

Perceived Barriers of Opportunity for High School Students Seeking Work-Based Learning Experiences

L. Amanda Mathews, EdD, CCC-SLP (Corresponding Author)
Assistant Professor, The University of Southern Mississippi
118 College Drive #5092 Hattiesburg, Mississippi 39406, USA
Tel: 601-266-4854 E-mail: Laura.mathews@usm.edu

Received: June 16, 2025 Accepted: August 4, 2025 Published: August 15, 2025

doi:10.5296/jei.v11i2.22925 URL: https://doi.org/10.5296/jei.v11i2.22925

Abstract

The Mississippi Department of Education has implemented a curriculum that aims to prepare students for college and career readiness. Research indicates that work-based learning experiences provide an invaluable contribution to high school education. Many students have minimal opportunity for internships, mentorships, or employment in fields of interest, particularly those students who live in low socio-economic areas. This research study is to identify the barriers of opportunity for high school students in obtaining employment or internships with local businesses in fields of future career interests and to determine if these barriers prohibit students of low socio-economic areas more so than students of median or high socio-economic areas.

Keywords: Work-based learning, High school, Career readiness, Barriers

1. Introduction

1.1 Statement of the Problem

Many students have minimal opportunity for internships, mentorships, or employment in fields of interest, particularly those students who live in low socio-economic areas or small communities (Hedrick, Homan, & Dick, 2011). Many students are finishing high school with limited employability skills and direction (Ormiston, 2016). Regardless of post-secondary plans—college or workforce—students need work-based learning experiences to help guide decision-making and afford them greater opportunity when obtaining entrance to programs or employment. Currently, local districts have great difficulty assisting high school students with obtaining internships, mentorships, or employment (Collier, Griffin, & Wei, 2017). There is limited research regarding barriers for opportunity in work-based learning experiences as well as the perceptions of students. There are questions that could be answered through surveying



high school students that gather understanding and perspective from them.

1.2 Importance of the Problem

The Mississippi Department of Education has implemented a curriculum that aims to prepare students for college and career readiness (MDE, 2013). Research indicates that work-based learning experiences provide an invaluable contribution to high school education (Fletcher et al., 2018). Career and technical programs exist sporadically throughout education, but do not offer a large variety of programs (Waldman, 2018). Additionally, there are limited stakeholder collaborations with school districts, which is key to training our future workforce (Loera, 2016).

1.3 Relevant Scholarship

Whether pursuing college or career, high school students enter a pivotal time where they decide what path to choose after high school. Regardless of the Regardless of the chosen path, students must access information, opportunity, and programs to achieve post-secondary goals (Davis & Snyder, 2009).

Throughout the literature there are several key components to a high school student being successful following high school (Fletcher et al., 2018). These key components provide individualized support and without them, students are at a higher risk with increased barriers to opportunity and advancement following high school. In addition to these, there are also barriers present in the lives of some of our students that decrease their access to information and opportunity.

Social capital is the first key component to successful post-secondary opportunity (Gonzalez, 2010). It is the concept of having capital or resources from knowing or being connected within a society, culture, or community. The more connected a student or family is, the better access they have to opportunities in their community. This component goes hand in hand with the role of the parent. The parents should not only be present in a student's life, but they must also be active in their guidance and support (Trask-Tate & Cunningham, 2010). Parents are the primary supplier of social capital to students. Research states that some students have stronger relationships with parents than others, but they most agree that parents are a primary source of information for college and career (Trask-Tate & Cunningham, 2010).

The second key factor to successful post-secondary pursuit is having access to information. Research suggests that most students and their families expect that the role of the counselor in a high school is to guide and direct students (Deslonde & Becerra, 2018). That is an accurate statement; however, there is a significant body of research that explores the role of the counselor. Most research concludes that counselors are, in fact, supposed to be the resource for information, but because of all the additional duties put on them, it is often put on the back burner (Deslonde & Becerra, 2018). Students are then reliant on gathering their own information or relying on other resources. Without adequate information, students are unlikely to be able to pursue appropriate employment, internships, or other work-based learning experiences available to them.



Another key component in successful post-secondary success is work-based learning experiences (Davis & Snyder, 2009). These include but are not limited to mentorships, internships, and high school employment in or out of a field of future career interests. Regardless of whether a student is electing to go to college or not, the end goal is employment of some kind. Work-based learning experiences enable a student to have valuable guidance or experience in a work environment (Davis & Snyder, 2009). Exposure within a field of interest is a vital part of determining college degree tracks and career options. Professional training is often a product of work-based learning experiences that many people overlook. When a student learns how to function as a responsible professional in a work setting, they learn vital skills that will carry them through any field or degree they may wish to obtain (Davis & Snyder, 2009).

Work-based learning experiences are proven to increase positive outcomes for high school students in a variety of areas including achievement; however, some of our students experience barriers to obtaining opportunity for these experiences. These barriers vary for individual students and can depend on factors including age, gender, race, geographical location, and school setting (Davis & Snyder, 2009). There is not much research on barriers, particularly for students in certain socio-economic status levels. This is valuable information that could be beneficial and provide guidance to districts and communities for improving experiences for students. To do this, these barriers must be identified and a plan of action developed.

1.3.1 Social Capital and the Role of Parents

The role of parents in a student's education is perhaps one of the most important components to a successful education experience (Trask-Tate & Cunningham, 2010). Parents offer their children immense exposure to social capital that can build access to opportunities in the future. The idea of social capital has been around for quite sometime and can be documented as early at 1916. More currently, social capital is defined by the connections between people that build networks, norms, and trust within a societal group (Gonzalez, 2010). In relation to education, parents are a major source of social capital for students. If a parent is absent, or minimally involved, the likelihood that a child has extensive social capital is low. For instance, a child with adequate social capital from a well-connected parent could potentially have much greater access to opportunities in work-based learning experiences due to the connections that the parent has (Gonzalez, 2010). A student with minimal social capital and a parent with limited connections could potentially have much greater difficulty obtaining an internship or employment in a field of interest. Often, there is a distinct difference in the social capital of students in different socio-economic groups. Students of a modest or high socioeconomic status (SES) are more likely to have stronger and more numerous connections within a community compared to children of low SES (Gonzalez, 2010). Not only does this effect students in certain SES groups, but also students of varying ethnicities, despite SES groups.

Gonzalez (2010) looked at a population of students who were considered undocumented immigrants. Not only did they often fall into a low socioeconomic class, but most lacked access to financial support as well as opportunity because of their citizenship status within the United States. These components are great barriers to school success and post-secondary opportunities (Gonzalez, 2010). Mississippi has an ever-growing number of undocumented immigrants in



our school districts. The disadvantages that come with being an undocumented immigrant in the United States of America contribute significantly to the lack of social capital and the access to opportunities within the community and education system.

Trask-Tate and Cunningham (2010) looked at the effects of parental involvement and school support of African American high school students. The study found that increased parental involvement had a significant effect on African American females, but not African American males regardless of school support. Most participants stated that at least they considered themselves moderate school support contrary to prior research. The researchers determined that as previous research indicated, males tend to have different connections regarding parental involvement as opposed to females (Trask-Tate & Cunningham, 2010). This could be due to the lack of male parents that are reported in this population.

Parent involvement is a key component in the *Every Student Succeeds* Act of 2015. The importance of schools fostering and developing relationships with parents is evidenced by the many requirements for local education agencies—particularly those receiving Title 1 funds—to incorporate events for parents throughout the year (ESSA, 2015). Unfortunately, many students from ethnically diverse and/or low-income families have very minimal parent involvement. In fact, many are single parent households, which introduces a new set of barriers to parental involvement. Missing from the research is coverage of how a district or a student makes up for the lack of support and social capital that is needed to access opportunities particularly when acquiring work-based learning experiences.

