

2024

Wisconsin Students Reflect on Their Experiences in Dual Enrollment Programs and How Dual Enrollment Shaped Their Educational Trajectory

Gabriel Velez
Marquette University

Michael Vazquez
Marquette University

Ali Shana
Marquette University

Follow this and additional works at: <https://surface.syr.edu/cer>

Recommended Citation

Velez, Gabriel; Vazquez, Michael; and Shana, Ali (2024) "Wisconsin Students Reflect on Their Experiences in Dual Enrollment Programs and How Dual Enrollment Shaped Their Educational Trajectory," *Concurrent Enrollment Review*: Vol. 2, Article 3.

DOI: <http://doi.org/10.14305/jn.29945720.2024.2.1.1>

Available at: <https://surface.syr.edu/cer/vol2/iss1/3>

This Article is brought to you for free and open access by the Journals at SURFACE at Syracuse University. It has been accepted for inclusion in Concurrent Enrollment Review by an authorized editor of SURFACE at Syracuse University. For more information, please contact surface@syr.edu.

WISCONSIN STUDENTS REFLECT ON THEIR EXPERIENCES IN DUAL ENROLLMENT PROGRAMS AND HOW DUAL ENROLLMENT SHAPED THEIR EDUCATIONAL TRAJECTORY

Gabriel Velez, Michael Vazquez and Ali Shana

INTRODUCTION

Dual enrollment (DE) courses offered online and on campuses for high school students have shown the potential to promote college access and success for diverse groups of young people. A wealth of evidence suggests that DE participation can positively influence high school graduation and college success while shortening the time to a degree (Blankenberger et al., 2017; Giani et al., 2014). Concurrently, participation in DE has been rapidly expanding across the United States (U.S.; see Taie & Lewis, 2020). The effects seem strongest for college enrollment and completion, though there is variation in students' experience and those who stand the most to gain (see Taylor et al., 2022). The growing literature on these effects primarily focuses on static outcome measures: grades, college access, and college success. These metrics matter but do not richly explore the mechanisms, including how students experience and think about DE opportunities. The current study contributes to this area through focus groups with students across Wisconsin (N= 49), investigating how their DE

Gabriel Velez, Associate Professor, Educational Policy and Leadership, College of Education, Marquette University

Michael Vazquez, PhD Student, Educational Policy and Leadership, College of Education, Marquette University

Ali Shana, PhD Student, Educational Policy and Leadership, College of Education, Marquette University

Concurrent Enrollment Review, Volume 2, Fall, 2024

Copyright © 2024 *Concurrent Enrollment Review*

experiences informed their thinking about themselves as students. This cognitive and identity-based lens provides valuable insights into what is important in these programs and their potential.

LITERATURE REVIEW

As DE has grown in recent years, there has been increasing attention to questions of equity in relation to access and how these opportunities serve students. As part of this work, scholars and practitioners have called for re-examining the design and structure of DE programs, expanding student data to capture a broader scope of their experience, and assessing data with an eye toward inequalities (Hooper & Harrington, 2022; Mehl et al., 2020; Taylor et al., 2022). Much of the extant research on DE has focused on studying connections between participation in DE courses or models and high school graduation, greater success in college, and shorter time to degree (Blankenberger et al., 2017; Giani et al., 2014). In a comprehensive review of current work, Taylor and colleagues (2022) call for several research needs into the future, including attending to psychological variables.

Studies relating to the experience of students in DE is still quite nascent, though some studies have explored student experiences and the effects of DE engagement on their social lives and self-esteem (e.g., Pannel et al., 2023). One study considered more directly identity-focused impacts, exploring with mixed methods how DE programs informed participants' understandings and thinking about themselves as college students (Lile et al., 2018). Despite substantial research and theory contributions regarding learning choices and developmental trajectories, the DE field lacks a clear integration with developmental psychology (e.g., McCue et al., 2019). DE literature could benefit from moving beyond inputs (i.e., programming) and static academic outcome measures to underlying mechanisms and development impacts (e.g., identity-related).

