



Intervention of Mindfulness and Growth Mindset: A Mixed Methods Study

Hannah Murch, Caitlin Greiner, Tiffani Jennings, Maura
McQuillen, Faith Mihok and Kevin Conner, PhD

LIBERTY
UNIVERSITY

Literature Review

- Anxiety
 - Prevalence (Hoying et al., 2020; Pascoe et al., 2019)
 - Need for new treatment (Marker & Norton, 2018; Taylor et al., 2012)
 - Versatility of treatments (Samuel & Warner, 2021)
- Growth Mindset
 - Impact of growth mindset (McCabe et al., 2020)
 - Constructs of growth mindset (Bostwick et al., 2017)
- Mindfulness
 - 5 Facets of mindfulness (Gautam et al., 2019)

Current Study

- Research Gap
 - Lack of literature on the impact of pedagogical interventions on levels of mindfulness and growth mindset
- Research Goals
 - Investigate the relationship between mindfulness and growth mindset.
 - Test the claims of an intervention centered on mindfulness and growth mindset

Research Questions

- What is the relationship between mindfulness and growth mindset?
- What is the impact of mindfulness classroom intervention on mindfulness?
- What is the impact of a mindfulness classroom intervention on growth mindset?

Intervention

- Students engaged in breathing exercises to promote mindfulness (Samuel & Warner, 2021)
- Students recited positive affirmations to promote growth mindset (Samuel & Warner, 2021)

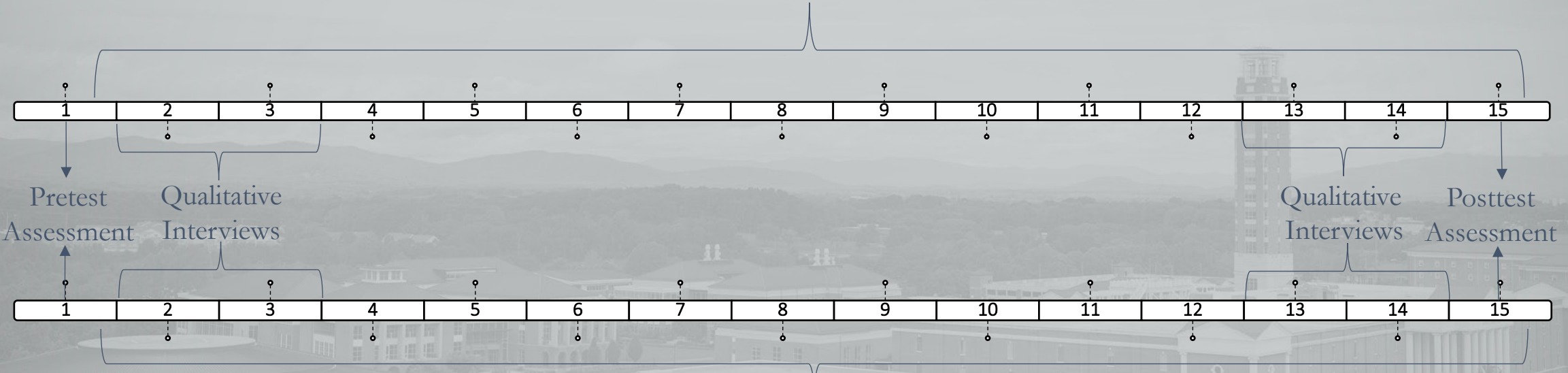
Measures

- Study Design
 - Mixed methods
 - Quasi-experimental
- Materials
 - Mindful Attention Awareness Scale (MAAS)
 - Growth Mindset Scale (GMS)
 - Otter.ai Software