1.3.2 College Preparation

All students in the United States of America follow a curriculum that prepares them for college and career readiness. Throughout their education they are measured on standards that are deemed appropriate for a given grade level. It is intended that as a student progresses through the curriculum, the result will be a prepared student with sufficient access to post-secondary education or career opportunities. Components that contribute to this could be access to information, who is engaging the student and to what level they are motivated. More thorough investigation is needed to determine these factors.

Fletcher, Warren, and Hernandez-Gantes (2018) explored ways to prepare high school students for college and career. What they found is that there are three major components to student preparation: shared direction of stakeholders and students, implementation of work-based learning internships, and promotion of college-career readiness (Fletcher, Warren, & Hernandez-Gantes, 2018). They concluded that students who participate in work-based learning (internships, employment, job shadowing) are more likely to acquire technical and employability skills. These skills were key for being successful in the workplace regardless of the field that a student chooses.

Griffin, Hutchins, and Meece (2011) gathered information from over 8,000 students to determine where students were getting information and what was developing and preparing them for post-high school education and careers. Upon a review of earlier literature on the subject, it was discovered that one factor that reduced aspirations of youth in small towns was



having less access to and knowledge of occupations and decreased employment opportunities in rural areas (Griffin, Hutchins, & Meece, 2011). These factors greatly impacted high school students and the future workforce that is to come and could be considered a barrier for high school students if the availability of work-based learning experiences is minimal.

This study also examined resources more specifically towards education post high school and found that females in the upper grades were more likely to access resources for furthering their education (Griffin, Hutchins, & Meece, 2011). Most participants accessed their parent or guardian as the primary resource for information followed by high school counselors and friends or family. Griffin, Hutchins, and Meece (2011) concluded that people (parents, friends, and counselors) are the predominant resources for our students. Offering mentorship through access to employment and internship with local businesses increases exposure to careers and develops skills needed to be successful beyond high school (Griffin, Hutchins, & Meece, 2011).

1.3.3 Special Populations: Disability, Geographical, and Ethnic Groups

When discussing college and career preparation and access to information, it is vital that educators and researchers evaluate supports not only for the average high school student, but all for those of minorities or special populations. These groups include students with disabilities, students in ethnic or race minorities, and those in specific locations.

Within any high school there are students with disabilities, and their access to opportunity is just as important as that for the typically developing peers in school with them. Collier, Griffin, and Wei (2017) addressed the gaps in knowledge when transitioning students with disabilities to post-secondary education or employment. Having surveyed both students with disabilities and a focus group of special education teachers, Collier and colleagues found major gaps with regards to knowledge of and access to vocational rehabilitation programs, as well as individuals willing to identify themselves as a person with a disability. This was noted as important because of the more limited access to accommodations and resources in post-secondary education settings as well as employment settings (Collier, Griffin, & Wei, 2017).

Trask-Tate and Cunningham (2010) looked at the effects of parental involvement and school support on African American high school students. As stated in previous research, "despite the societal odds pitted against them, many African American students are attaining postsecondary degrees and are achieving academically" (Trask-Tate & Cunningham, 2010). The results of this study indicated that increased parental involvement had a significant effect of African American females, but not African American males, regardless of school support (Trask-Tate & Cunningham, 2010). Most of the participants, contrary to prior research, stated that, at a minimum, they considered themselves to have moderate school support. The researchers determined that as previous research indicated, males tend to have different connections regarding parental involvement as opposed to females. This could be due to the lack of male parents that are reported in this population.

Racial or ethnic discrimination, whether intentional or not, is a factor in a student's access to



information and college preparation. From chapter four of Measuring Racial Discrimination, the authors established the theories or most common ways that discrimination takes place. One of the theories is the institutional process. These institutional processes, while not malicious or intentional, create discrimination and lead to barriers for people of ethnic minorities (Blank, Dabady, & Citro, 2004).

In a preliminary action research project, a group of high school students and business owners were surveyed regarding barriers to opportunity for students regarding employment. The students and business owners surveyed did not note race as a barrier (Mathews, 2018). However, it is debatable that there are institutional processes that are barriers to ethnic minorities specifically regarding employment. One example is the method by which employers seek employees. If word of mouth is the primary way, and you only have Caucasian employees, the likelihood that ethnic minority high school students will hear about the sales clerk job is minimal. While this is not always intentional, it is very much a barrier for ethnic minorities attempting to obtain employment (Mathews, 2018).

1.3.4 The Role of the Counselor

Within every high school, a counselor is present to guide students regarding various aspects of their high school career. All the guidance has a common goal—achievement, graduation, and successful post-high school placements. Whether the plan for a student is in college or in a career, counselors can provide students access to information and preparation for college and careers. When looking at the research, it is became clear to the authors that counselors are often under-utilized by students and over-utilized by administration in other capacities.

Bryan, Moore-Thomas, Day-Vines, and Holcomb-McCoy (2009) conducted a national study to determine who seeks information, particularly regarding college, from high school counselors. Over 12,000 students were surveyed, and it was determined that in schools with high levels of poverty, students were less likely to seek out information.

Often the students who did reach out for information were female students and African American students. This statistic was surprising considering the current demographics of typical age college students (Bryan, Moore-Thomas, Day-Vines, & Holcomb-McCoy, 2011). Another interesting but understandable statistic was that schools with smaller numbers of students and high numbers of counselors had a higher percentage of student-counselor contact than other schools. The conclusion showed that while counselors can be a huge asset to students searching for college or career information, the utilization of these professionals by students was minimal. There were a variety of reasons why this was the case. One indication could be the student-to- counselor ratio, the duties put on counselors, and college and career preparation (Bryan et al., 2011).

Deslonde and Becerra (2018) qualitatively assessed the role of high school counselors particularly with low socioeconomic students as they prepare for college. They referenced the idea of social capital and how students from low socioeconomic backgrounds have less access to college or post high school opportunities through their parents and must rely on professionals like high school counselors for their resources and information (Deslonde &



Becerra, 2018). Counselors play an important role, as they convey information, and one counselor in the study called them bridges for these students. This depiction is an accurate representation of what our students need to transition from high school to college and career. Counselors are the gate or access point to the bridge of college/career preparation.

1.3.5 Work-Based Learning Experiences

Throughout the research, the term work-based learning experiences included a variety of educational and occupational programs including: mentorships, internships, and employment. Corporations use them to train employees effectively, and they are becoming a vital part of secondary education in order to give students exposure to fields of interest as well as employability skills.

Using research and statistical information, Davis and Snyder (2009) formed the foundation for the connection between work-based learning (internships, employment) and the outcomes for high school students. Their research showed that students who participated in these work-based learning experiences were more likely to graduate from high school and their potential for retention decreases. The authors identified the importance of stakeholder collaboration, relevance, and the importance of measuring student's perception pre and post learning experiences (Davis and Snyder, 2009). The research indicated that these experiences were beneficial, but that we need to determine what is keeping the students of low SES districts from obtaining these experiences while in high school.

Niehoff (2018) defined collaboration and distinguished it from the term partnering or partnership. Collaboration was noted to be an integral part of working together in school or employment, and its application in various capacities resulted in good outcomes. Specifically, the second way listed to model collaboration is through community collaboration. This method of collaboration involved stakeholders and businesses in the community and their role in improving outcomes for students (Niehoff, 2018). Regardless of how or why collaboration takes place, the outcome was almost always beneficial and applicable to any scenario, and has been identified as a key factor in the post-secondary success of all students.

Loera (2016) researched the relationship between the healthcare industry and the education system through developmental partnerships. This study looked at the perceptions of healthcare industry workers regarding school partnerships, internships, and mentoring urban students for future careers in healthcare. Loera found that many healthcare industry executives had financial challenges as well as a lack of understanding of the long-term purpose of these partnerships. Throughout the survey of the answers to open-ended questions, direct care workers had an increased ability to see the value of training high school students in the healthcare field to increase chances of building a stronger and larger future workforce.