Such insights could inform making programs more effective and engaging for diverse youth, while building on emerging research on student experience (Adkins & García, 2023; College in High School Alliance, 2023). Studies on DE experiences highlight that students can better take advantage of DE opportunities when they are supported with robust academic advising, feel prepared for the experience, and are provided clear bridges to post-secondary education. The current study builds on this work while opening the door to integrating developmental psychology to build richer insights about DE impacts on young people.

FRAMEWORK AND QUESTIONS

Considerable theory and research in developmental psychology describe underlying mechanisms and psychosocial motivators for young people's engagement in their learning. These factors span across systems of their developmental ecosystems, including aspects in the broader macrosystem (i.e., laws, norms), mesosystemic interactions between settings and people, and their immediate microsystem experiences (e.g., with parents, teachers, peers; Bronfenbrenner, 1992; Spencer, 2006). These different dynamics can feed into various important psychological processes—students feeling a sense of belonging, seeing value in the learning, and being both challenged and supported (e.g., Eccles & Roeser, 2010; Wang et al., 2020)—based on how they interpret and make sense of their educational experiences (e.g., Spencer, 2006). Furthermore, this theory and research highlights that through these interpretative processes, when young people with marginalized identities are engaged in their courses, feel supported and belong, and can imagine productive educational futures they are more likely to excel and succeed academically (Allen et al., 2018; M. Wang & Fredricks, 2014).

Overall, the interpretative focus from developmental psychology points toward exploring meaning making in relation to DE experiences. It can expand the focus from educational opportunities (such as participating in DE) to how they make meaning of and respond to these experiences, and the underlying mechanisms for beneficial outcomes. The study contributes to making connections between DE and psychology by asking:

- How do students experience dual enrollment courses through different university program offerings?
- How do these experiences relate to their thinking about their future educational trajectories?

METHODS

The research questions were addressed through focus groups with DE participants in Wisconsin. In recent years, DE has been rapidly expanding in Wisconsin (WPF, 2023). However, there has been minimal analysis of the student experience and policy to support diverse students accessing these opportunities (Hicks & Schmidt, 2020). There are indications of inequities in DE opportunities and engagement in Wisconsin, which mirror divides by race/ethnicity for other markers of educational achievement like Advanced Placement enrollment and tests, graduation rates, and

post-secondary access (Hess, 2023; Johnson, 2023; Kremer; 2019). For example, in 2018-2019, 84% of high school students enrolled at a University of Wisconsin institution were white (Hicks & Schmidt, 2020), while in Milwaukee, a BLEST Hub Report used available school report card data to find that while schools were 87% Black or Hispanic, only 9% of these students were engaged in DE (compared to a state average of close to 20%; BLEST Hub, n.d.). The current study was a collaboration between the state Department of Public Instruction (DPI) and the researchers to investigate the student experience and inform efforts to better support all students in accessing and succeeding in these opportunities.

PARTICIPANTS

Focus group participants were recruited in the fall of 2023 by working with the DPI DE specialist. DPI sent a mass email to students across the state who were currently or previously enrolled in DE courses while in high school. The researchers who led the recruitment sent out emails to local public-school representatives and their dual enrollment leaders to see if students could speak to their experience of taking DE courses.

Of the participants who took part in the study (N=49), 51% identified as white, 17% as Hispanic or Latino/a, 14% as Multiracial, 10% as Asian, and 8% as Black or African American. About 71% identified as female, 23% were male, and 6% as Other. Of the 49 individuals who participated in the study, 31% stated that they were first-generation college students. This group included 11 females, 2 males, and two gender variant/non-conforming participants, with six identifying as Hispanic or Latino/a, 3 as Asian and, 1 as Black or African American. Two participants were 15 years old, eight 16, twenty-five 17, thirteen 18, and one 19 or older.

PROCEDURES

Ten focus groups, 9-10 students each, were held in October and November 2023. The focus groups were run virtually via Microsoft Teams for about 45 minutes to an hour. These focus groups were led by two trained graduate research assistants. Before taking part in the virtual focus groups, participants were asked to complete a survey (see Appendix I). The survey asked participants to share how they learned about dual enrollment courses, the number of courses taken, and to share their racial/ethnic background. Regarding the focus groups, questions focused on why students decided to enroll in dual enrollment courses, how such classes impacted their college and

career options, and what challenges and successes were faced when applying for and completing a dual enrollment course (see Appendix II). All the questions asked were approved by IRB.

