

Mindset Messaging: Fostering Student Support and Confidence through Micro-Messaging in Advisor Communication

Sarah Blanchard Kyte, University of Arizona

Elizabeth Collins, University of Arizona

Regina Deil-Amen, University of Arizona

As academic advisors help students navigate academic challenges toward a degree, seemingly mundane interactions have the potential to shape students' beliefs about themselves and their abilities. This study examines whether subtle cues within messages from advisors may help students develop what Carol Dweck calls a growth mindset—the belief that ability is malleable through effort, strategy, and help-seeking—and lead to greater perceived support from advisors and student confidence. Drawing on focus groups and interviews with twenty undergraduate students at a large public university, this study offers empirical support for the positive impact that growth mindset language can have within advisor-student communication, as well as a set of practical recommendations for bringing these insights to day-to-day advising practice.

[doi:10.12930/NACADA-19-08]

KEY WORDS: communication, growth mindset, advising models, micro-messaging

Introduction

As academic advisors help students navigate academic challenges towards a degree, seemingly mundane interactions have the potential to shape students' beliefs about themselves and their abilities. Growth mindset is a psychological concept made famous by Stanford psychologist Carol Dweck (2006) that has captured the attention of higher education professionals because of its association with student motivation, persistence, and learning. The central idea behind growth mindset—sometimes called an incremental mindset—is that the ability to learn is malleable and expandable through effort, strategy, and help-seeking (Dweck, 2006). Given the demonstrated association between having a growth mindset and student success (Claro et al., 2016; Rattan et al., 2015; Sriram, 2014; Yeager et al., 2016; Yeager & Dweck, 2012), researchers and practitioners have an interest in how day-to-day interactions can help foster a growth mindset among students. However,

this work has overlooked communication between advisors and students as an opportunity to develop a growth mindset. Consequently, we know little about how infusing growth mindset language into messages from academic advisors might influence how students perceive their academic challenges, their broader sense of support from advisors, and their confidence.

In this study, we empirically examine how micro-messages embedded within day-to-day advising communication impact students in the face of academic challenges. Using data from a series of focus groups and interviews with twenty students at a large, public university, we examine how students interpret and respond to email messages that emphasize a growth mindset in contrast to those that emphasize concepts central to appreciative advising, a highly influential advising framework with its own implications for student communication (Bloom & Martin, 2002; Drake et al., 2013; Redfern, 2008). Further, we consider how students' reactions relate to perceived support within the advising relationship and students' self-reported academic confidence. Our hypothesis is that micro-messages that draw on a growth mindset framework may help students reframe challenges as opportunities for growth and may enhance their perceived support from advisors, thus increasing their academic confidence in the face of challenging situations.

This study bridges several distinct literatures to consider how advisors can use micro-messaging to better support student success and engages scholarship on communication in higher education more broadly. In particular, it brings attention to academic advising that has been largely missing from the growing conversation on micro-messaging in higher education (Ellis et al., 2018; Morrell & Parker, 2013; Rowe, 2008; Solórzano et al., 2000; for an exception, see Powell et al., 2013). This gap is particularly unfortunate given the salience of the advising relationship and the potential that academic advisors have to positively shape social-emotional aspects of the student experience (Smith & Allen, 2014; Soria et al.,

2017; Vianden, 2016). Moreover, empirical examinations of the effects of micro-messages typically infer that these messages impact students by demonstrating an association between receiving a message and a later outcome such as persistence (Paunesku et al., 2015; Yeager & Dweck, 2012). This study, however, brings the student voice to this question by asking students how they interpret messages about academic challenges infused with growth mindset language, in contrast to messages that emphasize an appreciative advising approach. In doing so, it attempts to open additional avenues for future research and offer a set of implications for practice. As advising models continue to encourage more frequent nudges and intrusive messaging done mostly over digital platforms (Castleman & Page, 2015; Junco et al., 2016), these considerations will grow in importance.

Literature Review

Micro-Messages in Higher Education

In the context of increased pressure to enhance student success, scholars and practitioners are turning their attention to the subtle cues or micro-messages embedded within communications between universities, their personnel, and students. Micro-messages as articulated by Mary Rowe are small, subtle acts or gestures in the workplace which are often unintentional and yet impact the way individuals perceive their level of inclusion (2008). Recognizing the potential that micro-messages can have within educational contexts, recent research has explored how micro-messages may positively impact social-emotional aspects of the student experience such as belonging and inclusion and, in turn, students' perceptions about their ability to thrive within an institution or environment (Ellis et al., 2018; Harrison & Tanner, 2018; Powell et al., 2013; Soria et al., 2017; Yosso et al., 2009).