Overall, the implications were that mentorship and partnership through industry and education for high school students was incredibly beneficial for the long-term purpose of developing a diverse and equipped workforce (Loera, 2016). This piece of research was important because it must be demonstrated to our community partners that the need for them to play a role in the lives of our high school students is important. Having community partnerships is the starting



point for many collaborations. These collaborative partnerships can be work-based learning experiences including: mentorships, internships, and employment.

1.3.6 Mentorships

Mentorships are often defined as facilitative relationships of two people: the mentor and the mentee. This relationship guides the mentee through experiences and education and leads to a better understanding and an avenue of support for a person in a particular field. For high school students, mentorships can be specific or broad. For instance, there are many students that have a mentor just to support them in everyday life, while other students have mentors that are currently working in fields of interest for the student. These mentors offer advice and guidance for students when pursuing post-secondary opportunities. Both forms of mentorship are important to high school students.

Sevenius (2016) concluded that high school is a junction for children where they begin to think about their future and gain more responsibility. Change is constant, and having external support outside of the home is key to success. This article discussed the positive and negative effects of mentors on high school students (Sevenius, 2016). While most were positive, it took consistency and long-term commitment for these to be of the most benefit for high school students. Often, it also took more than one mentor to build a positive environment around a high school student. Studies show that during trials and difficulties, students with mentors were more likely to achieve and return focus toward education. This is important, as high school students have to make decisions regarding their future earlier and often in the face of adversity.

Trybus and Li (1998) evaluated the outcomes of a partnership academy implemented over multiple years for at-risk students. The goal was to provide opportunity and improve a variety of outcomes for at-risk students. Overall, the partnership saw indicators improve for students who participated in the academy compared to those who did not (Trybus & Li, 1998). This research showed the benefits of a mentorship academy on student achievement and future success. It was a building block in the history of how external support through mentorship from the community to schools was beneficial for at-risk students.

Educational mentorships embedded in specialty schools and programs are beneficial for post-secondary pursuits. Shoemaker, Thomas, Roberts, and Boltz (2007) outlined how the North Carolina School for Math and Science has developed a mentorship program that enabled students to form relationships with researchers and professionals at partnering locations to develop skills in a particular area of interest. The outcomes for this program were vast and included advancement in curiosity, resourcefulness, collaboration, ownership, literacy, and self-awareness (Shoemaker et al., 2007). These skills are important for career and post-secondary education. These outcomes are what all educators and parents hope for their students. Developing a program like this for low-income students could potentially increase their desire for post-high school interests, including college or vocational programs.

In Australia, Wilson, Cordier, and Wilkes-Gillan (2014) examined an initiative that pairs at risk teenage boys with older men to form mentorships. They each took equal roles in the relationship and participated in community service and project-based events which built the



mentor relationship. These teenage boys have been identified as struggling behaviorally and socially in their high schools. This study indicated that there are positive outcomes to this mentorship, and it especially helps with the transition through high school (Wilson, Cordier, & Wilkes-Gillan, 2014). The study found that the mentorship led to better connections at school and less disruptions in the classroom as the boys learned valuable relational skills. So many male students lack positive male role models and a mentorship program such as this would be excellent for character development. The research clearly showed that mentorships whether for college/career focus or character focus are beneficial for high school students.

Timmons (2007) outlined the benefits of mentorship for high school students to promote interest, experience, and opportunity for future careers in perioperative nursing. A four-year internship was developed for students to gain weekly exposure to the nursing career field, particularly perioperative care. This enabled students to experience the ends and outs of a clinical setting during their high school years before decisions had to be made for career choices. They have found that the results are positive, and both students and mentors benefit from this partnership (Timmons, 2007). This partnership was like the partnerships needed for students from low socio-economic backgrounds who did not have connections to obtain these mentorships on their own. This outlined the implementation of a mentorship program for high school students, and it was helpful to this research project as it shows the benefits to these community and school partnerships.

Lindahl, Long, and Arnett (2002) explored the partnership with junior college and high school students was developed to mentor and guide students to prepare them for the future options in college and career planning. Through a three-year workshop-based program, high school students and parents were guided to assist with planning for the future of the students. In the conclusions, they stated that when mentorships and programs like this take place, barriers that once seemed "insurmountable" went away and students were empowered and more prepared for the future (Lindahl, Long and Arnett, 2002). As an education community, we must know the barriers our students encounter to help mentor them so that they no longer hinder their future achievements.

Chan, Rhodes, Howard, Lowe, Schwartz, and Herrera (2013) studied the effects of school-based mentoring on numerous outcomes including: socio-emotional, academic, and behavior. One of the key factors found in the results was that as the quality of the mentor increased, so did the level of positive outcomes. This relationship was statistically significant and should be considered when implementing mentorships in high schools (Chan et al., 2013). As with any work-based learning experience, the quality of mentorship is of course vital to the success of the students. Mentorships are a fantastic way for high school students to gain access to information in fields of interest from people who are actively participating in that field as employment.

1.3.7 Internships

Sarikas (2018) guided high school students through the benefits and expectations of an internship. She highlighted throughout the article that the most valuable part of an internship was the experience gained throughout the duration of the internship. She went on to describe



the options of different internships and gave guidance on decision making regarding internship choices (Sarikas, 2018). She reported strong outcomes for internships with high school students, so this is considered an excellent opportunity for students to gain exposure and opportunity for future careers.

Fernandez-Repollet, Locatis, Jesus-Monge, Maisiak, and Liu (2018) looked at a multi-modal Internship/mentorship program where African American students who were interested in healthcare professions could participate in this program for greater exposure and opportunity to the healthcare profession. Following the gathering of information, there were many positive indicators which demonstrated that these types of programs are beneficial for high school students. While some things were not statistically significant, this could have been attributed to the heightened interest in pre-internship/mentorship (Fernandez-Repollet et al., 2018).

Davies (n.d.) identified the importance of internships for students pursuing teaching degrees. The benefit to this internship was two-fold and can be applied to any type of internship. The first benefit was that getting hands-on, in classroom, experience. Work-based learning is incredibly important regarding training and education for employment. The second component to internships that make them highly beneficial is mentorships, in this case with experienced teachers. So many professions require work-based learning experience in order to complete a degree or program (Davies, n.d.). It only makes sense that this be modeled to some degree with our high school students so that they can gain exposure and opportunity in fields of interest.

1.3.8 Employment

Employment has often been considered an important part of development of skills in high school students. Ormiston (2016) noted in his research that, for years, positive outcomes have been related to high school employment. In his study, he explored exactly why this was so. The results determined that it is the human capital or the employability skills that are obtained from employment that were the key to improved outcomes (Ormiston, 2016). These skills are invaluable for the overall character development and maturity of a high school student.

McGrath and Murphy (2016) discussed ways to improve interest in the accounting area of study. They focused on the importance of immersion work experience for secondary or high school students when choosing the path they wish to take in their career. This article noted a point of importance and stated that typically work experience is focused on students with post-secondary vocational goals rather than those with post-secondary academic goals (McGrath & Murphy, 2016). To fill the work force gaps in a certain area, high school students and the future work force need access to the experience of working in that certain field of work. For instance, if a local company needs engineers, then a provision would be partnerships with local businesses that employ engineers to provide internships or workforce experience to students in the hope that it sparks interest in them. It cannot be assumed that a student, particularly of a low socioeconomic background, will just choose engineering regardless of academic achievement. A role that stakeholders and school districts must take on is advisement and mentorship to fill in the gaps of social capital that these students are missing from their parents.



1.3.9 Barriers to Opportunity

Caroline Waldman of All4Ed discussed the recent findings regarding Career and Technical Education (CTE) and the barriers for implementation in high schools. She identified three main barriers comprised funding, teachers, and facilities (Waldman, 2018). All of these were significant in offering CTE in high schools. This was an integral part of work-based learning, and its benefit can even include post-secondary credit towards various programs. CTE programs go "hand in hand" with mentorships, partnerships, and internships and can be a key to securing those with stakeholders in the community.

