

Technology-Enhanced Social-Emotional Learning Community

Mingming Jiang, University of California, Berkeley, mingming.jiang@berkeley.edu

Abstract: COVID-19 has increased the level of stress and loneliness experienced by teens, and there is an urgent need for them to learn social-emotional skills and feel supported by their peers. A technology-enhanced social-emotional learning community was designed to help students acquire effective coping skills and connect meaningfully with others. A study was conducted with 38 high school students, and their coping skills, feeling of social support, and level of stress were measured before and after engaging in the community. Results suggested that social-emotional skill development can be enhanced using an online learning community, where students share their struggles anonymously and learn coping skills by browsing effective coping strategies to support their peers. The results offered opportunities to leverage technology-enhanced learning communities to broaden access to quality social emotional learning experiences and help foster psychological well-being of more high school students.

Introduction

Navigating the high school years can lead to various stresses, and COVID-19 has made the situation more severe with an alarming rise in depressive symptoms and anxiety symptoms in teens (Zhou et al., 2020). Despite the need for more mental health support, most U.S. school districts have low access to school counselors without social-emotional learning standards at the K-12 level (Eklund et al., 2018). Meanwhile, teens are highly connected via technology like never before, but there is little research on how technology can enable communities of practice in social-emotional learning. How might we leverage technology students are already using to help them develop social-emotional skills through online learning communities?

A social-emotional learning community, Releaf, was designed to cultivate psychological well-being through research-based peer-to-peer support. Users can view a list of posts or post anonymously to others on the first screen. When they respond to a post, they learn about effective coping by browsing and choosing from a list of strategies curated from research. Users can then view a summary of research behind this strategy to learn more, and add a personalized message before sending. Like cultivating a garden, users earn leaves on their trees to reward the behavior of posting struggles and helping others, and they can reinforce learning by visiting their trees with a collection of research-based coping strategies that they suggested to others or received themselves.

Figure 1
Screens of Releaf for sharing struggles anonymously, browsing research-based coping strategies to support others, and growing "trees" to reinforce learning.



By engaging in Releaf, would teens learn research-based coping strategies for dealing with stress and feel part of a supportive community? Would their levels of stress and loneliness reduce as a result?

Method



The 38 participants in the study were all students in grades 9-12 from a private high school recruited via a school email. They were given a 10-minute presentation on the features of Releaf, and access to use Releaf for 4 months. There was no requirement on when or how much time in a day they should use the platform. Student stress levels and learning of effective strategies were measured using pre and post surveys, through which the quantity, diversity, and categorization of the coping strategies students learned were measured. Levels of social support were measured through platform data (e.g., # responses per post, speed of response) and post interviews.

Findings

Other than making students feel less stressed, Releaf helped students learn research-based coping skills effectively. 97% of students agreed that using Releaf helped them learn new strategies to tackle real-life challenges. 92% of students could name more diverse strategies to support their peers after using Releaf. 95% of students could correctly categorize effective coping strategies after using Releaf, a 64% increase from before they used the platform. Post interviews showed that learning happened on all screens of the platform, when browsing the strategies, reading about others' suggestions and research, and visiting and comparing trees.

Releaf also helped students feel more connected and supported by their peers. 92% of students agreed that using Releaf made them realize they are not alone in going through challenges, and 97% students agreed that using Releaf made them feel more supported by their peers. According to the post surveys, students liked the anonymity of the platform and appreciated being able to share their feelings without the fear of being judged. The top words students used in post interviews were "relatable," "collaborative," and "supportive." As one said, "I really like the idea of sharing what you're struggling with and having the community help you."

Conclusion and implications

The results from this study suggested that social-emotional skill development can be enhanced using an online learning community, where students share their struggles anonymously and learn effective coping skills by browsing research-based coping strategies to support their peers. Technology-enhanced learning communities like Releaf can foster the development of social-emotional competencies such as self-management and social awareness, while helping students connect meaningfully with others and acquire research-based coping skills. It shows that social-emotional learning can take place in informal environments as part of casual communication between students, and that an online learning community can complement social-emotional skill development in classrooms or other formal settings. Furthermore, such technology-enhanced learning communities can be used independently by schools that do not offer social-emotional learning curriculum, enabling more students to benefit from effective coping skills, social support, and psychological well-being.

This study reveals the opportunities inherent in harnessing students' use of technology to foster supportive learning communities and empower the students to help others while also learning and internalizing effective coping strategies. Future research should explore the long-term impact of such online communities on students' psychological well-being, as well as features and tools that can be included to build additional social-emotional competencies. Given the lack of social-emotional learning curriculum in many schools and the dearth of school counselors available to assist all students in public school settings, this study demonstrates the potential of using technology to help students develop and engage in positive communities of mutual support. The benefits of such platforms in teaching students effective coping strategies and cultivating a supportive community may prove to be a cost effective way to help promote student well-being across school settings.

References

- Eklund, K., Kilpatrick, K. D., Kilgus, S. P., & Haider, A. (2018). A systematic review of state-level social—emotional learning standards: Implications for practice and research. *School Psychology Review*, 47(3), 316-326.
- Zhou, S. J., Zhang, L. G., Wang, L. L., Guo, Z. C., Wang, J. Q., Chen, J. C., ... & Chen, J. X. (2020). Prevalence and socio-demographic correlates of psychological health problems in Chinese adolescents during the outbreak of COVID-19. *European child & adolescent psychiatry*, 29(6), 749-758.