

Texting for Persistence: Leveraging Text Messages and Near-Peer Mentoring to Build Student Self-Efficacy

Jacqueline Diaz-Mewes, The Chicago School, United States

Jonathan Dodrill, The Chicago School, United States

Ted Scholz, The Chicago School, United States

The Washington DC Conference on Education 2026

Official Conference Proceedings

Abstract

Online undergraduate programs battle the ongoing challenges of undergraduate students' low self-efficacy, academic disengagement, and perceived lack of belonging and isolation. To directly address this problem, The Chicago School's College of Undergraduate Studies implemented a near-peer mentoring program that connects undergraduate students with graduate student mentors from similar backgrounds with the aim of enhancing self-efficacy and fostering a sense of belonging. This research focuses on the impact that text messaging had on improving the mentoring relationship, thereby strengthening the students' perception of self-efficacy and belonging. Text messages provide a tool to boost student engagement and support the organic development of the near-peer mentoring relationship in a just-in-time format. Continuous program evaluation is completed through a mixed-methods approach that includes analysis of text message transcripts, written mentor meeting summaries, surveys, GPA tracking, and one-on-one interviews. In its first year, the program showed a fall-to-spring student persistence rate of 70% significantly outpacing the university's prior three-year average of 55.9%. While the data did not indicate a relationship between text message frequency and academic performance, it did identify a relationship between text message frequency and student persistence. On average, students who had higher text message frequencies ($M = 101$) were more likely to remain enrolled in their degree program. These results suggest that a near-peer mentoring program supported by text message communication can support student retention by nurturing personalized guidance and strengthening the students' sense of community. These findings suggest that accessible and direct communication positively impacts student engagement and builds students' sense of self-efficacy by fostering consistent, positive interactions and easily accessible mentorship. These findings offer valuable insights into best practices for student retention programs that could be applicable across various disciplines and contribute to understanding social learning, self-determination, and student retention theories.

Keywords: near-peer mentoring, student retention, text-messaging, academic persistence, higher education

iafor

The International Academic Forum

www.iafor.org

Introduction

Online college students battle the ongoing challenges of undergraduate students' low self-efficacy, academic disengagement, and perceived lack of belonging and isolation (Betz & Rottinghaus, 2006; Chemers et al., 2001; Hackett & Betz, 1981; Tinto, 1994, 2017; Vuong et al., 2010). Research indicates that when students experience feelings of isolation and disconnection, these environmental impacts directly hinder their academic persistence and ability to achieve their educational and professional goals (Betz & Rottinghaus, 2006; Chemers et al., 2001; Hackett & Betz, 1981; Vuong et al., 2010). However, targeted support can reduce dropout rates, impact individual success, and broaden their mobility and equity. The purpose of this research was to evaluate the impact of a targeted text messaging-based near-peer mentorship program on undergraduate students' persistence and sense of self efficacy in the online learning environment.

To better understand the impact of text-messaging, this project specifically evaluated the text messaging program used within a near-peer mentorship program. The North Star Project was designed to address the challenges encountered by online undergraduate students at The Chicago School. The Chicago School's College of Undergraduate Studies (CoUS) houses three main undergraduate programs that are primarily delivered in an online, distance learning format. Prior research indicated that online students frequently experience low self-efficacy and a lack of belonging in academic environments (Tinto, 1994, 2017). The core problem identified was that these students often feel isolated and disconnected, hindering their academic persistence (Betz & Schifano, 2000; Tinto, 2017).

The purpose of this research is to evaluate the impact that text messaging had on the near-peer mentorship relationship. The study was guided by the following overarching research questions:

1. To what extent does the use of text messaging as a primary communication tool influence the strength of the near-peer relationship and the academic performance of the mentees?
2. In what ways does the use of text messaging as a primary communication tool influence the strength of the near-peer relationship and the academic persistence of the mentees?

It also seeks to answer the following quantitative and qualitative sub questions:

- I. How does the frequency of text message interactions correlate with mentees' GPA at the end of the term?
- II. How does the frequency of text message interactions correlate with mentee's persistence?
- III. Qualitative
 - i. In what ways do the themes of self-efficacy and sense of belonging manifest differently in the text message exchanges of mentees who persist compared to those who withdraw?