Each focus group was recorded with the consent of each participant. Transcripts were created by Microsoft Teams and read over by research assistants for clarity and accuracy before coding them.

ANALYSIS

A reflexive thematic approach was taken to analyze focus groups for themes related to the research question (Braun & Clarke, 2021). The three study authors first read over transcripts for understanding. Then they conducted a first round of coding to identify broad sections of the focus groups in line with the protocol. Then, a random subset (20%) was coded simultaneously by the researchers, who then met to discuss discrepancies and discuss emerging patterns. The rest of the first-round excerpts were then assigned a first coder who coded for content. Their codes were then reviewed by a second coder and any disagreements were resolved. Finally, the researchers met to discuss emerging themes in relation to the research question.

RESULTS

Our analyses led to five themes in how respondents described their experiences in DE courses and the elements of the experience that were influential. First, support with onboarding helped them make the most out of their experience. Second, they broadly described seeing themselves develop as students. Third, DE was most impactful in shaping this understanding of themselves when it was on campus in person. Fourth, a variety of logistical issues negatively impacted the experiences. Fifth, many were motivated by DE credits offering cheaper and quicker pathways to and through college.

Orientation into DE Mattered for Experience

Participants described how connecting smoothly to the DE experience was significant in taking advantage of the opportunity. Students shared that they learned about DE courses through counselors, classmates, and parents who encouraged them to sign up. When conducting the focus groups, the number of DE courses taken per student was not identified as we desired to gain a better understanding

of the experience of students signing up for DE. While signing up was generally described as easy, participants split into two groups about onboarding: those who felt the process was straightforward and well-facilitated and those who felt it was unstructured. With the former, some noted that their school or the program already had clear structures in place. For example, one student said that at their school, “It’s a requirement to enroll in...dual enrollment classes in order to achieve that career-related pathway certificate...So instead of having to worry about it during junior year, we were already handed these resources from sophomore year. We were pretty ahead.” Others who were engaged in a district-wide, well-established DE program described their orientations as robust, supporting community building amongst students, and involving actual engagement with campus. One said, “We got to know each other well, and the school...I feel like they were a lot more inclusive with letting everyone know what’s gonna go on and what to expect.”

The other group described either getting confused and overwhelmed with the logistics of the courses or not having any orientation or support getting started. One student asserted, “I think they’re just kind of assuming that we already had that background knowledge,” while another said that the most important improvement of the experience would be “more help with the setup.” Other students provided a bit more detail about the challenges, which included both policies and concrete details of the courses. First, some noted procedures and policies left them and their peers struggling:

I was kind of just thrown into it, trying to figure it out by myself. The one orientation lasted like 10 minutes tops, and it just said, sign up for the class that you need to sign up for...There’s a lot of unknowns I had to figure out, which was really stressful.

Other students noted the difficulties with using the systems in place, particularly without real guidance or support. One student admitted that “there was support at the school, but I guess they weren’t really helpful.” They went on to describe how they could not access their school accounts, and that classmates taking DE courses at another institution faced the same barriers: “Nobody was like helpful. I called multiple times, but they weren’t able to help me. I eventually figured it out. One person helped me out, but it was a whole process that took a while.” In another group, a peer echoed a similar sentiment, saying, “I wish [the orientation process] would have been more sort of clear.”

Development As Students

According to participants, DE courses had a positive impact on themselves as

students and helped them advance toward the careers that they were looking to pursue. Several students shared how DE courses shifted their outlook on school. For instance, one participant stated,

I think it positively impacted me with my actual school because I'm learning differently like, I guess, strategies to get work done. The classes I'm taking are all virtual, so I must and manage time properly, to get things done, which is helping me in high school with all my regular classes be able to get things done and turned in on time.

In addition to time management, other study skills were also noted by different participants:

I learned how to use note cards, how to absorb my information, how to take notes during lectures, like that kind of thing. Because I've never really put effort into most of my high school classes. Now that I'm doing these college classes, I understand you need to do stuff for this. I feel like it really benefited me that way.

Participants like this one demonstrated that they became more prepared for the challenges of college through their academic development.

