

# Grit and Noncognitive Factors in Academics

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## Introduction

Grit is a trait similar to determination, perseverance, and passion for a long-term goal. Some characteristics of grit can be examined by how people from different cultures might react to life experiences (Chen et al. 2017). Noncognitive skills in education is a way to predict how students can be persistent and determined to. There is an increasing number of countries that are starting to include noncognitive skills when relating to their educational objectives (Merriman, 2017). The Professional School Counseling Program at UNC Pembroke has included the survey of non-cognitive skills within the admissions process since 2015. Noncognitive skills also play a major part in achieving academic goals, and this research project investigates the relationship between the non-cognitive factors assessment taken during the admissions process to the comprehensive exam taken after the completion of counseling core courses.

### GRIT vs. GRE

The Graduate Record Exam, or GRIT, measures your ability to analyze and evaluate written material, think critically and solve problems (Kaplan, 2020). More and more graduate programs are relying on the GRE score less. Instead noncognitive traits are being relied on as predictors of degree attainment and success in education (Nichols, 2017). According to Lam and Zhou, students will face many adversities when trying to learn or overcome assignments that may be challenging to them (2019). They will also need to know how to navigate within high pressure situations. Students with grit will have a better understanding of how like works as well as demonstrate a higher level of discipline (Lam & Zhou, 2019). Grit has predictive roles in an educational, psychological role along with a social construct which involves the mental aspect of things, understanding the students learning environment along with how a person will excel in the school or workplace area. Over the years, researchers have found the key to academic success is not independently based on GRE scores. Achieving academic goals can determine the type of noncognitive skills a student develops over time. In the admissions process, noncognitive traits can potentially predict success at the graduate level (Nichols, 2017).

### Grit in an Educational Setting

Many countries are using grit surveys more in educational settings. Measuring grit in academics will capture how determined and passionate they are about their courses (Lam and Zhou, 2019). Grit in the educational policies in the United States. Causes schools to influence the curriculums to help boost the success of the students in the future. Therefore, the students can become “grittier” and be willing to work harder. Some studies have shown grit can relate to success and students are willing to stick with difficulties they may encounter. If a person is not serious about wanting to complete something meaningful to them, then there is less possibility of a person reaching academic goals (Jachimowicz et al., 2018).

## Noncognitive Skills in Academics

Noncognitive traits in education is a way to predict how students can be persistent and he determined to get the degree they are pursuing along with having educational success, as stated by Nichols (2017). There has been a continuing understanding that noncognitive skills can predict how one will achieve financial and social outcomes in life (Zhou, 2017). Nichols states “School choice has a negative effect on noncognitive skills the child may develop but it has a positive effect on the behavior the student may have (2017). “A skill is looked at as an investment in skills an individual may not have pertaining to that time (Zhou, 2017). Achieving academic goals can determine the type of noncognitive skills a student could have developed over time. In academia, noncognitive traits are predictors in how degree attainment and success in education (Nichols, 2017).

### Noncognitive Skills

- Personal traits individuals processes information, emotions and behavior over a period of time.

### Grit

- Perseverance and passion for long term goals and willing to work through then regardless of failures, adversity and difficulties in the future

### Educational setting

- Noncognitive traits are predictors in how degree attainment and success in education (Nichols, 2017).
- Grit is determined by the students academic achievement and the determination the student may have.

I expect to have a harder time than most graduate students at UNCP.

Agree  
 Strongly Agree  
 Neutral  
 Disagree  
 Strongly Disagree

Once I start something, I finish it.

Agree  
 Strongly Agree  
 Neutral  
 Disagree  
 Strongly Disagree

When I believe strongly in something, I act on it.

Agree  
 Strongly Agree  
 Neutral  
 Disagree  
 Strongly Disagree

I am as skilled academically as the average graduate applicant to UNCP.

Agree  
 Strongly Agree  
 Neutral  
 Disagree  
 Strongly Disagree

I expect I will encounter racism at UNCP.

Agree  
 Strongly Agree  
 Neutral  
 Disagree  
 Strongly Disagree

People can pretty easily change me even though I thought my mind was already made up on the subject.

