

THE IMPACTS OF MENTORSHIP ON DUAL ENROLLMENT HIGH SCHOOL STUDENTS

Dave Young^{1,2}, Bill Young¹, Lisa Young³, & Bing Wei⁴

¹University of Washington (USA)

²Bellevue College (USA)

³Johns Hopkins School of Medicine (USA)

⁴University of Science and Technology (China)

Abstract

Dual enrollment programs enable high school students to take community college courses and earn high school and college credits, saving two years of college expenses. However, many dual enrollment students lack a robust support system for success in college-level coursework and environment. The authors created an interdisciplinary mentorship program that pairs a volunteer dual enrollment senior student with a dual enrollment junior student in a longitudinal mentoring relationship to address this. This study examined mentors' and mentees' long-term evaluation of the program and its impacts. Thirty-nine mentors and mentees were randomly matched with a waitlist control group, and mentoring relationships lasted for a full academic quarter. Participants later completed an anonymous online feedback survey (based on the Likert Scale), with a response rate of 67% ($n = 26$). Mentees reported an average 1.37 Likert scale increase in their comfort in dual enrollment; mentors reported an average 2.43 Likert scale increase in confidence in teaching others. Mentees' comfort in the college environment increased with the frequency of meetings ($p < 0.05$); the number of meetings did not correlate to their grade point average (GPA) ($p > 0.05$). Change in dual enrollment comfort was more significant among matched students than waitlisted ($p < 0.05$). Notably, many dual enrollment programs have a ~10% student academic probation rate (GPA < 2.0) each quarter; none of the mentees experienced academic probation, but this was not significant. Among mentees, 79% reported interest in being a mentor the following year. These results indicate that peer mentorship is crucial for dual enrollment student success and presents a self-sustaining model for the future.

Keywords: *College, dual enrollment, mentoring, learning.*

1. Introduction

Dual enrollment programs allow high school students, typically those in 11th and 12th grade, to take community or technical college courses to earn both high school and college credits (Allen, 2010). Students have the opportunity to obtain an Associate's Degree and/or transfer to a 4-year college after graduation, therefore saving two years of college expenses. Running Start (RS), the focus of this study, is USA Washington State's flagship dual enrollment program that allows high schoolers to take college courses at the state's 34 community and technical colleges.

The benefits of dual enrollment programs such as RS are well researched, but the weaknesses are less known. Participation in dual enrollment has been associated with a greater likelihood of attending college, gaining credits faster, and a higher GPA in college (Allen & Dadger, 2012). However, many students report struggling. High school students enter an unfamiliar environment to take classes with adults, creating a sense of being isolated from their college peers due to age and knowledge differences (Huntley & Schuh, 2002). Dual enrollees also report feeling unwelcome and judged by their professors and classmates and experiencing "feelings of a chilly classroom" (Huntley & Schuh, 2002). Lil et al. (2018) report that some students face anxiety due to community colleges' overwhelmingly larger student bodies. Academic challenges are also common due to adjusting to a faster-paced curriculum and receiving less personal support from instructors and staff (Lile et al., 2018). These factors may contribute to the lower percentage of RS participants graduating from high school relative to their non-dual enrollment counterparts (Cowan and Goldhaber, 2015). There is a clear program-wide need for a stronger support system that addresses all dual enrollees' interpersonal and educational barriers.

Prior research on the benefits of mentoring as a reciprocal relationship is numerous. We define mentoring as a unique relationship in which a more knowledgeable and experienced mentor guides a less experienced mentee to promote learning (Castanheira, 2016). Gershenfield (2014) identified the greatest need addressed by college mentorship programs was academic support, then psychosocial/emotional support, then role modeling. Although significant research has been conducted on the effects of mentorship programs in college and high school separately, none have been done on dual enrollment to the authors' knowledge.

This study examines the impacts of a peer mentorship program between first and second-year RS students at Bellevue College (BC), the largest dual enrollment college in Washington. In early 2021, the authors, comprised of a team of RS students, teachers, and program directors, collectively felt that incoming RS students needed a more robust support system for the transition to college-level coursework and environment. First-year RS students face many obstacles in their new environment, ranging from less support from teachers to a faster-paced course schedule. As such, the authors created a Running Start Mentorship Program (RSMP), which pairs a second-year dual enrollment student with a first-year dual enrollment student in a mentoring relationship. The primary goals of the RSMP were to facilitate academic success through advice on navigating stress coping strategies and time management, serving as on-campus guides, and, most importantly, providing a support system to navigate the new college environment. The principal objective of the present study was to evaluate both mentors' and mentees' long-term assessment of the RSMP and its role in influencing mentees' adjustment to college.

