

## Enhancing College and Career Readiness Programs for Underserved Adolescents

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### Abstract

*Supporting college and career readiness among youth who encounter significant academic and life challenges requires innovative strategies to help them envision their futures, leverage their strengths and develop dispositions that promote positive trajectories. For youth development professionals who develop and implement novel programmatic approaches to support the college and career readiness of underserved youth, it is critical to acquire a deeper evidence-based understanding of factors shaping positive career and college pathways as well as to incorporate stakeholder viewpoints in their program design and delivery. In this article, we share key insights from our program development process that can inform the work of program developers, educators and youth services providers who seek to build*

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*and enhance career and college readiness programs aimed at underserved youth. We summarize 4 key insights from a narrative review of literature on college and career readiness as well as findings from a set of stakeholders (student, parent and educator) focus groups. We offer our ideas for incorporating these insights alongside stakeholder input into the development and design of college and career readiness activities and programming.*

Key words: college and career readiness, program development, adolescents, future selves

Adolescence is a critical developmental phase where many youth more fully explore who they are and their future aspirations (Nurmi, 1991). However, many underserved youth often confront sets of intersectional constraints that challenge their confidence in who they are and what they want to become (Oyserman & Destin, 2010). For underserved youth who struggle in school—especially those with low academic performance, limited attendance, and a pattern of suspensions—their self-concept and ideas about the world of education and work may be constrained by individual, family, school or community contexts (Balfanz et al., 2007; Doll et al., 2013). Further intertwined with these challenges are broader societal challenges shaping their identities and futures, including structural inequalities that place many underserved youth and their families at a distinct socioeconomic disadvantage (Oyserman et al., 2011). In counterbalancing these constraints, interventions developed to promote positive pathways towards career and college (e.g., Oyserman et al., 2011) have strong potential to help youth development organizations re-envision how to promote college and career readiness while helping youth empower themselves by equipping them with the attitudes, behaviors and skills that are necessary towards envisioning and, ultimately, attaining their possible selves (Arnett, 2000; Markus & Nurius, 1986; Oyserman et al., 2004).

However, there continues to be a need for robust models that provide sustained college and career planning (Venezia & Jaeger, 2013), particularly models specifically targeting underserved adolescent groups. Certain underserved groups may especially benefit from college and career planning including students with disabilities (Morningstar et al., 2017) and adolescents who have had interactions with the juvenile justice system (Osborn & Belle, 2018). In developing these models, it is important to ground models in the existing literature, both theoretical and empirical, as well as attend to the opinions and preferences of stakeholders served by such programs.

Accordingly, in this article, we distill key insights from selected literature alongside themes from focus groups with students, parents, teachers, and administrators about college and career readiness. Importantly, we offer ideas for incorporating these insights and themes into college and career readiness programming. In doing so, we believe our work can help inform the work

of educators and youth services providers who seek to develop and enhance career and college readiness interventions aimed at underserved youth. These youth often fall outside mainstream college and career planning efforts. Also, we believe that insights from the literature and focus groups—both in our approach and substance—may be useful for organizations that are already serving this population but are seeking ways to refine and strengthen the content of their programs.

### **Key Insights From A Narrative Review of the Literature**

To conduct our narrative review of the literature, we identified peer-reviewed literature—both theoretical and empirical—in three key areas related to college and career readiness: (a) self-awareness and its connection to students' future selves, (b) behavioral skills (e.g., communication and coping skills) promoting student persistence and success in education, and (c) career and college exploration for youth experiencing academic challenges and/or at-risk for school dropout. We established these three areas a priori given their importance in the design of existing college and career readiness curricula (e.g., Lindstrom et al., 2019). To conduct our literature search, we relied on standard academic search engines, including Google Scholar, Education Resources Information Center (ERIC) and journals in the field of education and career development. We used key search terms including *career and college readiness*, *future selves*, *behavioral skills*, *student persistence*, and *adolescents*. Where possible, we identified empirical studies that specifically included underserved youth in their study samples and were published primarily within the past 15 years (since 2004) with a few exceptions. In total, we identified 49 studies: 19 studies on self-awareness and future selves, 13 on behavioral skills, and 17 on career and college exploration. We provide information about each study (the citation, study description and sample) in Tables A1 (Self-Awareness and Future Selves), A2 (Behavioral Skills) and A3 (College and Career Readiness) in Appendix A.

Below we describe four key insights that emerged from our narrative review of the literature and suggest ways to operationalize these insights into college and career readiness programs. These insights emerged from a close review of each study and by noting a set of central ideas and commonalities across our selected studies that we felt were most salient particularly for youth from diverse backgrounds.

### ***Developing Students' Future Selves via Stories***

Two central ideas from the career development literature are important when designing college and career readiness programs for adolescents. The first, drawn from Savickas's theory of career construction, emphasizes the critical role of generating personal stories in career development (Savickas, 2012). According to Savickas, individuals need to create personally constructed stories about who they are and what they want to become. He notes that "Stories constitute a critical element, because in addition to building a self, stories provide the efficient means through which an individual also builds a subjective career, that is, a story about his or her working life" (2012, p. 15). The second core idea is drawn from the literature on Future or Possible Selves (Oyserman et al., 2004). Achieving positive outcomes in both career and college relies on the importance of envisioning possible selves (Nurmi, 1991). Crafting a story helps individuals envision their future careers, linking their present selves to their future or possible selves.

Given the central role of story and its role in constructing individuals' future selves, we recommend engaging students in activities that have them construct their own stories. In contrast to Savickas, we suggest building activities that have students focus not only on stories about their future careers, but their futures more broadly, including future post-secondary educational aspirations. For example, one strategy is to have students generate stories about the experiences that shaped who they are now, known as their *present selves* (i.e., who they are today), and how their present selves link to their *future selves* (i.e., how they envision themselves in the future). One way to do this is by having students first discuss, in small groups, their histories and futures. Students can then formalize their discussions in a set of written responses about their life histories and futures that serve as *small stories* (Savickas, 2012). Through these smaller narratives, students can document personal events that have shaped who they are and aspirations of who they would like to become. These written artifacts allow students to construct and reconstruct their stories whose building blocks include narratives that students create about critical incidents and important figures in their lives (Savickas, 2012). Finally, students can synthesize elements of their discussion and written responses to generate a visual representation of their journey. Through this visual story mapping, students can depict who they want to become and the experiences that they need to engage in to obtain those experiences or to reach their goals.

Given that stories evolve, students should be encouraged to review, revisit and update their visual story maps at a later date. In doing so, they can more deeply reflect upon their maps alongside additional insights they have acquired about their strengths and interests which will

inevitably shift over time. As student revisit their maps, an important concept to introduce to and emphasize with adolescents is *career adaptability* (Savickas, 1997), or the flexibility in skills and dispositions that individuals need to navigate multiple career transitions throughout the course of their career trajectories. This notion of adaptability can be reinforced as students discuss different career and college possibilities.

### ***Expanding Career and College Possibilities***

Though stories form a critical foundation for future selves, the narratives that underserved youth create about themselves and their futures may be constrained by images in popular media and textbooks, and expectations they see of themselves. Unfortunately, underserved youth often are exposed to deficit-based narratives of who they are (Pollack, 2012). To overcome these deficit perspectives, students need to expand and transform their sense of what is possible for them in the future (Rossiter, 2009). This requires them to be exposed to the widest range of possible selves in both career and college options.