Because academic advisors play a key role in student development, interest in micro-messaging is naturally spreading to the study and practice of advising. Most often, this scholarly work does not explicitly focus on micro-messaging as an advising strategy, but rather explores theoretically-supported best practices for communication between advisors and students who are facing academic challenges or who may feel socially marginalized (Butler et al., 2016; English & Kruger, 2016; Lee, 2018; Soria et al., 2017). For example, English and Kruger (2016) showed that affirming student athletes' positive traits through

appreciative advising can mitigate threatening stereotypes of academic inadequacy. Similarly, Jasmine Lee (2018) leveraged critical race theory to identify how communication from advisors can affirm the experiences of students of color and thus counteract discriminatory microaggressions on campuses. Powell and colleagues (2013) provide a contrasting case by specifically advocating for the strategic use of micro-messages; they argued that micro-affirmations are an everyday practice advisors can use to positively impact student inclusion and belonging. In doing so, they called for empirical studies—like this one—that explore how micro-messages embedded within everyday advising practices may influence the student experience (Powell et al., 2013). Taken together, despite growing attention to the impact of micro-messages in higher education and the important role advising communication has on student outcomes, we know little about how micro-messages from advisors might be used as a strategy to positively impact students. Moreover, to our knowledge, no empirical study to date has contrasted how students react to micro-messages developed from distinct theoretical perspectives salient to academic advising.

Micro-Messaging from a Growth Mindset Perspective

We argue that micro-messaging offers a mechanism for infusing specific theories or concepts related to student success into day-to-day communications between advisors and students. One psychological concept that has gained substantial traction in educational research in recent years is that of a growth mindset (Dweck, 2006). As originated by Carol Dweck, a growth mindset—also referred to as an incremental mindset—is the idea that intelligence is malleable and that success results from hard work, strategy, and help-seeking (2006). Though individuals typically have a tendency towards either a growth mindset or, alternatively, a fixed mindset, it is important to note that a growth mindset can be developed over time (Paunesku et al., 2015; Yeager et al., 2016). Recent research demonstrates that institutional messages and interactions have the potential to solicit growth mindset thinking from students. For example, Murphy and Dweck (2009) demonstrated that subtle cues within organizational messages can influence college students' beliefs about intelligence and learning and help cultivate a growth mindset. This

suggests that infusing growth mindset language into everyday communication—like that between advisors and students—presents an exciting opportunity to help students cultivate a growth mindset.

Students' beliefs about whether intelligence is able to be developed over time or not is important because these beliefs contribute to other academic beliefs and outcomes, especially in the face of the academic challenges that inevitably arise. In these situations, students' academic confidence is likely better served by a growth mindset than a fixed mindset. As reasoned by Blackwell, Trzesniewski, and Dweck (2007), if students believe or are reminded that they have the potential to improve, their confidence may be more resilient to the minor set-backs or challenges they face. In the wider scholarship, students' sense of support and confidence are closely linked to more long-term outcomes like student persistence and graduation (Tinto, 2012). Thus, advisors have the potential to better support student success in the face of academic challenges through the use of growth mindset micro-messages.

Taken together, everyday communication within educational contexts—like that from advisors—has been shown to cultivate students' growth mindset and may positively impact their level of confidence, as well as the level of support they feel they receive from their advisors. However, it is important to note that much of this evidence relies on large-scale experimental data focused on metrics like student persistence or achievement with students' interpretations and reactions to growth mindset messages inferred (Paunesku et al., 2015; Yeager & Dweck, 2012). For example, Paunesku and others (2015) offered a growth mindset intervention to hundreds of K-12 students and observed a subsequent improvement in grades. Important work remains to be done to understand how these dynamics may play out in students' own words. Moreover, it is important to understand how to leverage these insights in the context of day-to-day challenges students face in higher education, such as struggling in a class and considering a withdrawal. In these situations, micro-messages from advisors may be especially critical.

Crafting Micro-Messages from Distinct Theoretical Perspectives

Thus far, we have made the case that growth mindset messaging from advisors has the potential to contribute to student success. We now turn

our attention to a practical discussion of crafting theoretically-grounded micro-messages for use in everyday advising communication. In doing so, we will contrast the key ideas suggested by a growth mindset perspective against those suggested by an appreciative advising perspective. Additionally, we focus on the types of micro-messages that advisors might offer in the context of an academic challenge.

Though growth mindset and appreciative advising approaches share a common emphasis on positivity and student development, they differ in several important respects. As discussed earlier, a growth mindset perspective views challenges as universal, and success and growth through the lens of effort, strategies, and help-seeking (Dweck, 2006). Therefore, growth mindset micro-messages from academic advisors should gently reframe challenges as opportunities to learn, offer to strategize with the student, and emphasize resources and help-seeking that would make a student's hard work pay off.

Comparatively, much more has been written for advising audiences about the appreciative model for academic advising. At its core, appreciative advising offers a multi-step process for building rapport with students in an open and caring relationship (Bloom et al., 2013; Hughey, 2011; Redfern, 2008). Consequently, discussions of how to apply the appreciative advising model typically focus on in-person interactions with students (Bloom & Martin, 2002; for an exception, see Pou, 2010). However, in the context of micro-messages in emailed communication about an academic challenge, an appreciative advising perspective would suggest an advisor ought to emphasize warmth and connection, affirm past successes, and offer encouragement and concrete guidance to students.

Thus, growth mindset and appreciative advising approaches have distinct emphases which can be used to craft micro-messages. This is not to suggest that these approaches are necessarily mutually exclusive. The same communication can of course contain alternating examples of growth mindset and appreciate advising; moreover, both approaches can in some cases flavor the same micro-message. For example, messaging a student with glowing praise that, "I am so proud to see you working so hard!" affirms both the warm, interpersonal relationship underscored by appreciative advising and also places an emphasis on effort as a key component of success per growth mindset. However, given the distinct emphases

suggested by a growth mindset approach compared to those offered by appreciative advising, a research opportunity exists to closely examine students' reactions to each of these types of messages taken separately, and to consider the wider implications regarding how student success can be shaped through micro-messaging.

