

Positive effects of mindfulness practices on academic performance and well-being

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Abstract

This qualitative study explored potential positive effects of mindfulness practices among university students. The mindfulness practices were provided at an experiential space, the Brain Booth at the university library, meant to learn about the mind-body connection, reduce stress, and optimize learning. The Brain Booth activities were available to students at any time during the library working hours. The findings showed that the Brain Booth was experienced as helping students to 1) Relax and Destress; 2) Calm down; 3) Foster focus and clarity; 4) Actively engage and reenergize. A strong preference was outlined for mindfulness activities without a digital component or screen time. The study showed that the Brain Booth is helping students, at their point of need, with some of the major factors that affect their academic performance the most, as well as with their overall well-being.

Keywords: *Mindfulness; well-being; university library; academic performance; students; Brain Booth.*

1. Introduction

One of the major trends in higher education lately has been that student needs are increasingly front and center with a focus on supporting students holistically. Nowadays, most of university students are Generation Z, the most ethnically diverse generation yet walking on university campuses. Also, students have to navigate in a very fast-paced societal environment, which very often leads to a lack of concentration known as mind wandering. Studies show that Generation Z multitasks daily at least across five screens and that two of the factors affecting their academic performance the most are stress and anxiety (Seemiller & Grace, 2016). The Brain Booth is an initiative in a higher education setting addressing these student challenges through mindfulness and contemplative pedagogy.

The Brain Booth at the university library is an experiential space to learn about the mind-body connection, reduce stress, and optimize learning. Mindfulness, as defined by Kabat-Zinn (1994), “means paying attention in a particular way: on purpose, in the present moment, and nonjudgmentally.” Zajonc (2013) outlines that “contemplative pedagogy offers educational methods that support the development of student attention, emotional balance, empathetic connection, compassion, and altruistic behavior, while also providing new pedagogical techniques that support creativity and the learning of course content.” The Brain Booth initiative introduces mindfulness and contemplative pedagogy to the campus community and offers mindfulness practices through intentional brain breaks and activities that support emotional self-regulation and foster singular thoughtful focus. The Brain Booth activities include: biofeedback, coloring, curated game station, gratitude-express, light and sound therapy, massage chair, meditation, origami, virtual reality-immersion, and more. Students showed great interest in the initiative. It is known that different activities do not work the same way for everyone, hence the Brain Booth has been offering a variety of such to accommodate and be able to provide support at the point of need. These activities are available to students at any time during the university library work hours.

The following major trends emerged from the scholarly publications in the last five years (2017-2022), after a systematic literature review on positive effects of mindfulness practices and contemplative pedagogy in academic settings (We are unable to include here the complete list of identified and reviewed publications. A full bibliography is available upon request.):

- Use of physical spaces devoted to mindfulness practice. There is evidence for an increasing use of physical spaces devoted to mindfulness practices on campus premises, especially in academic libraries (e.g., Chun et al., 2021; Duffy et al., 2021; Gibson & Regan; Hartel et al., 2017; Karadjova, 2018, 2019; Karadjova-Kozuharova & Baker, 2022; Ruhlmann, 2017).

- Incorporating mindfulness practices in university/college curricula. Some scholars and practitioners have designed and conducted ongoing mindfulness training in the classroom across curricula to support an attentive, present centered, and non-reactive mental mode (e.g., Bartel et al., 2018; Colaianne et al., 2020; Fung et al., 2019, Hartel et al., 2017; Ramasubramanian, 2017; Reeve et al., 2021; Schwind et al., 2017; Warren & Deckert, 2019) or in specific curricula such as music (Bartos et al., 2022) and chemistry (Vitha, 2022), as well as focused on the role of the Instructor (Placito de Rango, 2018; Schwind et al., 2017).
- Most of the studies have focused on using breathing techniques, meditation and journaling as mindfulness practice activities in their studies (e.g., Azevedo & Menezes, 2020; Egan et al., 2022; Ramasubramanian, 2017; Schwind et al., 2017). Most of the studies concluded with a recurring call for more research and rigorous testing of the effectiveness of mindfulness practices on academic performance (e.g., Bamber & Scheider, 2022; Duffy et al., 2021; Finkelstein-Fox, et al., 2018; Schwind et al., 2017). It was also noted that brief mindfulness activities might have positive behavioral outcomes without the need for full mindfulness courses.

