

Young, K. A., Marayong, P., & Vu, K-P. L. (2022). Faculty mentor training to change mentoring practices at a diverse R2 university. *Journal on Excellence in College Teaching*, 33(4), 105-132.

Faculty Mentor Training

2013), psychological wellbeing and sense of belonging on campus (reviewed in: Alcocer & Martinez, 2017; Eby et al., 2008), and self-concept (reviewed in: Alcocer & Martinez, 2017; Eby et al., 2008), and career and academic persistence (Dahlstrom et al., 2022; Estrada et al., 2018; Kosoko-Lasaki et al., 2006) and professional identity, even among graduate students, includes support in multiple areas (for example, academic, psychological, career development and role modeling; Crisp & Cruz, 2009), the day-to-day function of a research or scholarly work mentor is often distilled down to supervision and training, particularly when the mentor is not formally rewarded, or role-modeled. In addition, while mentees report that mentoring matters, establishing a positive mentoring relationship can be challenging, particularly for mentees in historically underrepresented groups (Ramanan et al., 2006).

While mentoring is an important part of the college experience, and work and teaching, mentor training is still not commonplace across academia, despite the known impact of mentoring on student success (Golde & Dore, 2004). When formal mentor training does occur, increases are reported in the overall quality of mentoring (Pfund et al., 2014; Trejo et al., 2021) and self-reported mentoring skills (Gandhi & Johnson, 2016; Johnson & Gandhi, 2015; Pfund et al., 2014; Young & Johnson, 2016). Research on best practices in mentoring (Coston & Payton-Stewart, 2019). Mentored trainees report a higher level of perceived career preparation as compared to those without mentors (Ramanan et al., 2006), and mentor training programs enhance alignment between expectations of mentees and their mentors (Johnson & Gandhi 2015; Pfund et al., 2014). Mentor training works; however, to best serve participants, the approach to mentor training should be individualized to address the needs of the mentee. For example, while sharing key common themes, the approach to mentor training for graduate students should be different from mentor training designed for faculty peer mentors, which may be more appropriate for undergraduate students.

The AIM Program

At California State University Long Beach (CSU Long Beach), a large,

public, Hispanic Serving (HSI) and Asian American, Native American,

7KH UHPDLQLQJ RI DOO SDUWLFLSDQWV ZHUH IURP WKH & sessions.

Participants came from all of our academic Colleges: Liberal Arts (32%), Engineering (32%), Natural Sciences and Mathematics (23%), Health and Human Services (12%), and Arts, Business, and Education (4.0% combined). Participants also came from University Divisions outside of the Colleges (4%) and from three sister CSU campuses looking to adopt the program: Fresno State, San Diego State, and CSU Domin-

JXH] +LOOV WRWDO -Q WRWDO SDUWLFLSDQWV FDPH IU /RQJ %HDFK GHSDUWPHQWV ZLWK WKH WRS 4YH GHSDUWPHQ WKH 67(0 4HOGV LQFOXGLQJ %LRORJLFDO 6FLHQFHV RI D Psychology (6.6%), Mechanical and Aerospace Engineering (5%), Civil Engineering and Construction Engineering Management (5.6%), and Chemistry and Biochemistry (4.5%). Participants came from all ranks of tenured/tenure track faculty members, full- and part-time lecturers,

DGPLQLVWUDWRUV DQG VWD• PHPEHUV :KLOH WKH SLORW YHUVLRQ RI WKH SURJUDP FRQVLVWLQJ

modules was shown to be useful, engaging, and promoting change in mentoring behaviors (Young et al., 2021), the impact of all six modules on participants from a diversity of disciplines was unknown. As such, the goal of the study was to examine participants' online viewing behavior and subjective feedback to better understand outcomes and applicability of the AIM Program.

Methods

Study Participants

Behavioral data from the subset of 125 participants who completed the AIM Program during the fall of 2021 and spring of 2022 were included in the analysis. All participants gave informed consent to participate in the program and were told that their online video viewing behaviors would be obtained from the LMS in accordance with our approved CSU Long Beach Institutional Review Board (IRB) protocol. Participants were also provided with an IRB-approved anonymous online survey administered at the end of program that was not linked to data in the LMS.