This research aims to better understand the impact of text-messaging on undergraduate student retention in online programs. This project specifically evaluated the text messaging program used within a near-peer mentorship program. The North Star Project was designed to address the challenges encountered by online undergraduate students at The Chicago School. This research hypothesizes that there is a positive correlation between the frequency of text messages and students' GPA and student persistence into the next term. The following sections will briefly discuss the foundational theories that guided this study's development, the methods

used to evaluate its effectiveness, and an overview of the preliminary results from year one. It will conclude by discussing the implications of preliminary results, their limitations, and future directions.

Literature Review

This study was grounded in the theoretical framework of student persistence. According to Tinto (1994, 2017), students are motivated to persist in their academic careers when integrated into formal and informal academic systems, activities, and social systems. Tinto asserted that student motivation is comprised of three elements: student self-efficacy, a sense of belonging, and perceived value of the curriculum. The central tenets of this theory are the concepts of student perception and self-efficacy. Bandura (1977) defined self-efficacy as an individual's belief that they can accomplish a task. Research on self-efficacy has revealed that it is an important indicator of students' ability to overcome barriers and persist in their academic and career environments (Betz & Rottinghaus, 2006; Hackett & Betz, 1981). Students with high levels of self-efficacy are more likely to persist and reach their goals even when difficulties are encountered, while students with low self-efficacy are more likely to withdraw and become discouraged (Chemers et al., 2001; Vuong et al., 2010). However, self-efficacy is not fixed; research indicates it is malleable and influenced by environmental factors (Falk et al., 2022).

Dasgupta (2011) found that contact with successful experts or peers of the same race or gender can function as a "social vaccine" and protect students from self-doubt. Similarly, Betz and Schifano (2000) identified that group interventions, such as workshops and social events, increased STEM confidence in student groups (Betz & Schifano, 2000). However, to achieve connection, students must become engaged and see themselves as a part of the academic community (Tinto, 2017). Research has found that institutions can encourage this process through extracurricular and social activities. Similarly, peer-to-peer text message-based peer mentor programs have proven to be effective ways to provide just in time support and social connection (Brandt et al., 2023; Bussu & Burton, 2023; Edwards et al., 2025; Werntz et al., 2023). However, these interventions were limited in scope and most focused on graduate students; they did not include quantitative analysis or connection to grades which suggests that this study could add to the literature (Brandt et al., 2023; Bussu & Burton, 2023; Edwards et al., 2025; Tippetts et al., 2022; Werntz et al., 2023).

This research seeks to add to the limited research on the effectiveness of text message near-peer mentoring on online undergraduate students through a mixed methods analysis. The North Star Project was designed to match online undergraduate students enrolled at CoUS with near-peer graduate mentors with similar interests and experiences. Brandt et al. (2023) found causal evidence that supports implementation of a low-cost, just-in-time text messaging program enhances higher academic achievement for participants in near-peer mentoring programs. Similarly, a study by Tippetts et al. (2022) determined that personalized texting fostered student persistence and advising engagement.

This study addressed a clear gap in research on text-based near-peer mentoring for online undergraduate students. While prior studies demonstrate that just-in-time messaging and mobile-based peer support can enhance engagement, community, and short-term academic outcomes, most have been limited to graduate populations, single-site qualitative designs, or lacked quantitative links to performance and persistence (Brandt et al., 2023; Bussu & Burton, 2023; Edwards et al., 2025; Tippetts et al., 2022; Werntz et al., 2023). By employing a mixed methods approach within an online undergraduate context, this study extends existing evidence

by examining both the mechanisms and measurable academic impacts of near-peer mentoring delivered through text messaging. Ultimately, the findings have the potential to deepen understanding of how low-cost, scalable interventions can foster self-efficacy, promote connection, and support persistence for online learners.

Methodology

To evaluate the impact of a text message based near peer mentor program on student persistence, this study employed an explanatory sequential mixed-methods design. The quantitative phase examined whether the frequency of text message interactions between mentors and mentees correlated with student GPA and persistence to the following term. The qualitative phase explored how themes of self-efficacy and sense of belonging manifested within text message exchanges and how these differed between students who persisted and those who withdrew. Integrating both phases allowed for triangulation of findings to assess convergence, complementarity, and divergence across data sources.

