



# The Growth Mindset in Nursing Education

Capstone Project By:

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# What is a Mindset? Growth VS Fixed

Carol Dweck (2016) has been at the forefront of mindsets and how they can be predictors of student's success in learning. The mindset model suggests that attributes of growth mindset students have greater academic success.

## Growth Mindset

- ▶ believe that intelligence is malleable
- ▶ remain engaged in learning
- ▶ persist through challenges
- ▶ remediate

## Mixed Mindset

Attributes of both

## Fixed Mindset

- ▶ believe that intelligence is fixed
- ▶ avoid challenges
- ▶ fear of failure
- ▶ don't remediate

# Gap in Nursing Education



Many disciplines have adopted the growth mindset into their teaching models.



As shown in the literature review, educators and students that have adopted the growth mindset are more engaged, have a stronger sense of belonging, grittier and ultimately have greater academic success.



Nursing education has not incorporated the growth mindset into its philosophy of teaching, this could be a detriment to future students who could have greater academic success in nursing.

# Review of the Literature

A literature review was conducted on how mindsets, engagement, belonging, grit influence student success in undergraduate students of any discipline.



## Grit

Grit was positively linked to self regulated learning and engagement, which could be a contributing factor to student success (Wolters & Hussain, 2014), (Kannangara, Allen, Waugh, Nahar, Khan, Rogerson, & Carson, 2018).



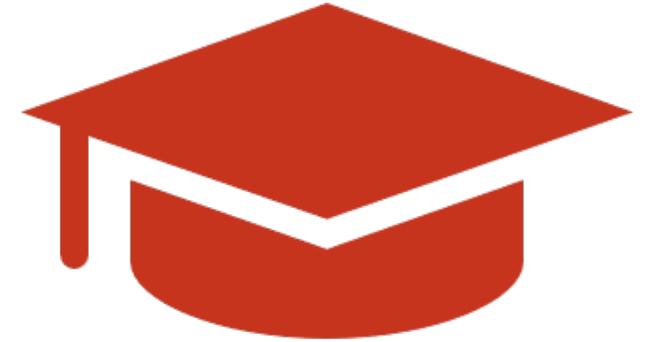
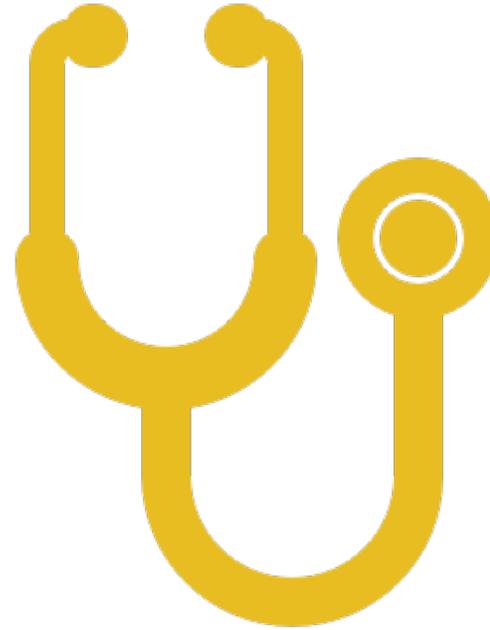
## Engagement

Students who believed that intelligence was incremental and could be improved (i.e. the growth mindset) were correlated with active learning strategies, self-efficacy, collaboration among peers and knowledge-building behaviors (Stump, Husman & Corby, 2014).



## Belonging

Students who felt that they belonged in their environment and students felt safe and comfortable, had a higher engagement and persistence in their learning (Hoyert, Ballard, & Odell, 2019).



## Research Goal

- ▶ Facilitate a conversation with nursing faculty about how teaching a growth mindset to nursing students will improve their education experience, learning, and their passion for nursing.

