Promoting and Sustaining a Growth Mindset in Online Classrooms Amid The COVID-19 Pandemic

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Abstract: Educators have long sought to understand why some students persist and overcome challenges, while others give up. We present an exploration of growth mindset as a factor for student success in online courses during the COVID-19 pandemic. Our qualitative exploratory study presents a review of the relevant literature, includes suggestions for classroom applications in online courses, and indicates avenues for future research.

Introduction

Student success and how to unleash it are topics of research and conversation among educators. Online students select the online educational option to accommodate family, work, and other commitments, but the pandemic presented additional challenges. The dilemma for educators is how to help sustain the initial enthusiasm students bring to the classroom experience as it becomes complicated by their other commitments. This is no easy task. A Pew report (2019) found that 36% of college students lack some basic needs and are food insecure.

In 2018, the largest pre-COVID study on basic needs in over 40,000 college students nationwide was conducted. Goldrick-Rab et al. (2018) found that 36% of U. S. college students are food insecure and in precarious housing situations.

Researchers note that, despite the uncertainty of COVID-19, many students continue to persist and graduate college. The problems of basic needs are serious; there is hope that with the proper support from university and faculty a sense of community and a growth mindset culture can be created. Marler et al. (2021) found "… positive relationships between academic motivation and sense of belonging, and negative relationships between these two variables and COVID-19-related distress" (p. 3).

This research is focused on how growth mindset can help students persist presenting practical ideas to facilitate persistence in the online classroom. Growth mindset can serve as a protective factor during the pandemic. According to Jackson and Tessler (1984), a perceived lack of control is a function of adverse events. Academic stress might intensify during unexpected and dramatic external events like the pandemic due to a lack of control and loneliness related to social isolation (Mosanya, 2021).

Growth Mindset

While students struggle to adapt to an academic environment, professors work to help them become proficient in skills to overcome challenges and reach academic goals. Researchers established how mindset is crucial for meeting goals and performing at optimal levels (Dweck, 2000, 2017; Tirri & Kujala, 2016; Yeager & Walton, 2011). Dweck (2006) demonstrated a connection between mindset and student achievement. Developing a growth mindset can be achieved by believing that learning is not fixed; with support from educators, students can learn to engage with resources and develop necessary academic skills to persist (Dweck, 2017). Dweck expands the idea that simply having a growth mindset would sustain itself. The original idea is grounded in the implicit theory of intelligence (Dweck & Leggett, 1988). Beliefs about intelligence directly influence one's learning ability. Faculty can facilitate student motivation and achievement by reinforcing students' abilities to master a task, informing them that struggling is part of the learning process and providing the necessary resources and strategies to develop academic skills.

Leondari and Gialamas (2002) found that a growth mindset is not enough. They found evidence demonstrating adult students are more inclined to display negative cognitive thinking (entity theory of intelligence). They also found that some younger students have a positive outlook when challenged in academia (2002). Researchers note there are different ideas to ground theories of intelligence. Entity theorists have demonstrated how those with maladaptive patterns of behavior (including cognitive, affective, and behavioral components) tend to carry a fixed belief about intelligence and abilities. Conversely, students with a more malleable belief system (Hong et al., 1999) perceive

challenges (cognitive, affective, behavioral) as an opportunity to find a solution. Yeager et al. (2016) demonstrated how motivation can be promoted and taught through specific strategies online. Claro et al. (2016) reiterated how growth mindset predicts effort, openness for applying new strategies, and reaching out when help is needed. This is even more important as the pandemic continues. Growth mindset can facilitate psychological resilience during difficult times to transform online learning and sustainability.

Sisk et al. (2018) conducted two meta-analyses on fixed and growth mindsets. They identified lower at-risk SES students and noted how implementing an intervention teaching growth mindset produced a significant improvement but with small effect sizes. Seaton (2018) introduced the idea of teachers having a growth mindset and found that teachers trained in growth mindset had a positive change at pre-and posttest. Perhaps … "… the most common misconception is simply equating the growth mindset with effort" (Dweck, 2015, para. 4)

Research demonstrates that psychological distress is associated with lower academic motivation and social disengagement on campus. Researchers have found a positive relationship between academic motivation and sense of belonging. Students who sustain motivation feel connected to their institution (Curtin et al., 2013; Goodenow, 1993; Hagborg, 1998; Neel & Fuligni, 2013; Pike & Kuh, 2005). Thus, "… feeling supported promotes a greater sense of psychological well-being generally (Lambert et al., 2013), and engaging in academic work can give a sense of purpose and meaning that helps abate worry and sadness"(p. 1418). Having a sense of purpose in life is associated with enhanced emotional recovery following negative experiences such as a global pandemic (Marler et al., 2021).