Research Questions

This study addresses the following research questions:

- RQ1.** How do students interpret and anticipate responding to messages that emphasize a growth mindset compared to messages emphasizing an appreciative advising perspective?
- RQ2.** How do these reactions relate to students' perceived support from advisors and their academic confidence?

Method

We answer these questions through a qualitative study of undergraduate students at a large public university. Our conversations were designed as focus groups because of the strength of focus groups for learning about preferences, encouraging candor and participation in research, and shifting power toward participants (Barbour, 2007; Denzin & Ryan, 2007; Morgan, 1996). However, as is often the case in coordinating focus groups (Crabtree et al., 1993), some logistical challenges arose and, in a few cases, a sole student arrived for a scheduled focus group and chose to participate in a one-on-one interview utilizing the same general protocol rather than reschedule and join a future focus group. Given the relatively straightforward aims of our study and careful consideration of whether the content or tone of the students' comments might have been shaped by their mode of participation, we found no reason to exclude the perspectives of the three interviewees (for a discussion, see Barbour, 2007, p. 44). By contrast, we are glad that each chose to participate in a one-on-one interview format because they represent unique perspectives, including an honors student, an adult learner, and an underrepresented student working toward medical school.

For our study, we crafted two highly similar hypothetical emails from an academic advisor based on our reading of the literature on growth mindset and appreciative advising. Both emails

were responses to a student inquiry about dropping a challenging course and contained identical information about university policies and relevant resources. However, each message contained a few more sentences from the advisor that were infused with a distinct set of micro-messages specific to the core components of either a growth mindset or appreciative advising perspective (Walton, 2014). For example, the growth mindset message included phrases about the universality of challenges (this is incorporated with the phrase, "all students struggle"), and nods to the importance of effort (e.g. "help your hard work pay off"), strategies ("learning strategies," "I'm happy to strategize with you"), and help-seeking ("I'm glad you reached out") for success. By contrast, the appreciative message used phrases that emphasize warmth and connection (e.g. "I'm always happy to answer questions") and affirm past successes ("these challenges can be overcome just like the ones you may have faced in the past") in offering encouragement. In creating these messages, the first author revised a template email from one college related to withdrawing from a course by infusing it with our theoretically-driven micro-messages. The second author (an academic advisor) then reviewed these messages to verify that they seemed like messages an advisor might reasonably send a student. These messages—excluding the academic policy portions germane to the focal university—are included in Appendix A.

Sampling and Recruitment

The research team, comprised of an education researcher, a professional advisor, and a faculty member, partnered with advising leadership in two colleges external to all members of the research team. Collectively, we agreed to recruit participants from two majors, namely psychology and general studies, an interdisciplinary major offered at the focal university. These two majors offered a large pool of eligible students with a variety of social and academic backgrounds. Potential participants were contacted using established university list-serves, and interested students provided their availability and contact information as part of recruitment.

In organizing the focus groups, the research team was mindful to take pertinent student characteristics into account. Each focus group included students from only one major, and students were grouped based on their class standing in order to provide some commonality

(e.g. first and second year students together, third and fourth year students together). At the same time, effort was made to include part-time students, adult learners, and transfer students, as well as students following more conventional pathways, based on directory information about enrollment and academic standing. In all, 6 of our 20 students represented nontraditional pathways, including at least two adult learners, two transfer students, a student with advanced class standing, and a student who was behind relative to the timeline for completing a degree in four years. In this way, we sought to create a balance between the commonalities and differences within the participants in each focus group through strategic segmentation (Morgan, 1996).

Data Collection

All sessions were conducted in a central location on campus by the first and second authors. Twenty students in all participated, with five focus groups of three to four students each and three one-on-one interviews with the first author. Though this number is indeed on the smaller side, samples of this size are suitable for instances such as ours, where minimal distinctions between participants are being made and where the researchers have reason to believe that they have reached saturation in their data (Dillon & Fisher, 2000; Kem & Navan, 2006; Morgan, 1996; Ouimet et al., 2004; for a discussion, see Deterding & Waters, 2018, p. 12).

Whether conducted as a focus group or interview, each conversation had the same multi-phase structure and followed a semi-structured interview guide. After a brief introduction, the facilitator opened the discussion to students' experiences with advising and advising communication in general. This phase offered useful background information to contextualize the micro-messaging portion of the study, which took place in the second phase. During this second phase, students were asked to imagine that they had emailed their advisor about possibly dropping a challenging class and had received the hypothetical email as a response. This scenario seemed to resonate with students; multiple participants offered that they had previously been in this same situation. Students then discussed their general impressions and reactions to the first email before repeating the process with the second email and finally comparing and contrasting both messages side by side. Questions solicited students' distinctions and preferences

between the two emails, including their perceptions about which message—if either—might encourage them to take action and utilize resources. Students were also asked to consider which email made them feel a greater sense of confidence and support from the advisor. During our study, we alternated which message—growth mindset or appreciative advising—was presented first. Finally, because of the demonstrated benefits to learning about a growth mindset (Paunesku et al., 2015; Yeager et al., 2016), the sessions concluded with a brief explanation of this study's purpose and the benefits of a growth mindset.