Hedrick, Homan, and Dick (2011) explored the retention rate connected with high school students in small communities. They found that many high school students were seeking post-secondary education and a good portion of them were seeking it outside of their small communities and intended to work outside of those communities because of the opportunities afforded them in more metropolitan areas. While this study was not directly related to the barriers students have with obtaining employment or internships, it did indirectly the effects if communities do not support our students and give them a reason show to return to their communities (Hedrick, Homan, & Dick, 2011). The outmigration of small towns for the age group of 20-29 was noted to be growing rapidly. We do not only want to train our students well, but we also want them to recognize the long-term opportunities they have within their small communities.

Kenny, Blustein, Chaves, Grossman, and Gallagher (2003) explored urban high school students and how perceived barriers affect their post-high school aspirations in vocation and education. What they found was this lack of social support and the fact that most perceived barriers were major challenges in their interest and pursuit of college and career after high school. The results did not show that gender was a critical factor, which indicated that social support was important for all students (Kenny et al., 2003). This is important for future research because it identified the idea of barriers hindering future aspirations. So we must seek answer s to the question: What are these barriers for high school students in the local area?

Williams and Portman (2014) evaluated perceptions of high achieving African American high school students. In this study, there were six main themes that were identified as barriers for these students. Of the six, the one that stood out related to future research was: community collaboration to raise a scholar (Williams & Portman, 2014). In our current culture, it is imperative that our students receive more than just academic education. Community involvement through work-based learning is key for the development of goals, aspirations, and social skills sets in the workplace. The students reported that community support would not only help them academically and in future careers, but it could also keep at risk high school students out of illegal activities outside of school.

2. Hypotheses, and Research Design

It is hypothesized that most high-school students seek work-based learning experiences. It is also hypothesized that there are perceived barriers to opportunity, and that the perceptions of the barriers will be significantly different between socio-economic groups, as well as by gender



and ethnicity/race. The research was consequently planned accordingly.

2.1 Research Questions and Hypotheses

When reviewing publications on this topic, it was evident that there are some clearly defined questions that current research does not answer. These questions are key to guiding school districts and stakeholders alike in future development of programs to support work-based learning experiences for high school students. This study aims to answer the following questions:

RQ1: Are students seeking employment, internships, or mentorships in the fields of their future career interests?

RQ2: What barriers of opportunity, regardless of socio-economic status, gender, and ethnicity/race exist for high school students seeking employment internships and mentorships in fields of future career interests?

RQ3: Are these barriers present for all students regardless of socio-economic status, gender, and ethnicity/race?

2.2 Theoretical Framework

The theory of constructivism suggests that a person learns by constructing or creating knowledge through experiences (David, 2015). There were three "fathers" of the theory of constructivism of the theory: Jean Piaget, Lev Vygotsky, and Jerome Bruner. These three researchers developed the basis of constructivism through their work, and expanded the idea to other areas (David, 2015). Of the three theorists, Lev Vygotsky's work in social constructivism developed the idea that a person learns constructively through social engagement and interaction (David, 2014). There are three major components to the social development theory; these are: social interaction, the more knowledgeable other, and the Zone of Proximal Development. Vygotsky presents the idea that we learn predominantly through social interaction with a person who is more experienced or knowledgeable in a given area. He also suggested that there is a time frame, The Zone of Proximal Development, in which a person can create a learning experience from germs of understanding that they already have through the guidance of an adult or more knowledgeable other, and develop that to an independently learned skill (David, 2014).

Jean Lave developed the Situated Learning Theory in the 1980's that suggested learning is situated within cultures, authentic contexts and situations. Through this approach, Brown, Collins and Duguid developed the idea of a "cognitive apprenticeship", which suggests that people learns through the use of cognitive tools in situated learning environments. All of the work completed by Lave and Brown, Collins, and Duguid connect back to the greater theory, Social Development Theory, and to Constructivism as presented by Vygotsky (David, 2007).

2.3 Conceptual Framework

Based on the theory of Constructivism, particularly as it relates to the Social Development Theory and Situated Learning, students in high schools across the United States of America are



deprived of the social engagement and situations in that could foster the development of learning about potential careers or employability in general. These theories support the idea that students learn best through experiences. Work-based learning experiences provide students with the opportunity to learn from someone or people who know considerably more about a field of interest and employment. Through the social interaction and experience of mentorships, internships, or employability, students then have a greater chance of success in post-secondary pursuits and can conceptualize information learned in the classroom differently.

2.4 Definition of Terms

- (1) Work-based learning experiences: experiences that focus on learning through engagement in a work environment including: internships, mentorships, and employment.
- (2) Internship: the position of a student or trainee who works in an organization, sometimes without pay, in order to gain work experience.
- (3) Mentorship: the guidance provided by a mentor, especially an experienced person in a company or educational situation.
- (4) Employment: the condition of having paid work; a person's trade or profession; the action of giving work to someone.
- (5) Social Capital: the networks of relationships among people who live and work in a particular society, enabling that society to function effectively.
- (6) Socioeconomic status: in the social standing or class of an individual or group—often measured by education, income, and occupation.

3. Methods

Incorporating work-based learning experiences into an educational curriculum increases a student's knowledge and employability skills. Work-based learning experiences must be readily available to students with limited barriers. The purpose of the present study was to determine perceptions of high school students regarding work-based learning experiences and compare those perceptions to subgroups within a sample.

A mixed research design was utilized. In this research design, the respondents were administered a 15-question survey comprised of demographic questions, together with Likert-scale questions—to determine if high school students are pursuing work-based learning experiences, and if so, do they believe there are barriers to obtaining them. The researcher divided the respondents into various subgroups based on demographic characteristics (*i.e.*, gender, ethnicity, age) and perceived socioeconomic status. This was determined based on answers to specific questions. Independent t-tests were completed to compare sub-groups and determine if there were significant differences. Additionally, a small focus group of participants was conducted to gather additional information regarding the survey and work-based learning experiences. Additionally, there was an opportunity for respondents to participate in a focus group to provide the research investigator with qualitative data.



3.1 Selection of Participants

3.1.1 Setting and Description of Participants

This study aimed to gather and evaluate thoughts and perceptions that high school students have in regard to their opportunities of obtaining work-based learning experiences. The survey was administered to high school students in a southern state and a public high school.

The respondents included high school students in grades 10 through 12. The survey was given in English classes, so it is likely that there were both general education students as well as exceptional education students with inclusion services or accommodations. This method's goal was to obtain a respondent demographic that reflects the demographics of the school district.

3.1.2 Risks and Protection

There were no risks to participating in this research study. The survey was anonymous. While this study was aimed at high school students, there is minimal risk to this age group in the study. The benefits far outweigh any risks that would be associated with the survey study.

3.2 Data Collection

Firstly, permission from the university's Institutional Review Board was obtained to conduct the study. Thereafter, permission was obtained from the superintendent of Education for the local district to administer the survey in their district. The primary researcher contacted the high school counselor(s) at the high school via email to present the research study and outline the procedures. The researcher delivered assent and consent forms for the number of students in the school. The students had three days to return the signed assent or consent forms to their teacher. The consent forms included a return date that preceded survey administration. On a preselected date, the primary researcher delivered the correct number of surveys to the high school along with a teacher administration guide page. The counselor gave the surveys with attached assent page to the high school English teachers. They administered the survey to the students who have a consent from the parent or gave assent to participate. The guide page included a short statement that all teachers read prior to the administration of the survey. This aimed to ensure that the survey was administered in the same way to all respondents despite grade or teacher differences. The students completed the 15-question survey regarding demographics and work-based learning experiences.

After the surveys were completed, the teacher placed them in a provided envelope with the total number of student surveys on the front of the envelope. The English teacher returned this to the designated high school counselor. The counselor notified the primary investigator when all surveys were completed.