To accomplish this, we suggest exposing students to a range of career options, including non-traditional careers. For example, students can learn to identify non-traditional careers and then determine whether there are non-traditional jobs that fit within their chosen interest areas. Career role models are also important, especially those with backgrounds and experiences that align with the students' own backgrounds. Social cognitive career theory suggests that role models can play a pivotal role in promoting career and educational aspirations (Karunanayake & Nauta, 2004). Such models can not only promote positive character development (Johnson et al., 2016), but they can be especially critical for marginalized youth because strong role models can help individuals challenge their own deeply internalized stereotypes as well as act as exemplars for how to successfully navigate systemic discrimination in educational institutions and the workforce (Karunanayake & Nauta, 2004). To expose students to role models, activities can be developed so that students are introduced to and network with community members who share similar backgrounds with the students. For example, we recommend that students have the chance to interact with, hear from and be mentored by more experienced youth who share their backgrounds, especially youth who may have attended and graduated from the same schools and have gone on to pursue career and college opportunities.

### ***Behavioral Strategies to Promote Success Among Underserved Youth***

Youth will commit sustained effort towards a possible self when there are behavioral strategies and social context supports to help them work on the possible self, when the possible self feels

congruent with important social identities, and when difficulty working towards the possible self is normalized (Oyserman et al., 2006; Phalet, Andriessen, & Lens, 2004; Yowell, 2002). This is particularly important for youth from certain underserved groups (e.g., youth from low income, rural or minority backgrounds), since these groups are more likely to display divergent aspirational and expected selves, and tend to have fewer academic or occupational possible selves (Oyserman & Fryberg, 2006).

Importantly, these behavioral strategies can be operationalized as a set of navigational tools that can serve as a bridge between the stories that students generate about themselves and their futures and the procedural knowledge related to colleges and careers. Core behavioral strategies can include stress management, building resilience and goal setting. Research shows that students benefit from developing emotional regulation skills and learning how to manage stress (Gockel, 2015; Mendelson et al., 2010). Further, other studies have shown that students benefit from developing self-advocacy skills (Anctil et al., 2008; Milsom et al., 2004; Mishna et al., 2011), and self-determination skills (Sinclair et al., 2017).

Regarding social context supports, research shows that students' social environment can shape their views of their possible selves (Clinkinbeard & Murray, 2012). Students' peers, families and teachers can provide crucial supports including positive feedback, validation, and encouragement. Together, these supports can help students build confidence thereby leading them to develop concrete strategies that they can enact to realize their possible selves. Given this, we suggest that college and career readiness programs incorporate activities that promote peer interaction and build community among students. For example, one key strategy that can be woven throughout any new or existing program is offering periodic, brief (10 minutes) and intentional check-in points that allow students to share their experiences with each other in either a large or small group setting. During this check-in time, students can share a dilemma, problem or achievement in their lives and then peers can offer ideas and feedback. One structure we recommend is first asking students who would like to share, then having students state their dilemma or problem in one to two sentences. Then, students decide the type of response they would like from their peers: (a) no response, just listen; (b) help me find options; or (c) advice needed. When paired with content related to generating stories and their future selves, this check-in time can offer students a unique opportunity to reflect on their own journeys of self-discoveries about who they are and what they aspire to become.

### ***Emphasizing Strengths and Assets***

Career development literature indicates that vocational decisions are strongly influenced by how people view themselves (Leondari, 2007). During adolescence, youths' career aspirations and beliefs about their abilities predict their occupational attainment in adulthood (Schoon, 2001). Given the significant role of a person's self-view in career envisioning and attainment, it is important to help underserved adolescents focus on their unique strengths and assets, and to validate their funds of knowledge. Moll and colleagues (1992) define *funds of knowledge* as: "historically accumulated and culturally developed bodies of knowledge and skills essential for household or individual functioning and well-being" (p. 133). González and Moll (2002) demonstrated that when students investigate and document their numerous funds of knowledge, it can help them validate their identities.

To support underserved adolescents in exploring their funds of knowledge and discovering their distinct strengths, it is important for students to build self-awareness and self-understanding, learn to identify and utilize their personal strengths, and practice strategies to communicate these strengths effectively. As previously described, one of the central activities we recommend is having students create a visual map that helps students trace important life events and reflect on accomplishments and life experiences that have contributed to the formation of their identity. Through this activity, not only do students craft an overarching narrative about themselves and their futures, but students also use their funds of knowledge to define their self, which can help them transform their funds of knowledge into funds of identity (Esteban-Guitart & Moll, 2014). *Funds of identity* are the "historically accumulated, culturally developed, and socially distributed resources that are essential for a person's self-definition, self-expression, and self-understanding" (Esteban-Guitart & Moll, 2014, p. 31). By tapping into a students' funds of identity, the construction of their life stories and career maps helps them discover what they value, as well as where they want to go and how to go about getting there.

We also recommend that students be explicitly taught how to leverage their strengths to assist them in securing employment and applying for post-secondary education. For example, to distinguish their strengths, students can participate in a self-discovery activity where they identify positive experiences from their past (things they feel they did well, enjoyed doing, and are proud of). Students can then prioritize these experiences to identify their top positive experiences. Then, students can use a list of strength categories (e.g., helping, communication, educating/instructing, leading/managing, numbers/details, physical/manual, problem solving/research, and creative/artistic) to discern their personal strengths. Next, students practice talking about their identified strengths with the understanding that they need to be

able to talk about their strengths in an authentic and compelling way for future job or school interviews.

## **Stakeholder Perspectives on College and Career Readiness Programming**

To further inform the development of college and career readiness programming, we strongly believe that centralizing the voices and experiences of stakeholders, especially the students themselves, is critical. Thus, we conducted a series of focus groups to capture the opinions of students and parents who have been often marginalized from the career planning and development process. We spoke with a purposeful sample of youth, parents, and educators (teachers, school staff or school administrators) recruited from two high schools in California and four high schools in Oregon. We selected these sites because they serve high percentages of underserved students and had expressed interest in participating in a potential pilot implementation of a college and career readiness intervention. Participating youth in our focus groups experienced individual and family risk factors that significantly increased their likelihood of dropping out of school including (a) low school achievement, (b) retention/over age for grade, (c) poor school attendance, (d) pattern of behavior referrals/suspensions, (e) low family socioeconomic status, or (f) identified with a learning or emotional disability (Hammond et al., 2007).

At each school site, we conducted one student focus group, one parent focus group and one educator focus group, for a total of 18 focus groups. Our focus groups included 37 students, 18 parents and 48 educators, for a total  $N = 103$ . Average focus group sizes were  $n = 6$  for students,  $n = 3$  for parents, and  $n = 8$  for educators. Appendix B describes key demographic characteristics of our student, parent and educator focus group participants across six schools.

We developed separate focus group protocols for students, parents and educators, and each protocol covered questions in three central areas: (a) barriers and facilitators that impact academic achievement and school engagement for high school youth facing academic challenges or dropout, (b) curricular components and activities that should be included in a college and career readiness program, and (c) potential implementation approaches for a college and career readiness program. Our focus groups were audio recorded and transcribed. We coded our focus group data using a two-stage approach (Miles et al., 2013). First, we developed a broad set of descriptive codes based on our initial review of the transcripts. Then we used descriptive codes, such as "strategies for college and career readiness" and "barriers to education and career outcomes" to assign concrete labels to individual passages of text. In the



second phase of analyses, we used cross-case methods (Miles et al., 2013; Patton, 2014) to further describe and verify our findings. Our focus group findings provide helpful guidance to program developers in two key areas: (a) programmatic content and (b) preferred learning approaches, which are described below.

### ***Perspectives on Programmatic Content***

Through our focus groups, students, educators, and parents collectively identified five key topics essential to college and career readiness programming: (a) basic employability or “soft skills,” (b) personal strengths, (c) mindfulness activities, (d) developing goals, and (e) career and college readiness skill building.

