Understanding a High School Vocational Training Program and its Preparation of Students with Disabilities for Postsecondary Employment: A Case Study

A doctoral thesis presented

by

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Abstract

The purpose of this case study was to describe the processes used by a high school vocational program to provide vocational training and preparation for postsecondary employment to students with disabilities. This research addresses the deficient circulation of qualitative research regarding vocational training practices used by functioning secondary programs serving students with disabilities. Using Billett’s (2011) vocational education theory as a theoretical framework, the case study investigated the Launch Program, a Chapter-74 approved vocational technical education program in Massachusetts. Survey, interview, document review, and observation data were collected and themes were analyzed and triangulated. Findings indicated the Launch Program intends to provide all students, regardless of disability, with employability skills and implements curriculum through hands-on learning activities and instructional strategies, such as scaffolding, accommodations, multi-sensory teaching, and special education support. The instruction of occupational skills focuses on technical and soft skills, using a tri-leveled curriculum and state-wide frameworks, and increasing students’ independence. Work experience is provided by real-life work opportunities within each area of study, along with co-op during senior year. Further, results demonstrated that students experience success within the program, sometimes for the first time in their educational careers, and build capacity to work on a team. Staff experience of the curriculum involves relationship building and utilization of skills from their prior career in a particular field. These findings are situated with the research literature and theoretical framework before providing implications for practice and future research.

Keywords: vocational training program, vocational technical education, students with disabilities, postsecondary employment
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Chapter One: Introduction

One of the most important tasks that educators face is preparing students for postsecondary employment. While employment is a goal for all young adults, those with disabilities have historically experienced strikingly poor employment outcomes. According to Kang, Dunn, & Blank (2018) and the their report for the U.S. Bureau of Labor Statistics, “In 2017, about eight out of 10 people with a disability were not in the labor force (people who are neither working nor looking for work). In contrast, about three out of 10 people without a disability did not participate in the labor force” (p. 6). Likewise, statistics released from the U.S. Department of Labor (2018) indicated that in 2017, only 18.7% of all persons with a disability were employed, as compared with 65.7% without a disability.

Fortunately, despite these grim statistics, quantitative research studies have found that high school vocational training programs are predictive of improved postsecondary employment outcomes for students with disabilities (Benz, Lindstrom, & Yovanoff, 2000; Daviso, Baer, Flexer, & Meindl, 2016; Dougherty, Grindal, & Hehir, 2018; Lindstrom, Doren, & Meisch, 2011; Shandra & Hogan, 2008; Test, Mazzotti, Mustian, Fowler, Kortering, & Kohler, 2009; Wagner, Newman, & Javitz, 2016). However, there is a deficient circulation of vocational training practices by functioning secondary programs serving students with disabilities. The purpose of this descriptive case study was to describe the processes used by a high school vocational program to provide vocational training and preparation for postsecondary employment to students with disabilities.

A vocational training program was defined as a school-based program designed to provide students with career exploration, instruction in employment-related skills and behaviors, and work experience (Joshi, Bouck, & Maeda, 2012). Such training exists in vocational, or
career and technical education (CTE), programs housed within high schools across the country. Knowledge generated from this case study and its description of a functioning vocational training program contributes to both a scholarly and pragmatic exchange of educational practices/processes related to providing vocational training to students with disabilities.

**Context and Background**

For the past two decades, research has consistently cited the poor employment outcomes of students with disabilities, following their graduation from high school. For instance, Newman, Wagner, Cameto, Knokey, and Shaver (2010) determined that only 56% of out-of-high school youth with disabilities, who had graduated one to four years prior, were employed in 2005. A similar report given years later by Houtenville (2013) indicated that only 33% of working-age adults with disabilities were employed in 2012, when compared with non-disabled adults. Most recently, as of December 2018, the U.S. Office of Disability Employment Policy website reported that labor force participation involved only 20.7% of people with disabilities, but 68.4% of people without disabilities. Further, according to Kang et al. (2018) and their report for the U.S. Bureau of Labor Statistics, "People without a disability have had a much lower unemployment rate, and substantially higher labor force participation rate and employment-population ratio, than people with a disability” (p. 2).

A number of quantitative research studies have found vocational training programs to be positive predictors of postsecondary employment for students with disabilities. For instance, Benz et al. (2000) determined that the post-school outcomes of students with disabilities in Oregon were improved by vocational education, instruction in functional academic and transition skills, as well as paid work experiences during high school. Similarly, in a national transition study funded by the U.S. Department of Labor, Shandra and Hogan (2008) used quantitative
methods to analyze national survey data and the postsecondary employment outcomes of over 2,000 students with disabilities, ages 12 to 16, who participated in vocational education from 1997 to 2004. These authors concluded that hands-on vocational training was positively correlated with postsecondary employment for these students. Moreover, a meta-analysis conducted by Test et al. (2009) sought to identify the school-based factors associated with improved post-school outcomes of students with disabilities (p. 160). These researchers determined that among other predictive factors, vocational education was found to be positively related to improved postsecondary outcomes regarding education and employment. In addition, they found that paid employment/work experience during school predicted improved postsecondary outcomes in education, employment, and independent living for students with disabilities (Test et al., 2009).