Considering all of the above, conducting a study on the potential positive effects of the mindfulness practices in the Brain Booth, which offers a variety of mindfulness activities, was a natural next step for the researchers involved with the initiative.

2. Methodology

The researchers employed a qualitative inquiry to explore potential positive effects of mindfulness practices among university students. The research question was: How do university students experience the mindfulness activities with the Brain Booth? A questionnaire with two open-ended questions through an anonymous Google form was made available to the Brain Booth visitors for the duration of the Fall 2022 semester. The consent form preceding the questionnaire required the acknowledgement of a student status to be able to complete it. The two questions were: 1) Which activities did you find helpful and why? and 2) How would you describe your overall experience with the Brain Booth activities? The collected narratives from 95 respondents were analyzed using the In Vivo Coding method to formulate initial codes from the texts. Afterwards these were grouped in emerging themes and patterns to outline the findings of the study. In general, relying on individuals' self-reported effects might be acknowledged as a limitation of a study, but due to the nature of this study, it should not be considered a disadvantage. For example, if a student reports that a mindfulness activity has helped them to relax or to destress, they are actually the reliable source of such a report.

3. Findings

The overall results of the study were very positive. 100% of the respondents found their experience with the Brain Booth helpful and pointed out at least one mindfulness activity as having a positive effect on their academic performance or well-being. The major findings on how university students experience the Brain Booth activities were that they help them to: 1) Relax and destress; 2) Calm down; 3) Foster focus and clarity; 4) Actively engage and reenergize. Specific activities mentioned the most were coloring, origami, and the puzzle station, followed closely by the massage chair, light & sound therapy, the tabletop gaming station, and the pedal study desks.

3.1. Relax and Destress

The majority of the respondents, 72%, experienced the activities as helping them to relax and destress. Here are some specific examples from the narratives:

“A convenient unwind from the heavy load that college can press on a person.”

“It helped me destress.”

“I had a great experience. I love how there’s different stimuli for relaxation.”

“It gives me a way to distract myself and relief myself of stress.”

“It really relaxed my body and mind.”

3.2. Calm down

Many of the students, 27%, described that the activities were helpful with calming them down and helping with anxiety. Below are some specific examples from the narratives:

“...very helpful because it helped calm me down much faster...”

“They were very fun and helped calm me down.”

“...were relaxing and help calm any nerves that I had for my exam.”

“I loved it and it helped bring my anxiety down.”

3.3. Foster Focus and Clarity

A significant number of students, 25%, found the activities to be helpful with fostering focus and clarity, which is extremely important in addressing the challenge of the well-known ‘mind wandering,’ namely, the lack of concentration issue. Here are specific examples from the narratives:

“It made my mind feel clear.”

“...helpful before my calculus exam.”

“It really helped my brain kick-start and focus easier on my studies.”

“...it gets my brain going so I can do my homework or concentrate better.”

3.4. Actively Engage and Reenergize

Last but not least, a significant number of students, 23%, experienced the activities as also helping them to actively engage and reenergize. A few examples from the narratives:

“...it helps my overall work flow...”

“...helping to keep be active and engaged.”

“...using (the activities) to get reenergized.”

4. Discussion

The findings of this study support the notion that mindfulness practices have positive effects on students' academic performance and overall well-being. The finding that the majority of the respondents have experienced the Brain Booth helping them to relax and destress is consistent with the scholarly literature outlining this outcome after mindfulness practices (e.g., Azevedo & Menezes, 2020; Bartos et al., 2022; Ramasubramanian, 2017; Schwind et al., 2017).