Analysis of Data

Sessions were recorded, transcribed verbatim, and uploaded to Dedoose, a qualitative data analysis software. During our "first-cycle" coding, the research team applied structural, descriptive, emotion, and in vivo codes to the transcripts (Saldaña, 2015). Over several iterations, members of the research team refined these codes and added more as needed as they worked both together and separately towards a streamlined set of agreed-upon analytic codes. This iterative process is consistent with what Deterding and Waters (2018) advocate for as the second step of qualitative data analysis in the context of best practices for analyzing qualitative data with coding software. Further, one of the advantages of using focus groups as a research design is that they are well suited for discussing preferences; for example, we asked some direct questions like, "which message makes you feel more supported by your advisor?" (Morgan, 1996). Therefore, many of our codes were highly descriptive and directly related to answering our research questions. Applying other layers of coding—including other descriptive, emotion, and in vivo codes—helped us further contextualize students' words. In this way, our coding strategy blended traditional approaches to grounded theory research and emerging approaches to analyzing qualitative data in ways that complemented our research questions and study design.

Results

A Preference for Growth Mindset

Our first research question asks how students interpreted and anticipated responding to growth mindset messages compared to messages from an appreciative advising perspective. Therefore, we turn our attention first to whether students did

indeed draw distinctions between the two messages and, if so, the patterns underlying their preferences and anticipated responses. Students liked that both messages seemed encouraging, informative, and, in some cases, exceeded their current experiences with advising. However, students also thoughtfully recognized subtle yet important micro-messages within both the growth mindset and appreciative advising emails. Overall, they preferred the growth mindset message by a factor of two to one, with twelve students preferring the growth mindset message, six preferring the appreciative advising message, and two who did not express a preference. In explaining the general preference for the growth mindset message, students specifically highlighted language that made them feel less alone, that they had opportunities to learn, and that new strategies could support their growth and success.

All students struggle. The growth mindset message included language that emphasized all students struggle with challenging coursework, and that challenging courses can be opportunities to develop better learning strategies. In contrast, the appreciative advising message emphasized that most students struggle and these challenges can be overcome just like challenges students may have faced in the past. When comparing the two messages, knowing “all students struggle” made students feel less alone overall and less ashamed to be struggling. When reviewing the growth mindset message, one student offered, “It makes me feel better knowing that other people are the same as me.” Another student added, “You can feel very lost and almost ashamed that you did fail a class, or you’re struggling in a class.”

Opportunities to learn. Students also specifically highlighted how the growth mindset message helped them see challenges as opportunities to learn. In the words of one student, “It’s like all students struggle with challenging courses, but it’s like you can learn from it rather than being discouraged by it.” Other students similarly appreciated this aspect of the growth mindset message. In reference to the growth mindset message, a student said, “This one is actually something to develop better learning strategies for the future, which will help overall in anything.” The same student mentioned that the appreciative advising message, which instead highlighted how students can overcome challenges as they had in the past, had a “negative connotation, because it’s just about the past.” Students overall preferred how

the growth mindset message focused on their future success.

Strategizing. Students also attributed their preference for the growth mindset message to its emphasis on strategy. The growth mindset email pointed to the importance of learning strategies and ended by saying that the advisor would be happy to strategize with the student about resources and options, whereas the appreciative advising email closed with the message that advisors are always happy to talk more about the student’s questions and decisions. The opportunity to strategize was important to most students. One student felt that “the word strategize makes it like [the advisor is] already prepared to help you with the next steps.” Regarding the growth mindset email, one student said:

I think this one is more specific in saying we can plan it out with you. Like you don’t have to figure this out. We’re not just going to give you the information and have you figure it out yourself.

When comparing both messages, another student said she greatly preferred “let’s strategize” to “oh, let’s just talk about it,” indicating that, “happy to talk is still good, but strategize is what the advisors are for.”

Benefits of appreciative advising. While students did largely prefer the growth mindset message, many students liked the warmth within the appreciative advising message. We were surprised how many times students specifically mentioned how they liked to hear that their advisor was happy to talk with them; this came up ten different times across our conversations. This welcoming language seemed more personal to students. As one student stated, “At the end it’s like, I’m happy to talk with you. Instead of I’m happy to strategize with you. It’s personal...you can tell that they like to talk to students and they’re willing to help because they want to.” For some students, the appreciative email made the advisor feel more approachable and that the advisor would be a safe person to explore any uncertainty about what to do.

Overall, these findings demonstrate that students reacted differently to each of the two messages, meaning that students can and do pick up on subtle micro-messages within advising communication, and they largely preferred the growth mindset language to the appreciative advising micro-messages. The growth mindset

language – and the promise to work with the advisor – seemed to make students feel less alone and more encouraged. Consistent with this, when asked whether one of the emails was more likely than the other to encourage students to click on the resource links, more students said they would take an action, by clicking links or following up with the advisor, in response to the growth mindset message. Drawing a direct link between the emphasis on strategy and the links to resources provided in the email, one student stated:

With [the appreciative message], I'd be like, I know what the [tutoring center] is, but what's it going to do for me? I'm already getting this W or the E. Here [in the growth mindset message], it was positive, so I was like, 'Oh, I better check out that [tutoring center] home page,' because there's opportunities to fix this going forward.