2. Methods

Mentors and mentees were recruited from the 2021-22 BC RSMP cohort by email at the beginning of the pilot launch. Recruitment questions asked students' emails, mentor's GPA, high school name, career goals, and logistical/introductory questions. Mentors and mentees were chosen randomly, but match pairs were made based on similarities in career interests and other factors. The program had limited spots for mentors since this was a pilot. Mentors were required to undergo two training sessions prior to starting mentoring relationships, covering mentoring guidelines, academic concerns & expectations, BC counseling resources, LGBTQ+ awareness, cultural competency, and Title IX.

Throughout the program duration, mentors and mentees were encouraged to meet virtually over Zoom or in-person on the college campus. In-person meet-ups were restricted due to the ongoing COVID-19 pandemic. Mentors submitted personal reflections after each meeting describing the meeting's location, meeting duration, preparation duration, and discussion topics. This was used to determine volunteer hours and identify mentees' strengths and weaknesses. The first meeting with a mentee required the development of a "SMART RSMP goal," an acronym that stood for "Specific, Measurable, Achievable, Relevant, and Time-based." This goal enabled mentors to provide definitive progress updates after each following meeting.

The data for the study was collected via Google Forms, and Institutional Review Board approval was obtained from Bellevue College. The Bellevue College Survey and Evaluation Department revised the survey before IRB approval.

At the end of the pilot quarter, an anonymous and voluntary feedback form was sent out to all mentors and mentees to assess the quality and impacts of the RSMP on dual enrollment students. Results were analyzed from forms to which the respondent consented to have the survey used for research purposes. Questions consisted of the role of the subject in the program (mentor or mentee), long answer feedback on the program, eight questions for mentees, and five questions for mentors. Questions were a mixture of short answers, yes/no, and multiple-choice questions based on the Likert scale.

A separate feedback form was sent out to the randomly waitlisted mentees to eliminate confounding factors such as natural student adjustment in Fall Quarter and accurately assess the impacts of having a mentor versus not having a mentor. The statistical analysis was conducted using t-tests.

3. Results

We received 58 mentee applications and 53 mentor applications. The intended GPA cutoff for mentors was 3.0, but the lowest reported GPA was 3.52, meaning all applications were eligible. Ten mentors were selected; one did not respond, leaving nine mentors. On average, three mentees were assigned to each mentor, with thirty mentees total, and twenty-eight were placed on a waitlist. Seven out of nine mentors responded to the feedback form, providing a 77.8% response rate. Nineteen out of thirty mentees responded, providing a 63.3% response rate.

Mentees provided one to two SMART goals in the introductory meeting, with the results displayed in Table 1.

Table 1. Mentee's goals after first meeting.

Mentee Goals:	Strong Academics	Better work/time management	Join more clubs	Make friends in college	Other
Frequency (percent)	20 (66.7%)	11 (36.7%)	8 (26.7%)	4 (13.3)	3 (10%)

The results of the mentors' and mentees' feedback surveys are displayed in Table 2.

Table 2. Mentor/Mentee Feedback Survey results.

Question	Result
<u>Mentors</u>	
How likely are you to recommend this program to others? (1-5 scale)	4.53
Did you enjoy being part of the program? (Y/N)	7 (100%)
How comfortable were you with mentoring others BEFORE being assigned a mentee(s)? 1 = Very uncomfortable, 2 = Somewhat uncomfortable, 3 = Neither uncomfortable nor comfortable, 4 = Somewhat comfortable, 5 = Very comfortable	2.14
How comfortable were you with mentoring others AFTER being assigned a mentee(s)? 1 = Very uncomfortable, 2 = Somewhat uncomfortable, 3 = Neither uncomfortable nor comfortable, 4 = Somewhat comfortable, 5 = Very comfortable	4.57 (change = 2.43)
Did being a mentor in the program help with your career/professional development? (Y/N)	7 (100%)
<u>Mentees</u>	
How comfortable did you feel about Running Start BEFORE being assigned a mentor? 1 = Very uncomfortable, 2 = Somewhat uncomfortable, 3 = Neither uncomfortable nor comfortable, 4 = Somewhat comfortable, 5 = Very comfortable	3.16
How comfortable did you feel about Running Start AFTER completing Fall Quarter with your mentor? 1 = Very uncomfortable, 2 = Somewhat uncomfortable, 3 = Neither uncomfortable nor comfortable, 4 = Somewhat comfortable, 5 = Very comfortable	4.52 (change = 1.37)
Did you enjoy being part of the program? (Y/N)	18 (94.7%)
Did being a mentee in the program help with your career/professional development? (Y/N)	17 (89.5%)
Approximately how many times did you meet with your mentor?	3.79
What was your Fall Quarter GPA?	MEAN: 3.48 RANGE: 2.80 - 4.00
How likely are you to recommend this program to others?	4.71
Are you interested in being a mentor next year? (Y/N)	15 (79.0%)