Methods

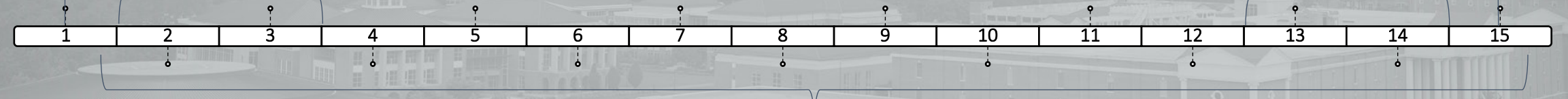
Intervention

Positive affirmation, mindful breathing exercise and standard instruction



Control

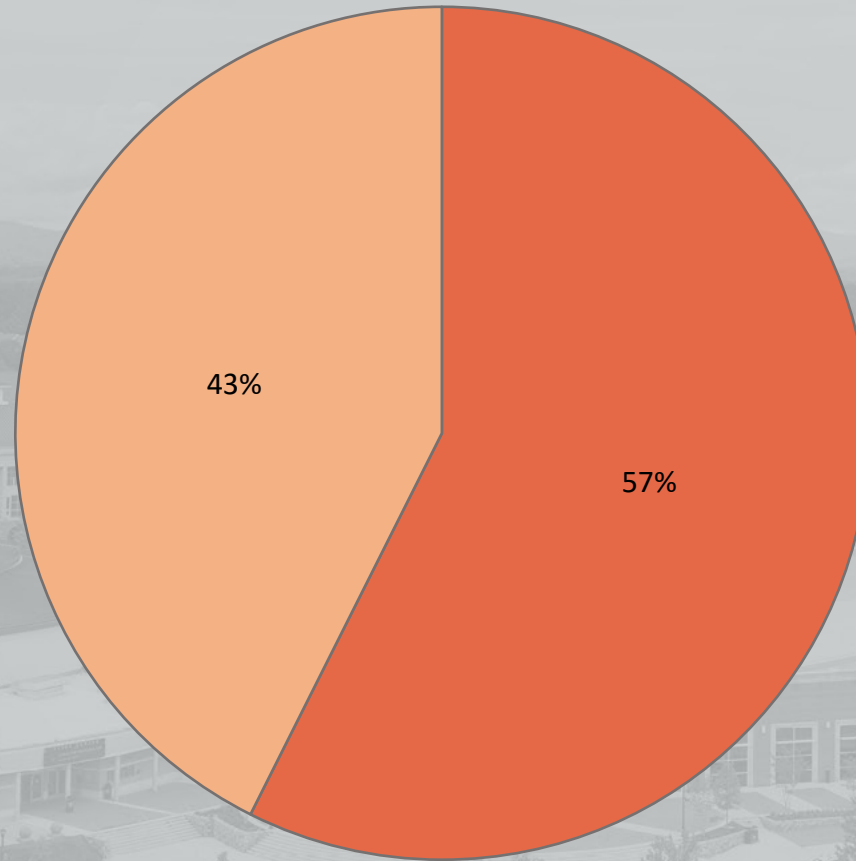
Standard instruction



Participants

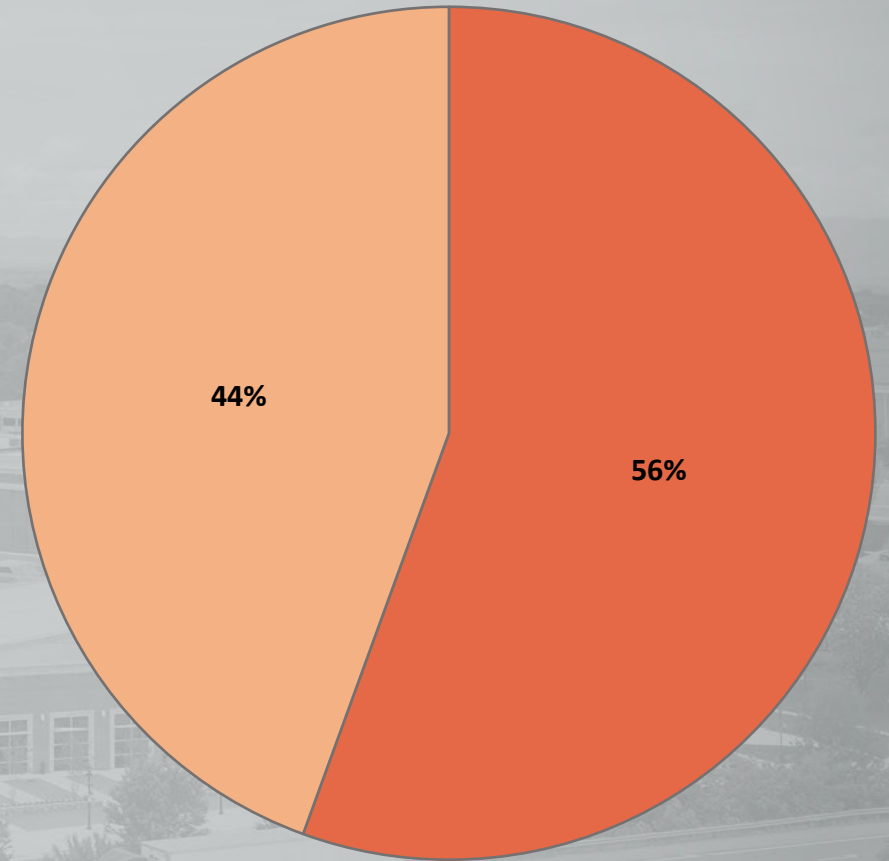
- Sample size
 - n=99

Control



■ PSYC 354 ■ PSYC 355