Along with the college preparation, DE classes allowed students to gain a deeper understanding of their college major and career interests. For example, one participant stated:

For me, I knew that I wanted to go into the medical field, but I didn't really know what I wanted to do exactly. So, I took classes that I knew would help me regardless of what I'm doing in the medical field. Right now, I'm a psychology major. And I'm thinking of going into therapy, or communication disorders. So, I feel like the classes that I took for communication disorders, if I do that major, then the classes that I took are in the required classes. So that would help me because I'm ahead.

Some participants were already aware of what they wanted to study, yet their DE course experience solidified their major of choice. For these students, the experience allowed them to test college and the investment in collegiate education. One described the following:

I've known that I wanted to go into this career path. And my counselor said it was a great opportunity to see if I really wanted to go into this and really see if we put the money into it for college because it's gonna be a lot more expensive later rather than now.

A Glimpse of “Real College” Learning Atmosphere

DE courses were most transformative for students thinking about themselves as students when they were on campus and offered a “real college” experience. Participants described their experience on campus in mostly positive terms and as preparation for their eventual freshman-year in college. Similarly, the on-campus DE experience provided a smoother transition into college.

Some of the on-campus DE participants indicated that they got an idea of what they would be getting into as college students in subsequent years. One participant said, “I also did enjoy the experience of being able to be in a lecture with 100 other students. Actually being able to experience what it’s like to have a college class.” This student then specified the differentiation between this lecture/lab and other DE classes they had taken before. “Very, very different from the dual enrollment in high school classes. Much more fast-paced, much more rigorous than something that feels dumbed down.” Indeed, participants who took DE courses that were not located on college campuses did not describe the same “real college” learning atmosphere as on-campus students did. “The majority of all of my classes...have kids and they’re all 20 students and less and all that. I don’t feel like we really experienced the lecture type of college experience.”

One student found DE to offer a valuable transition experience from high school to college. “Doing dual enrollment allows you to get that exposure. And then along with that dual enrollment also allows you to experience college a little bit too. You’re not going like straight from high school straight into college. It’s kind of more of an intermission transition type of way of integrating yourself into college life and everything.” Other descriptions of the “real college” learning atmosphere were more logistical as participants noted coming to understand expectations and norms. A shared experience was students realizing the role of email communication in higher education. “A lot of instructions are given through email, you had to check your email every day, [I] still do...we rarely use our email in high school.” The role of the large lecture hall/class size was important in shaping students’ understanding of a “real college” learning atmosphere. “My experience from being in person, [in a] college class, from the minute that class starts to the minute class ends, it’s just instruction, because it’s a lecture,” said one participant. “There isn’t really a whole lot of time to ask, like a one-on-one question.” Other students focused on the level of support offered in the college learning environment: “Being able to talk to your professor, or other students that you see just about what their experiences are, if they can offer any advice on programs and stuff.”

Negative Impact of Logistical Obstacles

Participants in DE courses faced numerous logistical challenges related to the new environment of the college courses and juggling these concurrently with high school. Students spoke about missing their high school friends while away doing dual enrollment courses. One noted, “I am kind of missing the high school aspect of everything. The majority of my friends, they don’t really do the MQ program with me.” Another student in the same group shared this perspective, along with missing other school procedures:

I do miss my friends a lot. I will say that is the one thing—I don’t get to see my friends as much. I kind of miss out on a lot of that. I also am really bad at checking my high school email. I kind of forget to check stuff about graduation and stuff like that. I typically have to have people texting me. Also, in school, like typically, we’ll go to the park and have like presentations and stuff by people. I miss those too. I will say, I am missing a lot.

Beyond seeing friends, DE students also struggled to balance high school and college coursework. One student said, “I’m fine with keeping up with the work but doing it is a little bit difficult.” Others talked about the courses more specifically. Some found certain classes were harder to keep up with than others. “I have math every single day besides Friday, so it does get a little bit overwhelming because they’re each two-hour classes. If you miss one day, you fall behind a lot.” Another participant expressed difficulty juggling Advanced Placement courses. “It’s been very overwhelming, balancing my college course on top of all of APs and stuff that I’m doing.” They added, “Right now, I only have one study hall, but it’s technically for my dual enrollment class. So, it’s been a little hectic.”