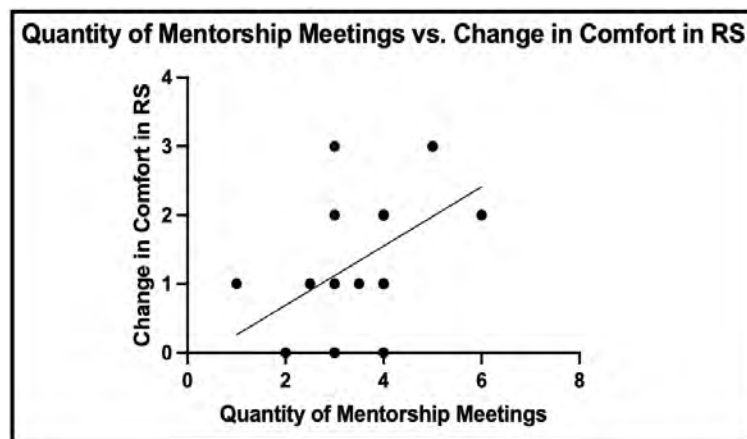
In total, 10 of 28 waitlisted mentees responded to their feedback form, with a response rate of 35.7%. The results of the waitlist feedback form are displayed in Table 3. A one-tailed t-test on the change in comfort among waitlisted and matched mentees found that having a peer mentor significantly increased comfort in Running Start ($p < 0.05$).

Table 3. Waitlist Survey Results.

Question	Result
How comfortable did you feel about Running Start when you applied to be assigned a mentor before the start of Fall Quarter?	3.00
How comfortable did you feel about Running Start after completing Fall Quarter?	3.60 (change = 0.60)
Would you have preferred being matched to a peer mentor for Fall Quarter? (Y/N)	9 (90.0%)
What was your Fall Quarter GPA?	MEAN: 3.38 RANGE: 2.50 - 4:00

Further analysis suggests a correlation between the number of mentee/mentor meetings and the mentees' change in comfort with R-S, Figure 1. The $p < 0.05$ demonstrates a significant relationship between the two variables.

Figure 1. Quantity of Mentorship Meetings vs. Change in Comfort with RS.



Regression analysis did not indicate a significant correlation between mentees' Fall Quarter GPA and the frequency of mentor/mentee meetings ($p>0.05$). In addition, there was no significant difference between the Fall Quarter GPA of waitlisted and matched mentees ($p>0.05$).

4. Discussion

Participation in RS is steadily rising; according to the Community and Technical Colleges Washington State Board, enrollment has increased by ten percent each year from 2006 to 2016 (Dupree, 2018). However, the challenges RS are numerous. By enrolling in RS, students typically leave behind their high school friend groups, as the program only enrolls 15% of high school students (Dupree, 2018). Finding a community and other friends in Running Start can be difficult, exacerbated by the popularity of remote classes during the COVID-19 pandemic (Ison et al., 2022). Mentors can provide academic advice, resources for joining clubs, and validation through listening and conversation - all of which can help immensely with students' concerns and needs.

Students who depend on frequent reminders and lenient deadlines may face difficulties adjusting to college. Accordingly, most mentees reported needing the most help in academics due to the more intense rigor of the college courses they were enrolling in. Furthermore, many mentees also wanted to learn better time management skills as many students transitioned from a semester to a quarterly schedule. This effect can be amplified by the decreased support given to students from teachers in college relative to high school. A similar number of individuals requested assistance in socializing in college and integrating themselves within the community.

None of the surveyed mentees (matched and waitlisted) were on academic probation in the Fall Quarter, despite a historical precedence of a quarterly 10% probation rate among Bellevue College RS students. However, no significant relationship between mentoring and GPA was found according to the analysis. In addition, there was not a strong relationship between the quantity of mentor/mentee meetings and the mentees' Fall Quarter GPA. This may be due to an emphasis on mentors to not provide academic tutoring, but rather refer mentees to the BC Academic Success Center, which is well known and used among BC students. Thus, most students will have equal access to help, but in their classes, regardless of mentorship. Other mentoring programs that encourage mentor tutoring may observe different results, but this study does not support the hypothesis that mentoring improves academic performance. Further research is needed to examine the relationship in more specific contexts, such as first-generation and/or low-income students.

There was a strong relationship between the frequency of mentor/mentee meetings and the mentees' change in comfort with RS. This study's differing impacts of mentoring on comfort with RS and Fall Quarter GPA imply that mentoring relationships of friendship and support have significant impacts on mentees' comfort in the program, but do not affect their overall academic performance. In this study, the frequency of mentee/mentor meetings was used as a proxy to determine the mentoring relationships' development and progression. Our research indicates that stronger mentoring relationships can lead to greater beneficial effects on mentees' mental health and overall wellbeing, as well as their sense of control and self-efficacy in learning in the new environment.