More recently, Wagner et al. (2016) utilized quasi-experimental analyses to determine the impact of high school career and technical education (CTE) on students with learning disabilities finding full-time employment two years after high school. The results indicated a significant positive relationship between these students taking four or more credits in occupational specific CTE courses and achieving full-time employment following graduation. Lastly, Dougherty et al. (2018) conducted quantitative analysis on longitudinal data from the Massachusetts Student Information Management System (SIMS) to determine the relationship between the state’s Career and Technical Education (CTE) programs and postsecondary outcomes for students with disabilities. These authors determined that students with disabilities who participate in secondary CTE programs have higher probabilities of graduating high school on-time or earning industry-recognized certificates than their peers with similar disabilities who do not participate in CTE programs (p. 108).
Statement of the Problem

Despite the quantitative findings that link high school vocational programs to improved postsecondary employment outcomes for students with disabilities, little qualitative research exists regarding how these programs support students with disabilities in achieving employment after high school. As such, this gap in the research points to a possible deficiency in sharing processes and practices used by a real-life vocational programs to prepare students with disabilities for postsecondary employment. The criticality of addressing this problem of practice is consistent with the findings of Baer et al. (2003), which endorsed that future research on the post-secondary transition of students with disabilities should involve investigations conducted within an actual school setting in order for best practices to be considered by educational practitioners. Additionally, Hendricks (2010) stated: “Much can be learned from vocational support programs describing successful supports implemented with individuals with disabilities; however, there are only a handful of such descriptions” (p. 131). Further, Daviso et al. (2016) identified the need for descriptions of “sound career development and transition pathway models,” to be then linked with students’ ecological/support needs and the best available research to effectively coordinate transition of students with disabilities to postsecondary employment (p. 17). Lastly and most recently, Dougherty et al. (2018) endorsed “future research should also attempt to elucidate the specific pedagogical practices employed in these [Career and Technical Education] schools to evaluate how and why they are supportive of the education of students with disabilities” (p. 117). In sum, from both an empirical and practice standpoint, there have been few formal qualitative investigations of high school vocational training programs published in the research literature and there is a documented need to do so.
Research Questions

Given the identified problem of educational practice, as well as the need for additional qualitative research, the following research question was posed: How do educational practices and curriculum in a high school vocational program prepare students with disabilities for successful postsecondary employment? The associated sub-questions were as follows: (a) How does the vocational program utilize goal setting, instruction, development of occupational skills, and work experience to prepare students with disabilities for employment after high school? (b) How do the intended, enacted, and experienced components of program curricula relate to preparing students with disabilities for postsecondary work?

Significance of Research

On an individual student level, research regarding the provision of secondary vocational training to students with disabilities has the potential to positively impact their ability to achieve financial security, live independently, increase self-sufficiency, and participate more fully in the community at large (Joshi et al., 2012; Rabren, Dunn, & Chambers, 2002; Shandra & Hogan, 2008). In addition, students’ families would also benefit. Specifically, Blacher (2001) conceptualized that a family’s well-being (level of emotional stress, burden for care giving) is related to the success of the transition that a student with a disability makes from high school. There is also potential for research of this kind to contribute to the body of knowledge necessary to reverse national trends. For instance, the continuance of unsuccessful postsecondary transitions for students with disabilities will only further increase the employment stress on a U.S. economy that is already burdened. According to the National Council on Disabilities (2000), “Each year thousands of young people under the age of 30 come onto the Supplemental Security Income (SSI) and Social Security Disabilities Income (SSDI) programs and a majority
of them never leave” (p. 13). Similarly, O’Day and Stapleton (2009) reported a continued rise in young adults with disabilities who rely on income from SSI and SSDI, such that:

About 1.3 million persons ages 14 to 30 received SSI disability benefits in December 2007, at an estimated annual cost of $8.0 billion, and more than 300,000 received SSDI benefits in June 2008, at an estimated annual cost of more than $2 billion. (p. 1)

Further, this previously reported financial stress on the state and federal governments continues today. Riley and Rupp (2015) reported that young adults with disabilities who enter the SSI and SSDI programs before the age of 30 remain on these benefits for an average of 33 years and “Expenditures are about twice the average for individuals first awarded benefits at age 18–30” (p. 514).