Agree  
 Strongly Agree  
 Neutral  
 Disagree  
 Strongly Disagree

My friends and relatives don't feel I should pursue a graduate degree.

Agree  
 Strongly Agree  
 Neutral  
 Disagree  
 Strongly Disagree

I have been obsessed with a certain idea or project for a short time but later lost interest.

Very much like me  
 Mostly like me  
 Somewhat like me  
 Not much like me  
 Not like me at all

I am a hard worker.

Very much like me  
 Mostly like me  
 Somewhat like me  
 Not much like me  
 Not like me at all

I often set a goal but later choose to pursue a different one.

Very much like me  
 Mostly like me  
 Somewhat like me  
 Not much like me  
 Not like me at all

I have difficulty maintaining my focus on projects that take more than a few months to complete.

Very much like me  
 Mostly like me  
 Somewhat like me  
 Not much like me  
 Not like me at all

I finish whatever I begin.

Very much like me  
 Mostly like me  
 Somewhat like me  
 Not much like me  
 Not like me at all

I am diligent.

Very much like me  
 Mostly like me  
 Somewhat like me  
 Not much like me  
 Not like me at all

Thank you for taking the time to answer these questions. Please click the submit button (bottom right) to complete this questionnaire.

My family has always wanted me to continue my education.

Agree  
 Strongly Agree  
 Neutral  
 Disagree  
 Strongly Disagree

If course tutoring is made available on campus at no cost, I would attend regularly.

Agree  
 Strongly Agree  
 Neutral  
 Disagree  
 Strongly Disagree

I want a chance to prove myself academically.

Agree  
 Strongly Agree  
 Neutral  
 Disagree  
 Strongly Disagree

My undergraduate grades don't really reflect what I can do.

Agree  
 Strongly Agree  
 Neutral  
 Disagree  
 Strongly Disagree

Below are a number of statements that may or may not apply to you. For the most accurate scoring, when responding, think of how you compare to most people -- not just the people you know well, but most people in the world. There are no right or wrong answers, so just answer honestly! Use the following rating scale:

•Very much like me  
•Mostly like me  
•Somewhat like me  
•Not much like me  
•Not like me at all

New ideas and projects sometimes distract me from previous ones.

Very much like me  
 Mostly like me  
 Somewhat like me  
 Not much like me  
 Not like me at all

Setbacks don't discourage me.

Very much like me  
 Mostly like me  
 Somewhat like me  
 Not much like me  
 Not like me at all

## Conclusion

### Limitations of studies

- Lack of validity and reliability
- Data is not received from graduates of the PSC program
- Data is not useful for students who started the program in PSC and changed to the CMHC

## Results

### Hypothesis 1

•Supported: CPCE and Graduate GPA are positively and significantly related ( $\beta = .50, p < .01$ )

•No statistically significant difference between race and Graduate GPA. No relationship between undergrad and graduate GPA. However, White Female students have higher undergrad GPAs than any other subgroup.

### Hypothesis 2

• Null hypothesis rejected. Students of Color scored significantly lower on core areas of CPCE including Human Development ( $\beta = .34, p < .05$ ), Helping ( $\beta = .42, p < .05$ ), Group work ( $\beta = .37, p < .05$ ), and Professional and Ethical Issues ( $\beta = .41, p < .05$ ) and overall scale score ( $\beta = .45, p < .01$ ) as compared to White Students.

### Hypothesis 3

Null hypothesis rejected. Students of Color reported higher levels of self-confidence ( $\beta = -.48, p < .01$ ) and self-appraisal ( $\beta = -.34, p < .05$ ) as compared to White Students.

### Hypothesis 4

Null hypothesis rejected. Male students scored significantly higher on navigating the system ( $\beta = .35, p < .05$ ) while scoring significantly lower on leadership experience ( $\beta = -.51, p < .01$ ) when compared to female students.

### Future Research

Further research needs to be done to prove whether grit can predict one's achievements of a long-term outcome in example college graduation or college GPA (Muenks, Wigfield, Yang and O'Neal, 2017.) The current research project seeks to further the research in this area, as well as figure out the impact of NCFs on the success of graduate students, including students enrolled in CACREP accredited Professional School Counseling (PSC) graduate programs.