Demographic data of the participants were collected in the survey, which was completed by 114 participants. Of these participants, 49% VHOI LGHQWL4HG DV D ZRPDQ DV D PDQ DQG DV JHQ or gender non-conforming. The remaining participants selected "pre-

fer not to state” (4.4%) or left the optional question blank (5.3%). The
 PDMRULW\ RI SDUWLF LSDQWV VHOI LGHQWL4HG DV EHLQJ
 (14.0%), and Latina/o/x (11.4%). Remaining participants selected “oth -
 er” (6.1%), “prefer not to state” (6.1%), selected more than one option
 OHIW WKH RSWLRQDO TXHVWLRQ EODQN RU LG
 American/Black (0.89%).

Approximately one half of the respondents were from the fall 2021
 (N = 58) cohorts, and the other half were from the spring 2022 (N = 56)
 cohorts. Most of the respondents were from the three Colleges that
 LPSOHPHQWHG & ROOHJH VSHFL4F FRKRUVV ZLWK D VWLSH
 from Liberal Arts, 28% from Natural Sciences and Mathematics, and
 15% from Engineering. Respondents from the College of Health and
 Human Services represented 3.5% of the sample, and the remainder
 of respondents were from other Colleges and programs across the
 XQLYHUVLV\ IRU H[DPSOH \$FDGHPLF \$•DLUV & ROOHJHV
 WKH \$UVV DQG 6WXGHQW \$•DLUV 5HVSRQGHHQWV DYHUD
 mentoring experience (range = 0-32 years), but only 15% had prior mentor
 WUDLQLQJ 0RVW RI WKH UHVSRRGHQWV ZHUH IDFXOW\ RU
 training undergraduate and graduate students in research, scholarly,
 and creative activities (89%), and about 11% mentored students in
 teaching or non-research related activities. Most participants were
 tenured/tenure-trackand

OHJH IDFLLOLDWRUV UHFHLYHG FRPSHQVDWLRQ IRU WKHLU a facilitator training/orientation meeting, which included distribution RI WKH VFULSWHG \$-0 /HDGHU V 0DQXDO SULRU WR WKH VV session. Most, but not all, of the facilitated discussion sessions were held via Zoom meetings as the campus gradually repopulated during the 2021-2022 academic year due to the COVID-19 pandemic. Data IURP WKH SLORW VHVVLQRQV VKRZH G QR VLJQL4FDQW GL•HUU with online vs. in-person implementations of the facilitated discussions (see Young et al., 2021).

After the participants signed up for a particular session, they were enrolled as part of a group in the AIM course LMS. The session facilitator sent all participants an introductory e-mail with information about how to access the course along with the schedule of sessions DQG DWWHQG DQFH SDUWLFLSDWLRQ H[SHFWDWLRQV SULRU W Participants were expected to view the online modules before the facilitated discussion session for that module according to the scheduled dates. Facilitators of the college sessions did not have access to the participants' module completion data and did not monitor the participants' module-viewing behaviors during the session. Facilitators kept a record of attendance at each discussion session, and while participants were strongly encouraged to attend all six discussion sessions, PDNH XS VHVVLQRQV ZHUH R•HUG LI D VHVVLQRQ ZDV PLVVHG \$IWHU FRPSOHWLQJ WKH 4QDO TXLJ 0RGXOH WKH /06 D LVVXH G D FHUWL4FDWH RI FRPSOHWLQJ RQWRU WKH \$-0 SURJU (the program has since then converted to using “Badgr”-issued badges HV \$Q DGGLWLRQDO FRPSOHWLQJ FHUWL4FDWH IRU WKH S manually when the participants completed all facilitated discussion sessions. Facilitators sent out the link to the anonymous feedback survey at the end of the program and encouraged participation.

Data Coding and Analysis

The video viewing behaviors recorded by the LMS were coded by a research assistant who was not involved in the development or

Survey Results

Evaluation of Program Components and Perceived Gain

When asked, "To what degree did information in AIM pertain to you/your mentoring?," 46% of participants indicated that "All modules" contained information that was relevant to their mentoring, with an additional 40% of participants indicating that "Most of the modules" had information pertinent to them, and 12% stating that half of the modules were pertinent. While 2.6% of participants noted that only 1-2 modules contained pertinent information, no participant selected "None of the modules" as a response.