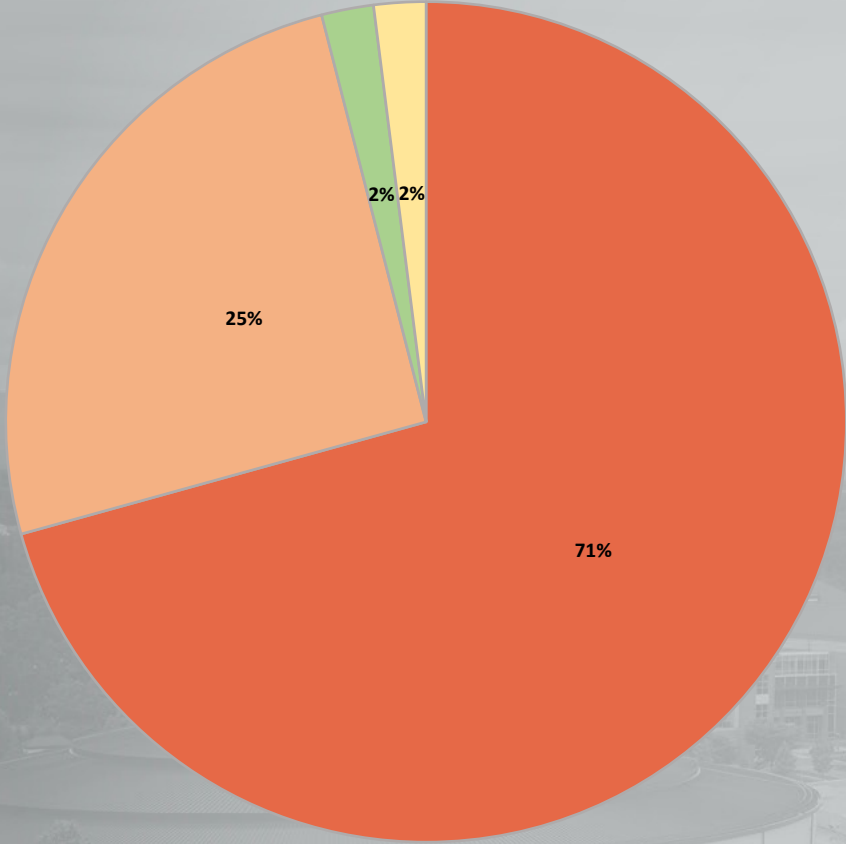
Intervention



■ PSYC 354 ■ PSYC 355

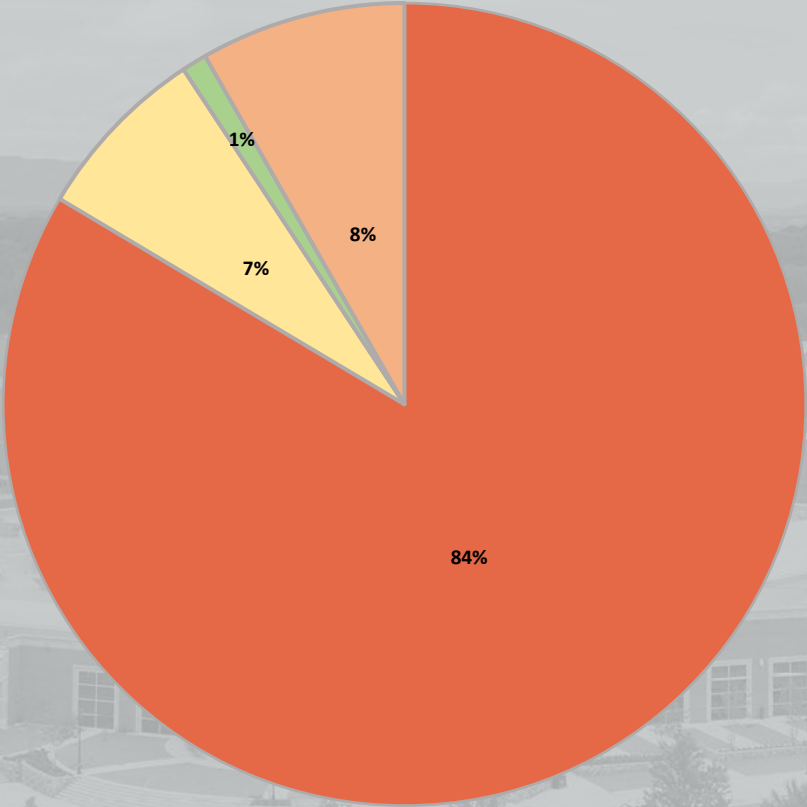
Demographic Results

Age



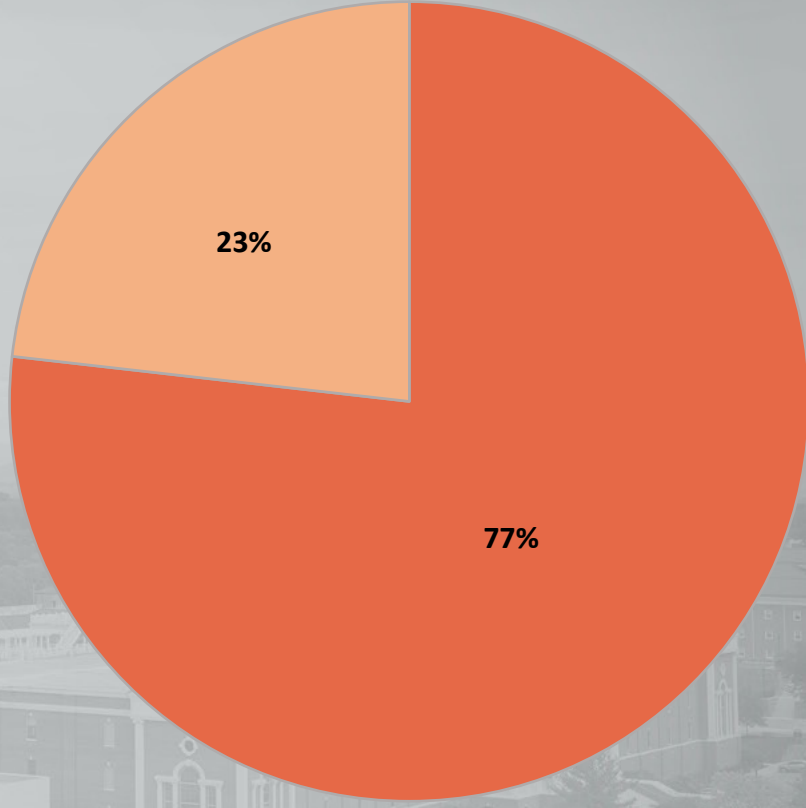