The study was guided by the following overarching research question:

1. To what extent does the use of text messaging as a primary communication tool influence the strength of the near-peer relationship and the academic performance of the mentees?
2. In what ways does the use of text messaging as a primary communication tool influence the strength of the near-peer relationship and the academic persistence of the mentees?

Sub-questions examined:

- Quantitative:
 - How does the frequency of text message interactions correlate with mentees' GPA at the end of the term?
 - H₁: A positive correlation exists between text message frequency and GPA.
 - How does the frequency of text message interactions correlate with mentee persistence?
 - H₁: More frequent text message interactions predict higher likelihood of persistence.
- Qualitative:
 - In what ways do the themes of self-efficacy and sense of belonging manifest differently in the text message exchanges of mentees who persist compared to those who withdraw?

Participants

The study took place within The CoUS and recruited nine mentors and a total of 28 mentees across the first semester in the 2024–2025 academic year. Eighteen mentors were recruited for the 2025–2026 school year. Thirty-eight mentees from year 1 returned to the program in year 2. An additional 47 Mentees were recruited at the start of the fall term, bringing the total number of student mentees participating in the program to 85. Mentors were assigned up to five mentees based on matching surveys that collected information about background, interests, and academic/career goals. This matching process followed evidence-based practices that support stronger mentoring relationships (Tenenbaum et al., 2014).

During their onboarding, all mentors completed a specialized mentorship training program to enhance their skills in supporting and guiding students. They also gained professional

development by leading workshops for mentees and attending webinars and sessions with the National Society for Leadership and Success, improving their leadership, communication, and presentation abilities. Monthly one-on-one and team meetings further served as ongoing skill-building sessions, fostering continuous growth for the mentors. Mentors used the skills learned in their training to establish rapport and schedule subsequent mentoring sessions for the term.

At their first meeting, mentors review The North Star Mentorship contract, which clearly discusses the responsibilities and expectations for the program. The contract includes requirements for meeting frequency and outlines goals and expectations (Zaniewski & Reinholz, 2016). This agreement also provides a checklist of items to be discussed and an opportunity to collect qualitative feedback on the mentor's guidance. This feedback was used for formative and summative project evaluation. Previous research demonstrates the need to take exceptional care in the wording of the qualitative questions to capture accurate measures of self-efficacy and sense of belonging metrics (Burrell et al., 2018).

Data Collection

Mentors and mentees met weekly, synchronously over Zoom or asynchronously by text or email, with mentors who provided guidance throughout their partnership. These sessions are conducted via the school's Zoom or Microsoft Teams platform, or asynchronously over email or text messaging. The secure text messaging platform subscription was purchased with project funds and permitted for safe communication (personal cellphone numbers are not shared) for scheduling Zoom sessions, "check-ins," and support between sessions. The platform records the mentor and mentee frequency of contact and content of messages, which is used in project evaluation. Additionally, mentors write meeting summary reports, and the project director invites all mentees to participate in a one-on-one session to gain feedback. Notes from mentors' monthly check-ins are also used in the project evaluation.

Additionally, all incoming mentees were invited to complete an assessment designed based on the General Self-Efficacy Scale (GSE) and the college student's sense of belonging survey (Hoffman et al., 2002). The survey was constructed to incorporate CoUS-specific questions containing "certain...capable of" and "confident...can" that are proven effective measures of self-efficacy (Burrell et al., 2018). The initial results served as benchmark levels of self-efficacy and sense of belonging. Extensive research has been completed on the GSE's reliability to measure the level of self-efficacy (Kiuru et al., 2008; Schwarzer & Jerusalem, 1995; Williams & Rhodes, 2014; Williams & Williams, 2010).

The effectiveness of the mentor-mentee relationship has been rigorously evaluated through various measures, including mentor meeting summaries, analysis of text message conversations, surveys, GPA tracking, and mentee interviews. Additional quantitative data was collected via surveys administered to the mentee population each semester and institutional reporting measures (GPA, student registration, and student withdrawals) Once a year, the data from the pre- and post-assessments, institutional data on academic performance, and persistence outcomes for both mentors and mentees are triangulated with the qualitative data collected from interviews with mentees, mentor meeting notes, and the text message program to identify the effectiveness of the program.