#### ***Basic Employability or “Soft Skills”***

First, focus group participants thought that academic skills in isolation were not sufficient for career and college readiness. Instead, young people preparing for the future also need to demonstrate basic employability or “soft skills,” often defined as a combination of people skills, social skills, communication skills, character or personality traits, and attitudes that enable people to navigate their environment and interact effectively with other people. One teacher remarked, “My thought is that not only do they have the academic skills but they also have the soft skills and that they’re able to get along with others and they have skills to problem solve,” while another noted, “One of the most important things for our youth is all the soft skills—how to communicate, how to have relationships, positive relationships with people, how to ask for help when needed.” Other important soft skills and traits specifically identified by focus group participants included: advocacy, communication, coping, time management, adaptability, grit, persistence, and hope.

#### ***Personal Strengths***

Second, focus group participants felt students need to not only understand their strengths, but also learn how to use them to develop their goals and future plans. One teacher shared, “I see a lot of kids who learn about their personal strengths, but they never figure out how to actually use their personal strengths to do something.”

#### ***Mindfulness Activities.***

Third, student focus group participants expressed an interest in exploring mindfulness activities, which might include deep breathing exercises, mindful walks, meditation, yoga, etc. One student shared his personal experience with mindfulness, “When I started meditating about a

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year back, I haven't done it as much as I used to in the last few months, but it changed my personality so much, and I didn't get angry at all." Similarly, teacher focus group participants validated student interest in mindfulness. One teacher shared, "They love it. I did start meditation every morning last semester and there was a lot of buy-in. . . . I think it was extremely helpful and I had a lot of kids very vocal about how grateful they were." Therefore, we recommend program developers consider ways to integrate mindful techniques into daily class activities.

#### *Developing Goals*

Fourth, focus group participants indicated students need to learn how to define and set realistic goals. A teacher shared, "You want to be a video game developer. Okay. That's a great goal. But what are all the little goals, steps that we need to take to get to that one? And is that viable?" To emphasize goal-setting, program developers may want to develop activities that help students construct goals using the SMART (specific, measurable, achievable/attainable, relevant, timely) approach. Furthermore, other participants cautioned that goal-setting alone is not enough. Instead, students need to be supported in developing a clear plan for transitioning into college and/or careers directly after high school. A student explained, "I guess you could say it would be helpful but not exactly setting goals because anybody can set a goal. It's more helping us achieve and helping us think of ways to achieve our goals would be more helpful."

#### *Career and College Readiness Skill Building*

Finally, focus group participants felt that college and career readiness also involved being able to demonstrate a number of career-related competencies and skills including both academic and employability skills. Educators and students both emphasized the importance of academic skills such as reading, writing, and study skills and the ability to apply those skills to complete required coursework and credits needed for high school graduation. A teacher reflected, "I think to start with we look for students who are well-rounded and complete a variety of tasks and courses at school. Obviously completing the required courses and the correct amount of credits." Study and organizational skills were also important to students. One noted that to be successful in college and careers, you need "to be able to plan when you're gonna do your homework, when to study and what time you have to go to school, or work."

In addition, student participants stressed the need to understand specific transition skills required to apply for both employment and college opportunities. Many students believed that to be ready for post-school opportunities, they needed specific instruction in skills such as writing a resume, applying and interviewing for jobs, and completing the process of applying for

financial aid or scholarships to attend college. Considering the prospect of finding employment, one student said, "I think that creating your own resume from stuff you have actually done would be helpful, . . . and then in addition just tips on what to do, like how to get an interview." Since focus group participants highlighted the importance of career and college skill building activities (e.g., career and college exploration, interviewing, resume writing, etc.), programs should offer students opportunities to build critical skills to promote job and college success and embed them within more traditional career and college exploration activities.

### ***Perspectives on Preferred Learning Approaches***

Our focus group feedback not only highlighted substantive content that students, teachers and parents preferred in a college and career readiness program, but also highlighted the types of activities and instructional approaches all three groups preferred. For instance, focus group participants universally recommended that experiential learning was highly valuable for college and career exploration, awareness, and visioning. Several parent participants specifically cited career technical education as contributing to successful post-school career opportunities, noting that "Because of that welding class, he is very successful, and it all comes down to that welding class. It was important to him. . . . and then he had somebody in town here give him a chance in their shop." Another family member remembered that their child "went through the automotive program and he was really excellent, and he really loved it and he figured out his brain is wired to do those kinds of things."

Other career-related opportunities suggested during focus groups included: field trips to local businesses, college tours, career inventories, career-related clubs, and guest speakers representing various careers. All of these career-related learning activities exposed youth to a range of career pathways and potentially inspired them to expand aspirations. A teacher remembered that, "I think it's important that we have guest speakers who . . . traveled down the same road that they've traveled and become successful. There's been a couple times when we had college students who have been in juvenile hall or even been in prison and have come back and spoken with our students and they've said, 'Wow, if they can do it, I can do it.'"

Focus group participants identified career-related learning along with guidance and support from trusted adults as key elements that can shape and influence career and college readiness for underserved youth. As one educator remarked, "Anytime you offer them something that has a road out of high school that's realistic and something they can understand, and get their teeth sunk into, so to speak, they're very interested in that." A parent also focused on future options

for her son despite previous struggles and challenges in school. “And that’s why I have such high hopes. . . . He’s still capable of having his own version of success and being a productive member of society and everything leading up to this point has taught him to the contrary.” Hence, we recommend that programs consider incorporating interactive student-centered learning approaches, including guest speakers, field trips to businesses and work sites, a college or university campus visit, a college student panel, and mock interviews.

## Guidance for Youth Development Professionals

In synthesizing themes from our literature review and focus groups, we offer three key recommendations for how youth development practitioners can use our findings to guide and inform practice.

First, in addition to helping youth develop the “hard” skills of college and career planning (e.g., filling out applications and preparing required materials), programs should provide rich and varied opportunities for students to develop and practice behaviors integral in helping underserved youth build their confidence. For instance, themes from both the literature review and focus groups centered on the notion of helping youth develop personal strengths, and providing opportunities for them to practice strategies to communicate these strengths effectively in work and post-secondary educational settings. Not only were strengths relevant, but also the behaviors and dispositions important to navigating their career and college experiences—especially the soft skills including social and communication skills necessary to interact effectively with people.

Second, as we found through our focus groups, practitioners themselves alongside parents felt that helping students set goals is important when engaging them in thinking about careers and college. Practically, as we suggest, introducing students to how to develop goals using a SMART approach is one way to do this. Beyond the importance of goal-setting in and of itself, when considered with our literature review findings on *future selves*, we recommend that goal-setting attached to career and college aspirations should also be interwoven through a series of activities by which students construct meaningful stories of who they are and who they want to become; importantly, these stories of their future or possible selves, can be informed by sets of written activities that are then formalized onto visual maps. Further, when helping youth establish career and college goals, it is critical to first expose them to as many different possibilities of what they can aspire to become that are congruent with their own social identities.

Finally, any college and career readiness program needs to be supported by active learning strategies that are student-centered. As we found in our focus groups, not only are active approaches preferred over passive or direct instruction methods, but our review of the literature highlighted the importance of leveraging students' funds of knowledge—or the culturally relevant knowledge and assets they bring into the learning environments. Using active learning methods (e.g., experiential learning) combined with their funds of knowledge can help deepen their engagement in activities and programs aimed at promoting college and career readiness.

## Conclusion

Providing robust college and career readiness programming—informed by the literature and stakeholder perspectives—can offer youth novel opportunities to develop a clearer sense of future opportunities for their success. By introducing underserved youth to content (e.g. career and college options) and providing opportunities to practice new skills and behaviors (e.g., communication, problem solving, coping skills), we hope that students who have been traditionally underserved in college and career planning efforts can fulfill their college and career aspirations. Our study identified several topics that may not be present in traditional college and career readiness programming (e.g., exposure to a broad range of possible selves, constructing personal stories, mindfulness, leveraging personal strengths, grit, adaptability, etc.), which we believe all students, and particularly underserved students, would benefit from explicit instruction in. Our study further recognized innovative strategies teachers can use to facilitate learning opportunities (e.g., experiential learning, interactive activities, etc.). Finally, more broadly, the themes we have gleaned from both the literature alongside stakeholder perspectives reviewed in this article can raise critical awareness among key stakeholders, including youth program developers, of the skills, attitudes and knowledge that underserved youth need as they plan and prepare for their careers and post-secondary educational pathways.