# Method

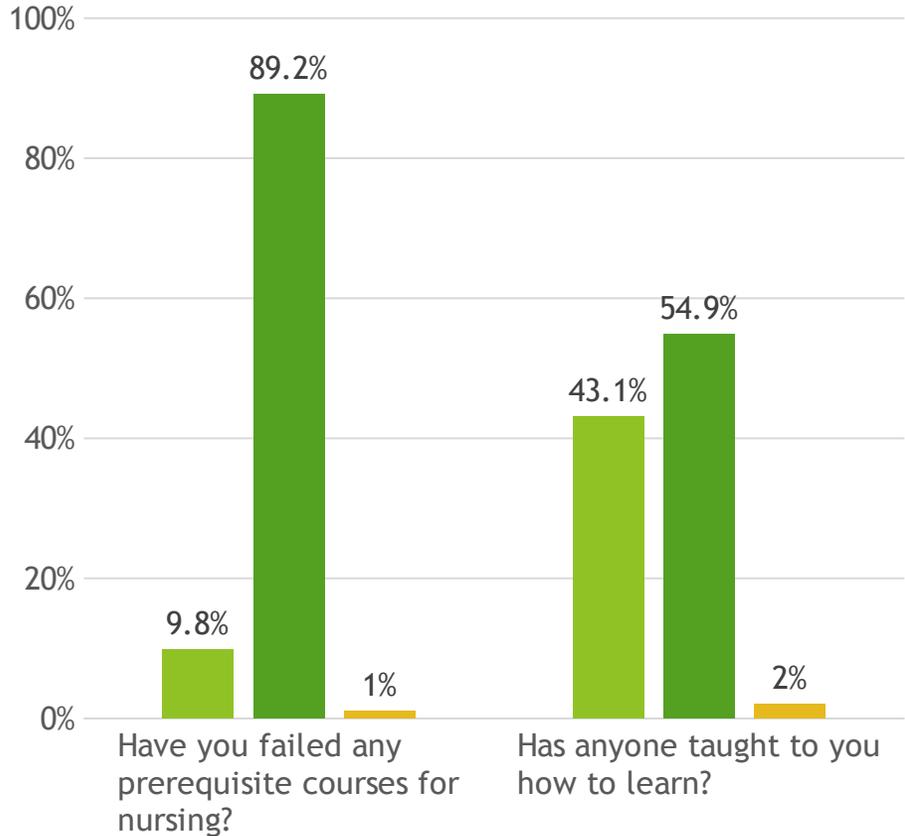
- ▶ A web-based survey of 34 questions entitled *Nursing Students' Study Strategies* was distributed through email to 500 nursing school administrators across the United States. This study was granted IRB approval.
  - ▶ 23 question items regarding grit, belonging, and engagement were weighed on a Likert type five-point scale ranging from 'very much like me' (scored 5) to 'not like me at all' (scored 1). For some items, the scoring was reversed. 10 questions taken from the Duckworth (2007) Grit Scale, 13 questions are taken from the *Student Belongingness, Engagement and Self Confidence Survey* (Yorke, 2016) with 6 items relating to belonging and 7 items relating to engagement.
  - ▶ Dweck's (2006) 3 mindset questions determine a student's fixed, mixed or growth mindset. These questions asked the user to answer each on scale from 0 to 100 (0 being 'I agree' and 100 being 'I do not agree'). An additional adapted mindset question was added that specifically relates to nursing students. The scores of these questions are then summated to determine the mindset of the student. 0-160 is a fixed mindset, 161-240 is a mixed mindset and 241-400 is a growth mindset.
  - ▶ 7 questions that gather demographic data (i.e. gender, age, etc.). Participants remained anonymous.