As a supplement to the potential contributions of this research on individual, family, and larger community levels, it also provides pragmatic information that can be considered by other high schools. Specifically, the current case study of a high school vocational program offers real-life descriptions of the practices and processes utilized to serve students with disabilities and prepare them for postsecondary employment. It stands to reason that this increased focus on the educational practices of a vocational program can assist district administrators in program evaluation and improvement, as well as enhance special education teams’ creation of individualized transition plans for students. Further, this research also has the potential to encourage other scholar-practitioners to investigate high school vocational training programs serving students with disabilities and begin to catalog best practices. Therefore, in pragmatic and scholarly ways, this case study contributes to the pursuit of a common, fundamental goal of all high schools: prepare all students for postsecondary employment.
Positionality Statement

Prior to researching the practices of a high school vocational program and students with disabilities, a critical construct considered was my positionality, that of the group of interest, as well as any intersections (Briscoe, 2005). Inherent in my demographic positioning are potential blind spots and biases related to the experience of students with disabilities. For instance, I do not have any diagnosed special needs and did not receive special education services during my school career. As a result, my educational experiences and perspectives are biased with a fairly smooth, and therefore privileged, transition through the grades, out of high school, and into postsecondary life. Though my work as a school psychologist requires me to delve into the educational experiences of students with special needs, the position as an able-bodied adult biases me in not being able to truly understand their experiences and challenges related to having diagnosed disabilities. Also, I recognize that I have been influenced by an ideological position from which it is believed that all students, regardless of diagnosed disability, can succeed educationally. Further, I maintain a biased perspective that effective vocational, contextualized learning can provide young adults (both able and disabled) with the skills and proficiencies needed to successfully prepare for postsecondary employment.

On the positive, my positionality also benefited the research process. For one, my training as a school psychologist equips me with skills necessary to conduct comprehensive interviews and document reviews that garner information from multiple sources. I regularly juxtapose this information to consider overarching themes, similarities and differences, much like the analysis phase of qualitative research. Secondly, my professional role within the school already involves program evaluation and enhancement. This existing position afforded me established trust with staff when conducting a case study of the school’s vocational training program. Lastly, my
ideological position that all students can succeed academically if provided the right tools allowed me to approach case study research with a vested interest in determining how the processes and procedures of a vocational training program achieve this aim.

Taken together, I recognize that the aspects of demographic and ideological positionality inevitably impacted the process of qualitative research, but I made my best effort to maximize the benefits described and ensure they did not exert influence over the perspectives of participants or interpretation of results. In order to achieve this, steps were taken to maintain the trustworthiness of data collected, such as having study participants verify interviews transcribed. Additionally, multiple data sources (e.g. interviews, document review, classroom visits) were triangulated in order to draw conclusions, as opposed to relying solely on my own interpretations, which are influenced by personal worldview. It is noted that considerations of trustworthiness within the research design will be further explored in Chapter Three.

**Theoretical Framework**

The theoretical framework used to investigate the problem of practice and associated research questions is Billett’s (2011) vocational education theory. Historically speaking, this theory was generated from Dewey’s (1916) seminal idea: “The only adequate training for occupations is training through occupations” (p. 362). Nearly a century later, Billett’s (2011) theory specified that vocational education involves the following principles: (a) goals and processes to make transition decisions, (b) instruction about occupations, (c) development of occupational skills, and (d) work experience (p. 31-32). Additionally, using previously established theories, Billett (2011) identified three critical components in understanding vocational curricula: (a) intended, (b) enacted, and (c) experienced curricula (p. 191). While Billett’s theoretical principles have been applied to other recent studies of vocational education
(Jorgensen, 2013; Kopsen, 2014), this research marks its first application to students with disabilities. Also, the theoretical framework not only addresses the central idea of the identified problem of practice (practices of high school vocational programs), but also aligns with the research questions posed. Specifically, Billett’s (2011) principles of vocational education were succinctly stated in the first sub-question as: “goal setting, instruction, development of occupational skills, and work experience,” and the second sub-question addressed his three components of vocational curricula.

**Evolution of Billett’s (2011) Vocational Education Theory**

John Dewey (1916) has been credited with the seminal, constructivist conceptualizations of vocational education within the United States (Billett, 2011; Doty & Weissman, 1984; Kerka, 1997; Slade, 2007). According to his early ideas, vocational education involved the active integration of academic and vocational aims, as well as contextualized learning, or the process by which learners construct meaning from their own experiences. For instance, Dewey (1916) ascertained: “Education through occupations consequently combines within itself more of the factors conducive to learning than any other method. It calls instincts and habits into play; it is a foe to passive receptivity. It has an end in view” (p. 361). To state his position more bluntly, Dewey (1916) endorsed: “The only adequate training for occupations is training through occupations” (p. 362). Herein lies the central tenet of Dewey’s (1916) theory of vocational education: the best preparation for the world of occupation is educational training that provides work experience and exposure to occupational skills. This principle is corroborated by the work of Billett (2011), who stated:

For Dewey (1916), who appears to have first used the term ‘vocational education,’ the initial preparation and equipping of individuals to participate in their preferred
occupation, had to be preceded by an educational process that informs individuals about the qualities, attributes and requirements of the occupations to which they are drawn. (p. 27)

Following Dewey’s (1916) seminal work, the Smith-Hughes Act of 1917 initiated a legalized focus on vocational education. The purpose of this federal action was to provide new curricula for high school students who were interested in pursuing employment in fields such as business, industrial arts, marketing, and health following the Industrial Revolution (Blazejowski, 2013). Years later, the Vocational Education Act was ratified in 1963, which was updated several times, renamed the Carl D. Perkins Vocational and Technical Act of 1984, and eventually laid the foundation for the School to Work Opportunities Act (STWOA) in 1994 (Lynch, 2000). The purpose of the STWOA was to respond to national data that indicated “most high school learners in the United States joined the employment world without adequate skills or relevant degrees” (Blazejowski, 2013, p. 20).