Additionally, more than three-quarters of mentees wanted to become a mentor the following year. Many new mentors will already have the experience of being mentored and will understand how to

best help their mentees. With a high level of interest among mentees, similar mentorship programs have the potential to be self-sustaining and continually improving.

The primary limitation of this study is the low sample size. Although the program had 30 mentees and 9 mentors, only 19 mentees and 7 mentors responded to the survey. Only 10 of 28 waitlisted mentees responded. Due to the low N of this study, its results and interpretations are limited; a larger study would be beneficial to solidify the power of mentoring in dual enrollment. Because 2021 was the first year Bellevue College started the RSMP, a smaller program was preferred due to its manageability. In the following years, steps will be taken to expand the program's reach. Additionally, focusing on populations such as first-generation and/or low-income students and improving the study's methodology with more objective assessments would enhance its validity (An and Taylor, 2015).

4.1. Conclusion

With the significantly earlier transition from high school to college in RS students, it is not only important but urgent to address their diverse needs. Students report a perceived lack of guidance and clarity throughout the process of placement exams, registering for classes, or even finding directions to classrooms. 15 to 16-year-olds are entering a foreign environment, leaving friends, and taking classes with adults. Some students face personal obstacles, such as lack of transportation, while others struggle with the rapid pace of college classes. This study highlights the need for a stronger support system for incoming students and demonstrates the impacts an interdisciplinary, peer mentorship program has on comfort and success in RS. Due to the program's impacts on mentees' comfort in R-S and other factors, incorporating similar programs in dual enrollment colleges across the nation has the potential to make a significant difference in their lives. Increased support through mentorship programs may attract more first-generation and low-income students, reducing a long-standing educational disparity (Lile et al., 2017).

Although the RSMP officially ended in December after Fall Quarter ended, the program staff encouraged mentors and mentees to stay in touch and continue the relationships informally. Creating a mentorship program infrastructure has the potential to contribute to lasting relationships within the college's community that will continue to impact students' educational trajectories.

References

- Allen, D. (2010). *Dual enrollment: A comprehensive literature review and bibliography*. New York, NY: CUNY Collaborative Programs Research and Evaluation. Retrieved February 7, 2022, from: https://www.cuny.edu/wp-content/uploads/sites/4/page-assets/about/administration/offices/evaluation/publications-presentations/DE_LitReview_August2010.pdf
- An, B. P., & Taylor, J. L. (2015). Are dual enrollment students college ready? Evidence from the Wabash National Study of Liberal Arts Education. *Education Policy Analysis Archives*, 23(58). Retrieved April 10, 2022, from: <https://epaa.asu.edu/ojs/index.php/epaa/article/view/1781>
- Castanheira, P.S.P. (2016). Mentoring for educators' professional learning and development: A meta-synthesis of *IJMCE* volumes 1-4. *International Journal of Mentoring and Coaching in Education*, 5(4), 334-346. Retrieved April 4, 2022, from: doi:10.1108/IJMCE-10-2015-0030
- Cowan, J., & Goldhaber, D. (2015). How Much of A "Running Start" Do Dual Enrollment Programs Provide Students?. *The Review of Higher Education* 38(3), 425-460. Retrieved January 9, 2022, from: doi:10.1353/rhe.2015.0018.
- Dupree, D. (2018). *Running Start Participation and Success* (Report No. 18-1). Community and Technical Colleges Washington State Board Research.
- Gershenfeld, S. (2014). A Review of Undergraduate Mentoring Programs. *Review of Educational Research*, 84(3), 365-391. Retrieved March 16, 2022, from: doi:10.3102/0034654313520512
- Huntley HJ, Schuh JH. Post-Secondary Enrollment: A New Frontier in Recruitment and Retention. *Journal of College Student Retention: Research, Theory & Practice*, 4(2):83-94. Retrieved March 16, 2022, from: doi:10.2190/4XQF-P3CB-LQM8-BQQL
- Ison, P. M., Cicchetti, E., Tolle, M., & Hernandez, T. (2022). One College Program, Seventy Different Campuses: Dual Enrollment, Community Colleges, and the Unique Challenges Faced during the COVID-19 Pandemic. *Community College Journal of Research and Practice*, 46(1-2), 85-92. Retrieved March 16, 2022, from: doi:10.1080/10668926.2021.1974604
- Lile, R. J., Ottusch, M. T., Jones, T. & Richards, N. L. (2018). Understanding College-Student Roles: Perspectives of Participants in a High School/Community College Dual-Enrollment Program. *Community College Journal of Research and Practice*, 42(2), 95-111. Retrieved March 16, 2022, from: doi:10.1080/10668926.2016.1264899