When the primary investigator had retrieved the completed surveys, she gathered 5 students at random and held a short focus group asking the following questions:

- (1) What did I miss in the survey?
- (2) Do you have anything else to discuss regarding work-based learning experiences?



(3) Why do you think work-based learning experiences are important for high school students?

This information was gathered to complete a qualitative component and ensure that no perceived barriers were missed.

3.3 Data Analysis

To answer the research questions, some descriptive statistics were determined. To compare groups based on socio-economic status, gender, or school, demographics were analyzed, and groups were formed. These groups were utilized for independent t-tests.

The first research question was answered by obtaining descriptive statistics regarding the information reported by the respondents. A multiple-choice question gave the percentage and number of students that are seeking some form of work-based learning experiences. The second research question was answered via analysis of a Likert scale rating. The descriptive statistics showed which barriers are rated to be the highest.

Independent t-tests were conducted between groups of socio-economic status, gender, and school to compare responses regarding barriers. These independent t-tests compared two groups to see if one group experiences barriers more so than others. These results answered the third research question.

4. Results

4.1 Purpose

This research examined the perceptions of local high school students seeking work-based learning experiences, and determined if perceived barriers to opportunity exist. Four high schools were given surveys for high school students. 678 surveys were given out and 57 were returned.

4.2 Participants' Demographic Information

4.2.1 Gender

The survey was administered to 57 students at one local high school. Table 1 shows the responses regarding gender. Question 1 of the survey asked respondents to specify the gender to which they identify. Of the 57 respondents, 31.6% of them were male (18) and 68.4% were female (39).

4.2.2 Age

Question 2 of the survey asks students to identify their age based on provided groupings: 14-16, 16-18, or 18 or older. Of the total 57 respondents, 31.6% (18) identified themselves in the 14-16 age range; 68.4% (39) identified themselves in the 16-18 age range. No respondents identified as 18 or older age range.

4.2.3 Ethnicity

In question 3, respondents chose one of five given race/ethnicity categories. The respondents identified themselves in four of the five distinct ethnicity/race categories. Fourteen respondents



(24.6%) identified at African American, 38 respondents (66.7%) identified as Caucasian, three respondents (5.3%) identified as Hispanic, and two respondents (3.5%) identified as Other, noting they were biracial. No respondents identified as Asian, which was the fifth race/ethnicity category provided.

Table 1. Demographics of respondents

| Demographic Characteristics | N | % |
|-----------------------------|----|------|
| Gender | | |
| Male | 18 | 31.6 |
| Female | 39 | 68.4 |
| Age | | |
| 14-16 | 18 | 31.6 |
| 16-18 | 39 | 68.4 |
| 18 or older | 0 | 0 |
| Race/Ethnicity | | |
| African American | 14 | 24.6 |
| Caucasian | 38 | 66.7 |
| Hispanic | 3 | 5.3 |
| Asian | 0 | 0 |
| Other | 2 | 3.5 |

4.3 Analysis

4.3.1 Descriptive

The survey was designed to be administered to 57 local high school students, four of whom failed to meet the survey deadline. Of the 57 respondents, 56 then reported attending the same local high school. One student did not indicate an attending high school; however, all respondents were surveyed at the same high school by the same teacher, so it is assumed that all 57 students attended the same local high school. Question 4asked respondents to indicate their current grade level and the results indicated: 21.1% (12) 9th grade, 17.5% (10) 10th graders, 59.6% (34) 11th graders, and 1.8% (1) 12th grader.

In the survey, questions 6, 7 and 8 explored different components of the socio-economic background of each student. Question 6 asked respondents if they had previously or were currently receiving free or reduced lunch. Of the 57 respondents, 45.6% (26) currently receive



free or reduced lunch, 8.8% (5) have previously, but do not receive it currently, and 45.6% (26) have never received free or reduced meals at school.

Question 7addressed the home setting of respondents and the results are as follows: 24.6% (14) live in a single parent home, 68.4% (39) live in a family unit with both parents, and 7% (4) live with a relative other than their parent(s). Question 8 identified the parent education level of the respondents. The results indicated that 29.8% (17) of respondents have one parent who has post-secondary training or degrees, 40.4% (23) of respondents have parents who both have post-secondary training or degrees, 24.6% (14) of respondents have parents with only high school diplomas and 5.3% (3) have parent(s) who do not have high school diplomas.

Question 9 addressed preparation, desire, attempt and participation in work-based learning with a Likert-scale response. The likert scale valued Strongly Agreed as 1 and Strongly Disagreed. The lower the mean of responses, the more strongly they agree with provided statements. Table 2 outlines the respondent numbers, percentages, means, and standard deviations for each Likert category. Students reported have a strong desire to obtain a work-based learning experience (M = 1.88, SD = .825) and indicated that most respondents strongly agreed (22) or agreed (21) they had a desire to participate in work-based learning experiences. The respondents were less likely to have attempted to obtain a work-based learning experience (M = 2.47, SD = 1.18). However, the data does indicate that students (12 strongly agree, 24 agree) are attempting to obtain work-based learning experiences. The respondents were less likely to participate in a work-based learning experience (M = 3.12, SD = 1.29). Only eight respondents strongly agreed and 12 agreed to the statement regarding current participation in a work-based learning experience.

Question 10 addressed possible perceived barriers that respondents may have when seeking work-based learning experiences. Thirty-eight of the 57 respondents (M = 3.82, SD = 1.21) reported they "strongly disagreed" or "disagreed" to transportation being a barrier. Race was also not considered a barrier by many respondents (M = 4.28, SD = .940). Fifty- four of the 57 respondents were "unsure," "disagreed," or "strongly disagreed" that race was a barrier to opportunity (M = 3.28, SD = 1.20). It should be noted that three respondents did "strongly agree" or "agree" that race was a perceived barrier for them when seeking work-based learning experiences. Many respondents were "unsure" or "disagreed" to the statement regarding a limited number of opportunities for work-based learning experiences (M = 3.21, SD = 1.16). Social capital as described by connections to business owners was neutral with 20 respondents unsure (M = 3.62, SD = 1.08). Over half (33, M = 2.51, SD = 1.02) "agreed" or "strongly agreed" to knowing where to go to find work-based learning experience opportunities and 30 of 57 respondents indicated they had a school counselor or school personnel to assist with obtaining work-based learning experiences (M = 2.67, SD = 1.18). Forty-four respondents indicated that they "strongly agreed" or "agreed" that work-based learning experiences were important (M = 1.96, SD = .981). Table 2 outlines the respondent numbers, percentages, means, and standard deviations for each Likert category for responses on question 10.

Question 11 addressed possible supports to assist high school students seeking work-based learning experiences. Many students agreed they would participate in work-based learning



experiences if they were readily available to them (M = 1.79, SD = .773). See Table 3 for the respondent numbers, percentages, means, and standard deviations for each Likert category for question 11. Additionally, most considered a designated access person would be helpful when seeking work-based learning experiences (M = 1.98, SD = .896). Most respondents (M = 2.16, SD = 1.03) reported that it would be easier if work-based learning experiences were a part of school curriculum.

Question 12 asked respondents to indicate their prospective plans post-high school. Of the 57 respondents, 8.8 (5) plan to pursue employment, 7% (4) plan to pursue vocational training, and 84.2% (48) plan to pursue a college degree (see Appendix A).

With regards to barriers, respondents answered question 13 which specifically asked if they felt they had barriers to opportunity with regards to work-based learning experiences, and 49.1% (28) said yes and 50.9% (29) said no Question 14 surveyed the perceptions on whether or not there is supportive personnel at their high school to guide students to work-based learning experiences and 66.7% (38) said yes while 33/3% (19) said no.

Research Question 1: Are students seeking employment, internships, or mentorships in fields of future career interest?

