

## Background

The investigators were interested in assessing grit in pre-pharmacy students that attend SIUE. Grit is defined as “perseverance and passion for long-term goals”. A scale has been developed called the Grit-S composed for 8 questions related to grit designed to assess how “gritty” a person may be by participating in the survey. Grit may be a valuable non-cognitive trait an individual may display that is related to long-term success.

## Objectives

- 1) To determine pre-pharmacy student’s grit scores.
- 2) To assess the mean grit scores of this population to form a base of data that shows how “gritty” pre-pharmacy students are.

## Methods

- Pre-pharmacy students in the spring semester attending SIUE were sent a survey on March 5<sup>th</sup>, 2020.
- The survey asked students to answer a 13-item internet-based survey consisting of two parts; simple demographic information and Grit-S instrument. 5 possible choices were available for the grit questions.  
1=very much like me, 2=mostly like me, 3=somewhat like me, 4=not much like me, 5=not like me at all.
- The mean grit score was calculated by summing the 8 items and dividing by 8.
- Demographic information was evaluated using descriptive statistics.
- The grit-S scores were calculated for each participant using the appropriate algorithm per the researchers who developed the Grit-S.

## Results

- 37 out of 168 students (22%) completed the survey.
- A total of 36 responses were received that had data from both the demographic and the grit information.

**Table 1. Demographic Characteristics of Pre-Pharmacy Students (n=37)**

Variable	Number (%) or Mean (SD) <sup>a</sup>
Age (years)	
18	4 (10.8%)
19	17 (45.9%)
20	13 (35.1%)
21	2 (5.4%)
22	1 (2.7%)
Year in College	
Freshman	14 (37.8%)
Sophomore	19 (51.4%)
Junior	3 (8.1%)
Senior	1 (2.7%)
Average GPA	3.69 (0.26)
Pharmacy experience	
Yes	22 (59.5%)
No	15 (40.5%)

<sup>a</sup>SD = Standard Deviation

**Table 2. Grit-S Scores Among Pre-Pharmacy Students**

Grit-S <sup>a</sup>	Total Sample	
	N	Mean (SD)
	36	3.74 (0.47)

<sup>a</sup>Grit-S scores were calculated by summing all eight items and dividing by 8, which range from 1 (low grittiness) to 5 (high grittiness)

## Results

- Mean total of the Grit-S score was 3.74 with a standard deviation of 0.47.
- The most frequent Grit-S score was calculated to be 3.875 at 19.45%.
- The lowest score found was 2.5 (1 participant).
- The highest score found was 4.75 (1 participant).
- The participants were aged 18-22 years old with the majority being 19 years old.
- Over 50% of the participants reported being in their sophomore year in college.
- Average GPA of participants is 3.69 with the majority having pharmacy experience.

## Limitations

- The survey response rate was low and those that responded may be students who are more motivated and self-aware than students who did not respond.
- Inherent biases with self-reporting data as the student may be tempted to choose the “socially” right answer.

## Implications

- Results of the study show the average pre-pharmacy student who attends SIUE displays above average grittiness.
- The study strengthens other research done regarding grit and gives valuable insight into the non-cognitive characteristics of students.
- Further research is warranted in using non-cognitive traits to evaluate individual's potential to be successful in their goals.