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## References

- Ancil, T. M., Ishikawa, M. E., & Tao Scott, A. (2008). Academic identity development through self-determination. *Career Development for Exceptional Individuals, 31*(3), 164-174.  
<https://doi.org/10.1177/0885728808315331>
- Arnett, J. J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *American Psychologist, 55*(5), 469. <https://doi.org/10.1037//0003-066x.55.5.469>
- Balfanz, R., Herzog, L., & Mac Iver, D. J. (2007). Preventing student disengagement and keeping students on the graduation path in urban middle-grades schools: Early identification and effective interventions. *Educational Psychologist, 42*(4), 223-235.  
<https://doi.org/10.1080/00461520701621079>
- Clinkinbeard, S. S., & Murray, C. I. (2012). Perceived support, belonging, and possible selves strategies among incarcerated juvenile offenders. *Journal of Applied Social Psychology, 42*(5), 1218-1240.  
10.1111/j.1559-1816.2011.00884.x
- Doll, J. J., Eslami, Z., & Walters, L. (2013). Understanding why students drop out of high school, according to their own reports: Are they pushed or pulled, or do they fall out? A comparative analysis of seven nationally representative studies. *SAGE Open, 3*(4), 1-15.  
<https://doi.org/10.1177/2158244013503834>
- Esteban-Guitart, M., & Moll, L. C. (2014). Funds of identity: A new concept based on the funds of knowledge approach. *Culture & Psychology, 20*(1), 31-48.  
<https://doi.org/10.1177/1354067X13515934>
- Gockel, A. (2015). Teaching note—practicing presence: A curriculum for integrating mindfulness training into direct practice instruction. *Journal of Social Work Education, 51*(4), 682-690.  
<https://doi.org/10.1080/10437797.2015.1076275>
- González, N., & Moll, L. C. (2002). Cruzando el puente: Building bridges to funds of knowledge. *Educational Policy, 16*(4), 623-641. <https://doi.org/10.1177/0895904802016004009>
- Hammond, C., Linton, D., Smink, J., & Drew, S. (2007). *Dropout risk factors and exemplary programs: A technical report*. National Dropout Prevention Center/Network. Anderson, South Carolina.
- Johnson, S. K., Buckingham, M. H., Morris, S. L., Suzuki, S., Weiner, M. B., Hershberg, R. M., . . . Hunter, C. J. (2016). Adolescents' character role models: Exploring who young people look up to as examples of how to be a good person. *Research in Human Development, 13*(2), 126-141.
- Karunanayake, D., & Nauta, M. M. (2004). The relationship between race and students' identified career role models and perceived role model influence. *The Career Development Quarterly, 52*(3), 225-234. <https://doi.org/10.1002/j.2161-0045.2004.tb00644.x>
- Leondari, A. (2007). Future time perspective, possible selves, and academic achievement. *New Directions for Adult and Continuing Education, 2007*(114), 17-26. <https://doi.org/10.1002/ace.253>

- Lindstrom, L., Hirano, K. A., Ingram, A., DeGarmo, D. S., & Post, C. (2019). "Learning to be myself": Paths 2 the future career development curriculum for young women with disabilities. *Journal of Career Development, 46*(4), 469-483. <https://doi.org/10.1177/0894845318776795>
- Markus, H., & Nurius, P. (1986). Possible selves. *American Psychologist, 41*(9), 954-969. <https://doi.org/10.1037/0003-066X.41.9.954>
- Mendelson, T., Greenberg, M. T., Dariotis, J. K., Gould, L. F., Rhoades, B. L., & Leaf, P. J. (2010). Feasibility and preliminary outcomes of a school-based mindfulness intervention for urban youth. *Journal of Abnormal Child Psychology, 38*(7), 985-994. <https://doi.org/10.1007/s10802-010-9418-x>
- Miles, M. B., Huberman, A. M., & Saldana, J. (2013). *Qualitative data analysis: A methods sourcebook*. SAGE.
- Milsom, A., Akos, P., & Thompson, M. (2004). A psychoeducational group approach to postsecondary transition planning for students with learning disabilities. *The Journal for Specialists in Group Work, 29*(4), 395-411. <https://doi.org/10.1080/01933920490516170>
- Mishna, F., Muskat, B., Farnia, F., & Wiener, J. (2011). The effects of a school-based program on the reported self-advocacy knowledge of students with learning disabilities. *Alberta Journal of Educational Research, 57*(2), 185-203.
- Moll, L. C., Amanti, C., Neff, D., & Gonzalez, N. (1992). Funds of knowledge for teaching: Using a qualitative approach to connect homes and classrooms. *Theory Into Practice, 31*(2), 132-141. <https://doi.org/10.1080/00405849209543534>
- Morningstar, M. E., Lombardi, A., Fowler, C. H., & Test, D. W. (2017). A college and career readiness framework for secondary students with disabilities. *Career Development and Transition for Exceptional Individuals, 40*(2), 79-91. <https://doi.org/10.1177%2F2165143415589926>
- Nurmi, J.-E. (1991). How do adolescents see their future? A review of the development of future orientation and planning. *Developmental Review, 11*(1), 1-59. [https://doi.org/10.1016/0273-2297\(91\)90002-6](https://doi.org/10.1016/0273-2297(91)90002-6)
- Osborn, D. S., & Belle, J. G. (2018). Preparing juvenile offenders for college and career readiness: A cognitive information processing approach. *Journal of Educational and Psychological Consultation, 1*-31. <https://doi.org/10.1080/10474412.2018.1482216>
- Oyserman, D., Bybee, D., & Terry, K. (2006). Possible selves and academic outcomes: How and when possible selves impel action. *Journal of Personality and Social Psychology, 91*(1), 188-204. <https://doi.org/10.1037/0022-3514.91.1.188>
- Oyserman, D., Bybee, D., Terry, K., & Hart-Johnson, T. (2004). Possible selves as roadmaps. *Journal of Research in Personality, 38*(2), 130-149. [https://doi.org/10.1016/S0092-6566\(03\)00057-6](https://doi.org/10.1016/S0092-6566(03)00057-6)
- Oyserman, D., & Destin, M. (2010). Identity-based motivation: Implications for intervention. *The Counseling Psychologist, 38*(7), 1001-1043. <https://doi.org/10.1177/0011000010374775>