Participants were asked to rate each of the six modules in terms of their perceived gain using a Likert-style scale, with 0 = "No Gain," 1 = "Little Gain," 2 = "Moderate Gain," 3 = "Good Gain," and 4 = "Great Gain." For all modules, the mean rating was 3.023.

Figure 1
Frequency Distribution for Rating of Perceived Gain
for Each of the Six AIM Modules

Note. Mean ratings for the statement, "Please indicate how much you feel that you have gained from completing each of the following AIM modules."

For each statement regarding the program components listed in Table 5, participants indicated the degree with which they agreed with the statement. In general, there was agreement that the videos were watch, and useful. Moreover, participants agreed that the facilitated discussions were an important and engaging component of the program and that the supplemental materials were useful. Finally, participants somewhat agreed with the statement that they would participate in the program with or without a stipend (see Table 5).

Respondents were also asked to rate their overall mentoring skill set before and after participating in the AIM program (see Figure 2A for before and after ratings; see Figure 2B for change score). Most participants reported a shift in one level of mentoring development after participating in the program.

'	!	\$	(#	%	'	%
"!	#	%	%	!	#	"#	%
\$							

'	!	\$	(#	%!	(%
---	---	----	---	---	----	---	---

'	!	\$	(#	&\$	&	!"!	%
"#!	#							

%	%	\$	&\$	\$!	\$	\$!
%!)"	&"!	%!"	\$!&	%!		
!#	%	#	\$	%				

%	%	\$	&\$	\$!	\$	(#
---	---	----	-----	----	---	----	---	---

%	%	\$	&\$	\$!	\$!	(
---	---	----	-----	----	---	----	---	---

PHQWRULQJ SUDF

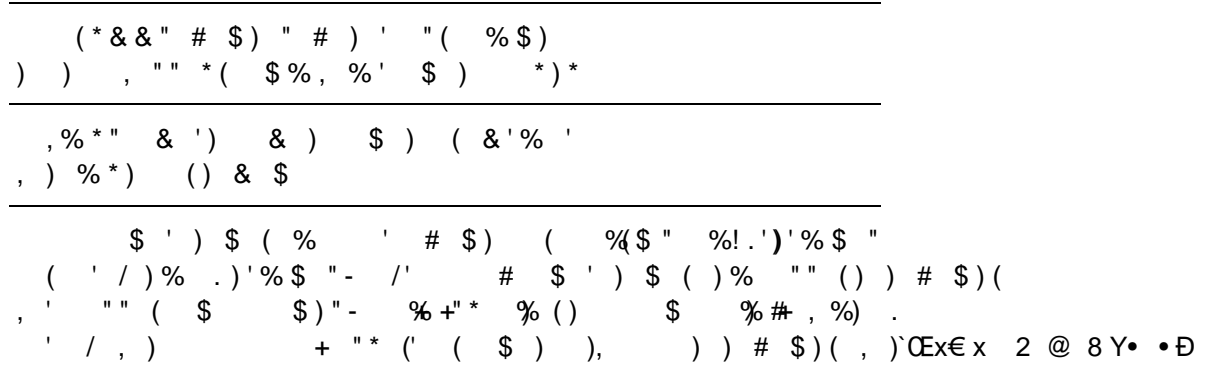


Figure 2
 Self-Rating of Mentoring Skills
 Before and After the AIM Program

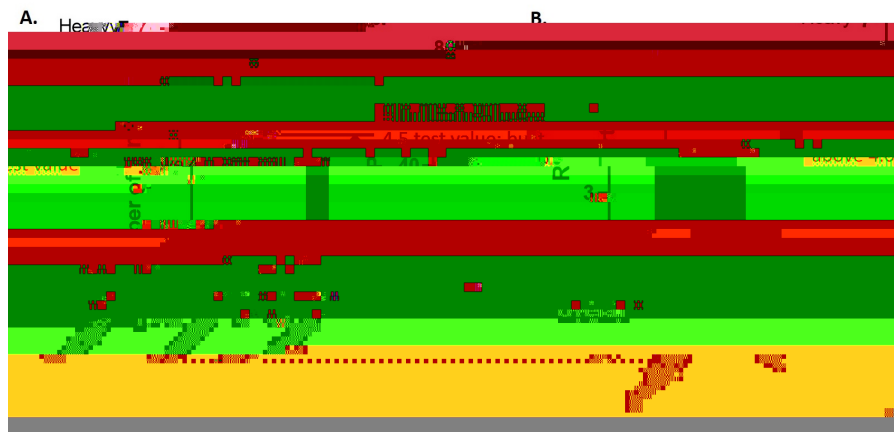
Note. A: Frequency distribution for rating of overall mentoring skill set before and after the AIM program. B: Change in score after participating in AIM.