Given that these students were straddling two institutions, they also found that instructors did not always understand these dynamics. One student discussed how communicating these difficulties was burdensome.

For me, communicating with my professor, I emailed him so much about coursework. I didn’t email him about me being overwhelmed with my other coursework. He knows I’m in high school, but like with college apps, and I’m in 12 clubs. And my drama club show was opening night was the same day as college applications was the same day as our midterm exam for that class. And he couldn’t know that. But I just like—he’s my only resource and my only way to get help. I didn’t want to overwhelm him with more questions.

In addition to email communication, students found the online platforms associated with college-level courses (e.g., Canvas, D2L) were difficult to adjust to. DE students often wished they were better prepared for using such e-learning platforms. For instance, one student said “The Canvas app, it’s kind of nice now that I know how to use it. Before it was completely confusing. My school didn’t tell me anything really about it. And it was just kind of a learning process and how to figure everything out.” Even students who were familiar with Google Classroom – a popular e-learning platform in high schools – struggled to navigate DE course platforms, especially when taking multiple courses: “I think that Canvas is really difficult to navigate when all of my [high school] classes are on Google Classroom. And then the fact that I’m doing all that [online platform course work] to different universities, too, is extra difficult.” Across groups, participants noted these struggles being particularly strong given not being taught these platforms and all the other logistics they had to learn for DE courses.

Motivated by Financials and Moving Toward Future Goals

Participants had several reasons for wishing to take part in DE courses. Some of the reasons ranged from wanting to cut down on the completion of their higher educational degree and paying less towards their collegiate education. One participant mentioned:

I had a thorough goal to also graduate a year early of college. I could achieve that if I went crazy on every semester and took a bunch of credits. Though my perspective has definitely shifted, that’s also a reason why I first took on the college credits. To try and graduate earlier from the four-year degree.

Participants like this individual noticed that finishing a collegiate degree would be easier if they could complete their DE course. Similarly, participants took the classes in hopes of completing planned major and/or general requirements. Another participant shared, “I personally really wanted to get my GenEd’s done because I knew that I wanted to double major when I got into college. So...that would be more doable and allow me to graduate in four years.”

Ultimately, participants took the courses in hopes of planning a collegiate experience that would last less than four years and be economically feasible.

Other participants described DE courses as a bridge exposing them to the opportunities that college has to offer. For example, one stated, “Dual enrollment also allows you to experience college a little bit. It’s not like going straight from high school straight into college. It’s kind of an intermission transition type way

of integrating yourself into the college life and everything.” Ultimately, these participants described their DE courses as a stepping stone for the challenges and experiences that come along with being a college student.

DISCUSSION

The current study explored how a group of diverse DE participants in Wisconsin made meaning of DE and the interconnected experiences, supports, and challenges related to it. Our thematic analyses of focus groups led to five themes that highlighted the need for support onboarding, the personal growth they experienced (particularly when courses were on campus), the logistical issues they faced, and their lived experiences of the benefits of these opportunities.

In terms of support, participants noted the value of being well-guided in accessing and getting started with their DE courses. The sign-up and logistics of the actual class could be opaque and involve new systems and complications, so having a knowledgeable and active advisor and an in-depth orientation were particularly valuable. The former aligns with previous research showing that DE students are most likely to rely on high school supports, especially in navigating DE opportunities and from counselors (Adkins & García, 2023; College in High School Alliance, 2019; Mehl et al., 2020). Getting signed up, however, is just one obstacle, as higher education involves systems, knowledge, and norms that may be unfamiliar to students (especially first generation ones; Mechur Karp, 2012). Especially for students taking on-campus courses, our findings speak to the need to clearly guide them through these changes as they explore DE opportunities, particularly if one goal is to better bridge the transition to college.

In this sense, participants noted feeling like they grew as a student and developed more of a college-going identity. Other qualitative work has had similar findings, wherein students demonstrated a better understanding what college entails, what is needed to succeed, and seeing themselves as college students (Lile et al., 2018). Our study thus contributes to the theory that DE can support the transition to college by providing concrete information (e.g., about expectations, systems) and influencing psychological factors. To the latter, some quantitative work has found lower self-esteem among DE students (Pannel et al., 2023). While we did not directly explore this question, more qualitative work could illuminate the mechanisms and elements of DE experiences that could boost self-efficacy (particularly academic self-efficacy) for youth.