Data Analysis

Quantitative data analysis was conducted using Microsoft Excel. Descriptive statistics were used to summarize text message frequency, GPA, and persistence rates. Pearson's correlation coefficient was used to examine the relationship between text message frequency and GPA and student persistence. Hypotheses were tested at the 0.05 significance level.

Microsoft Copilot was used as a collaborative analytical support tool throughout the data analysis process. Copilot assisted with data cleaning verification, descriptive statistical computation, correlation analyses, effect size estimation, and interpretation of results across enrollment groups. It also supported the synthesis of findings into manuscript-ready narrative sections, including results, limitations, and future directions. Importantly, all analyses were conducted using researcher-provided datasets, with Copilot facilitating transparent, reproducible workflows while leaving interpretive decisions and substantive conclusions to the research team.

Qualitative data was analyzed using thematic analysis on text message transcripts using priori codes from the literature on self-efficacy and belonging (Bandura; 1977; Hoffman et al., 2022). Initial coding was completed by two researchers independently, and then focused coding was completed by grouping in higher-order categories. The themes were compared between students who persisted, and those who withdrew to determine differences in message patterns, tone, and indicators of belonging and self-efficacy.

Results from quantitative and qualitative analyses were triangulated to examine the data in terms of convergence, complementarity, and divergence. The data were analyzed to determine if message patterns and themes aligned with the observed trends, if they explained or contextualized quantitative findings, and to identify discrepancies between the two data types. This integrative approach strengthens the internal validity of the research and strengthens the conclusion about the impact on text messaging shapes mentoring relationships and students' academic outcomes.

Results

Descriptive statistics and correlations for enrolled and withdrawn mentees are presented in Table 1. The enrolled group ($n = 48$) demonstrated higher levels of engagement, as measured by total number of messages ($M = 101.02$, $SD = 108.23$), and substantially higher academic performance ($M \text{ GPA} = 3.02$, $SD = 0.98$) compared with the withdrawn group ($n = 50$), which showed lower engagement ($M = 67.48$, $SD = 99.06$) and lower academic performance ($M \text{ GPA} = 1.46$, $SD = 1.47$) (Microsoft, 2026).

Within-group Pearson correlations indicated no meaningful linear relationship between engagement and academic performance in either group. For enrolled mentees, the correlation between messages and GPA was effectively zero ($r = -.01$), and a similarly negligible association was observed among withdrawn mentees ($r = -.03$). These findings suggest that message volume alone was not associated with academic outcomes within either enrollment group.

Table 1*Descriptive Statistics*

Group	<i>n</i>	Messages, <i>M</i> (SD)	GPA, <i>M</i> (SD)	<i>r</i> (Messages–GPA)
Enrolled	48	101.02 (108.23)	3.02 (0.98)	–.01
Withdrawn	50	67.48 (99.06)	1.46 (1.47)	–.03
Total	98			

Note. *M* = mean; *SD* = standard deviation; *r* = Pearson correlation coefficient. Correlations are Pearson product–moment correlations.

Between-group differences were further examined using Cohen’s *d* (Table 2). Engagement differed modestly between groups ($d = 0.33$), indicating a small-to-moderate effect. In contrast, academic performance differed markedly, with a large effect size for GPA ($d = 1.25$), indicating that enrolled mentees substantially outperformed withdrawn mentees academically (Microsoft, 2026).

Table 2*Between-Group Effect Sizes (Enrolled vs. Withdrawn)*

Outcome Variable	Cohen’s <i>d</i>	Magnitude
Total Messages	0.33	Small–moderate
GPA	1.25	Large

Note. Positive values indicate higher means for the enrolled group. Effect size interpretations follow conventional guidelines.

Table 3*Average Message Frequency by Enrollment Status*

Enrollment Status	Mean Messages	Median Messages
Enrolled	101 messages	67
Withdrawn	67 messages	26.5

Qualitative

9,398 messages were exchanged between mentors and mentees. Of those messages, 31% included reminder conversations between mentors and mentees to participate in events or activities. 24% were weekly check-in conversations. Those topics covered reflections on workloads, feelings of achievement, and discussions of goals. The check-in conversations also included requests for support navigating school offices and identifying the appropriate campus resources, and how to contact IT. 15% of conversations were focused on assignments and coursework. Mentees shared struggles while mentors offered encouragement and advice.