Most respondents reported the program as being “Extremely Ben

Workload and Recommendation of the Program

Participants were asked to indicate their impression of the workload for the AIM program (for example, videos, discussion, tasks) using a scale of 1-7, with 1 = “Light,” 4 = “Reasonable,” and 7 = “Heavy.” The PHDQ UDWLQJ RI ZDV VLJQL4FDQWO\ DERYH D WHVW Y VLJQL4FDQWO\ OHVV WKDQ LQGLFDWLYH RI D 5HDVRQ Figure 4A). Moreover, the rating of 4 (“Reasonable”) was the most frequent response (see Figure 4B).

Figure 4
Impression of the AIM Program Workload



Note. A. Mean rating and B. frequency distribution to the question, “What is your impression of the workload for AIM (e.g., videos, discussion, tasks)?”

Participants were also asked to rate the likelihood that they would recommend the program to a colleague using a Likert-style scale from 0 = “Extremely Unlikely” to 5 = “Extremely Likely.” As shown in Figure 5, the mean rating was 4.0 (“Very Likely”). The frequency distribution of responses was positively skewed, with the rating of 5 (“Extremely Likely”) being the most frequent response (see Figure 5B).

Open Answers

For the item, "Please list any changes in your mentoring practices that you have made, or plan to make, as a result of this training," 158 comments were obtained from 91 of the 114 respondents. Most respondents indicated that they would implement a Mentor-Mentee Compact (32%) to make clear expectations between the mentor and mentee. One mentor stated that "I plan to use a mentor/mentee

Inclusive Mentoring

intended mentoring practices of participants. This program is unique in that it was created for experienced mentors at a large, public, HSI/AANAPISI, as opposed to targeting trainees or mentors at institutions WKDW KLVWRULFDOO\ KDYH FRPSULVHG SULPDULO\ :KLWH V faculty populations. The AIM program addresses equity and inclusion throughout the learning modules and encourages mentoring in a mentee-centered and holistic manner. When mentor training LQFOXGHV FXOWXUDOO\ DZDUH PHQWRULQJ WKH WUDLQLQJ PRWH FKDQJH LQ WKH PHQWRUV SUDFWLFH DV ZHOO DV LQ of White mentors to approach diversity-related issues (Byars-Winston et al., 2020; Womack et al., 2020). This is a desired outcome, for while more diverse than in other study populations (Pfund et al., 2014), half

Working alongside faculty members on research or other scholarly or creative activities is considered a high-impact practice for undergraduate students and part of a transformative college experience. Although challenging (Margolis & Romero, 2001), how students engaged in these practices are mentored impacts how these experiences are perceived by students (Phinney et al., 2011). This need for accountability is compounded when the approach and duties of a “good mentor” are they can be impacted by a mentor’s personal experience, discipline, considerable overlap (Golde et al., 2004; Pfund et al., 2014; Stelter et al., 2021). Mentor training programs can also work to open the conversation across a campus about what a mentor should do by sharing best practices in mentoring. Additionally, when mentoring is discussed at a campus level, it can highlight the structure of reward and acknowledgment that is in place—or not in place—at an insti-

with a willingness to mentor (Alcocer & Martinez, 2017; Pham et al., 2019; Zachary, 2012)

training programs (for instance, Coston & Payton-Stewart, 2019; Pfund et al., 2014) and suggests that our AIM program is on par with other recognized mentor training initiatives. Of the mentors surveyed, 90% indicated that they were “Likely,” “Very Likely,” or “Extremely Likely” to make a change in their mentoring as a result of participation in AIM (see Figure 3). As reported in Pfund et al (2014), 87% of mentors completing mentor training followed through and made changes to their mentoring; ideally, the AIM program will also motivate actual transformation in behavior or practices. Future follow up surveys will be important to ensure that the AIM program is inspiring lasting change. Making positive changes is, of course, the ultimate goal of mentor training, because how mentors interact with students can directly impact student success. As a result, another important next step for AIM is to survey students of AIM-trained mentors to better understand how mentor training may be perceived by the mentees. Because mentor training in other programs has resulted in mentees reporting at least one change in the behavior of a mentor (Golde & Dore, 2004), it is important to survey students to fully understand the