Thus, in response to our first research question, we found strong evidence for a more positive interpretation by students as well as a greater likelihood of taking action in response to the growth mindset message compared to the appreciative advising message.

Linking Micro-Messaging to Support and Confidence

We now turn our attention to our second research question, which considers how these micro-messages relate to students' sense of perceived support from advisors and their academic confidence. When students were asked to comment on which message made them feel more supported or more confident, the majority of students once again indicated that the growth mindset message encouraged these feelings to a larger degree.

Support from advisors. Students generally felt more supported by the growth mindset message and, specifically, the offer to strategize. In our conversations, eight students noted in particular how the growth mindset message would foster a stronger sense of support from advisors. One student who preferred the growth mindset message indicated:

I'd be more supported with the opportunities to develop and the strategies, because it's almost like they want to help you figure it

out. . . If I go to my advisor, I want her to be able to help me figure out how to move forward from it.

While some students ($n = 4$) did prefer the appreciative message, linking warmth to support, other students pointed to an underlying element of care and compassion within the growth mindset message because the advisor communicated their commitment to be available to the student and to work together with them on a strategy. As one student explained, "They're willing to strategize and dedicate their time to meeting with me and it just makes me feel like they're dedicated and that they care."

Confidence. The growth mindset message also had a big advantage in students' feelings of confidence. Six students directly and explicitly said they would feel more confident after receiving the growth mindset message; only one student linked the appreciative message more closely to their sense of confidence. In unpacking how the wider pool of students we spoke to viewed how these messages might shape their confidence, the focus on planning and strategizing loomed large in students' perceptions; they felt like they would be more equipped to move forward confidently with a supportive advisor and concrete plan. According to one student, "At least in [the growth mindset email] you've actually got a plan to help them, so that gives me confidence that I can probably do it." Though each message provided links to resources, the growth mindset message framed these as helping students' hard work pay off, while the appreciative message simply indicated that the links could be helpful. The growth mindset email's apparent connection between utilizing resources and making the most of hard work resonated with students. One student offered a different reason why the growth mindset message made her feel more confident, saying, "Especially the hard work paying off thing. . . It makes you want to keep working." She expressed that the growth mindset message made her feel like she would want to not give up, because she ultimately would feel a sense of accomplishment in the end, knowing she had tried her best. Therefore, in response to our second research question, compared to the appreciative advising message, the growth mindset message and its emphasis on strategy, hard work, and help-seeking was more connected in students' minds to both their perceived support from advisors and their academic confidence.

Discussion

Despite growing interest in the potential for micro-messaging and growth mindset to enhance student success and the uniquely interpersonal work of academic advisors, the student perspective on micro-messages within advising communication was previously largely unexplored. In addressing this gap, we sought to learn about student responses to emails that were infused with distinct theoretical underpinnings. Specifically, we contrasted micro-messaging from a growth mindset perspective against the more familiar appreciative advising model to see if students had different reactions to these messages and how each might shape students' sense of support from their advisor and confidence in the face of academic challenges.

We found a strong preference among the students in our study for micro-messages infused with a growth mindset, which emphasized hard work, help-seeking, and strategy as key components of success in the face of challenges (Dweck, 2006). Students preferred the growth mindset message over the appreciative advising message and its emphasis on warmth, affirmation, and encouragement by a factor of two to one. Further, students said they were more likely to follow up with their advisor or the recommended resources in response to the growth mindset message compared to the appreciative advising message. Finally, students also reported that they felt more supported by their advisor and more confident moving forward after reading the growth mindset message compared to the appreciative advising message. Though there were certainly some students among the twenty we spoke to with differing reactions, students largely distinguished between the two messages and favored the growth mindset message across each of the dimensions we considered.

In making sense of these findings, there were two micro-messages which seemed to strongly resonate with students and come up again and again in their comments. First, we were surprised by how often students brought up the references to strategy embedded within the growth mindset message as a key factor in their preferences. For reference, the growth mindset references to strategy were brought up thirty-one times, whereas the next most often cited phrase in the growth mindset message was "all students struggle," which was brought up only six times. The emphasis on learning strategies helped some students reframe challenges as opportunities, and the offer to strategize with an advisor helped many students feel like they had an ally at the large, complex

university and, in turn, more optimism for the future. Students also viewed the emphasis on strategy within the growth mindset micro-messages as more linked to support from an advisor, which surprised us somewhat given that affirmation and warmth are key elements within an appreciative advising relationship. It is clear from these findings and our data as a whole that students were hungry for opportunities to strategize with their advisor and that the emphasis on strategizing within the growth mindset message made a big impact on them.

The second micro-message that came up repeatedly was how much students liked that the advisor in the appreciative advising message was "always happy" to hear from them. Despite the substantial scholarship on appreciative education in general and appreciative advising specifically (Bloom et al., 2013), the element that students picked up on the most from the micro-messages embedded within our study was the affirmation of connection and emotional positivity that their advisor would be happy to talk with them. Many students spoke about an awareness of large advising caseloads and the time pressures on advisors in their work; therefore, language like, "I'm always happy to talk more with you" might carry extra weight with students.