18-20 21-22 23-25 25+

Race



White Hispanic/Latino Black/African American Other

Gender



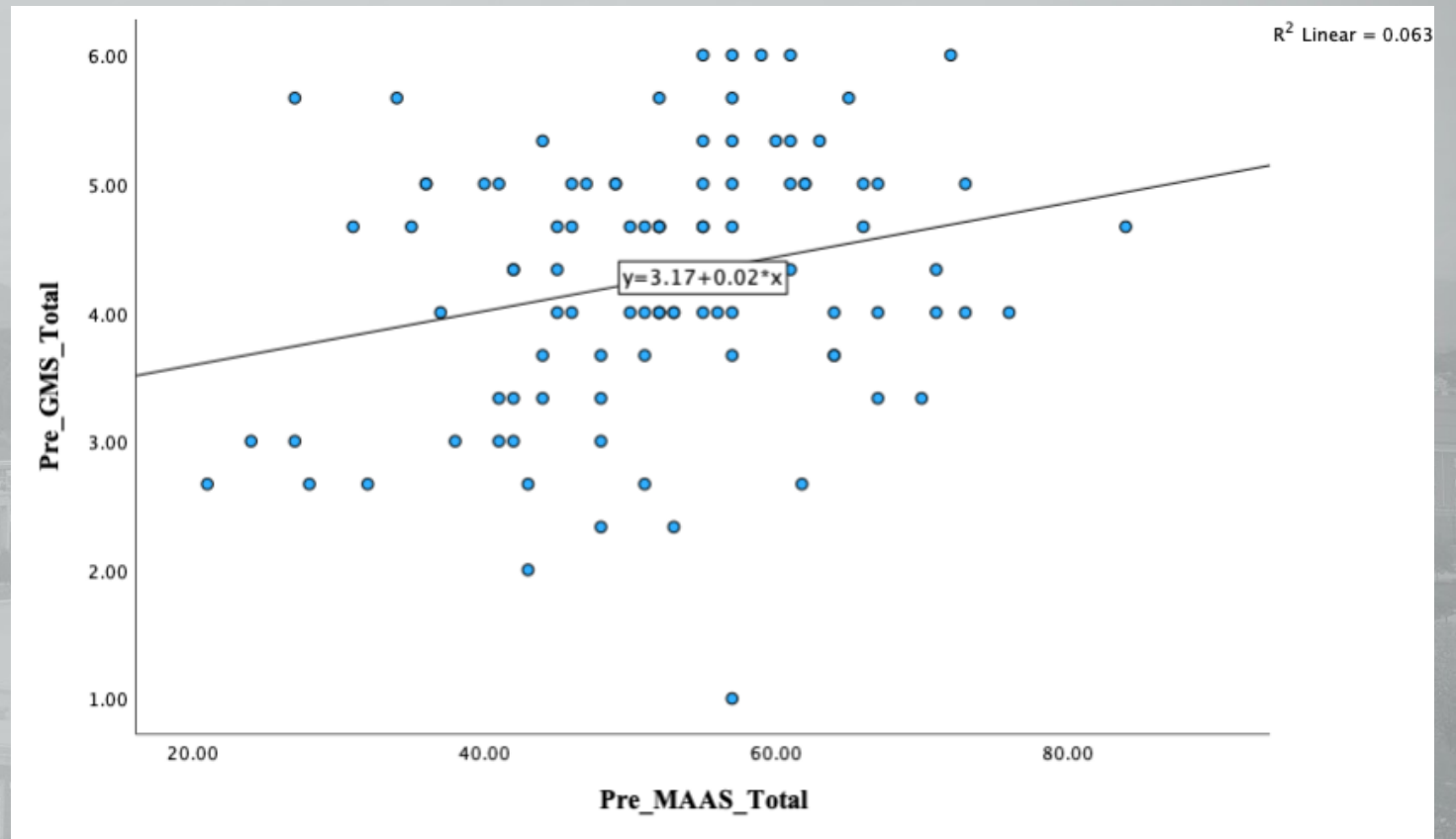
Female Male

Results (RQ1)