In general the amount of grit and perseverance within a person will determine whether or not they will succeed (Lam and Zhou, 2019). Many students deal with adversities when trying to figure out certain assignments. Students who have families who will pressure them more, understanding the curriculum and completing the assignments, while balancing their social life. They will have great time management skills as they grow up. They will have a better understanding of the definition of discipline (Lam and Zhou, 2019).

## Procedures

Prior to being interviewed for admittance into the Professional School Counseling Program, prospective students participate in a Qualtrics survey addressing non-cognitive factors.

After collecting Data for 4 years, student demographics, survey results, GPA's and CPCE scored were aggregated. Qualtrics was used to connect assessment results with GPAs. The field placement director released student CPCE scores after graduate assistant signed a confidentiality agreement.

The initial number of students involved in the research decreased by nearly half due to not enrolling, changing programs, graduating, and leaving the program.

My name is: \_\_\_\_\_

Please list three goals that you have for yourself right now:

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

A small percentage of graduate students typically leave before receiving a degree. If this should happen to you, what would be the most likely cause?

Accusatory criticism that I will obtain a degree  
 To accept a good job  
 To enter military service  
 It would cost more than my family could afford  
 Marriage  
 Disinterest in study  
 Lack of academic ability  
 Insufficient reading or study skills  
 Other: \_\_\_\_\_

Please list three things that you are proud of having done:

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

Please indicate the extent to which you agree or disagree with each of the following items. Please respond to each statement in the present or with your expectations of how things will be. Please use the following scale:

Agree  
 Strongly Agree  
 Neutral  
 Disagree  
 Strongly Disagree

Read each statement carefully, but don't spend too much time deciding on any one answer. Although some items are similar, answer each without considering your other answers.

The University should use the influence to improve social conditions in the area.

Agree  
 Strongly Agree  
 Neutral  
 Disagree  
 Strongly Disagree

It should not be very hard to get a B (3.0) average at UNCP.

Agree  
 Strongly Agree  
 Neutral  
 Disagree  
 Strongly Disagree

I get easily discouraged when I try to do something and it doesn't work.

Agree  
 Strongly Agree  
 Neutral  
 Disagree  
 Strongly Disagree

Some conditions looked up to by others.

Agree  
 Strongly Agree  
 Neutral  
 Disagree  
 Strongly Disagree

If I see little problems concerning school, I have someone who would listen to me and help me.

Agree  
 Strongly Agree  
 Neutral  
 Disagree  
 Strongly Disagree

There is no use in doing things for people, you only find that you get it in the end in the long run.

Agree  
 Strongly Agree  
 Neutral  
 Disagree  
 Strongly Disagree

In groups where I am comfortable, I am often looked to as a leader.

Agree  
 Strongly Agree  
 Neutral  
 Disagree  
 Strongly Disagree

### References

Chen, C., Ye, S., & Hangen, E. (2018). *Predicting achievement goals in the East and West: the role of grit among American and Chinese university students*. Educational Psychology, 38(6), 820–837.

Clark, K. N., Dorio, N. B., Eldridge, M. A., Malecki, C. K., & Demaray, M. K. (2020). *Adolescent academic achievement: A model of social support and grit*. Psychology in the Schools, 57(2), 204–221.

Jachimowicz, J. M., Wihler, A., Bailey, E. R., & Galinsky, A. D. (2018). *Why grit requires perseverance and passion to positively predict performance*. Proceedings of the National Academy of Sciences of the United States of America, 115(40), 99801–99985.

Kaplan (2020). Where can I get free GRE practice tests?.

Lam, K. L., & Zhou, M. (2019). *Examining the relationship between grit and academic achievement within K-12 and higher education: A systematic review*. Psychology in the Schools, 56(10), 1654–1686.

Merriman, K. K. (2017). *Leadership and Perseverance*. Springer Texts in Business and Economics, 335–350.

Muenks, K., Wigfield, A., Ji Seung Yang, & 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.

Nichols, M. (2017). *Can I choose to have grit? Non-cognitive skills, behavior, and school choice*. Journal of School Choice, 11(4), 622–641.

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