We did find that participants found in-person courses to be more influential

regarding better understanding and preparing for college. In general, there is much evidence that DE can increase college going and success, particularly for low-income, first generation, and historically underrepresented students (e.g., Giani et al., 2014; Taylor et al., 2022). Research on the impact of modality, however, has been mixed. One large quantitative study found no differences in college access and success for students that took at least one DE course in-person at a college (Hu & Chan, 2021), while qualitative work demonstrated greater identity change for students taking classes at a community college (rather than their high school, Lile et al., 2018). Our study seems to support the interpretation that perhaps on-campus courses have the potential to shift students' thinking about themselves and college, but then this potential is not further harnessed by their high schools or colleges.

Finally, our participants seemed to understand the benefits of DE for making college cheaper and shorter (Taylor et al., 2022). These reasons resonated with them and motivated them to sign up for DE. This finding speaks to the value of advertising DE opportunities in this way, linking in with other generational literature showing shifting attitudes about higher education as young people are concerned with cost and wanting to get into a career (Twenge, 2023).

Our study provides insight into how students make sense of DE opportunities. We did not investigate how a participant's race, gender, or first-gen status was associated with DE courses. For further evaluation of this study, it would be worth seeing how DE courses are disaggregated among a participant's race, gender, or first-gen status. Ultimately, exploring their perspectives demonstrates avenues for making these courses more accessible and impactful, harnessing their full potential to support more students in accessing and succeeding in higher education (Adkins & García, 2023; Taylor et al., 2022).

APPENDIX I: Pre-Focus Group Survey Questions

1. When you think about earning college credit when you're in high school, what are the terms you've heard this referred to?
2. In what ways have you learned about dual enrollment courses?
3. How many dual enrollment courses did you take in high school (so far)?
4. Where did you take dual enrollment courses?
5. How would you rate your experience with dual enrollment on a scale from 1 to 10 with 10 being the best? Why?
6. What gender do you identify as?
7. What races/ethnicities do you identify as?
8. What grade are you in?
9. Do you or did you receive free or reduced school lunch?

APPENDIX II: Focus Group Questions

1. Why did you enroll in a DE course?
2. What have your parents, siblings, friends, or caregivers shared with you about dual enrollment?
3. How did your school promote dual enrollment opportunities?
4. How did participating in DE impact your overall engagement or experience in school?
5. How did cost impact your decision to participate in dual enrollment? For example, would you have taken more dual enrollment courses if there were no cost?
6. What support do students need to be successful in DE?
7. What challenges or successes have you experienced in applying, registering, and completing a DE course?
8. What would you change about DE if you could?

REFERENCES

- Adkins, C., & García, L. L. (2023). Dual Enrollment in Community Colleges: The Importance of Understanding the Student Experience. *Change: The Magazine of Higher Learning*, 55(2), 20–27. <https://doi.org/10.1080/00091383.2023.2182059>
- Allen, K., Kern, M. L., Vella-Brodrick, D., Hattie, J., & Waters, L. (2018). What schools need to know about fostering school belonging: A meta-analysis. *Educational Psychology Review*, 30(1), 1–34.
- Blankenberger, B., Lichtenberger, E., & Witt, M. A. (2017). Dual Credit, College Type, and Enhanced Degree Attainment. *Educational Researcher*, 46(5), 259–263. <https://doi.org/10.3102/0013189X17718796>
- BLEST Hub. (n.d.). Center for Urban Research, Teaching and Outreach (CURTO), Marquette University. Retrieved September 11, 2024.. Marquette University. <https://www.marquette.edu/urban-research-teaching-outreach/blest-hub.php>
- Braun, V., & Clarke, V. (2021). Can I use TA? Should I use TA? Should I not use TA? Comparing reflexive thematic analysis and other pattern-based qualitative analytic approaches. *Counselling and Psychotherapy Research*, 21(1), 37–47.
- Bronfenbrenner, U. (1992). *Ecological systems theory*. Jessica Kingsley Publishers.
- College in High School Alliance. (2019). *Unlocking Potential: A State Policy Roadmap for Equity & Quality in College in High School Programs*. <https://edstrategy.org/wp-content/uploads/2019/10/UNLOCKING-POTENTIAL-A-State-Policy-Roadmap-for-Equity-and-Quality-in-College-in-High-School-Programs-1.pdf>
- College in High School Alliance. (2023). *Improving Minnesota’s Dual Enrollment Funding System: Reflections and Recommendations from the Field*. <https://collegeinhighschool.org/wp-content/uploads/2023/03/Improving-Minnesotas-Dual-Enrollment-Funding-System-Reflections-and-Recommendations-from-the-Field.pdf>
- Eccles, J. S., & Roeser, R. W. (2010). An ecological view of schools and development. In J. L. Meece & J. S. Eccles (Eds.), *Handbook of research on schools, schooling and human development* (pp. 24–40). Routledge.
- Giani, M., Alexander, C., & Reyes, P. (2014). Exploring variation in the impact of dual-credit coursework on postsecondary outcomes: A quasi-experimental analysis of Texas students. *The High School Journal*, 200–218.