# Content Validity

- ▶ The content validity was carried out through a convenience sample of 4 nursing experts.
- ▶ The mean proportion of expert responses was .92. There was agreement that nine of the 13 items were relevant. The mean item-level CVI was .92, indicating strong agreement that the items were comprehensive, balanced, and relevant to the population. The scale-level content validity index, universal agreement (S-CVI/UA) was .69. Two items that were not in consistent agreement among experts were on the belongingness domain and two items were from the engagement domain. Each of these four items had an item CVI (I-CVI) of .75.
- ▶ Dweck's 3 mindset questions have a reliability of 0.93-0.98.
- ▶ The additional adapted mindset question that specifically related to nursing students was determined to have a reliability of 0.85.

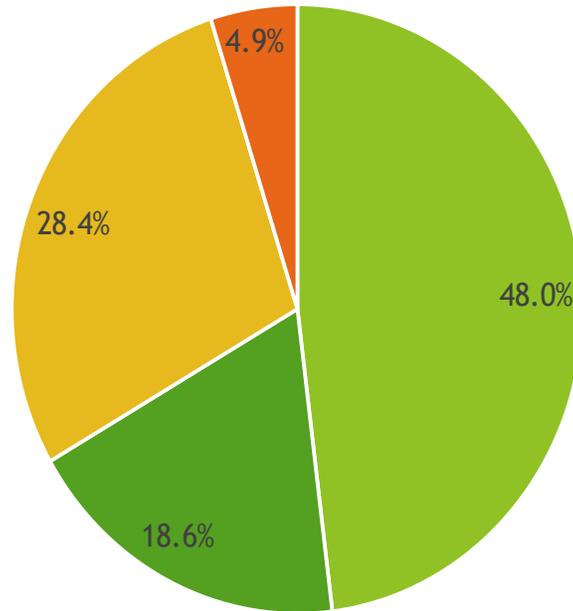
# Sample

- ▶ 108 nursing students responded to the survey and 102 completed the survey in its entirety.
- ▶ 92 of 102 identified as female, 9 as male, and 1 responded 'I prefer not to answer'.



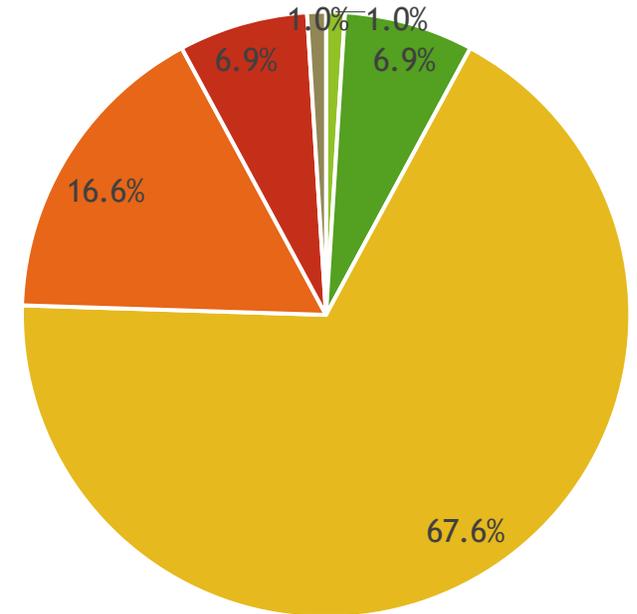
■ Yes      ■ No  
■ Prefer not to Answer