Relationship Between Mindfulness & Growth Mindset

- Mindfulness & Growth Mindset Correlation

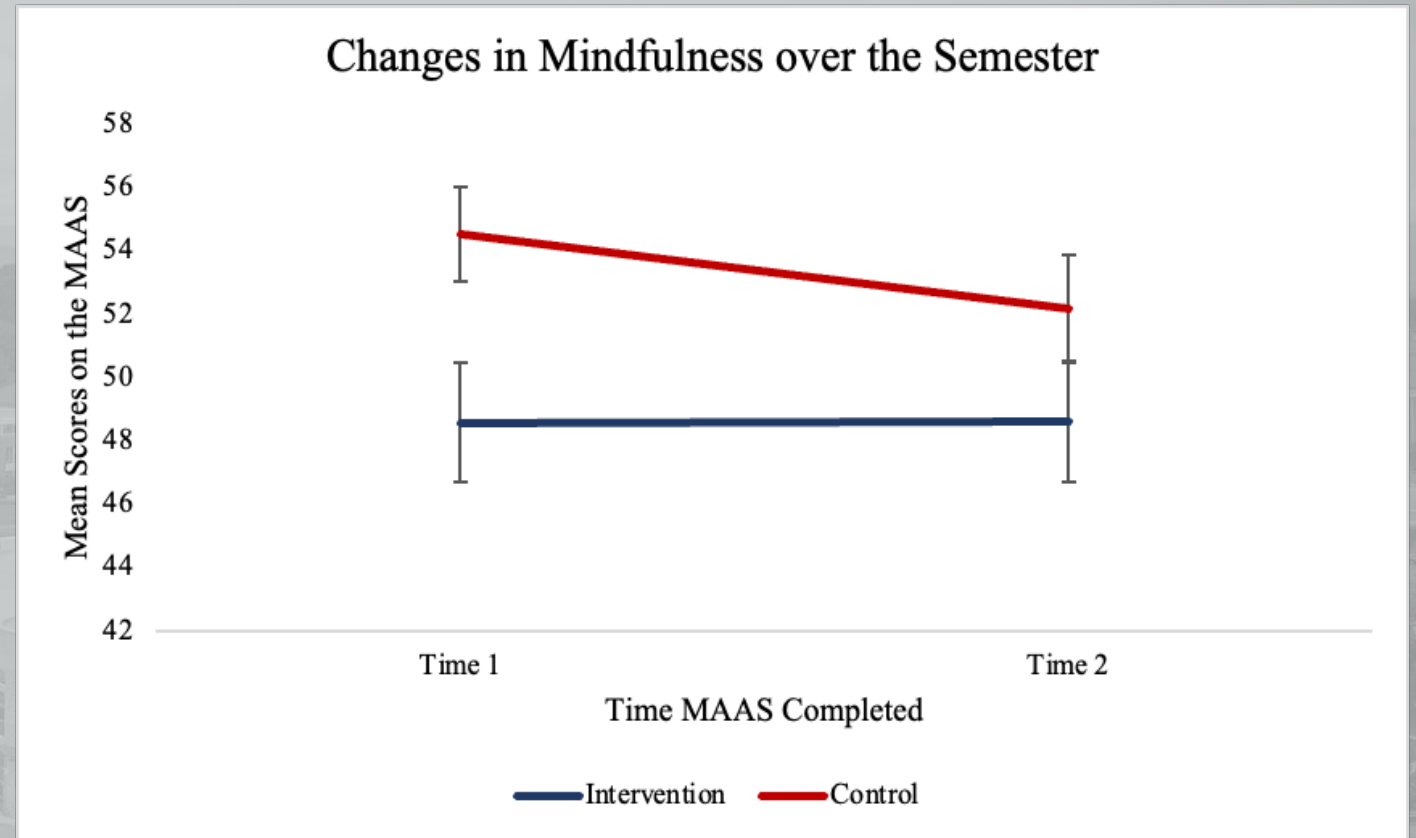
- Mindfulness was positively correlated with growth mindset
- $r = .252, p = .012$



Results (RQ2)