- Oyserman, D., & Fryberg, S. (2006). The possible selves of diverse adolescents: Content and function across gender, race and national origin. In C. D. J. Kerpeleman (Ed.), *Possible selves: Theory, research, and applications* (pp. 17-39). Nova Science Publishers.
- Oyserman, D., Johnson, E., & James, L. (2011). Seeing the destination but not the path: Effects of socioeconomic disadvantage on school-focused possible self content and linked behavioral strategies. *Self and Identity: The Journal of the International Society for Self and Identity*, 10(4), 474-492. <https://doi.org/10.1080/15298868.2010.487651>
- Patton, M. Q. (2014). *Qualitative research & evaluation methods : Integrating theory and practice*. SAGE.
- Phalet, K., Andriessen, I., & Lens, W. (2004). How future goals enhance motivation and learning in multicultural classrooms. *Educational Psychology Review*, 16(1), 59-89. <https://doi.org/10.1023/B:EDPR.0000012345.71645.d4>
- Pollack, T. M. (2012). The miseducation of a beginning teacher: One educator's critical reflections on the functions and power of deficit narratives. *Multicultural Perspectives*, 14(2), 93-98. <https://doi.org/10.1080/15210960.2012.673318>
- Rossiter, M. (2009). Possible selves and career transition: Implications for serving nontraditional students. *The Journal of Continuing Higher Education*, 57(2), 61-71. <https://doi.org/10.1080/07377360902991858>
- Savickas, M. L. (1997). Career adaptability: An integrative construct for life-span, life-space theory. *The Career Development Quarterly*, 45(3), 247-259. <https://doi.org/10.1002/j.2161-0045.1997.tb00469.x>
- Savickas, M. L. (2012). Life design: A paradigm for career intervention in the 21<sup>st</sup> century. *Journal of Counseling & Development*, 90(1), 13-19. <https://doi.org/10.1111/j.1556-6676.2012.00002.x>
- Schoon, I. (2001). Teenage job aspirations and career attainment in adulthood: A 17-year follow-up study of teenagers who aspired to become scientists, health professionals, or engineers. *International Journal of Behavioral Development*, 25(2), 124-132. <https://doi.org/10.1080/01650250042000186>
- Sinclair, J., Bromley, K. W., Shogren, K. A., Murray, C., Unruh, D. K., & Harn, B. A. (2017). An analysis of motivation in three self-determination curricula. *Career Development and Transition for Exceptional Individuals*, 40(3), 175-185. <https://doi.org/10.1177/2165143416676081>
- Venezia, A., & Jaeger, L. (2013). Transitions from high school to college. *The Future of Children*, 117-136.
- Yowell, C. M. (2002). Dreams of the future: The pursuit of education and career possible selves among ninth grade latino youth. *Applied Developmental Science*, 6(2), 62-72. [https://doi.org/10.1207/S1532480XADS0602\\_2](https://doi.org/10.1207/S1532480XADS0602_2)



**Appendix A****Literature Search Results: Studies Related to College and Career Readiness****Table A1. Peer-Reviewed Literature on Self-Awareness and Future Selves ( $n = 19$ )**

| Article  | Study description   | Sample   |
|--|---|--|
| <b>LITERATURE DESCRIBING POSSIBLE SELVES</b>   |   |  |
| Markus, H., & Nurius, P. (1986). Possible selves. <i>American Psychologist</i> , 41(9), 954.   | <i>The article examined the theoretical features of possible selves and illustrated how they may mediate personal functioning.</i>  | N/A  |
| Oyserman, D., Bybee, D., Terry, K., & Hart-Johnson, T. (2004). Possible selves as roadmaps. <i>Journal of Research in Personality</i> , 38(2), 130-149.  | <i>The authors hypothesized that improved academic outcomes were likely only when a possible self could plausibly be a self-regulator.</i>  | 160 low income eighth graders from three inner city middle schools serving low-income families (67.3% of students at the schools received free or reduced-price lunch).  |
| Anderman, E. M., Anderman, L. H., & Griesinger, T. (1999). The relation of present and possible academic selves during early adolescence to grade point average and achievement goals. <i>The Elementary School Journal</i> , 100(1), 3-17.                        | <i>This article describes 2 studies examining the role of present and possible (future) academic selves.</i>  | In the first study survey data were collected from a sample of 315 seventh-grade students.<br><br>In the second study, survey data were collected from a different sample of 220 sixth, seventh, and eighth graders. |
| <b>LITERATURE DESCRIBING POSSIBLE SELVES OF DIVERSE ADOLESCENTS</b>  |   |  |
| Oyserman, D., & Fryberg, S. (2006). The possible selves of diverse adolescents: Content and function across gender, race and national origin. <i>Possible selves: Theory, research and applications</i> . (pp. 17-39). Hauppauge, NY, US: Nova Science Publishers. | <i>This chapter is part of a book that discusses possible selves and implications of possible selves for male/female adolescent outcomes through a lens of race/ethnicity (i.e., African American, Asian American, Latino, Native American, and white).</i> | N/A  |
| Day, J. D., Borkowski, J. G., Punzo, D., & Howsepian, B. (1994). Enhancing possible selves in  | <i>This study focused Mexican-American students' views about their learning potential and how</i>   | 83 Mexican American children participated in the study: 30 third graders, 31 fourth graders, and 22  |

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| <p>Mexican American students. <i>Motivation and Emotion</i>, 18(1), 79-103.</p>   | <p><i>they made meaning between the links between their present school performance and their futures.</i></p>  | <p>fifth graders. Fourteen children were in a no-instruction control group, 43 were in the child-only intervention group, and 26 were in the combined parent and child condition. Children completed pre- and post-intervention questionnaires.</p>       |
| <p>Kerpelman, J. L., Shoffner, M. F., &amp; Ross-Griffin, S. (2002). African American mothers' and daughters' beliefs about possible selves and their strategies for reaching the adolescents' future academic and career goals. <i>Journal of Youth and Adolescence</i>, 31(4), 289-302.</p> | <p><i>The current study combines qualitative and quantitative data to examine beliefs and strategies related to possible selves.</i></p>   | <p>22 rural African American female adolescents and their mothers.</p>  |
| <p>Yowell, C. M. (2002). Dreams of the future: The pursuit of education and career possible selves among ninth grade Latino youth. <i>Applied Developmental Science</i>, 6(2), 62-72.</p>   | <p><i>This study explored the relationship between Latino students' conceptions of their futures and their risk status for school dropout.</i></p>   | <p>415 9<sup>th</sup> grade Latino students.</p>  |
| <p>Leondari, A. (2007). Future time perspective, possible selves, and academic achievement. <i>New Directions for Adult and Continuing Education</i>, 2007 (114), 17-26.</p>  | <p><i>This chapter reviews literature that outlines the concept of future time perspective (FTP) as it relates to possible selves and academic performance.</i></p>  | <p>N/A</p>  |
| <p><b>LITERATURE DESCRIBING PATHWAYS TO SUCCESS THROUGH IDENTITY-BASED MOTIVATION (IBM)</b></p>   |  |   |
| <p>Oyserman, D., &amp; Destin, M. (2010). Identity-based motivation: Implications for intervention. <i>The Counseling Psychologist</i>, 38(7), 1001-1043.</p>   | <p><i>This article outlines and tests whether children's perceptions of what is possible for them influence the aspiration-attainment gap using a culturally sensitive framework called identity-based motivation (IBM; Oyserman, 2007, 2009).</i></p> | <p>Study 1 included eighth graders from three Detroit middle schools (<math>n = 266</math>, 72% African American, 17% Latino, 11% White) serving high poverty.</p> <p>Study 2 included seventh-grade children (<math>n = 295</math>, African American</p> |

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|   |   | 57%, White 29%, Biracial/Other/No response 12%, Latino 2%) in a Detroit-area middle school.  |
| Oyserman, D., Terry, K., & Bybee, D. (2002). A possible selves intervention to enhance school involvement. <i>Journal of Adolescence</i> , 25(3), 313-326.  | <i>This article explained the School-to-Jobs intervention and highlighted the results.</i>  | 62 African American inner city middle school students in schools where over 90% of students were eligible for free or reduced lunch, and students lived in neighborhoods with over 40% of families living in poverty.  |
| <b>LITERATURE DESCRIBING ACADEMIC POSSIBLE SELVES</b>   |   |  |
| Oyserman, D., Bybee, D., & Terry, K. (2006). Possible selves and academic outcomes: How and when possible selves impel action. <i>Journal of Personality and Social Psychology</i> , 91(1), 188.                                  | <i>The authors hypothesized that simply having academic possible selves are not enough unless linked with plausible strategies, made to feel like "true" selves, and connected with social identity.</i>                                | Data were collected from three Detroit middle schools. 71.6% of students were African American, 17.4% were Latino, and 11% were white. Two-thirds of students received free or reduced-price lunch, and only 43.3% of adults were employed. A random assignment of participants was used during the elective hour. |
| Oyserman, D., Brickman, D., & Rhodes, M. (2007). School success, possible selves, and parent school involvement. <i>Family Relations</i> , 56(5), 479-489.  | <i>This study focused on whether bolstering a youth's positive and negative future self-images or "possible selves," (i.e., a potential proximal contributor) would moderate the negative effects of low parent school involvement.</i> | 239 students in the first semester of ninth grade (91% of the total randomized sample; $n = 131$ experimental, $n = 108$ control; $n = 127$ girls, $n = 112$ boys; $n = 179$ African American, $n = 41$ Latino, and $n = 19$ White).   |
| <b>LITERATURE DESCRIBING STRENGTHS FINDER/IDENTIFICATION; VOCATIONAL SELF-EFFICACY</b>  |   |  |
| Cleary, T. J., & Zimmerman, B. J. (2004). Self-regulation empowerment program: A school-based program to enhance self-regulated and self-motivated cycles of student learning. <i>Psychology in the Schools</i> , 41(5), 537-550. | <i>This article describes a training program, Self-Regulation Empowerment Program (SREP), that was developed out of social-cognitive theory. It was designed to empower adolescent students to "engage in more positive, self-</i>      | The SREP has been pilot tested with a variety of middle-school students in a suburban school district. This article described the case studies, which were not experimental in nature.   |