### Highest Level of Education



■ High School    ■ Associates    ■ Bachelors  
■ Masters

### Nursing Program

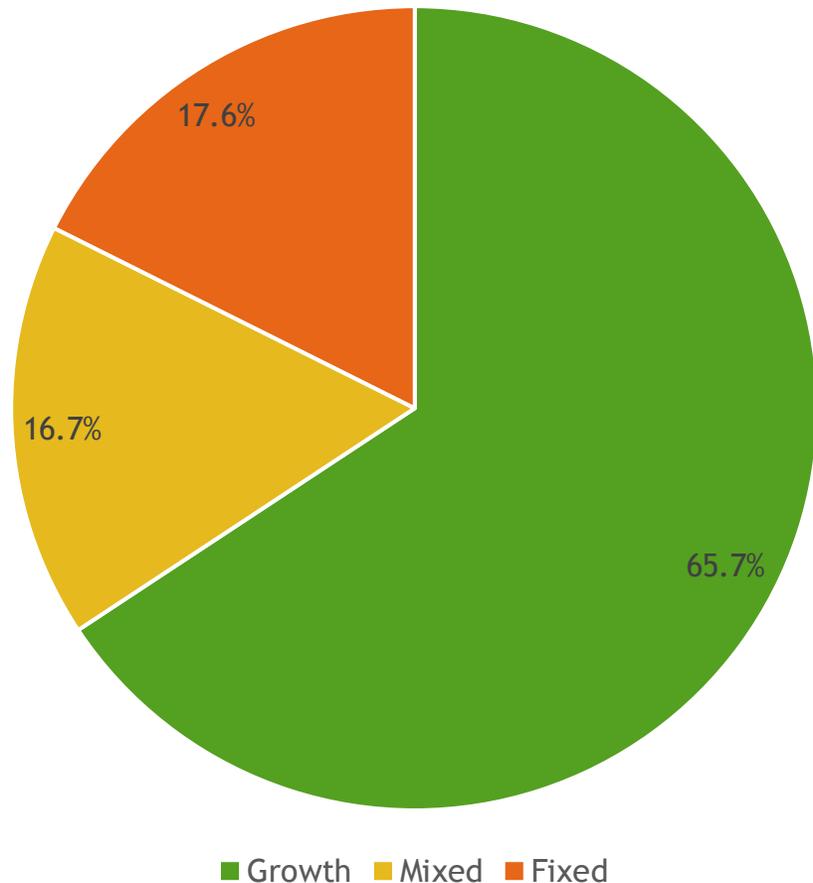


■ LPN    ■ ADN    ■ BSN    ■ Accel. BSN    ■ MSN  
■ PhD

# Results

All results are taken from the 102 entirely completed surveys

## Nursing Student's Summated Mindset



- ▶ Summated Mindset and Grit
  - ▶ (N = 102, rho = 0.231, p. value = 0.019)
- ▶ Summated Mindset and Belonging
  - ▶ (N = 102, rho = 0.307, p. value = 0.002)
- ▶ Summated Mindset and Engagement
  - ▶ (N = 102, rho = 0.053, p. value 0.599)
- ▶ Self Reported GPA and Belonging
  - ▶ (N = 102, rho = 0.209, p. value = 0.041)
- ▶ Self Reported GPA and Engagement
  - ▶ (N = 102, rho = 0.275, p. value = 0.007)

# Discussion



## Mindsets and Grit

Results have shown that there is a statistically significant positive correlation between mindsets and grit. Our data shows that as the sum of mindsets increases (i.e. the students who have growth mindsets) so does the student's grittiness.



## Mindsets, Belonging and GPA

Our findings reveal the more a student's orientation with a growth mindset there is a positive association with also having a strong sense of belonging within their nursing program. Our study has also shown that there is indeed at least a weakly positive correlation between belonging and self-reported GPA.



## Mindsets, Engagement and GPA

Our data did not reflect any statistically significant correlation between growth mindsets and engagement. However, another result from our survey shows a positively significant relationship between engagement and student's self-reported GPA.

# Limitations and Implications

## ▶ Limitations

- ▶ Small sample size, electronic delivery, timing within school year, global pandemic, student mindset, social bias.

## ▶ Implications

- ▶ Re-administer the survey to a much larger sample size of nursing students!
- ▶ Correlation between belonging and tendency to be growth mindset learner
  - ▶ Correlation between belonging and GPA
- ▶ Grit is associated with the growth mindset presents compelling evidence that the growth mindset model should be integrated into nursing education.



## Final Thoughts

The results of this study provide compelling evidence that the growth mindset model should be integrated into nursing education as well as future research.

# References

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