Implications for Future Research and Practice

Through this study, we link several growing areas of scholarship in higher education including micro-messaging, growth mindset, and advising communication. This contribution is particularly salient given trends in advising towards large caseloads and increasing reliance on technology and digital communication (Aiken-Wisniewski et al., 2015; Steele, 2016). While this study represents an important first step at more rigorously considering the impact of theoretically-driven micro-messages in advising communication, important work remains in order to move beyond the insights initiated here.

We see several promising directions for replicating and extending our findings. First, replicating our approach across institutional contexts is needed to learn whether the findings identified here would carry across settings, majors, and demographic groups. Relatedly, in examining how students react to various types of messages from advisors, future studies should unpack whether key populations who are particularly likely to be impacted by advising quality, like first-generation students or

students on academic probation, have a different set of perceptions related to micro-messages. Future research could also explore other psychological concepts like sense of belonging, grit, and elements of well-being and thriving in postsecondary education from a micro-messaging perspective (Duckworth et al., 2007; Schreiner, 2010; Strayhorn, 2012).

Further, additional studies are needed which bring different methodologies to understanding the impact of micro-messaging on student outcomes. Rather than a return solely to studies that use university-wide nudging campaigns to shape a distant outcome like retention rates, we suggest smaller, more deliberate interventions where strategic micro-messages within communication from advisors could be linked to observable short-term outcomes like on-time registration, meeting in person with an advisor, or taking advantage of an on-campus resource.

At the same time, several insights from our study are readily applicable to everyday advising practice. Our findings underscore how important it is for advisors to be cognizant of the subtle and sometimes unintentional messages they convey to students and, where appropriate, take advantage of strategic micro-messaging (Rowe, 2008). Moreover, though the messages created for this study emphasized either a growth mindset or an appreciative advising approach, best practices may suggest combining approaches. Advisors and other practitioners working directly with students are free to consider borrowing some of the micro-messaging language within the emails crafted for this study if it suits their needs. It is also worth noting that although some students shared that portions of these emails felt like templates, they did not see this as a negative. Instead, they seemed to value the quality of the message over whether or not it was a template. This suggests that it may be a good investment of time to infuse effective micro-messages into routine email communications, university list-serves, or template emails used in everyday advising practice.

Conclusion

In the larger view, this work demonstrates that the content and tone of advisors' words do indeed matter to students. In the context of the digital communication that characterizes advising practice at large universities like the focal university, the students we spoke with appreciated the detail, resources, and words of affirmation embedded in

emails from their advisors. Moreover, this study shows the potential of theoretically grounded micro-messages within communication from advisors to support not only student success but also their mindset and well-being. In particular, infusing growth mindset language into discussions of academic challenges can help students reframe these challenges as opportunities, feel less alone, and see advisors as key partners in strategizing—something students crave in advising relationships.

References

- Aiken-Wisniewski, S. A., Johnson, A., Larson, J., & Barkemeyer, J. (2015). A preliminary report of advisor perceptions of advising and of a profession. *NACADA Journal*, 35(2), 60–70. <https://doi.org/10.12930/NACADA-14-020>
- Barbour, R. (2007). *Doing focus groups* (U. Flick, Ed.). SAGE Publications, Inc.
- Blackwell, L. S., Trzesniewski, K. H., & Dweck, C. S. (2007). Implicit theories of intelligence predict achievement across an adolescent transition: A longitudinal study and an intervention. *Child Development*, 78(1), 246–263.
- Bloom, J. L., Hutson, B. L., He, Y., & Konkle, E. (2013). Appreciative education. *New Directions for Student Services*, 2013(143), 5–18.
- Bloom, J. L., & Martin, N. A. (2002). Incorporating appreciative inquiry into academic advising. *The Mentor: An Academic Advising Journal*, 4(3).
- Butler, M., Blake, N., Gonzalez, A., Heller, E., & Chang, F. (2016). Appreciative advising: Retaining academic probation students. *Journal of Appreciative Education*, 3(1), 1–17.
- Castleman, B. L., & Page, L. C. (2015). Summer nudging: Can personalized text messages and peer mentor outreach increase college going among low-income high school graduates? *Journal of Economic Behavior & Organization*, 115, 144–160.
- Claro, S., Paunesku, D., & Dweck, C. S. (2016). Growth mindset tempers the effects of poverty on academic achievement. *Proceedings of the National Academy of Sciences*, 113(31), 8664–8668.
- Crabtree, B. F., Yanoshik, M. K., Miller, W. L., & O'Connor, P. J. (1993). Selecting individual or group interviews. In D. L. Morgan (Ed.), *Successful focus groups: Advancing the state of the art* (pp. 137–150). SAGE Publications, Inc.
- Denzin, N. K., & Ryan, K. E. (2007). Qualitative methodology (including focus groups). In W.