Impact on Mindfulness

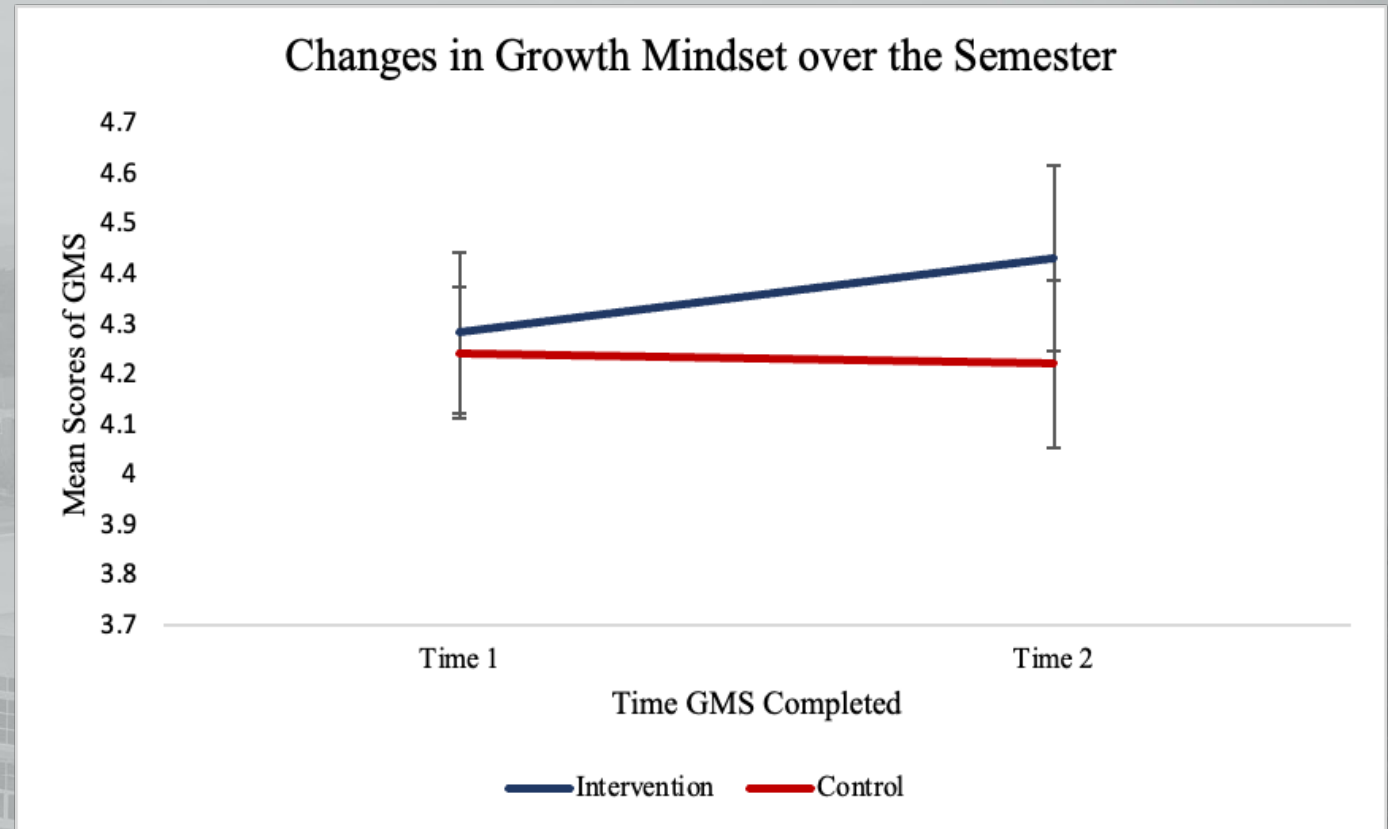
- Mindfulness (Control)
 - Pre: 54.5146
 - Post: 52.179
- Mindfulness (Intervention)
 - Pre: 48.5778
 - Post: 48.615



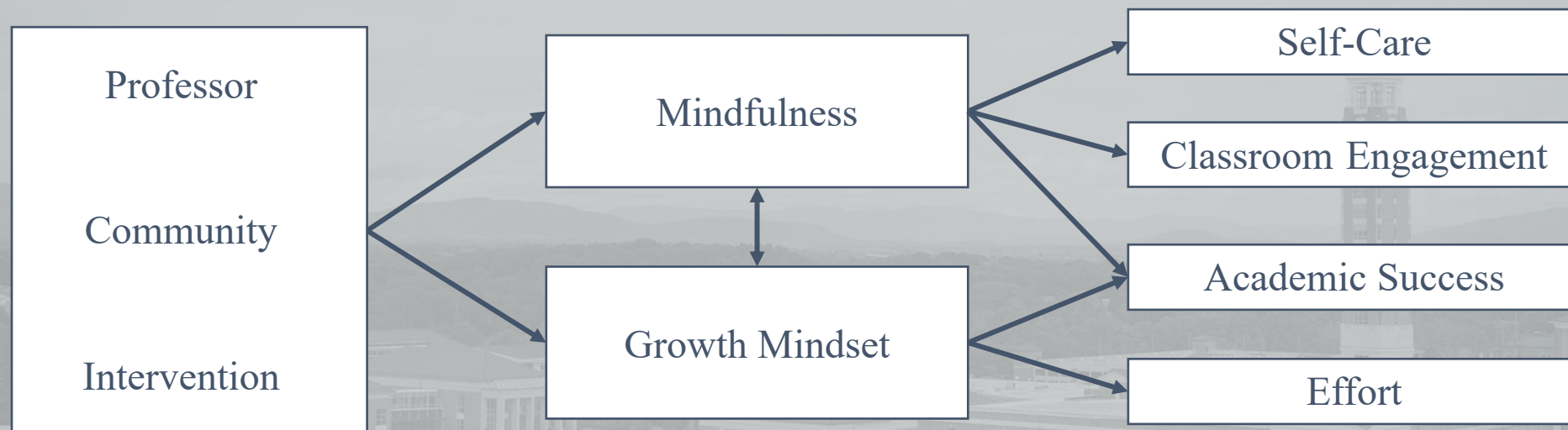
Results (RQ3)