During the progression of federal mandates, vocational education theory developed, as did its application to scholarly research. For instance, Barlow (1974) presented seven defining principles of vocational education that he summarized from theorists who predated him during the 1900s. Vocational education theories like Barlow’s (1974) were further developed and applied to research studies on such topics as: (a) the impact of school-to-work internship programs and postsecondary employment opportunities (Luecking & Fabian, 2000), (b) the efficacy of the Marriott Foundation’s Bridges School to Work program (Fabian, 2007), and (c) an analysis of national survey data regarding the postsecondary outcomes of students who participated in vocational education from 1997 to 2004 (Shandra & Hogan, 2008). In the end, much of the theory development and research regarding vocational education culminated in
Billett’s (2011) book: *Vocational education: Purposes, traditions, and prospects*. Within this widely cited reference, Billett (2011) presents a contemporary theoretical framework for vocational education. The subsections to follow will detail Billett’s guiding principles of vocational education, critical components to understanding vocational curricula, and the appropriateness of this theoretical framework for the identified problem of practice that is the basis of the study conducted.

**Defining Principles of Vocational Education Theory**

Billett (2011) emphasized that though vocational education has exceedingly diverse purposes, it centers upon the following four principles: (a) goals and processes regarding the requirements of working life that help learners make transition decisions (b) instruction about particular occupations, which considers appropriateness of fit with student interests, needs and capacities (c) development of the specific concepts, procedures and dispositions required of specific occupations, and (d) experiences associated with understanding working life and developing occupational capacities needed in dynamic, changing work settings (p. 31-32).

Although they were created nearly a century after Dewey’s (1916) seminal ideas, Billett’s (2011) principles still reflect the central tenet that “The only adequate training for occupations is training through occupations” (Dewey, 1916, p. 362).

Given these delineated principles, Billett (2011) endorsed:

…Educational concerns include finding ways of assisting individuals in identifying the occupation to which they are suited, the initial development of capacities required or that occupation, and then, the refinement of those capacities and their ongoing development throughout working lives and in ways to sustain employability. (p. 5)
Additionally, Billett (2011) ascertained that these principles of vocational education are consistent across differing institutional arrangements (e.g. high school, college, training centers), as well as nations of the world (p. 5).

**Components of Understanding Vocational Curricula**

As a supplement to the defining principles of vocational education, Billett (2011) identified three critical components in understanding vocational curricula: (a) intended, (b) enacted, and (c) experienced curricula (p. 191). Like the provision of vocational education, curricular mechanisms vary from program to program. Billett (2011) ascertained that vocational curricula can be broken down into three dimensions, including: (a) what is planned/intended by program developers (*intended curriculum*), (b) what happens when the curriculum is implemented (*enacted curriculum*) and (c) what learners experience as a result of its implementation (*experienced curriculum*, p. 190-191). According to Billett (2011), “Together, these three components of curriculum offer a basis for understanding and illuminating what constitutes a comprehensive account of curriculum for vocational education” (p. 191). He further specified that necessary information regarding the *intended curriculum* can be garnered from syllabi and teachers plans for learning goals/outcomes, while specifics about *enacted curriculum* come from teacher or trainer personal accounts, and the *experienced curriculum* is the result of learner perspectives.

**Appropriateness of Billett (2011) Vocational Education Theory**

In conclusion, Billett’s (2011) theory of vocational education was determined to be the most appropriate theoretical framework for this study because it provides clear principles to use when investigating the real-life practices and procedures of vocational programming across educational institutions. Since the goal of this research was to qualitatively study the processes of
a vocational program that serves students with disabilities, Billett’s (2011) defining principles and curricular components provided a solid foundation upon which to build a methodology to achieve this aim. Additionally, Billett’s (2011) principles of vocational education and three components of vocational curricula were used to shape the research questions, thereby creating theoretical alignment between the problem of practice, theoretical framework, and questions posed.

**Definition of Terms**

A final aspect of presenting this research is the definition of key terms, which permeate the subsequent discussion. For one, *students with disabilities* will be defined as students who have been diagnosed with one or more disabilities by certified educational, psychological or medical professionals. These students receive either special education services through an Individualized Education Program (IEP) or accommodations through a 504 accommodation plan. Secondly, a *vocational training program* will be defined as a school-based program designed to provide students with career exploration, instruction in employment-related skills and behaviors, and work experience (Joshi et al, 2012). Next, *postsecondary employment* is defined as work within the natural community, which follows high school education (Hendricks, 2010). According to the Individuals with Disabilities Education Improvement Act (2004), public education systems are charged with preparing all individuals, regardless of ability level, for employment. As stated by Hendricks (2010): “This law clearly outlines post-school employment as the measure of accountability for individuals with disabilities” (p. 126).