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|   | <i>motivating cycles of learning."</i>  |  |
| Kerpelman, J. L., Eryigit, S., & Stephens, C. J. (2008). African American adolescents' future education orientation: Associations with self-efficacy, ethnic identity, and perceived parental support. <i>Journal of Youth and Adolescence</i> , 37(8), 997-1008.   | <i>This study investigated the associations of self-efficacy, ethnic identity and parental support with "future education orientation" among African American students.</i>   | 374 African American students (59.4% female) in grades 7–12 attending a rural, southern county public school participated in the study.  |
| Ali, S. R., McWhirter, E. H., & Chronister, K. M. (2005). Self-efficacy and vocational outcome expectations for adolescents of lower socioeconomic status: A pilot study. <i>Journal of Career Assessment</i> , 13(1), 40-58.                                       | <i>This exploratory study investigated the relationships between contextual support, perceived educational barriers, and vocational/educational self-efficacy and outcome expectations.</i>   | 114 ninth graders from lower socioeconomic backgrounds.  |
| McWhirter, E. H., Crothers, M., & Rasheed, S. (2000). The effects of high school career education on social–cognitive variables. <i>Journal of Counseling Psychology</i> , 47(3), 330.  | <i>This study investigated the influence of a 9-week career education class on career decision-making self-efficacy, vocational skills self-efficacy, perceived educational barriers, outcome expectations, educational plans, and career expectations.</i> | 166 high school sophomores (97 women and 69 men) from an urban high school in a mid-sized Midwestern city. The self-identified racial-ethnic composition of participants was 129 European Americans, 11 African Americans, 9 Hispanics, 10 Asian Americans, and 7 "other." |
| Gushue, G. V., Clarke, C. P., Pantzer, K. M., & Scanlan, K. R. (2006). Self-efficacy, perceptions of barriers, vocational identity, and the career exploration behavior of Latino/a high school students. <i>The Career Development Quarterly</i> , 54(4), 307-317. | <i>This study explored whether social cognitive variables (i.e., career decision-making self-efficacy and perceptions of barriers) are related to vocational identity and career exploration behaviors (i.e., the outcome variables).</i>                   | 128 urban Latino/a high school students.   |
| Soria, K. M., Roberts, J. E., & Reinhard, A. P. (2015). First-year college students' strengths  | <i>This study examined how enhancing first-year college students' strengths awareness is related to their</i>   | All first-year students at the institution studied ( $n = 779$ ) were offered the Clifton StrengthsFinder  |

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| awareness and perceived leadership development. <i>Journal of Student Affairs Research and Practice</i> , 52(1), 89-103.                             | <i>perceived leadership development.</i>   | assessment and strengths-related programming during their freshman year. |
| Shushok Jr, F., & Hulme, E. (2006). What's right with you: Helping students find and use their personal strengths. <i>About Campus</i> , 11(4), 2-8. | <i>The authors explored literature related to intentionally enabling students to identify, understand, and leverage their talents, passions, and strengths allows their unique genius to emerge and sets them on a course for success.</i> | N/A  |

**Table A2. Peer-Reviewed Literature on Behavioral Skills (n = 13)**

| Article   | Study description  | Sample  |
|---|--|---|
| <b>LITERATURE DESCRIBING GRIT</b>   |  |   |
| Bashant, J. (2014). Developing grit in our students: Why grit is such a desirable trait, and practical strategies for teachers and schools. <i>Journal for Leadership and Instruction</i> , 13(2), 14-17. | <i>Examines whether someone can learn to have grit and whether you can teach grit.</i>   | N/A   |
| Gerhards, L., & Gravert, C. (2015). Grit trumps talent? An experimental approach.   | <i>This study developed and tested an experimental real-effort task which elicits grit in an incentivized decision making setting (via a computerized task) rather than by using a self-report scale in a questionnaire.</i> | 62 undergraduate students from Aarhus University  |
| Duckworth, A. L., Peterson, C., Matthews, M. D., & Kelly, D. R. (2007). Grit: perseverance and passion for long-term goals. <i>Journal of Personality and Social Psychology</i> , 92(6), 1087.            | <i>Explored whether grit is associated with Big Five Conscientiousness and with self-control, and whether grit is related to IQ.</i>   | Educational attainment was assessed using 2 samples of adults (n = 1,545 and n = 690), grade point average was assessed among Ivy League undergraduates (n = 138), retention was assessed in 2 classes of |

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|  |   | United States Military Academy, West Point, cadets ( $n = 1,218$ and $n = 1,308$ ), and ranking in the National Spelling Bee was assessed ( $n = 175$ ).   |
| Eskreis-Winkler, L., Duckworth, A. L., Shulman, E. P., & Beal, S. (2014). The grit effect: Predicting retention in the military, the workplace, school and marriage. <i>Frontiers in Psychology</i> , 5, 36.   | <i>Examined the association between grit (i.e., passion and perseverance for long-term goals), other individual difference variables, and retention in the military, workplace sales, high school, and marriage.</i>  | Retention was assessed using soldiers in the Army Special Operations Forces ( $n = 677$ ), sales representatives at 6 vacation ownership corporations ( $n = 442$ ), high school juniors at 98 Chicago Public Schools ( $n = 4,813$ ), and adults were assessed for marital longevity ( $n = 6,362$ ). |
| <b>LITERATURE DESCRIBING MINDFULNESS</b>   |   |  |
| Broderick, P. C., & Metz, S. (2009). Learning to BREATHE: A pilot trial of a mindfulness curriculum for adolescents. <i>Advances in School Mental Health Promotion</i> , 2(1), 35-46.  | <i>A pilot trial of Learning to BREATHE, a mindfulness curriculum for adolescents created for a classroom setting. The primary goal of the program is to support the development of emotion regulation skills through the practice of mindfulness (i.e., intentional, non-judgmental awareness of present-moment experience).</i> | 120 seniors (average age 17.4 years) from a private Catholic girls' school in Pennsylvania participated as part of their health curriculum.  |
| Mendelson, T., Greenberg, M. T., Dariotis, J. K., Gould, L. F., Rhoades, B. L., & Leaf, P. J. (2010). Feasibility and preliminary outcomes of a school-based mindfulness intervention for urban youth. <i>Journal of Abnormal Child Psychology</i> , 38(7), 985-994. | <i>This study assessed the feasibility, acceptability, and preliminary outcomes of a school-based mindfulness and yoga intervention among urban youth.</i>  | Four urban public schools in Baltimore City elementary schools were randomized to an intervention or wait-list control condition ( $n = 97$ 4 <sup>th</sup> and 5 <sup>th</sup> graders, 60.8% female).  |
| Gockel, A. (2015). Teaching  | <i>This article is a teaching note and</i>  | N/A  |