This study showed that the mindfulness activities at the Brain Booth were helping students calm down and diminish anxiety in addition to relaxing and destressing, which means that the offered activities are addressing both factors affecting academic performance the most, namely, stress and anxiety. The study showed that the Brain Booth was helpful with fostering singular thoughtful focus, which addresses the lack of concentration exhibited through 'mind wondering.' The Brain Booth's offerings of many different activities available to students at any time distinguishes this from other studies on focus improvement (e.g., Ramasubramanian, 2017; Bartos et al., 2022). Such a setting makes it more convenient for students to participate in such activities, hence provides an opportunity for self-help without a need for a constant formal class or session meetings at regulated times. In addition, the Brain Booth was experienced as reenergizing and supporting active engagement. In the future, the researchers plan to design and conduct a study on exploring if any of the specific offered activities are correlated with any of the specific findings of this study.

An interesting outcome of the study was the fact that the activities mentioned as helpful by name the most were the activities not including any digital components or screen time. Also, some specific statements in the narratives were very explicit in support of that notion, for example, “they” (the activities) “are a fun distraction that doesn't require my eyes to be glued

to a screen.” Considering these, the researchers plan to increase the stations with such activities in the Brain Booth to be able to accommodate more students at the same time interested in those activities. At the same time, the Brain Booth will continue to provide the full plethora of offered activities, because this is an important point that makes the initiative unique and innovative. It is also well regarded by the Brain Booth visitors, as stated directly for example: “I really like using the brain booth and I think it’s a great idea. There are many options for people to choose what they like best, so it’s an inclusive space.” The study showed that the Brain Booth is helping students, at their point of need, with some of the major factors that affect their academic performance the most, as well as with their overall well-being. To sum it all, as one of the participants stated, “Always feel much better after spending time there.” As a future step, the researchers will submit a grant proposal to conduct a feasibility study and develop a replicable model of embedding the Brain Booth initiative in high school settings as well.

Acknowledgments

The authors gratefully acknowledge the assistance with the systematic literature review of librarian Ann Fuller, and three undergraduate research assistants who were supported with funding by the University Office of Research and the Faculty Research Committee at Georgia Southern University.

References

- Azevedo, M. L. de, & Menezes, B. C. (2020). Effects of the Mindfulness-Based Cognitive Therapy Program on stress, self-efficacy and mindfulness in university students. *SMAD Revista Electrónica Salud Mental, Alcohol y Drogas*, *16*(3), 1-11. doi:10.11606/issn.1806-6976.smad.2020.165513
- Bamber, M. D., & Schneider, J. K. (2022). College students' perceptions of mindfulness-based interventions: A narrative review of qualitative research. *Current Psychology*, *41*, 667-680. doi:10.1007/s12144-019-00592-4
- Bartel, K., Huang, C., Maddock, B., Williamson, P., & Gradisar, M. (2018). Brief school-based interventions to assist adolescents' sleep-onset latency: Comparing mindfulness and constructive worry versus controls. *Journal of Sleep Research*, *27*(3), 1-9. doi:10.1111/jsr.12668
- Bartos, J. L., Posadas, P. M., & Krageloh, C. (2022). Perceived benefits of remote yoga and mindfulness program for student musicians during COVID-19. *The Humanistic Psychologist*, *13*(1), 3-4. doi:10.1037/hum0000277
- Colaianne, B. A., Galla, B. M., & Roeser, R. W. (2020). Perceptions of mindful teaching are associated with longitudinal change in adolescents' mindfulness and compassion. *International Journal of Behavioral Development*, *44*(1), 41-50. doi:10.1177/0165025419870864