**Conclusion**

Taken together, given the continuously poor employment outcomes of students with disabilities who are graduating from high school, there is a critical need to further investigate
interventions used by school districts to address this issue. Quantitative research has determined vocational training programs are predictive of improved postsecondary employment outcomes for student with disabilities (Benz et al., 2000; Daviso et al., 2016; Lindstrom et al., 2011; Shandra & Hogan, 2008; Test et al., 2009; Wagner et al., 2016). However, there is a lack of qualitative research on the subject and an ensuing deficient circulation of vocational training practices by functioning secondary programs serving students with disabilities. Therefore, the purpose of this descriptive case study was to describe the processes used by a high school program to provide vocational training and preparation to a vulnerable population of students. Using Billett’s (2011) theory of vocational education as a theoretical framework, this qualitative study aimed to answer research questions that offer descriptions of educational practices and curricula used by a functioning vocational program to prepare students for successful postsecondary employment. Billett’s (2011) theory provided the defining principles and curricular components of vocational education necessary to create focused questions and obtain specific descriptions of real-life vocational training practices, thereby addressing the problem of practice.

In the following chapter, a literature review will situate the identified problem within the existing research context. For instance, federal legislation regarding transition planning for students with disabilities will provide foundational knowledge about the responsibilities school districts have to prepare these students for postsecondary employment. Then, existing research related to employment outcomes and associated school-based interventions will be presented. Ultimately, the literature review will highlight quantitative research conducted on the effectiveness of vocational training programs, as well as the identified need for qualitative descriptions and circulation of practices from these functioning programs.
Chapter Two: Literature Review

The subsequent literature review will juxtapose what is already known about the problem of practice within existing literature and then formulate an argument about which additional investigations are needed. More specifically, the existing literature will be reviewed in four distinct categories: (a) postsecondary transition planning requirements for students with disabilities, (b) postsecondary employment outcomes for students with disabilities, (c) high school interventions for improving the postsecondary employment transition for students with disabilities, and (d) impact of vocational training on the postsecondary employment outcomes of students with disabilities. Using this framework, the literature review will define federal transition planning requirements for students with disabilities, articulate the historic employment struggles for these young adults, identify empirically-supported interventions used by high schools, and consider quantitative links between secondary vocational training programs and improved employment outcomes for students with disabilities. Next, using what is known from the categories of literature review, the summation section will present an argument for additional research, as well as a thesis statement and analysis.

Before delving into the available literature, it is important to identify the key search terms used to arrive at the general categories and specific research articles. First, the terms “students with disabilities” or “young adults with disabilities” were utilized to identify the primary subjects of the investigation. Secondly, these terms were coupled to keywords such as “transition planning,” “vocational training/program,” “career and technical education,” and “high school.” The final search criteria used alongside the search terms was “postsecondary employment/outcome.” It is noted that these search terms were utilized in combination to capture the central concepts of the problem of practice. When inputted into research databases such as
Scholar One Search, EBSCOhost Search, JSTOR, ProQuest, and Science Direct, searches yielded a multitude of pertinent peer-reviewed articles related to the problem of practice. These articles were then organized into the four categories identified above, which will be explored in detail within the background section to follow.

**Transition Planning Requirements for Students with Disabilities**

To begin, a discussion of research related to the preparation of students with disabilities for postsecondary employment must first consider federal requirements for transition planning. This section will initially present the federal legislation that underlies transition planning requirements for all students with disabilities. Then, research related to transition practices will be examined.

**Federal Legislation**

Research on the postsecondary transition of students with disabilities originated from federal mandates associated with the Individual with Disabilities Act (IDEA) of 1990. According to this act, all students with disabilities, beginning at age 16, were required to have a written Individual Transition Plan (ITP), which outlined a set of activities designed to prepare these students for postsecondary life and drive the educational programming for individual students (IDEA’90, PL 101-476). The IDEA 1990 mandate was the outcome of research in the 1980s, which indicated that young adults with disabilities were experiencing high dropout rates from high school, as well as higher rates of unemployment and lower rates of acceptance into postsecondary education, when compared with their nondisabled peers (Baer et al., 2003; Chadsey-Rusch, Rusch, & O’Reilly, 1991; Haring, Lovett, & Smith, 1990; Roessler, Brolin, & Johnson, 1990; Wehman, Kregel, & Barcus, 1985). Therefore, “Not surprisingly, transition from
school to adult life for youth with disabilities has been an emphasis in the field of special education for several decades” (Harvey, 2002, p. 99).

