

# Building a Sense of Belonging Through Mindfulness Practice in a General Chemistry Course

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## INTRODUCTION

Many students experience high levels of stress and anxiety in a general chemistry course. One way to reduce stress and anxiety is to introduce a mindfulness practice into daily life. Some of the benefits of incorporating a mindfulness practice include help manage stress and emotion, improve resilience and ability to self regulate, and decrease depression and anxiety. (Currie, 2020) Additionally, mindfulness is believed to build a sense of belonging. (Samuel, 2023). A sense of belonging has been shown to be critical to student success and retention and minoritized students are less likely to report a sense of belonging. (Artze-Vega, Darby, Dewsbury, & Imad, 2023) This study looks to investigate how the incorporation of weekly mindfulness practices impact student experiences in a large enrollment general chemistry II course.

Mindfulness can be explained as the act of paying attention on purpose in the present moment without judgement. (mindfull.org)

## METHODS

Each Monday the class is invited to participate in a 5-minute mindfulness practice. Students were then asked to participate in an anonymous online survey at the beginning of the semester and at midterms. An end of the semester survey will be conducted May 2024.

Examples of mindfulness practices include:

- Laughter Practice
- Focus on Breath
- Guided Meditations
- Mindful Eating of a Lifesaver
- Intentional Movement

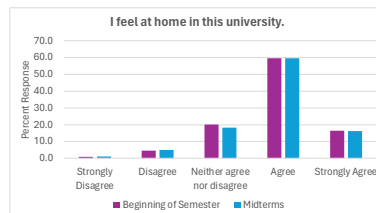
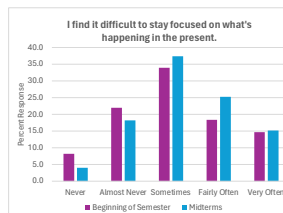
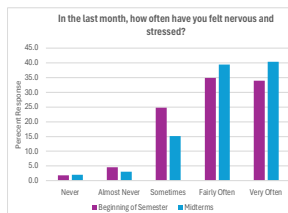
## ASSESSMENT TOOLS

The survey aims to assess the student's perceived stress and anxiety levels, attitude and familiarity with mindfulness practices, and sense of belonging on the UW - Eau Claire campus. The assessment tool is a combination of the Mindful Attention Awareness Scale, Sense of Belonging Scale, and the Perceived Stress Scale. (Brown & Ryan, 2023; Cohen, Kamarck, & Mermelstein, 1983; York, 2016) Students were also asked how the mindfulness practices influenced their experience in and outside of the course.

## RESULTS

Over an 80% of the class agreed to participate in the surveys (beginning, N = 115 and midterm, N = 104) Demographic data including first-generation college, ethnicity, gender identity, and major was collected but not used in the current analysis. The Likert scales were converted to 1 – 5 with 5 corresponding to very often or strongly agree. There was not a significant difference in the averages when beginning and midterm responses were compared.

"I have found that I feel more comfortable coming into class knowing that my professor cares about my mental and physical well being, causing me to apply myself significantly more towards her course."



Student survey responses trended towards answers that indicate increased feelings of stress/anxiety and decreased awareness/mindfulness. These results are not unusual considering the time of the semester. Students sense of belonging at UW - Eau Claire did not appear to change.

The mindfulness practices "... make me be more focused during class and start me off on a good note for the lecture that day."

## WHAT DID THE STUDENTS SAY?

Students were asked, "How has the mindfulness practice influenced your experience in and outside of this course". Responses from the beginning of the semester and midterm semester were used. (Generated using wordcloud.com)



## CONCLUSIONS AND NEXT STEPS

Incorporation of mindfulness practice did not result in significant differences in student reported stress/anxiety levels or sense of belonging at midterms. However, numerous students reported that the practices are helping and/or improving their experience in the course and on campus. Moreover, it is expected that a course without mindfulness practices would see significant increases in students' stress/anxiety suggesting that the mindfulness practices should be continued. Future work includes collecting end of the semester surveys and thorough analysis specifically looking at the trends for traditionally minoritized students.

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