Educators can help students sustain the belief that challenges fuel action to find a solution to any problem. Dweck (2017) discovered that parents and caregivers, instead of responding to a child's setbacks, failures, and challenges, should focus on process praise, not person-performance responses to reinforce motivation and normalize failures as part of the learning process. Faculty can do the same in class. Yeager et al. (2019) supports this response style for a sustained growth mindset. Furthermore, adding the word *yet* to a response offers hope and inspiration for overcoming struggles and failures. For example, drawing attention to a student's potential for improvement, a teacher can say, "I know you are frustrated. …You may not know this *yet*, but with regular practice, my support, and effort, you will come to understand the subject," (process praise) instead of saying, "You are a smart girl, (person-praise) and will figure it out." Another strategy is sharing stories about problem-solving and successes in the classroom or having students witness a problem and the struggle to master a task. Students come to understand it is a natural, healthy, and adaptive part of the learning process to figure out how to stick with a dilemma to solve it, like finding pieces to a puzzle. This reinforces a growth mindset and a caring attitude.

Yeager et al. (2019) demonstrated how culture also impacts the results of mindset training. They randomized 6,320 at-risk ninth graders to understand the effects of short-term mindset training on grade point average. As predicted,

> Lower-achieving adolescents earned higher GPAs in core classes at the end of the ninth grade when assigned to the growth mindset intervention, $B = 0.10$ grade points (95% confidence interval = 0.04, 0.16), s.e. = 0.03, $n = 6{,}320$, $k = 65$, $t = 3.51$, $P = 0.001$, standardized mean difference effect size of 0.11, relative to comparable students in the control condition (Yeager et al., 2019, p. 366).

The students also changed their fixed mindsets relative to the control group. Developing a growth mindset is a multifaceted process and varies by several factors. Process praise appears to build a growth mindset.

Parents and teachers should offer motivating responses to children's setbacks. Students, understanding that struggling is part of the learning process, can learn that teachers are invested in their success. Dweck (2017) demonstrated that students are sensitive to how adults responded to challenges. Students who perceive their teachers as having a growth mindset, or what Dweck notes as providing process praise, have an opportunity for modeling such behavior. Faculty can teach students how to use critical thinking to recognize ineffective strategies and make necessary changes instead of quitting and reverting to a fixed mindset.

Implications for Best Practices

Studies undertaken after the COVID-19 pandemic started have provided suggestions from faculty and online students to increase students' motivation, engagement, and retention (Ali, 2020; Faize & Nawaz, 2020; Kumar & Verma, 2021; Milicevic et al., 2020). Experience and training of faculty with the online platform is crucial to motivate students, as is an orientation course and technical support for students to provide confidence going forward. Smaller class sizes are also valued (Ali, 2020; Milicevic et al., 2020). Clear instructions and grading rubrics provide a baseline for better student-faculty relationships to alleviate misunderstandings (Faize & Nawaz, 2020; Kumar & Verma, 2021). Providing prompt feedback and interactions are important; students appreciate specific guidelines during online sessions to reduce disruptions so everyone can better participate.

Motivated faculty tend to be more supportive and provide personal connections with students; this interaction relates directly to student achievement and engagement (Ali, 2020; Kumar & Verma, 2021; Milicevic et al., 2020). Telephonic outreach is highly appreciated by students, although students did not feel confident enough to initiate a call to faculty. Faculty could reach out to students and encourage students to contact them as well, remembering

that a personal connection between faculty and students can increase engagement and retention.

Recommendations for Future Research

Future research should examine other variables to determine the impact of growth mindset in the classroom. How faculty mindsets mediate a student's success has been demonstrated in middle school (Schmidt et al., 2015). Haimovitz and Dweck concluded, "We also know little about how children themselves may affect socializers' theories and behaviors. Examining these bidirectional processes will benefit our understanding of how a culture of growth can be developed and sustained" (2017, p. 1856).

Faculty can stress that a growth mindset helps online classrooms build community, a sense of place and belonging. We can engage students by helping them stay motivated when they feel socially accepted by faculty and peers. We can suggest resources for those dealing with overwhelming anxiety. Many universities included such referral services during the pandemic. Those resources can help students address food insecurity and other environmental stressors.

Feeling a sense of belonging to one's college can increase a feeling that someone cares even through the hardest times. Faculty can be flexible with the late policy if students stay connected and communicate problems. We can work together to make a plan when students struggle. Having a growth mindset means students persist, and that feelings of deep connection and belonging can moderate the effects of COVID-19 with resources provided by faculty. We can make phone calls and walk them through the resources. That phone call goes a long way into establishing human contact and caring, something that many students have lost during the pandemic.

Conclusion

We recognize the limitations to these strategies; however, there is much to be gained by exploring and experimenting with new ideas. Studies for this review were selected for methodological soundness, validity, strength, and currency. Only scholarly, primary, peer-reviewed studies were considered. Although research on growth mindset has been studied across domains, and countries, few studies have included faculty mindsets. Another limitation is the lack of statistical strength.

There are some advantages to consider for exploratory research. It is helpful for fully defining a problem not yet researched. The depth of a problem can be identified to pinpoint variables, moderators, and mediators. Researchers can discover the best strategies and variables to include in a large, full-scale study before embarking on a costly endeavor. Research is needed to determine the best chances of identifying how the

intersection of student and faculty mindset factors can be changed to allow students to persist in online education.

Students start college with great expectations and many of those expectations have been changed by the reality the COVID-19 pandemic. The pandemic has arguably impacted how faculty instruct and how students learn. This exploratory study presented some considerations for instructors to encourage their students to remain in their academic program as they sustain a growth mindset.

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