IDEA was reauthorized in 1997 and 2004, at which time further emphasis was placed on transition planning for individual students by mandating it involve consideration of the postsecondary areas of employment, education, community access, and independent living (Schmalzreid, 2010). The 2004 reauthorization of the Individuals with Disabilities Education Act (IDEIA 2004) required that public schools conduct transition planning for all students with disabilities receiving special education services, beginning at age 14 [20 U.S.C. § 1400]. Through this planning process, transition service needs are established and the supports that students will require to achieve their transition goals are delineated [20 U.S.C. § 1400]. The most current version of the Individuals with Disabilities Education Improvement Act (IDEIA, 2004) defines transition planning as:

A coordinated set of activities for a child with a disability that is designed to be within a results-oriented process, that is focused on improving the academic and functional achievement of the child with a disability to facilitate the child’s movement from school to post school activities, including postsecondary education, vocational education, integrated employment, continuing and adult education, adult services, independent living or community participation. [(34 CFR 300.43(a)]

In addition to the reauthorizations of IDEA, another federal statute with a more recent impact on students with disabilities is the Workforce Innovation Opportunity Act (WIOA). This law was signed by President Obama in July 2014 and officially took effect on July 1, 2015. According to the United States Department of Labor (n.d.): “WIOA is designed to help job seekers access employment, education, training, and support services to succeed in the labor
market and to match employers with the skilled workers they need to compete in the global economy” (p. 1). As a partnership between the Department of Labor and Department of Education, the WIOA is not specifically dedicated to individuals with disabilities, but does involve increased efforts to provide state vocational rehabilitation and adult education services to improve employment outcomes for this population (U.S. Department of Labor, n.d.). According to the research of Stevenson and Fowler (2016), which is some of the first in relation to WIOA, the act “placed limitations on subminimum wage employment and focuses on a goal of competitive integrated employment [for individuals with disabilities]” (p. 57).

**Transition Planning Practices**

Transition planning is completed through the collaborative work of public school personnel, including a transition coordinator, the student, and his or her parents (Edeiken-Cooperman, 2011). Depending on the nature and severity of a student’s disability, transition planning may also involve representatives from agencies that provide postsecondary assistance to students with disabilities, such as vocational rehabilitation services, mental health agencies, and independent living centers (Grigal, Hart, & Migliore, 2011; Schutz, 2002). Grigal and colleagues (2011) emphasized that high-quality transition services involve: (a) maintaining high expectations for students, (b) creating student-directed goals related to postsecondary education or employment, and (c) collaboration between community agencies and organizations that can assist in achieving the student goals (p. 5).

Likewise, Schall, Cortijo-Doval, Targett, and Wehman (2006) recommended that high schools must provide “…the full array of transition services including community-based job exploration and training; community-based life skills instruction; instruction in personal management, hygiene and leisure/recreation skills; and instruction in functional academic skills”
Additionally, according to the work of Stuart and Smith (2002), two important aspects of transition planning for students with disabilities are a “coordinated set of activities (e.g. real work experience) and development of employment objectives” (p. 234). These authors also ascertain that employment training for students with disabilities must include work experience and instruction of work-related behaviors, as well as educational programming that provides students with vocational skills. In the same vein, Brooke, Revell, and Wehman (2009) endorsed that staff working with transition-age youth must “be as efficient and effective as possible in maximizing opportunities for employment-related supports and services” (p. 65).

Postsecondary Employment Outcomes for Students with Disabilities

Despite updates to federal mandates and research efforts made toward transition planning, the postsecondary employment outcomes for students with disabilities remain poor. In order to highlight these outcomes, the ensuing section will first present National Longitudinal Transition Studies (NLTS) that quantify employment results for students with disabilities following high school. Next, empirical research will be discussed to identify factors influencing these postsecondary employment outcomes.

Quantified Outcomes

For the past two decades, research has consistently cited the poor employment outcomes of students with disabilities, following their graduation from high school. One central source of figures and statistics related to this topic are the National Longitudinal Transition Studies (NLTS). These studies were funded by the United States Department of Education and provided important information about the transition outcomes of students with disabilities after high school. The first NLTS, which collected data over seven years, focused on students that received special education services in 1985 and their transition to postsecondary life. The NLTS-2 had a
similar focus, but lasted ten years and investigated students that received special education services in 2000. The students ranged in age from 13 to 15 at the start of data collection and 21 to 25 by the end of data collection, for both studies (Harvey, 2002; Joshi et al., 2012). Multiple data sources were utilized to collect information about these students’ transition from high school, including parent phone interviews, student phone interviews, and mailed survey materials (Newman et al., 2010). The NLTS and NLTS-2 have been used extensively to further study the postsecondary transition outcomes and predictive factors for students with disabilities (Blackorby, Hancock, & Siegel, 1993; Cameto, Marder, Wagner, & Cardoso, 2003; Fabian, 2007; Grigal et al., 2011; Heal & Rusch, 1995; Joshi et al., 2012; Newman et al., 2010; Wagner, 1991; Wagner & Blackorby, 1996, Wagner et al., 2016).