Thirty-six of 57 respondents have or are currently seeking work-based learning experiences, and 20 of 57 are currently participating in work-based learning experiences.

Research Question 2: What barriers of opportunity exist for high school students seeking employment, internships, or mentorships in fields of future career interests?

One or more respondents reported the following barriers: transportation (8), race (3), limited opportunity (16), age (17), family connection/social capital (7), knowing of opportunity (33).

Table 2. Means and standard deviations of perceptions when seeking work-based learning experiences

| Measure | Strongly Agreed | Agreed | I am unsure | Disagreed | Strongly Disagreed | М | SD |
|---------------------------|-----------------|--------|-------------|-----------|--------------------|------|------|
| Draw and fan WDI E | 56.1% | 36.8% | 5.3% | 5.3% | 1.8% | 1.54 | 750 |
| Prepare for WBLE | (32) | (21) | (3) | (3) | (1) | 1.54 | .758 |
| Design to Oldein WDI F | 38.6% | 36.8% | 22.8% | 1.8% | 0 | 1.00 | 925 |
| Desire to Obtain WBLE | (22) | (21) | (13) | (1) | (0) | 1.88 | .825 |
| Automated to Obtain WDI F | 21.1% | 42.1% | 8.8% | 24.6% | 3.5% | 2.47 | 1.10 |
| Attempted to Obtain WBLE | (12) | (24) | (5) | (14) | (2) | 2.47 | 1.18 |
| Destinius discusio WDI E | 14.0% | 21.1% | 17.5% | 33.3% | 14% | 2.12 | 1.20 |
| Participating in WBLE | (8) | (12) | (10) | (19) | (8) | 3.12 | 1.29 |



Table 3. Means and standard deviations of perceived barriers when seeking work-based learning experiences

| Measure | Strongly Agreed | Agreed | I am unsure | Disagreed | Strongly Disagreed | M | SD |
|--------------------------|-----------------|---------------|---------------|---------------|--------------------|------|------|
| Transportation | 7.0% (4) | 7.0% (4) | 19.3% (11) | 29.8% (17) | 36.8% (21) | 3.82 | 1.21 |
| Race | 1.8% | 3.5% (2) | 12.3% (7) | 29.8% (17) | 52.6% (30) | 4.28 | .940 |
| Limited Opportunity | 8.8% (5) | 19.3% (11) | 26.3% (15) | 33.3% (19) | 12.3% (7) | 3.21 | 1.16 |
| Age | 8.8% (5) | 21.1% (12) | 17.5% (10) | 38.6% (22) | 14.0% (8) | 3.28 | 1.20 |
| Social Capital | 3.5% (2) | 8.8% (5) | 35.1% (20) | 24.6% (14) | 26.3% (15) | 3.62 | 1.08 |
| Know Where | 12.3% (7) | 45.6% (26) | 26.3% (15) | 10.5% (60 | 5.3% (3) | 2.51 | 1.02 |
| School Personnel Support | 14% (8) | 38.6% (22) | 24.6% (14) | 12.3% (7) | 10.5% (6) | 2.67 | 1.18 |
| Importance | 36.8% (21) | 40.4% (23) | 14.0% (8) | 7.0% (40 | 1.8% (1) | 1.96 | .981 |

Table 4. Means and standard deviations of perceptions of work-based learning experiences

| Measure | Strongly Agreed | Agreed | I am unsure | Disagreed | Strongly Disagreed | M | SD |
|-------------------|-----------------|---------------|---------------|-------------|--------------------|------|------|
| Would Participate | 40.4% (23) | 42.1% (24 | 15.8% (9) | 1.8% (1) | 0 (0) | 1.79 | .773 |
| Point of Access | 35.1% (20) | 36.8% (21) | 22.8% (13) | 5.3% (3) | 0 (0) | 1.98 | .896 |
| School Curriculum | 28.1% (16) | 42.1% (24) | 19.3% (11) | 7.0% (4) | 3.5% (2) | 2.16 | 1.03 |
| Family Connection | 17.5% (10) | 15.8% (9) | 43.9% (25) | 14.0% (8) | 8.8% (5) | 2.81 | 1.15 |

4.3.2 Inferential

Before doing the analysis, a reliability check for the three sets of Likert-type items was completed. The responses for questions 9 and 11 were close to the .7 threshold (.674 and .693,



respectively). However, the set from question 10 had unacceptable reliability at .217. Therefore, no conclusions regarding that set of items (question 10) can be drawn. To compensate for the smaller sample size, a MANOVA was conducted for the hypotheses specific to research questions three, four, and five.

Research Question 3: Are these perceived barriers present for all students regardless of socio-economic status?

The hypothesis for research question three was not significant; Hotelling's Trace = .108, F(3, 53) = 1.911, p = .139. A chi-square was performed to examine perceived barriers between SES groups. It was not significant either (p = .236). There was no difference between perceived barriers of students in different SES groups.

Research question 3a: Are these perceived barriers present for all students regardless of gender?

A chi-square test of independence was performed to examine the relation of perceived barriers based on gender. The relation of these variables was not significant (p = .631). Neither was gender significant for the overall questions of 9, 10, and 11 either, Hotelling's Trace = .011, F(3, 53) = .196, p = .899. Therefore, the null hypothesis is not rejected.

Research question 3b: Are these perceived barriers present for all students regardless of race/ethnicity?

A chi-square test of independence was completed to examine perceived barriers near the end of the survey based on race. The Caucasian subgroup was compared to the minority subgroups. The relation between these variables was significant (p = .001). It should be noted that one of the cells had a count less than 5 (n = 4), which can really invalidate the results. When running the comparisons for race for questions 9, 10, and 11, the results were significant, Hotelling's Trace = .108, F(3, 53) = 1.911, p = .016. The significant result was for question 10 (p = .002), unfortunately, which was unreliable; therefore, no conclusion can be made.

4.3.3 Qualitative

A focus group of anonymous respondents were brought together following the survey to answer questions regarding the survey. The following information was obtained regarding each question:

(1) What did I miss in the survey?

Answers: No students reported any information that was missing. One student mentioned that she did not understand the questions about family connection. The other students confirmed they didn't understand those questions well.

(2) Do you have anything else to discuss regarding work-based learning experiences?

Answers: One student asked if there were actually work-based learning experiences available for high school students. He did not know who to ask or where to look. Many students confirmed this statement with nods as well.



(3) Why do you think work-based learning experiences are important for high school students?

Answers: One student felt that they would help them decide if the field they thought they wanted to pursue in college was actually what they wanted to do. The other students kept quiet and did not give any other feedback.

5. Discussion

The conclusions are limited because of the lack of statistical reliability; however, there are some interesting points that should be noted from the data.

5.1 Work-Based Learning Experiences

Davis and Snyder (2009) indicated that a key component to successful post-secondary success are work-based learning experiences. Forty-three of the respondents desired to participate in work-based learning experiences, but less than half (20) actually report participating in them. Thirty-six students reported attempting to obtain work-based learning experiences, but it is clear that not all are successful. The data supports the need for examination of the barriers that are keeping these students from obtaining work-based learning experiences.

5.2 Barriers to Opportunity

Unfortunately, the survey question regarding specific barriers was not considered reliable, but the descriptive data indicates that a large portion of students reported these three barriers most frequently: age, limited opportunity, and lack of knowledge on where work-based learning experiences exist (see Table 3). Work-based learning experiences are proven to increase positive outcomes for high school students in a variety of areas including achievement; however, some of our students experience barriers to obtaining opportunity for these experiences (Davis & Snyder, 2009). These barriers vary for students and can be dependent on a number of factors including age, gender, race, geographical location, and school setting.

5.3 School Personnel and the Role of the Counselor

It seems interesting that 33% of respondents also indicated that they perceived no support personnel at school to help them seek work-based learning experiences. Deslonde and Becerra (2018) concluded in their study that counselors are, in fact, supposed to be the resource for information, but because of all the additional duties put on them, it often becomes overlooked. Collier, Griffin, and Wei (2017) reported that local districts had great difficulty assisting high school students with obtaining work-based learning experiences.