- Outhwaite & S. P. Turner (Eds.), *The SAGE handbook of social science methodology* (pp. 578–594). SAGE Publications, Inc.
- Deterding, N. M., & Waters, M. C. (2018). Flexible coding of in-depth interviews: A twenty-first-century approach. *Sociological Methods & Research*.
- Dillon, R. K., & Fisher, B. J. (2000). Faculty as part of the advising equation: An inquiry into faculty viewpoints on advising. *NACADA Journal*, 20(1), 16–23.
- Drake, J. K., Jordan, P., & Miller, M. A. (2013). *Academic advising approaches: Strategies that teach students to make the most of college*. John Wiley & Sons.
- Duckworth, A. L., Peterson, C., Matthews, M. D., & Kelly, D. R. (2007). Grit: Perseverance and passion for long-term goals. *Journal of Personality and Social Psychology*, 92(6), 1087.
- Dweck, C. S. (2006). *Mindset: The new psychology of success*. Random House.
- Ellis, J. M., Powell, C. S., Demetriou, C. P., Huerta-Bapat, C., & Panter, A. (2018). Examining first-generation college student lived experiences with microaggressions and microaffirmations at a predominantly white public research university. *Cultural Diversity and Ethnic Minority Psychology*, 25(2), 266–279. Advance online publication. <http://dx.doi.org/10.1037/cdp0000198>
- English, J. A., & Kruger, A. C. (2016). Appreciative advising: Six phases to mitigate stereotype threat among student athletes. *Journal of Appreciative Education*, 3(1), 18–29.
- Harrison, C., & Tanner, K. D. (2018). Language Matters: Considering Microaggressions in Science. *CBE—Life Sciences Education*, 17(1), fe4.
- Hughey, J. K. (2011). Strategies to enhance interpersonal relations in academic advising. *NACADA Journal*, 31(2), 22–32. <https://doi.org/10.12930/0271-9517-31.2.22>
- Junco, R., Mastrodicasa, J. M., Aguiar, A. V., Longnecker, E. M., & Rokkum, J. N. (2016). Impact of technology-mediated communication on student evaluations of advising. *NACADA Journal*, 36(2), 54–66.
- Kem, L., & Navan, J. L. (2006). Gifted students in college: Suggestions for advisors and faculty members. *NACADA Journal*, 26(2), 21–28.
- Lee, J. A. (2018). Affirmation, support, and advocacy: Critical race theory and academic advising. *NACADA Journal*, 38(1), 77–87.
- Morgan, D. L. (1996). Focus groups. *Annual Review of Sociology*, 22, 129–152.
- Morrell, C., & Parker, C. (2013). Adjusting micromessages to improve equity in STEM. *Diversity & Democracy*, 16(2).
- Murphy, M. C., & Dweck, C. S. (2009). A culture of genius: How an organization’s lay theory shapes people’s cognition, affect, and behavior. *Personality and Social Psychology Bulletin*, 36(3), 283–296. <https://doi.org/10.1177/0146167209347380>
- Ouimet, J. A., Bunnage, J. C., Carini, R. M., Kuh, G. D., & Kennedy, J. (2004). Using focus groups, expert advice, and cognitive interviews to establish the validity of a college student survey. *Research in Higher Education*, 45(3), 233–250.
- Paunesku, D., Walton, G. M., Romero, C., Smith, E. N., Yeager, D. S., & Dweck, C. S. (2015). Mind-set interventions are a scalable treatment for academic underachievement. *Psychological Science*, 26(6), 784–793. <https://doi.org/10.1177/0956797615571017>
- Pou, J., W. (2010). How academic advisers can use Facebook to apply appreciative advising. *The Mentor: An Academic Advising Journal*, 12(1). <https://dus.psu.edu/mentor/old/articles/100310jp.htm>
- Powell, C., Demetriou, C., & Fisher, A. (2013). Micro-affirmations in academic advising: Small acts, big impact. *Mentor: An Academic Advising Journal*, 15.
- Rattan, A., Savani, K., Chugh, D., & Dweck, C. S. (2015). Leveraging mindsets to promote academic achievement: Policy recommendations. *Perspectives on Psychological Science*, 10(6), 721–726.
- Redfern, K. (2008). Appreciative advising and the nontraditional student. *The Mentor: An Academic Advising Journal*, 10(4).
- Rowe, M. (2008). Micro-affirmations and micro-inequities. *Journal of the International Ombudsman Association*, 1(1), 45–48.
- Saldaña, J. (2015). *The coding manual for qualitative researchers*. SAGE Publications, Inc.
- Schreiner, L. A. (2010). The “thriving quotient”: A new vision for student success. *About Campus*, 15(2), 2–10.
- Smith, C. L., & Allen, J. M. (2014). Does contact with advisors predict judgments and attitudes