Discussion

In its first year, the North Star program showed a fall-to-spring student persistence rate of 70%, significantly outpacing the university's prior three-year average of 55.9%. These initial results suggest that the text-message-based near-peer mentoring program supports student retention by nurturing personalized guidance and strengthening the students' sense of community. Enrolled mentees ($n = 48$) tend to be both more engaged ($M = 101.02$) and higher performing academically ($M = 3.02$) than withdrawn mentees; however, the results revealed that engagement quantity itself does not explain academic performance within either group. Academic performance appears to be a stronger distinguishing factor between enrolled and withdrawn mentees than overall message volume. Therefore, the initial hypothesis that there

would be a positive correlation between academic performance and text message frequency must be rejected.

While the data did not indicate a relationship between text message frequency and academic performance, it did identify a relationship between text message frequency and student persistence. On average, students who had higher text message frequencies ($M = 101$) were more likely to remain enrolled in their degree program. These results are supported by prior research that identified that to remain engaged; students must see themselves as a part of the academic community (Tinto, 2017). Research has found that text-based programs provide just in time support and social connection; these programs connect students to extracurricular and social activities (Brandt et al., 2023; Busu & Burton, 2023; Edwards et al., 2025; Fernandes et al., 2017; Werntz et al., 2023).

Qualitative data analysis enriched quantitative data. The text messages revealed that mentors were able to provide support and were able to provide specific feedback to assignments. Mentees often shared gratitude. The mentors were engaging and encouraging and responded to the specific needs of their mentees by providing things like citation help and time management tips. They were also able to share contact information for specific university offices or points of contact. Mentees reported feeling confident, completing course work, and gratitude for being able to interact with peers.

In summary, the first-year results suggest that the text-based near-peer mentoring program supports student retention by nurturing personalized guidance and strengthening the students' sense of community. These findings suggest that accessible and direct communication positively impacts student engagement and builds students' sense of self-efficacy by fostering consistent, positive interactions and easily accessible mentorship. These initial findings offer valuable insights into best practices for student retention programs that could be applicable across various disciplines and contribute to understanding social learning, self-determination, and student retention theories.

Limitations

Several limitations should be considered when interpreting the findings of this study. First, engagement was operationalized exclusively as the total number of text messages sent between mentors and mentees, which captures quantity but not the quality, content, or timing of interactions. Qualitative research was collected after the quantitative phase to build upon the results. As a result, the absence of a relationship between message count and GPA should not be interpreted as evidence that engagement is inconsequential, but rather that message volume is an imprecise proxy for meaningful support.

Second, the study relied on cross-sectional data which limits causal inference. Although enrolled mentees demonstrated higher GPA and engagement than withdrawn mentees, it is not possible to determine whether engagement solely contributed to persistence. It is possible that academically stronger students were more likely to remain enrolled or chose to participate in the optional peer mentor support program which could have influenced both engagement and academic outcomes. Longitudinal analyses would be necessary to disentangle these temporal and causal relationships.

Third, GPA data, particularly within the withdrawn group, showed a substantial number of zero values, which may reflect incomplete coursework, institutional grading policies, or timing of

withdrawal rather than true academic performance. Although data cleaning was performed, residual ambiguity remains regarding what a GPA of 0.0 represents for withdrawn students. This limits precision in interpreting the magnitude of academic differences between groups.

In addition, the sample size, while adequate for descriptive and correlational analyses, limits statistical power for detecting small effects and precludes more complex multivariable modeling. Additionally, the dataset represents a single program context, which may constrain generalizability to other mentoring models, institutions, or student populations with different demographic or academic characteristics. It is also important to note that the analysis did not incorporate potentially important covariates such as demographic characteristics, enrollment length, prior GPA, or external risk factors. Without these controls, the observed group differences should be interpreted as descriptive associations rather than definitive explanatory relationships.