5.4 Community Stakeholders

It appears that there is a disconnect between stakeholders who offer work-based learning experiences and students seeking them. Fletcher, Warren, and Hernandez-Gantes, (2018) found that shared direction of stakeholders and students and implementation of work-based learning internships were keys to college-preparation. Research into student-stakeholder relations would be beneficial. A student in the focus group asked if there were work-based learning experiences in our area indicating that they had no idea where to look. It is also unclear if there is support personnel at the school designated to help students find these opportunities. Because



84% of respondents indicated they plan to pursue college as their post- high school plan, it would be valuable for them to participate in work-based learning experiences due to the increased outcomes of employability and post-secondary success.

5.5 Social Capital and the Role of the Parent

The focus group collected data regarding the survey and work-based learning experiences. Although the verbal responses were limited, one important area, social capital, seemed to be unclear. Students reported not understanding the connection between family connection and involvement. The data echoed these thoughts and social capital and family connection were two statements that were rated highest in the unsure category. Gonzalez (2010) indicated that social capital is a key component to successful post-secondary opportunity. The more connected a student or family is, the better access they have to opportunities in their community. Trask-Tate and Cunningham (2010) indicated how important the role of an active parent is in a student's life. Parents are the primary supplier of social capital to a student and are the primary source of information for college and career (Trask-Tate & Cunningham, 2010). The area of social capital is a much-needed area of research and how it affects outcomes of high school students in general.

5.6 Implications for Policy and Practice

There are several implications that could be assumed from the data collected by the survey. Of the 57 respondents, 44 indicated that they perceived work-based learning experiences to be important for success following high school and 43 desire to participate in a work-based learning experience. It is evident that there is student interest in these experiences. Loera (2016) identified that mentorship and partnership through industry and education for high school students was incredibly beneficial for the long-term purpose of developing a diverse and equipped workforce.

Additionally, 38 respondents agreed that it would be helpful if it was part of the school curriculum. Career and technical departments have long been a part of the education system, and this data shows that variations of these programs are valuable and interesting to students (Waldman, 2018). Another missing piece is the liaison between stakeholders and high school to better facilitate communication of opportunities. While many respondents indicated limited opportunities as barriers, it is to be determined if there is a limited number or if it is a lack of knowledge or awareness of the opportunities that exist. Mathews (2018), in a research project, identified this issue when surveying students and business owners. In the project, there was an evident disconnect in how high school students sought employment and how employers sought employees. Niehoff (2018) defined the role of community collaboration and how important it is that stakeholders and businesses are involved in the community. It is stated that with stakeholder involvement, outcomes will improve for students (Niehoff, 2018).

Another area of implication is the role of support personnel. Over half of the respondents identified this as being helpful and important, but one third of the total respondents did not feel they had any support from school personnel. This likely could be attributed to the role of the counselor focusing more on parts of their job like testing and less on guidance of students.



Bryan, Moore-Thomas, Day-Vines, and Holcomb-McCoy (2009) conducted a national study to determine who seeks information, particularly regarding college, from high school counselors. They determined that in schools with high levels of poverty, students were less likely to seek out information. Often the students who did reach out for information were female students and African American. The conclusion showed that while counselors are a huge asset to students searching for college or career information, the utilization of these professionals by students was minimal. Further exploration into the role of a counselor is warranted to determine why so many respondents did not feel they had support from a designated school person.

6. Limitations

One of the most significant limitations for this study was sample size. Originally this study aimed to assess all local high schools within a designated county which would have given a sample size of approximately 240-300 respondents. Only one school had their surveys completed by the original deadline of March 13, 2020 which was the Friday prior to a scheduled school break for the five schools. Arrangements were made with three of the schools to pick up their completed surveys on the week following a scheduled school break. At this point, the global pandemic had been issued due to the spread of COVID-19 and the governor issued school closures. He later closed the schools for the remainder of the school year. It should be noted that obtaining parental permission was very difficult for most schools which is why the original deadline had to be extended. It is unclear if the students or parents did not see value in the study and its potential implications or if students just failed to bring the signed forms back. Because of these limitations, reliability was minimal particularly for question 10 which included barrier statements. One school did not respond to requests for participation.

References

Blank, R. M., Dabady, M., & Citro, C. F. (2004). Chapter 4: Theories of Discrimination. *Measuring Racial Discrimination* (pp. 55-70). Washington, D.C.: The National Academies Press.

Bryan, J., Holcomb-McCoy, C., Moore-Thomas, C., & Day-Vines, N. L. (2009). Who sees the school counselor for college information? A national study. *Professional School Counseling*, *12*(4), 280-291. https://doi.org/10.1177/2156759x0901200401

Chan, C. S., Rhodes, J. E., Howard, W. J., Lowe, S. R., Schwartz, S. E. O., & Herrera, C. (2013). Pathways of influence in school-based mentoring: The mediating role of parent and teacher relationships. *Journal of School Psychology*, *51*(1), 129-142. https://doi.org/10.1016/j.jsp.2012.10.001

Collier, M., Griffin, M. M., & Wei, Y. (2017). Learning from students about transition needs: Identifying gaps in knowledge and experience. *Journal of Vocational Rehabilitation*, 46(1), 1-10. https://doi.org/10.3233/JVR-160837

Davies, C. (n.d.). *How do student teacher internships help you in your teaching career?* Retrieved January 27, 2019, from http://teaching.monster.com/careers/articles/6781-how-do-student-teacher-internships-help-you-in-your-teaching-career



Davis, H., & Snyder, L. G. (2009). Work-based learning: A critical link to secondary students' success. *Business Education Digest, XVIII*, 1-11.

Deslonde, V. L., & Becerra, M. D. (2018). High school counselors' influence on low socioeconomic students' college enrollment. *Journal of School Counseling*, 24, 1-29.

ESSA (Every Student Succeeds Act). (2015). Retrieved March 25, 2019, from https://www.ed.gov/essa?src=rn

Fernandez-Repollet, E., Locatis, C., Jesus-Monge, W. E., Maisiak, R., & Liu, W. (2018). Effects of summer internship and follow-up distance mentoring programs on middle and high school student perceptions and interest in health careers. *BMC Medical Education*, *18*(1). https://doi.org/10.1186/s12909-018-1205-3

Fletcher, E. C., Jr., Warren, N. Q., & Hernández-Gantes, V. M. (2018). Preparing high school students for a changing world: College, career, and future ready learners. *Career and Technical Education Research*, 43(1), 77-97. https://doi.org/10.5328/cter43.1.77

Gonzalez, R. G. (2010). On the wrong side of the tracks: Understanding the effects of school structure and social capital in the educational pursuits of undocumented immigrant students. *Peabody Journal of Education*, 10, 469-485. https://doi.org/10.1080/0161956X.2010.518039

Griffin, D., Hutchins, B. C., & Meece, J. L. (2011). Where do rural high school students go to find information about their futures? *Journal of Counseling & Development*, 89(2), 172-181. https://doi.org/10.1002/j.1556-6678.2011.tb00075.x

Hedrick, J., Homan, G., & Dick, L. J. (2011). Assessing career and educational aspirations of high school youth and identifying trends in their perceptions of small communities. *AURCO Journal*, *17*, 53-70. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&Auth Type=sso&db=ehh&AN=67682251&site=eds-live&custid=s8876149

Kenny, M. E., Blustein, D. L., Chaves, A., Grossman, J. M., & Gallagher, L. A. (2003). The role of perceived barriers and relational support in the educational and vocational lives of urban high school students. *Journal of Counseling Psychology*, *50*(2), 142-155. https://doi.org/10.1037/0022-0167.50.2.142

Lindahl, S., Long, P., & Arnett, R. (2002). Academic readiness and career/life planning: A collaborative partnership focused on student learning. *Journal of Career Development*, 28(4), 247-262. https://doi.org/10.1177/089484530202800402

Loera, G. (2016). Improving the connection between healthcare employers and schools to increase work-based learning opportunities for urban high school students. *Journal of Urban Learning, Teaching and Research, 12*, 15-23. Retrieved April 1, 2018, from https://files.eric.ed.gov/fulltext/EJ1119161.pdf

Mathews, L. A. (2018). Barriers to opportunity for high school students.