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| <p>Note—Practicing Presence: A Curriculum for Integrating Mindfulness Training into Direct Practice Instruction. <i>Journal of Social Work Education</i>, 51(4), 682-690.</p>  | <p><i>introduces a curriculum for integrating mindfulness training into a foundational social work practice course.</i></p>  |   |
| <p><b>LITERATURE DESCRIBING SELF-ADVOCACY &amp; SELF-DETERMINATION</b></p>   |  |   |
| <p>Antcil, T. M., Ishikawa, M. E., &amp; Scott, A. T. (2008). Academic identity development through self-determination: Successful college students with learning disabilities. <i>Career Development for Exceptional Individuals</i>, 31(3), 164-174.</p> | <p><i>This study provides a model of academic identity development for college students with learning disabilities using self-determination themes (i.e., persistence, competence, career decision making, and self-realization).</i></p>  | <p>Nineteen self-determined and high-achieving college students with documented learning disabilities who were receiving academic accommodations from the disability resource center at a large university in the Northwest region of the United States.</p>  |
| <p>Milsom, A., Akos, P., &amp; Thompson, M. (2004). A psychoeducational group approach to postsecondary transition planning for students with learning disabilities. <i>The Journal for Specialists in Group Work</i>, 29(4), 395-411.</p>                 | <p><i>This article describes a psychoeducational group model designed to increase disability self-awareness, increase postsecondary education knowledge, and promote self-advocacy skills for students with learning disabilities.</i></p> | <p>N/A</p>  |
| <p>Mishna, F., Muskat, B., Farnia, F., &amp; Wiener, J. (2011). The effects of a school-based program on the reported self-advocacy knowledge of students with learning disabilities. <i>Alberta Journal of Educational Research</i>, 57(2), 185-203.</p>  | <p><i>This school-based study examined self-reported self-advocacy knowledge of middle school students with learning disabilities.</i></p>   | <p>68 students (50 boys, 18 girls in grades 6-8 across seven urban schools), their parents, and their teachers were studied. Eighteen (26%) were native speakers of English. All participating students were diagnosed with a learning disability and were received special education services.</p> |
| <p>Sebag, R. (2010). Behavior management through self-advocacy: A strategy for secondary students</p>  | <p><i>This article described the self-advocacy behavior management (SABM) model.</i></p>   | <p>N/A</p>  |

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| with learning disabilities. <i>Teaching Exceptional Children</i> , 22-29.  |   |     |
| Sinclair, J., Bromley, K.W., & Shogren, K.A. (2017). An analysis of motivation in three self-determination curricula. <i>Career Development and Transition for Exceptional Individuals</i> , 40(3), 175-185. | <i>The authors reviewed three motivational theories: (contextual theory, self-determination theory, achievement goal theory) and three self-determination curricula (Steps to Self-Determination, Whose Future Is It Anyway?, and ME! Lessons for Teaching Self-Awareness and Self-Advocacy) were analyzed.</i> | N/A |
| Downey, J. A. (2008). Recommendations for fostering educational resilience in the classroom. <i>Preventing School Failure: Alternative Education for Children and Youth</i> , 53(1), 56-64.                  | <i>This article reviewed findings from current educational resilience research that examined students and teachers in classroom contexts.</i>   | N/A |

**Table A3. Peer-Reviewed Literature on College and Career Readiness (n = 17)**

| Article   | Study description   | Sample   |
|---|---|--|
| <b>LITERATURE DESCRIBING COLLEGE AND CAREER ASPIRATIONS/READINESS</b>   |   |  |
| ACT. (2016). <i>Identifying Skills to Succeed in School, at Work, and in the "Real World"</i> . Iowa City, IA: ACT.   | <i>This White Paper identifies the important of strong academic behaviors for college and career readiness and success, and ways teachers, schools, districts, and states can use the information to enhance student readiness.</i> | N/A  |
| Ali, S. R., & McWhirter, E. H. (2006). Rural Appalachian youth's vocational/educational postsecondary aspirations: Applying social cognitive career theory. <i>Journal of Career Development</i> , 33(2), 87-111. | <i>This study investigates the relationship between postsecondary aspirations and vocational/educational self-efficacy beliefs, outcome expectations, perceived educational barriers, and sources of support.</i>                   | 338 (182 male, 156 female) 11 <sup>th</sup> -grade high school students drawn from five high schools in rural southern Appalachia. |
| Dipeolu, A. O. (2011). College students with ADHD: Prescriptive concepts for best practices in career   | <i>This article highlights: (a) college and post college work implications of ADHD characteristics and (b) effective</i>  | N/A  |



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| <p>development. <i>Journal of Career Development</i>, 38(5), 408-427.</p>   | <p><i>interventions that counselors can implement to buttress the career planning process and post college occupational success for students with ADHD.</i></p>   |   |
| <p>Jepsen, D. A., &amp; Dickson, G. L. (2003). Continuity in life-span career development: Career exploration as a precursor to career establishment. <i>The Career Development Quarterly</i>, 51(3), 217-233.</p>                                  | <p><i>The authors examined continuity in career development from adolescence to mid adulthood by testing whether early task-coping activity predicts later task-coping activity.</i></p>  | <p>146 rural high school graduates</p>  |
| <p>Morningstar, M., Lombardi, A., Fowler, C.H., &amp; Test, D.W. (2017). A college and career readiness framework for secondary students with disabilities. <i>Career Development and Transition for Exceptional Individuals</i>, 40(2), 79-91.</p> | <p><i>This article proposed an organizing framework of college and career readiness for secondary students with disabilities, which was developed based on a synthesis of extant research articulating student success.</i></p>   | <p>22 participants representing 17 states were invited and participated in one of two focus groups. Participants were state education agency representatives.</p> |
| <p>Nota, L., Ginevra, M. C., &amp; Carrieri, L. (2010). Career interests and self-efficacy beliefs among young adults with an intellectual disability. <i>Journal of Policy and Practice in Intellectual Disabilities</i>, 7(4), 250-260.</p>       | <p><i>The study examined whether people with Intellectual Disability have interests and self-efficacy beliefs in less complex occupations, and whether self-efficacy beliefs can predict career interests, similar to results observed with individuals without Intellectual Disability. The study also investigated differences associated with Intellectual Disability level and with gender.</i></p> | <p>129 young adults with Intellectual Disability.</p>   |
| <p>Savickas, M. L. (2011). Constructing careers: Actor, agent, and author. <i>Journal of Employment Counseling</i>, 48(4), 179-181.</p>   | <p><i>This article is a description of career construction theory.</i></p>  | <p>N/A</p>  |
| <p>Suh, S., &amp; Suh, J. (2006). Educational engagement and degree attainment among high school dropouts. <i>Educational Research Quarterly</i>, 29(3), 11.</p>  | <p><i>This study investigates the relationship between educational engagement and high school degree attainment among school dropouts.</i></p>  | <p>1,430 dropouts, 963 youths successfully completed high school education through either receiving a diploma or obtaining a GED. The final</p>                   |