Future Directions

This research project completed its second year at the end of March 2026 and will conclude in March 2027. Year two analysis will consider engagement metrics beyond message counts to include qualitative indicators, such as message length, topical coding (academic, administrative, psychosocial), mentor response latency, and interaction patterns over time. Mentor or mentee interviews and content analysis of communication logs will also be included in the final program evaluation, which will also provide a richer contextual understanding of how engagement is experienced and perceived. Combining quantitative outcomes with qualitative insights would strengthen both theoretical interpretation and practical application.

Future studies should consider longitudinal designs to examine how early engagement trajectories relate to academic performance and persistence. Analyzing engagement during the first weeks of enrollment may be particularly valuable for identifying students at elevated risk of withdrawal and for assessing whether timely intervention alters academic or retention outcomes. In addition, subgroup analyses may yield important insights. For example, examining highly engaged withdrawn students separately could help identify structural or academic barriers that persist despite frequent contact. Similarly, stratifying by baseline academic preparedness or course load may clarify for whom mentoring engagement is most beneficial. These refinements may better capture which mentoring support influences student outcomes.

Conclusion

This research aimed to better understand the impact of text-messaging on undergraduate student retention in online programs. It specifically evaluated the text messaging program used within a near-peer mentorship program. The North Star Project was designed to address the challenges encountered by online undergraduate students at CoUS. This research hypothesized that there was a positive correlation between the frequency of text messages and students' GPA and student persistence into the next term. While the data did not indicate a relationship between text message frequency and academic performance, it did identify a relationship between text message frequency and student persistence. Qualitative data analysis revealed that mentors were able to provide support and were able to provide specific feedback to assignments. Mentees reported feeling confident, completing course work, and gratitude for being able to interact with peers.

In summary, the first-year results suggest that the text-based near-peer mentoring program supported student retention by nurturing personalized guidance and strengthened the students' sense of community. These findings suggest that accessible and direct communication positively impacts student engagement and builds students' sense of self-efficacy by fostering consistent, positive interactions and easily accessible mentorship. These initial findings offer valuable insights into best practices for student retention programs that could be applicable across various disciplines and contribute to understanding social learning, self-determination, and student retention theories.

References

- Bandura, A. (1977). *Social learning theory*. Prentice-Hall.
- Betz, N. E., & Rottinghaus, P. J. (2006). Current research on parallel measures of interests and confidence for basic dimensions of vocational activity. *Journal of Career Assessment*, 14(1), 56–76. <https://doi.org/10.1177/1069072705281348>
- Betz, N. E., & Schifano, R. S. (2000). Evaluation of an intervention to increase realistic self-efficacy and interests in college women. *Journal of Vocational Behavior*, 56, 35–52. <https://doi.org/10.1006/jvbe.1999.1690>
- Brandt, A., Oskorouchi, H. R., & Sousa-Poza, A. (2023). The effect of SMS nudges on Higher Education Performance. *Empirical Economics*, 66(5), 2311–2334. <https://doi.org/10.1007/s00181-023-02516-5>
- Burrell, A. M. G., Allan, J. L., Williams, D. M., & Johnston, M. (2018). What do self-efficacy items measure? Examining the discriminant content validity of self-efficacy items. *British Journal of Health Psychology*, 23(3), 597–611. <https://doi.org/10.1111/bjhp.12306>
- Bussu, A., & Burton, S. (2023). Higher education peer mentoring programme to promote student community using mobile device applications. *Groupwork*, 30(2), 53–71. <https://doi.org/10.1921/gpwk.v30i2.1636>
- Chemers, M. M., Hu, L., & Garcia, B. F. (2001). Academic self-efficacy and first year college student performance and adjustment. *Journal of Educational Psychology*, 93(1), 55–64. <https://doi.org/10.1037/0022-0663.93.1.55>
- Dasgupta, N. (2011). Ingroup experts and peers as social vaccines who inoculate the self-concept: The stereotype inoculation model. *Psychological Inquiry*, 22(4), 231–246. <https://doi.org/10.1080/1047840X.2011.607313>
- Edwards, C., Hardie, L., & Ritchie, K. (2025). WhatsApp reaches the students other peer-mentoring schemes cannot reach: A case study exploring the experiences of using WhatsApp for online peer-mentoring support. *The Journal of Educational Innovation*, 11(1). <https://oro.open.ac.uk/105591/>
- Falk, A., Becker, A., Dohmen, T., Huffman, D., & Sunde, U. (2022). The preference survey module: a validated instrument for measuring risk, time, and social preferences. *Management Science*, 69(4), 1935–1950. <https://doi.org/10.1287/mnsc.2022.4455>
- Fernández, A. J., Canelo, J. A. M., De Sena, H. I., Sardón, M. A., Fuentes, S. S., Lázaro, C. I. F. C., Ruiz, S. S., Galilea, E. H., García, J. Á. S., Martín, C. F., & Lorenzo-Gómez, M. F. (2017). Educación inclusiva en Medicina: una experiencia formativa sobre personas con discapacidad [Inclusive Education in Medicine: A Training Experience Regarding People with Disabilities]. *Educación Médica*, 20, 16–24. <https://doi.org/10.1016/j.edumed.2017.07.013>