- Hooper, K. M., & Harrington, C. (2022). Equity Gaps in Dual Enrollment. *Impacting Education: Journal on Transforming Professional Practice*, 7(3), 20–26.
- Hu, X., & Chan, H.-Y. (2021). Does delivery location matter? A national study of the impact of dual enrollment on college readiness and early academic momentum. *Teachers College Record*, 123(4), 1–32.
- Lile, J. R., Ottusch, T. M., Jones, T., & Richards, L. N. (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. <https://doi.org/10.1080/10668926.2016.1264899>
- McCue, R., McCormack, T., McElnay, J., Alto, A., & Feeney, A. (2019). The future and me: Imagining the future and the future self in adolescent decision making. *Cognitive Development*, 50, 142–156.
- Mechur Karp, M. (2012). “I don’t know, I’ve never been to college!” Dual enrollment as a college readiness strategy. *New Directions for Higher Education*, 2012(158), 21–28. <https://doi.org/10.1002/he.20011>
- Mehl, G., Wyner, J., Barnett, E., Fink, J., & Jenkins, D. (2020). *The Dual Enrollment Playbook: A Guide to Equitable Acceleration for Students*. Aspen Institute. <https://ccrc.tc.columbia.edu/media/k2/attachments/dual-enrollment-playbook-equitable-acceleration.pdf>
- Pannel, M. B. W., Lewis Pugh, C. D., & Morgan, V. (2023). Dual Enrollment, Peer Relationships, and Internalized Variables: A Comparative Analysis Among Adolescents. *Journal of Counseling Research and Practice*, 8(1), 2.
- Spencer, M. B. (2006). Phenomenology and ecological systems theory: Development of diverse groups. In R. Lerner & W. Damon (Eds.), *Handbook of child psychology* (pp. 829–893). Wiley.
- Taylor, J. L., Allen, T. O., An, B., Denecker, C., Edmunds, J. A., Fink, J., Giani, M. S., Hodara, M., Hu, X., & Tobolowsky, B. F. (2022). Research priorities for advancing equitable dual enrollment policy and practice. University of Utah. https://cherp.utah.edu/_resources/documents/publications/research_priorities_for_advancing_equitable_dual_enrollment_policy_and_practice.pdf
- Twenge, J. M. (2023). *Generations: The Real Differences Between Gen Z, Millennials, Gen X, Boomers, and Silents—and What They Mean for America’s Future*. Simon and Schuster. <https://www.google.com/books/edition/Generations/>

- Wang, M., & Fredricks, J. A. (2014). The Reciprocal Links Between School Engagement, Youth Problem Behaviors, and School Dropout During Adolescence. *Child Development, 85*(2), 722–737. <https://doi.org/10.1111/cdev.12138>
- Wang, M.-T., Degol, J. L., Amemiya, J., Parr, A., & Guo, J. (2020). Classroom climate and children's academic and psychological wellbeing: A systematic review and meta-analysis. *Developmental Review, 57*, 100912.