Impact on Growth Mindset

- Growth Mindset (Control)
 - Pre: 4.2407
 - Post: 4.241
- Growth Mindset (Intervention)
 - Pre: 4.2815
 - Post: 4.431



Results (Qualitative)



Discussion

- Limitations
 - Participants
 - Time
- Recommendations
 - Implement in other academic disciplines
 - Implement in other levels of education
 - Further evaluate impact on growth mindset

Conclusion

- Mindfulness and growth mindset intervention in the classroom
 - Maintains mindfulness
 - Potentially improves growth mindset
- Overarching implications
 - Demonstrates that an educational resource built on principles of mindfulness and growth mindset actually impacts students' mindfulness and growth mindset

References

- Bostwick, K. C. P., Collie, R. J., Martin, A. J., & Durksen, T. L. (2017). Students' growth mindsets, goals, and academic outcomes in mathematics. *Zeitschrift für Psychologie*, 225(2), 107-116. <http://doi.org/10.1027/2151-2604/a000287>
- Gautam, A., Polizzi, C. P., & Mattson, R. E. (2019). Mindfulness, procrastination, and anxiety: Assessing their interrelationships. *Psychology of Consciousness: Theory, Research, and Practice*. <https://doi.org/10.1037/cns0000209>
- Hoying, J., Melnyk, B. M., Hutson, E., & Tan, A. (2020). Prevalence and correlates of depression, anxiety, stress, healthy beliefs, and lifestyle behaviors in first-year graduate health sciences students. *Worldviews on Evidence-Based Nursing*, 17(1), 49-59. <http://doi.org/10.1111/wvn.12415>
- Lisberg, A., & Woods, B. (2018). Mentorship, mindset and learning strategies: An integrative approach to increasing underrepresented minority student retention in a stem undergraduate program. *Journal of STE Education: Innovations and Research*, 19(3), 14-20. <https://www.proquest.com/scholarly-journals/mentorship-mindset-learning-strategies/docview/2137841914/se-2>
- Marker, I., & Norton, P. J. (2018). The efficacy of incorporating motivational interviewing to cognitive behavior therapy for anxiety disorders: A review and meta-analysis. *Clinical Psychology Review*, 62, 1–10. <https://doi.org/10.1016/j.cpr.2018.04.004>
- McCabe, J. A., Kane-Gerard, S., & Friedman-Wheeler, D. G. (2020). Examining the utility of growth-mindset interventions in undergraduates: A longitudinal study of retention and academic success in a first-year cohort. *Translational Issues in Psychological Science*, 6(2), 132-146. <http://dx.doi.org/10.1037/tps0000228>
- Pascoe, M. C., Hetrick, S. E., & Parker, A. G. (2019). The impact of stress on students in secondary school and higher education. *International Journal of Adolescence and Youth*, 25(1), 104-112. <https://doi.org/10.1080/02673843.2019.1596823>
- Samuel, T. S., & Warner, J. (2021). "I can math!": Reducing math anxiety and increasing math self-efficacy using a mindfulness and growth mindset-based intervention in first year students. *Community College Journal of Research and Practice*, 45(3), 205-222. <https://doi.org/1080/10668926.2019.1666063>
- Taylor, S., Abramowitz, J. S., & McKay, D. (2012). Non-adherence and non-response in the treatment of anxiety disorders. *Journal of Anxiety Disorders*, 26(5), 583-589. <https://doi.org/10.1016/j.janxdis.2012.02.010>

Questions?

Hannah Murch, Caitlin Greiner, Tiffani Jennings, Maura
McQuillen, Faith Mihok and Kevin Conner, PhD

LIBERTY
UNIVERSITY