- Hackett, G., & Betz, N. E. (1981). A self-efficacy approach to the career development of women. *Journal of Vocational Behavior*, 18(3), 326–339. [https://doi.org/10.1016/0001-8791\(81\)90019-1](https://doi.org/10.1016/0001-8791(81)90019-1)
- Hoffman, M. B., Richmond, J. R., Morrow, J. A., & Salomone, K. (2002–2003). Investigating “sense of belonging” in First-Year college students. *Journal of College Student Retention*, 4(3), 227–256.
- Kiuru, N., Aunola, K., Nurmi, J., Leskinen, E., & Salmela-Aro, K. (2008). Peer Group Influence and selection in Adolescents’ school burnout: a longitudinal study. *Merrill-Palmer Quarterly*, 54(1), 23–55. <https://doi.org/10.1353/mpq.2008.0008>
- Microsoft. (2026). *CoPilot Chat Basic* [Large language model].
- Schwarzer, R., & Jerusalem, M. (1995). *General Self-Efficacy Scale (GSE)* [Database record]. APA PsycTests. <https://doi.org/10.1037/t00393-000>
- Tenenbaum, L. S., Anderson, M. K., Jett, M., & Yourick, D. L. (2014). An innovative Near-Peer mentoring model for undergraduate and secondary students: STEM Focus. *Innovative Higher Education*, 39(5), 375–385. <https://doi.org/10.1007/s10755-014-9286-3>
- Tinto, V. (1994). *Leaving College: Rethinking the causes and Cures of student attrition* (2nd ed.). University of Chicago Press.
- Tinto, V. (2017). Through the eyes of students. *Journal of College Student Retention: Research, Theory & Practice*, 19(3), 254–269. <https://doi.org/10.1177/1521025115621917>
- Tippetts, M. M., Davis, B., Nalbone, S., & Zick, C. D. (2022). THX 4 the MSG: Assessing the impact of texting on student engagement and persistence. *Research in Higher Education*, 63(6), 1073–1093. <https://doi.org/10.1007/s11162-022-09678-8>
- Vuong, M., Brown-Welty, S., & Tracz, S. (2010). The effects of self-efficacy on academic success of first-generation college sophomore students. *Journal of College Student Development*, 51(1), 50–64. <https://doi.org/10.1353/csd.0.0109>
- Werntz, A., Jasman, M., Simeon, K., Gunasekaran, H., Yowell, C., & Rhodes, J. E. (2023). Implementation of a technology-enhanced peer mentor Referral System for first-year university students. *Journal of Technology in Behavioral Science*, 8(3), 306–320. <https://doi.org/10.1007/s41347-023-00303-8>
- Williams, D. M., & Rhodes, R. E. (2014). The confounded self-efficacy construct: conceptual analysis and recommendations for future research. *Health Psychology Review*, 10(2), 113–128. <https://doi.org/10.1080/17437199.2014.941998>
- Williams, T., & Williams, K. (2010). Self-efficacy and performance in mathematics: Reciprocal determinism in 33 nations. *Journal of Educational Psychology*, 102(2), 453–466. <https://doi.org/10.1037/a0017271>

Zaniewski, A.M., Reinholz, D. (2016). Increasing STEM success: a near-peer mentoring program in the physical sciences. *International Journal of STEM Education*, 3, Article 14. <https://doi.org/10.1186/s40594-016-0043-2>