Comparing the results of the NLTS and NLTS-2, similar employment outcomes were reported for students with disabilities. Namely, a report commissioned by the Department of Education stated: “Youth with disabilities as a whole did not vary significantly between 1990 and 2005 in their reported employment status (62 percent and 56 percent, respectively), job duration (15 months and 13 months), and hours employed per week (38 hours and 35 hours)” (Newman et al., 2010, p. xv). Additionally, the types of jobs held did not differ significantly between the NLTS and NLTS-2. For instance, the largest percentage of students in both studies held jobs within the food industry (19% in 1990, 20% in 2005) and construction trade skilled labor, such as plumbers, electricians, or carpenters (16% in 1990, 13% in 2005; Newman et al., 2010). Other jobs categories included cashier, auto services, clerical/computer/financial service, stocking/shipping receiving, childcare, gardening/grounds maintenance, retail sales, cleaning/janitorial service, or assembly work (Newman et al., 2010, p. 45).
Besides research comparing the NLTS and NLTS-2, other empirical studies have also documented the poor postsecondary employment outcomes for students with disabilities. According to a report published by the President’s Commission on Excellence in Special Education in 2002, as referenced by Schmitz (2008), the “unemployment rate for working-age adults with disabilities is approximately only 70%, while it is only 22% for non-disabled adults” (p. 37). More recently, Newman, et al. (2010) determined that only 56% of out-of-high school youth with disabilities, who had graduated one to four years prior, were employed in 2005. A similar report given years later by Houtenville (2013) indicated that only 33% of working-age adults with disabilities were employed in 2012, when compared with non-disabled adults. Most currently, as of December 2018, the U.S. Office of Disability Employment Policy website reported that labor force participation involved only 20.7% of people with disabilities, but 68.4% of people without disabilities. Unfortunately, this statistic indicates that little progress has been made in improving the postsecondary employment outcomes of students with disabilities when compared with the results from the 2002 President’s Commission on Excellence in Special Education.

**Assessed Factors Impacting Employment Outcomes**

As a supplement to quantification of the postsecondary employment outcomes for students with disabilities, empirical research has identified factors, outside of having diagnosed disabilities, which impact the employment outcomes for this population. For one, as stated by Harvey (2002), “achieving successful post-school employment outcomes for persons with disabilities has been complicated by a changing economic context” (p. 100). In other words, globalization and technology have increased the complexity of skills needed for competitive employment within the United States economy (Harvey, 2002). Secondly, other researchers have
cited the loss of income assistance through the Social Security Administration (SSA) as another barrier to the employment of individuals with disabilities (Burkhauser & Stapleton, 2004; Wehman, Brooke, & West, 2006). Specifically, if individuals with disabilities secure competitive employment, they risk losing financial support through the SSA programs of Supplemental Security Income (SSI) and Social Security Disability Income (SSDI), which can sometimes interfere with motivation to gain employment. Next, Peck and Kirkbride (2001) identified employers’ reluctance to hire individuals with disabilities as an additional impeding factor. For instance, these authors highlighted employer concerns such as: (a) cost of accommodations needed by individuals with disabilities, (b) the need for additional supervision, and (c) not being able to terminate employment if the job is not a good fit (p. 71-73). Lastly, on a more pragmatic level and closely related to the current discussion, scholars have cited the deleterious impact of a lack of available school-based programs focused on vocational training for youth with disabilities (Fabian, 2007; Kenny & Bledsoe, 2005).

**Interventions Supporting the Transition to Employment for Students with Disabilities**

Taking into account the longstanding poor employment outcomes for students with disabilities, as well as the documented factors impacting this trend, there is a critical need to investigate interventions used by high schools to support postsecondary employment for this population of students. Therefore, this segment of the literature review will present research related to the following interventions utilized by high schools to address this problem: (a) connecting with vocational rehabilitation and community agencies and (b) providing school-based programming and resources.
Establishing Connections with Vocational Rehabilitation and Community Agencies

One set of interventions utilized by high schools is connecting students with disabilities to state vocational rehabilitation services or other community agencies, in order to support their transition to employment. According to Wehman et al. (2006), early state Vocational Rehabilitation (VR) programming was federally mandated by the Rehabilitation Act Amendments of 1998. More recently, as cited by Stevenson and Fowler (2016) and the U.S. Department of Labor, vocational rehabilitation services are currently supported through the Workforce Innovation and Opportunity Act, which was reauthorized in 2014. Though vocational rehabilitation services are available across all 50 states, the eligibility requirements vary depending on the state (Wehman et al., 2006). Despite this disparity, a consistent practice across states is that special education teams engaging in transition planning for students with disabilities connect them to vocational rehabilitation services (Benz et al., 1997; Landmark, Ju, & Zhang, 2010; Rabren et al., 2002).

The educational practice of linking student with disabilities to vocational rehabilitation or other community-based resources is empirically supported. Specifically, Morningstar, Kleinhammer-Tramill and Lattin (1999) conducted a review of recommended transition practices and endorsed the importance of interagency collaboration between the high school and vocational rehabilitation, other state services (e.g. mental health, developmental services), and community resources in order to improve the postsecondary outcomes for students with disabilities. Likewise, Benz and colleagues (1997) determined that a continuation of employment support one year after high school, either through vocational rehabilitation or community services, helped young adults with disabilities find competitive employment. Additionally, Bullis, Davis, Bull and Johnson (1995) found that the more community-based agencies involved
in a student’s transition from high school, the more likely the students with disabilities were to employed or attending postsecondary education. More recently, Noonan, Morningstar and Erickson (2008) conducted qualitative research to identify effective strategies used by high schools to link students with disabilities to outside state and community agencies. These authors concluded that enhanced collaboration between the school and these agencies was the result of practices such as: (a) training for students and families regarding agency service offerings related to postsecondary employment or education, (b) coordinated meetings between the student, family, and selected agencies while the student is still in high school, and (c) the high school’s establishment and maintenance of strong relationships with state or community agencies (p. 138-140).