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|   |  | <p>dropouts (or permanent dropouts) are 467 youths who were neither working for nor ever attained a high school diploma or its equivalency. The total sample was composed of 678 males and 752 females (890 were white, 170 were black, 299 were Hispanic Origin, 28 were American Indian or Alaskan Native, 34 were Asian or Pacific Islander, and 9 were missing or more than one race).</p> |
| <b>LITERATURE DESCRIBING COLLEGE AND CAREER/ADULT SUCCESS</b>   |  |  |
| <p>Burgstahler, S. (2001). A collaborative model to promote career success for students with disabilities. <i>Journal of Vocational Rehabilitation</i>, 16(3, 4), 209-215.</p>  | <p><i>University of Washington conducted a 3-year project (DO-IT program) to assist students with disabilities head toward successful careers using a team from precollege and postsecondary educational institutions, parents, mentors, employers, and community service providers.</i></p> | <p>60 high school and postsecondary students with disabilities completed 104 placements over the three-year grant period.</p>  |
| <p>O'Connor, M., Sanaon, A., Hawkins, M., Letcher, P., Toumbourou, J. Smart, D., Vassallo, S., &amp; Olsson, C. (2011). Predictors of positive development in emerging adulthood. <i>Journal of Youth and Adolescence</i>. 40, 860-874.</p> | <p><i>This study examined child and adolescent precursors of positive functioning in emerging adulthood, including individual characteristics, relationship factors, and connections to the community, using a multidimensional positive development measure at 19–20 years.</i></p>         | <p>511 males and 647 females who were participants in the Australian Temperament Project, a population based longitudinal study that has followed young people's psychosocial adjustment from infancy to early adulthood.</p>  |
| <p>Patton, W., Creed, P. A., &amp; Muller, J. (2002). Career maturity and well-being as determinants of occupational status of recent school</p>  | <p><i>This study explored whether age, gender, data on career maturity, psychological wellbeing, and school achievement reported while still at school could be</i></p>  | <p>254 Australian high school students in grade 12.</p>  |

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| leavers: A brief report of an Australian study. <i>Journal of Adolescent Research</i> , 17(4), 425-435.  | <i>identified as predictors of occupational status.</i>  |  |
| Powers, L. E., Geenen, S., Powers, J., Pommier-Satya, S., Turner, A., Dalton, L. D., ... & Swank, P. (2012). My Life: Effects of a longitudinal, randomized study of self-determination enhancement on the transition outcomes of youth in foster care and special education. <i>Children and Youth Services Review</i> , 34(11), 2179-2187. | <i>This study explored whether the TAKE CHARGE model (i.e., individual weekly coaching sessions for youth in the application of self-determination skills; and quarterly workshops for youth with young adult mentors who were formerly in foster care and now were 3-4 years older and attending college, working successfully in a career area of who had overcome barriers to transition success) increased self-determination in a sample of youth with disabilities who also were in foster care.</i> | 69 youth, ages 16.5 to 17.5 who are both in foster care and special education.           |
| Rogers, M. E., & Creed, P. A. (2011). A longitudinal examination of adolescent career planning and exploration using a social cognitive career theory framework. <i>Journal of Adolescence</i> , 34(1), 163-172.   | <i>This study tested the correlates of career planning and exploration using cross-sectional, and then longitudinal data</i>   | 631 Australian high school students (mostly middle class and Caucasian) in grades 10-12. |
| Santilli, S., Nota, L., Ginevra, M. C., & Soresi, S. (2014). Career adaptability, hope and life satisfaction in workers with intellectual disability. <i>Journal of Vocational Behavior</i> , 85(1), 67-74.  | <i>This study examined two variables (i.e., career adaptability and hope) relevant to coping with the current work context and their role in affecting life satisfaction. A partial mediational model between career adaptability and life satisfaction, through agency and pathway (hope), was tested.</i>  | 120 (60 women and 60 men) adult workers with mild intellectual disability.               |
| Savickas, M.L. (2012). Life design: A paradigm for career intervention in the 21 <sup>st</sup> century. <i>Journal of Counseling &amp; Development</i> , 90, 13-19.  | <i>This article describes how life design interventions constructs career through small stories, reconstructs the stories into a life portrait, and co-constructs intentions that advance the career story into a new episode.</i>   | N/A  |
| Savickas, M. L., Nota, L., Rossier, J.,  | <i>This article presents a counseling model.</i>   | N/A  |

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| <p>Dauwalder, J. P., Duarte, M. E., Guichard, J., Soresi, S., Van Esbroeck, R., &amp; Van Vianen, A. E. (2009). Life designing: A paradigm for career construction in the 21<sup>st</sup> century. <i>Journal of Vocational Behavior</i>, 75(3), 239-250.</p> |  |                       |
| <p>Savickas, M. L., &amp; Porfeli, E. J. (2012). Career Adapt-Abilities Scale: Construction, reliability, and measurement equivalence across 13 countries. <i>Journal of Vocational Behavior</i>, 80(3), 661-673.</p>   | <p><i>Researchers from 13 countries collaborated in constructing a psychometric scale to measure career adaptability. Based on four pilot tests, a research version of the proposed scale consisting of 55 items was field tested in 13 countries.</i></p> | <p>Not specified.</p> |

**Appendix B**  
**Demographic Information for Three Focus Group Populations:**  
**Students, Parents, and Educators**

|   | Students<br>( <i>n</i> = 37) |         | Parents<br>( <i>n</i> = 18) |         | Educators<br>( <i>n</i> = 48) |         |
|---|------------------------------|---------|-----------------------------|---------|-------------------------------|---------|
|   | <i>n</i>                     | Percent | <i>n</i>                    | Percent | <i>n</i>                      | Percent |
| <b>Grade</b>                              |                              |         |                             |         |                               |         |
| 9   | 7                            | 18.9    |                             |         |                               |         |
| 10  | 5                            | 13.5    |                             |         |                               |         |
| 11  | 13                           | 35.1    |                             |         |                               |         |
| 12  | 12                           | 32.4    |                             |         |                               |         |
| <b>Gender</b>                             |                              |         |                             |         |                               |         |
| Female                                    | 15                           | 39.5    | 15                          | 83.3    | 31                            | 64.6    |
| Male                                      | 22                           | 59.5    | 3                           | 16.7    | 17                            | 35.4    |
| <b>Hispanic or Latino</b>                 |                              |         |                             |         |                               |         |
| Yes                                       | 17                           | 45.9    | 3                           | 16.7    | 3                             | 6.3     |
| No  | 20                           | 54.1    | 15                          | 83.3    | 45                            | 93.8    |
| <b>Race/ethnicity</b>                     |                              |         |                             |         |                               |         |
| White                                     | 15                           | 40.5    | 14                          | 77.7    | 41                            | 85.4    |
| African American                          | 5                            | 13.5    | 2                           | 11.1    | 1                             | 2.1     |
| Asian American                            |                              |         |                             |         | 1                             | 2.1     |
| American Indian or Alaskan Native         | 1                            | 2.7     |                             |         | 1                             | 2.1     |
| More than one race                        | 3                            | 8.1     | 1                           | 5.6     |                               |         |
| Native Hawaiian or other Pacific Islander |                              |         |                             |         | 1                             | 2.1     |
| Other                                     | 11                           | 29.7    | 1                           | 5.6     | 1                             | 2.1     |
| Missing                                   | 2                            | 5.4     |                             |         | 2                             | 4.1     |
| <b>On an IEP or 504 plan</b>              | 14                           | 37.8    |                             |         |                               |         |
| <b>Role (educator only)</b>               |                              |         |                             |         |                               |         |
| Teacher                                   |                              |         |                             |         | 19                            | 39.6    |
| Counselor                                 |                              |         |                             |         | 7                             | 14.6    |
| Instructional aide                        |                              |         |                             |         | 4                             | 8.3     |
| Transition specialist                     |                              |         |                             |         | 4                             | 8.3     |
| Other                                     |                              |         |                             |         | 14                            | 29.2    |

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| <b>Education level (parents only)</b>             |  |  |   |      |  |  |
|---|--|--|---|------|--|--|
| 10 <sup>th</sup> or 11 <sup>th</sup> grade        |  |  | 1 | 5.6  |  |  |
| High school graduate                              |  |  | 6 | 33.3 |  |  |
| Partial college                                   |  |  | 6 | 33.3 |  |  |
| College, university or community college graduate |  |  | 3 | 16.7 |  |  |
| Graduate or professional training                 |  |  | 2 | 11.1 |  |  |