McGrath, D., & Murphy, D. (2016). Understanding accounting as a career: An immersion work experience for students making career decisions. *Accounting Education*, 25(1), 57-87. https://doi.org/10.1080/09639284.2015.1125299

Niehoff, M. (2018). *3 ways to model collaboration and partnership in schools and classrooms*. Retrieved January 27, 2019, from https://www.gettingsmart.com/2018/02/3-ways-to-model-collaboration-and-partnership-in-schools-and-classrooms/

Ormiston, R. (2016). Does high school employment develop marketable skills? *Journal of Labor Research*, 37(1), 53-68. https://doi.org/10.1007/s12122-015-9219-7

Sarikas, C. (2018). *Complete guide to internships for high school students*. Retrieved January 19, 2019, from https://blog.prepscholar.com/internships-for-high-school-students

Sevenius, A. (2016). *The power of the high-school mentor*. Retrieved January 27, 2019, from https://www.theatlantic.com/education/2016/01/mentorship-in-publi-schools/423945

Shoemaker, S. E., Thomas, C., Roberts, T., & Boltz, R. (2016). Building a mentorship-based research program focused on individual interests, curiosity, and professional skills at the North Carolina school of science and mathematics. *Gifted Child Today*, *39*(4), 191-204. https://doi.org/10.1177/1076217516661591

Timmons, L. (2007). Mentoring high school students in a perioperative setting. *AORN Journal*, 85(4), 747-753. https://doi.org/10.1016/S0001-2092(07)60149-5

Trask-Tate, A. J., & Cunningham, M. (2010). Planning ahead: The relationship among school support, parental involvement, and future academic expectations in african american adolescents. *The Journal of Negro Education*, 79(2), 137-150.

Trybus, M. A., & Li, R. (1998). Effects of a partnership academy on school and career success of at-risk high school students.

Waldman, C. (2018). School districts identify three large barriers to offering career and technical education to high school students. Retrieved January 27, 2019, from https://all4ed.org/school-districts-identify-three-large-barriers-to-offering-career-and-technical-education-to-high-school-students

Williams, J. M., & Portman, T. A. A. (2014). "No One Ever Asked Me": Urban african american students' perceptions of educational resilience. *Journal of Multicultural Counseling & Development*, 42(1), 13-30. https://doi.org/10.1002/j.2161-1912.2014.00041.x

Wilson, N. J., Cordier, R., & Wilkes-Gillan, S. (2014). Men's sheds and mentoring programs: Supporting teenage boys' connection with school. *International Journal of Men's Health*, *13*(2), 92-100.



Appendix A

Survey

Opportunity for Work-Based Learning Experiences

This is an anonymous survey to assist researchers in understanding the importance of barriers to opportunity for high school students and work-based learning experiences. Please answer all questions honestly and to the best of your ability. Please do not skip any questions.

| 1. Please specify your gender. |
|---|
| Male |
| Female |
| Other |
| 2. Please specify your age. |
| 14-16 |
| 16-18 |
| 18 or older |
| 3. Please indicate your race/ethnicity. |
| African American |
| Caucasian |
| Asian |
| Hispanic |
| Other (Please list:) |
| 4. Please specify your current grade level in school. |
| 10th grade |
| 11th grade |
| 12th grade |
| 5. Please indicate what school you attend. |
| School A: Laurel High School |
| School B: West Jones High School |
| School C: South Jones High School |
| School D: Northeast Jones High School |



School E: Laurel Christian School

6. Have you ever received free or reduced lunch at school?

Yes, I currently have access to or use free or reduced lunch.

Yes, I have before, but currently pay full price for lunch at my school.

No, I have never received free or reduced lunch.

7. Please indicate what home setting is most like yours.

I live in a single parent home.

I live in a family unit with both parents.

I live with a relative other than my parent or parents.

8. Does your parent or do your parents have post-secondary (after high school) trainings or college degrees?

One parent has post-secondary training or degrees.

Both parents have post-secondary training or degrees.

My parent or parents have high school diplomas.

My parent or parents do not have high school diplomas.

9.

| Rating | Strongly Agree | Agree | I am not sure | Disagree | Strongly Disagree |
|--|-------------------|-------|---------------|----------|----------------------|
| I am prepared to pursue my goals and interests in college or career after high school. | | | | | |
| I have a desire to obtain a work-based learning experience during high school (internship, mentorship, or employment). | | | | | |
| I have attempted to find a work-based learning experience in my field of interest while in high school. | | | | | |
| I am currently participating in a work-based learning experience (mentorship, internship, or employment) in a field of interest. | | | | | |



10.

| Rating | Strongly Agree | Agree | I am not sure | Disagree | Strongly Disagree |
|--|-------------------|-------|------------------|----------|----------------------|
| Lack of reliable transportation prohibits me from obtaining a work-based learning experience. | | | | | |
| My race prohibits me from obtaining a work-based learning experience. | | | | | |
| There are limited work-based learning experiences in my area. | | | | | |
| My age prohibits me from obtaining a work-based learning experience. | | | | | |
| My parent(s) and I do not have connections to business owners in my area. | | | | | |
| I know where to go to find work-based learning opportunities. | | | | | |
| My school counselor or school personnel assist students with obtaining work-based learning experiences. | | | | | |
| Work-based learning experiences (mentorships, internships, and employment) are important for my success after high school. | | | | | |

11.

| Rating | Strongly Agree | Agree | I am not sure | Disagree | Strongly Disagree |
|--|-------------------|-------|---------------|----------|----------------------|
| I would participate in work-based learning experiences if they were readily available to me. | | | | | |
| Having a point of access (teacher, community leader, counselor) available with information would be helpful and I would use this resource. | | | | | |
| Work-based learning experiences would be easier to access if they were a part of my school curriculum. | | | | | |
| Work-based learning experiences would be more attainable if my family was connected in the community. | | | | | |



12. Please indicate what post-secondary plan you intend to pursue after graduating from high school.

| Employment |
|--|
| Vocational Training (welding, cosmetology etc.) |
| College Degree |
| 13. Do you, as a high school student, feel you have barriers to opportunity in accessing obtaining a work-based learning experience (internship, mentorship, or employment)? |
| Yes |
| No |
| 14. Do you, as a high school student, have supportive school personnel that guide you to opportunities for work-based learning experiences? |
| Yes |
| No |
| 15. Are you currently seeking a work-based learning experience (mentorship, internship, comployment)? |
| Yes |

Appendix B

No

Questions for Individual School Focus Group

- Are there any barriers that I missed on the survey?
- Do you have anything you would like to add regarding work-based learning experiences?
- Why do you think work-based learning experiences are important for high school students?



Acknowledgments

The author greatly appreciate the valuable contributions of her research committee advisors who encouraged and advised during the completion of the work. She would also like to thank the local schools and every student who took the time to participate in this study.

Authors Contributions

Not applicable.

Funding

This work was completed without internal and external funding.

Competing Interests

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Informed Consent

Obtained.

Ethics Approval

The Publication Ethics Committee of the Macrothink Institute.

The journal's policies adhere to the Core Practices established by the Committee on Publication Ethics (COPE).

Provenance and Peer Review

Not commissioned; externally double-blind peer reviewed.

Data Availability Statement

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

Data Sharing Statement

No additional data are available.

Open Access

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (http://creativecommons.org/licenses/by/4.0/).

Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.