- consistent with student success? A multi-institutional study. *NACADA Journal*, 34(1), 50–63. <https://doi.org/10.12930/NACADA-13-019>
- Solórzano, D., Ceja, M., & Yosso, T. (2000). Critical race theory, racial microaggressions, and campus racial climate: The experiences of African American college students. *Journal of Negro Education*, 60–73.
- Soria, K. M., Laumer, N. L., Morrow, D. J., & Marttinen, G. (2017). Strengths-based advising approaches: Benefits for first-year undergraduates. *NACADA Journal*, 37(2), 55–65. <https://doi.org/10.12930/NACADA-16-010>
- Sriram, R. (2014). Rethinking intelligence: The role of mindset in promoting success for academically high-risk students. *Journal of College Student Retention: Research, Theory & Practice*, 15(4), 515–536.
- Steele, G. E. (2016). Technology and academic advising. In T. J. Grites, M. A. Miller, & J. G. Voller (Eds.), *Beyond Foundations: Developing as a Master Academic Advisor* (p. 305). Jossey-Bass.
- Strayhorn, T. L. (2012). *College students' sense of belonging: A key to educational success for all students*. Routledge.
- Tinto, V. (2012). *Leaving college: Rethinking the causes and cures of student attrition* (2nd edition). University of Chicago Press.
- Vianden, J. (2016). Ties that bind: Academic advisors as agents of student relationship management. *NACADA Journal*, 36(1), 19–29. <https://doi.org/10.12930/NACADA-15-026a>
- Walton, G. M. (2014). The new science of wise psychological interventions. *Current Directions in Psychological Science*, 23(1), 73–82. <https://doi.org/10.1177/0963721413512856>
- Yeager, D. S., & Dweck, C. S. (2012). Mindsets that promote resilience: When students believe that personal characteristics can be developed. *Educational Psychologist*, 47(4), 302–314.
- Yeager, D. S., Romero, C., Paunesku, D., Hulleman, C. S., Schneider, B., Hinojosa, C., Lee, H. Y., O'Brien, J., Flint, K., & Roberts, A. (2016). Using design thinking to improve psychological interventions: The case of the growth mindset during the transition to high school. *Journal of Educational Psychology*, 108(3), 374.
- Yosso, T., Smith, W., Ceja, M., & Solórzano, D. (2009). Critical race theory, racial microaggressions, and campus racial climate for Latina/o undergraduates. *Harvard Educational Review*, 79(4), 659–691.

Authors' Notes

This work was made possible by many members of the University of Arizona community, especially Meredith Aronson, Christy Ball, Nina Bates, Gail Burd, Roxie Catts, Cynthia Demetriou, Leticia Soto-Delgadillo, and Stephanie Springer.

Dr. Sarah Blanchard Kyte is the senior research scientist in Student Success and Retention Innovation and a faculty affiliate in the Center for the Study of Higher Education at the University of Arizona, where she is driving a research agenda into the policies and practices that shape successful pathways for all students. Sarah earned a Ph.D. in sociology at the University of Texas at Austin with a focus on education, social mobility, and research methods. Prior to joining the University of Arizona, Dr. Kyte partnered with scholars and practitioners in higher education and the nonprofit sector to tell important stories about opportunity and well-being for students. Previous peer-reviewed publications have appeared in Social Sciences, Social Science Research, and Demography.

Elizabeth Collins is a doctoral candidate in the Center for the Study of Higher Education at the University of Arizona. She received her master's in postsecondary administration and student affairs from the University of Southern California, and she has worked within academic advising for the past six years. Her research interests include exploring and critiquing everyday policies and practices within higher education in order to understand the often unexamined ways that universities continue to marginalize traditionally underrepresented students. She uses critical whiteness studies and academic advising as an advocacy approach as frameworks to explore the work of academic advising. She believes that because academic advisors work closely, consistently, and in dynamic ways with an increasingly diverse group of students, they have the responsibility to critique and disrupt marginalizing practices that surface in their everyday work.

Dr. Regina Deil-Amen is a professor of higher education and sociology in the Center for the Study of Higher Education / Educational Policy Studies & Practice Department in University of Arizona's College of Education. She is an expert on qualitative research methods. Her research has generally focused on college student aspirations and decision making, organizational contexts, persistence, inequality, and opportunities in two-year public community colleges and for-profit colleges and broad access universities, with particular focus on lower-income students, non-traditional students, and underrepresented stu-

dents of color. Most recently, she has studied how community college students use social media to create community and navigate organizational procedures, the consequences of financial aid policies on low-income students, and utilizing texting and other technology as tools to both explore student experiences and improve organizational practices. Her current NSF-funded work awards scholarships and offers asset-based and career-relevant mentoring and academic support to Pell-eligible community college students transferring into university STEM majors.

Appendix A. Growth mindset and appreciative messages with differences in bold

Growth Mindset Message

Dear [Student],

[Description of withdrawal policy]

As you decide, know that **all students struggle** with challenging coursework at one time or another and that **the most challenging classes can be opportunities to develop better learning strategies**. I'm **glad that you reached out to ask about the policy** and I would encourage you to go even further and take advantage of some of the resources on campus that can **help your hard work pay off the most** in this and all of your future classes. In particular, in addition to your professor's office hours, check out the tutoring center homepage, peer mentoring, and the writing center.

Let me know if you have any questions and feel free to come in for an advising appointment before making a final decision. **I'm happy to strategize with you about campus resources and options.**

Best,

[Your Advisor]

Appreciative Advising Message

Dear [Student],

[Description of withdrawal policy]

As you decide, know that **many students struggle** with challenging coursework at one time or another and that **these challenges can be overcome just like ones you may have faced in the past**. I'm **always happy to answer questions about policies** and I would encourage you to go even further and take advantage of some of the resources on campus that can **help you to be successful in the classroom** in this and all of your future classes. In particular, in addition to your professor's office hours, check out the tutoring center homepage, peer mentoring, and the writing center.

Let me know if you have any questions and feel free to come in for an advising appointment before making a final decision. **I'm happy to talk with you about it more.**

Best,

[Your Advisor]