- Chun, T., Cooksey, A., & Kleinmeyer, L. (2021). Incorporating Mindfulness in the School Library. *Knowledge Quest*, 50(1), 16-22.
- Duffy, B., Rose-Wiles, L. M., & Loesch, M. M. (2021). Contemplating library instruction: Integrating contemplative practices in a mid-sized academic library. *Journal of Academic Librarianship*, 47(3), 102329. doi:10.1016/j.acalib.2021.102329
- Egan, H., O'Hara, M., Cook, A., & Mantzios, M. (2022). Mindfulness, self-compassion, resiliency, and wellbeing in higher education: A recipe to increase academic performance. *Journal of Further and Higher Education*, 46(3), 301-311. doi:10.1080/0309877X.2021.1912306
- Finkelstein-Fox, L., Park, C. L., & Riley, K. E. (2018). Mindfulness and emotion regulation: Promoting well-being during the transition to college. *Anxiety, Stress & Coping*, 31(6), 639–653.
- Fung, J., Kim, J. J., Jin, J., Chen, G., Bear, L., & Lau, A. S. (2019). A randomized trial evaluating school-based mindfulness intervention for ethnic minority youth: Exploring mediators and moderators of intervention effects. *Journal of Abnormal Child Psychology*, 47(1), 1–19. doi:10.1007/s10802-018-0425-7
- Gibson, N. S., & Regan, M. T. (2021). On the Journey to a contemplative library: Reflections from a professional community of practice. *International Information & Library Review*, 53(3), 64–271. doi:10.1080/10572317.2021.1949523
- Hartel, J., Nguyen, A. T., & Guzik, E. (2017). Mindfulness meditation in the classroom. *Journal of Education for Library and Information Science*, 58(2), 112-115. doi:10.12783/issn.2328-2967/58/2/6
- Karadjova, K.G. (2018). *Mindfulness and Gamification in the Higher Education Classroom: Friends or Foes?*, The International Conference on Higher Education Advances (HEAd'18), June 2018, Valencia, Spain. Valencia: Editorial Universitat Politècnica de València.
- Karadjova, K.G. (2019) “Mindfulness Experiences at the Library Brain Booth,” in R. Moniz and J. Covlin (Eds.), *Recipes for Mindfulness in Your Library: Supporting Resilience and Community Engagement*, (pp. 37–43). Chicago, IL: ALA.
- Karadjova-Kozhuharova, K.G., & Baker, R. (2022). *Mindfulness And Technology: Can They Be Two Sides Of The Same Coin?*, EDULEARN22 Proceedings, pp. 9074-9082. doi:10.21125/edulearn.2022.2181
- Loucks, E. B., Nardi, W. R., Gutman, R., Saadeh, F. B., Li, Y., Vago, ...& Harrison, A. (2021). Mindfulness-Based college: A stage 1 randomized controlled trial for university wellbeing. *Psychosomatic Medicine*, 83, 602-614. doi:10.1097/PSY.0000000000000860
- Mahmood, L., Hopthrow, T., Randsley de Moura, G. (2016). A moment of mindfulness: Computer-Mediated mindfulness practice increases state mindfulness. *Public Library Science*. 11(4). doi:10.1371/journal.pone.0153923
- Placito-De Rango, D. (2018). Situating the post-secondary instructor in a supportive role for the mental health and well-being of students. *International Journal of Mental Health and Addiction*, 16(2), 284-290. doi:10.1007/s11469-017-9740-4

- Ramasubramanian, S. (2017). Mindfulness, stress coping and everyday resilience among emerging youth in a university setting: A mixed methods approach. *International Journal of Adolescence and Youth*, 22(3), 308-321. doi:10.1080/02673843.2016.1175361
- Reeve, J., Jindal, R., Bartle, C., & Stokes, N. (2021). Using creative and contemplative pedagogy to promote learning efficacy and wellbeing within first-year, undergraduate students. *Gateway Papers: A Journal of Education and Pedagogic Research*, 2(1), 5. doi:10.3943/gp.34
- Ruhlmann, E. (2017). Mindful librarianship. *American Libraries*, 48(6), 44-47.
- Schwind, J. K., McCay, E., Beanlands, H., Martin, L.S., Martin, J., & Binder, M. (2017). Mindfulness practice as a teaching-learning strategy in higher education: A qualitative exploratory pilot study. *Nurse Education Today*, 50, 92-96. doi:10.1016/j.nedt.2016.12.017
- Seemiller, C., & Grace, M. (2016). *Generation Z goes to college*. San Francisco, CA: Jossey-Bass.
- Vitha, M. F. (2022). Contemplative Fridays: Mindfulness pedagogy in the general chemistry classroom. *Journal of Chemical Education*, 99(7), 2441-2445. doi:10.1021/acs.jchemed.2c00159
- Warren, S., & Deckert, J. C. (2019). Contemplative practices for self-care in the Social Work Classroom. *Social Work*, 65(1), 11-20. doi:10.1093/sw/swz039