Conclusions

Overall, 85% of the study’s participants were “Likely,” “Very Likely,” or “Extremely Likely” to recommend the AIM program to a colleague, and most (86%) indicated that most or all modules contained information that was relevant to their mentoring. Our program was designed to provide research students at a large, public HSI/AANAPISI. Created with funding from NIH’s CSU Long Beach BUILD Initiative, AIM has equity and inclusion at its core and focuses throughout the six modules on topics relating to culturally-aware and mentee-centered mentoring. This program, through its hybrid learning format combining self-paced engaging videos with facilitated discussion sessions, promotes self-reported gains in mentoring skills, and mentors indicate that they will change their mentoring practice because of AIM participation. Because mentor training is a key component of student development and growth (Kuh, 2008), mentor training only will continue to gain importance. Mentor training programs like AIM will be necessary to ensure that mentors not only know, but also have an opportunity to discuss, best practices in mentoring with colleagues so they can put these practices into action and bolster student success.

References

Alcocer, L. F., & Martinez, A. (2017). Mentoring Hispanic students: A literature review. *Journal of Hispanic Higher Education*, 17(4), 393-401. <https://doi.org/10.1177/1538192717705700>

Bettinger, E., & Baker, R. (2011). An evaluation of a randomized experiment in student mentoring (NBER Working Paper No. 16881). National Bureau of Economic Research.

Byars-Winston, A., Leverett, P., Benbow, R. J., Pfund, C., Thayer-Hart, N., & Branchaw, J. (2020). Race and ethnicity in biology research mentoring relationships. *Journal of Diversity in Higher Education*, 13(3), 240-253. <https://doi.org/10.1037/dhe0000106>

Chemers, M. M., Zurbriggen, E. L., Syed, M., Goza, B. K., & Bearman, S. (2011). Mentoring among underrepresented minority students. *Journal of Social Issues*, 67(3), 469-491. <https://doi.org/10.1111/j.1540-4560.2011.01710.x>

Chemers, M. M., Zurbriggen, E. L., Syed, M., Goza, B. K., & Bearman, S. (2011). Qualities of mentorship: A qualitative analysis of the characteristics of outstanding mentors. *The American Journal of Medicine*, 124 (5), 453-458. <https://doi.org/10.1016/j.amjmed.2010.12.007>

Coston, T. S., & Payton-Stewart, F. (2019). Maximizing mentoring: Enhancing the impact of mentoring programs and initiatives through the Center for the Advancement of Teaching and Faculty Development at Xavier University of Louisiana (ACS symposium series). *American Chemical Society*, 1328(15), 215-227. <https://doi.org/10.1021/bk-2019-1328.ch014>

Crisp, G., & Cruz, I. (2009). Mentoring college students: A critical review of the literature between 1990 and 2007. *Research in Higher Education*, 50(6), 525-545. <http://www.jstor.org/stable/29782942>

Dahlstrom, E. K., Bell, C., Chang, S., Lee, H. Y., Anderson, C. B., Pham, A., Pribbenow, C. M., & Cameron, C. A. (2022). Translating mentoring interventions research into practice: Evaluation of an evidence-based workshop for research mentors on developing trainees' scientific communication skills. *PloS One*, 17(2), e0262418. <https://doi.org/10.1371/journal.pone.0262418>

DeAngelo, L., & Mason, J., & Winters, D. (2016). Faculty engagement in mentoring undergraduate students: How institutional environments regulate and promote extra-role behavior. *Innovative Higher Education*, 41

Estrada, M., Hernandez, P. R., & Schultz, P. W. (2018). A longitudinal

Journal on Excellence in College Teaching



