849	-0.130	0.158

Note. Delta method standard errors, normal theory confidence intervals, ML estimator.

Total effects

	Estimate	Std. Error	z-value	p	95% Confidence Interval	
					Lower	Upper
Overall Grit → College Readiness	0.621	0.177	3.515	< .001	0.275	0.967

Note. Delta method standard errors, normal theory confidence intervals, ML estimator.

The table presents that this is indeed the case -- the indirect effect is significantly different from 0. In addition, when we look at the effects themselves, we see that overall grit has a positive direct effect on college readiness; however, the GPA of the learners as the mediator has a weak indirect effect. There is only a positive effect between overall grit and college readiness. Hence, this manifests that the General Point Average, together with college readiness, has a negative indirect effect. It means that learner pointed average is not necessarily a mediator of being college-ready but also considering factors the learners are experiencing: financial situation, career confusion, location of the prospective college to enroll, and social influences. However, grit and college readiness have a

direct effect. Represents that being gritty affects how a learner is ready to enter college. The components of grit can help boost the learners' attitude to become college-ready: consistency of interest and perseverance of effort. Grit can be a reinforcement towards the psychological development of the learners to become well prepared for their career choice.

The results could be raised and addressed as Hwang et al. (2020) suggested that students with a lower level of grit must not just focus on their academic achievements but also focus on their career and emotional capacities. It justifies that perseverance of effort can mediate different personality factors; indirectly predictor by academic and career-related maladjustment

via perseverance, not consistency. In addition, students with a lower level of consistency of interest are likely to be confused and tend to change their career choices, leading to emotional disturbance.

However, it contradicts the results presented in some studies that grit and academic performance present a positive relationship among university students (Lee & Sohn, 2017; Flanagan & Einarson, 2017). Pate et al. (2017) found that grit is an independent predictor of the high academic performance of student pharmacists in the US. In Taiwan, a self-report claims that the higher academic performance, the higher their satisfaction in the study by Lin & Chang (2017). Also, among Latinos, grit was positively associated with academic achievement only in the study by O'Neal et al. (2016).

FINDINGS

After an in-depth analysis and interpretation of the data, the following findings are at this moment surmised:

1. The results reveal average scores in the learners' overall grit. Further, the learners have also yielded average scores in the two dimensions of grit: consistency of interest and perseverance of effort. In terms of overall grit, the grit of every learner varies from age, as confirmed by Duckworth. It presents that mostly female learners have higher grit than males, which justifies the study of Jaeger et al. (2020).

2. The learners' responses towards college readiness obtained a higher attitude towards college readiness have obtained a satisfactory level on their General Pointed Average. It presents that

learners not only learn in their academic endeavors but also, they include how they are ready for college emotionally, psychologically, and mentally.

3. The relationship between college readiness and overall grit reveals that being gritty has a significant positive relationship with college readiness. Being gritty is an attitude that learners uphold to develop the capacity and eagerness to become college-ready.

4. On the other hand, the General Pointed Average presents a low positive indirect effect on college readiness, but overall grit obtains a high positive direct effect on college readiness. With that, GPA is not enough to factor that will influence and obtain affect towards college readiness of learners.

5. The Guidance Program in the enhancement of learners' grit as well as preparation in college is a relevant action of this study that it helps address and maintain the level of grit and college readiness of learners over a long period scope. In addition, it is offering additional and voluntary counseling sessions by every education institution to further the aim of the study.

CONCLUSION

Learners' overall grit obtains a moderate level and the same with its domains. The gathered data prevails that grade 12 learners are moderately gritty amidst different adversities of their lives. It happens that females are grittier than males, with their perception of being college-ready. In addition, the General Pointed Average of learners is not only a justification that a learner is college-ready but takes into

consideration other factors, specifically grit and other psychological and social circumstances. Furthermore, developing and maintaining the grittiness of learners is essential for their life, not only for their college aspirations. It is a challenge for educators and career advocates to assess the trend of the learners' psychological capacities.

RECOMMENDATIONS

Recognizing the findings and conclusion of the study, the following may be recommended.

1. More culturally fair assessment in measuring overall grit and college readiness that could develop and obtain higher validity and reliability in assessing this construct.
2. Continuation and enhancement of guidance programs in schools that could help address the need of learners' readiness to college and other psychological necessities.
3. For future studies, more studies that could identify more factors and determinants in college readiness of learners in which can help more schools to address the needs of the learners.

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