Taken together, while there is empirical support of practices that forge connections between students with disabilities and vocational rehabilitation/community agencies, there is an equally substantive body of research endorsing the impact of programming and resources within a high school as a set of predictive interventions for improved postsecondary employment outcomes. The next section will present and juxtapose the research related to interventions housed within high schools.

**Programming and Resources within High Schools**

The second set of interventions aimed at improving students’ employment outcomes exist within the context of high schools and range more general career development activities to specific training programs. First, with regard to career development activities, Carter, Trainor, Cakiroglu, Swedeen and Owens (2010) examined the high school practices available to students with disabilities. Questionnaires were distributed to high school administrators from selected high schools around the United States, which were purposefully sampled in order to provide
diversity in geography, cultural composition, and socio-economic status (Carter et al., 2010). Analysis of the questionnaires provided information about the career development and vocational experiences available to students with disabilities at the high schools sampled. Results indicated that the highest percentages of students with disabilities participated in the following activities: (a) career or job counseling, (b) career interest assessments, (c) written career plans, (d) tours of local businesses/industries, (e) interviewing or resume-writing practice, (f) job fairs or career days, (g) job placement services, and (h) career exploration courses (Carter et al., 2010, p. 18). On the other hand, results also reflected that the following career development activities were accessed by a markedly lower percentage of students with disabilities: (a) job shadowing, (b) school-based work, (c) cooperative education programs, (d) technical training programs, and (e) mentorship/apprenticeship programs (Carter et al., 2010, p. 18). It is noted Carter et al.’s (2010) findings indicate that the interventions more predominantly accessed by high school students with disabilities focus on exposure to employment options, rather than training preparation. Consequently, as evidenced in the upcoming presentation of empirically supported school-based interventions, those that involve employment training have been determined to be most effective (Landmark et al., 2010; Test et al., 2009).

Landmark et al. (2010) and Test et al. (2009) conducted the most recent meta-analyses of effective school-based interventions for improving the postsecondary outcomes of students with disabilities. Both studies reviewed the body of empirical research literature related to evidence-based transition practices used by schools. Landmark and colleagues (2010) did not specify a qualitative or quantitative research preference to guide their analyses, but Test and colleagues (2009) focused exclusively on correlational research on the topic. In the end, both studies reviewed over 20 empirical research articles each. More specifically, Landmark et al. (2010)
presented their results as a spectrum of school-based transition practices, ranging from most-substantiated to least-substantiated. Substantiation was determined based on the number of articles that provided empirical evidence supporting a particular practice or program (Landmark et al., 2010). These authors specified the following range of transition practices, which are presented here from most substantiated to least: (a) paid or unpaid work experience, (b) employment preparation program participation, (c) general education inclusion, (d) family involvement, (e) social skills training, (f) daily living skills training, (g) self-determination training, and (h) community or agency collaboration (p. 167-171). It is noted that Landmark et al. (2010) defined an “employment preparation program” as a combination of “vocational training” and “employment training,” (p. 170), which had been previously separated as two distinct categories in earlier research on the topic by Kohler (1993).

Similarly, Test et al. (2009) hierarchically organized evidence-based transition practices from the articles reviewed. Unlike Landmark and colleagues, these authors calculated effect sizes for the various school-based interventions and their researched impact on postsecondary outcomes for students with disabilities. This approach allowed for systematic comparisons between the interventions, or predictor variables. Test et al. (2009) identified a total of 16 predictor variables, including career awareness, community experiences, exit exam requirements, inclusion in general education, interagency collaboration, occupational courses, paid employment/work experience, parental involvement, program of study, self-advocacy/self-determination, self-care/independent living, social skills, student support, transition program, vocational education, and work study (p. 170-177). Results indicated that of the 16 variables, four interventions were found to have moderate level of prediction for improved postsecondary employment outcomes for students with disabilities (Test et al., 2009). These predictive school-
based transition practices and programs include: (a) inclusion in general education, (b) paid employment/work experience, (c) vocational education, and (d) work study (Test et al., 2009, p. 178).

The results of systematic meta-analyses conducted by Landmark et al. (2010) and Test et al. (2009) indicate that employment preparation programs and vocational education/training are empirically supported as one of the most effective interventions used by high schools to improve postsecondary employment outcomes for students with disabilities. Despite this evidence, research by Carter et al. (2010) indicated that more high school students with disabilities participate in programs that provide exposure to employment options, rather than employment training. It is further noted that although research has investigated and supported interagency collaboration between the high school and outside state or community agencies, Landmark et al. (2010) and Test et al. (2009) determined that school-based programming, such as vocational training, is more predictive of the postsecondary employment of students with disabilities.

Vocational Training and Postsecondary Employment of Students with Disabilities

Considering the review of literature related to the scope and effectiveness of interventions aimed at improving the postsecondary employment outcomes for students with disabilities, it is clear that vocational training and programming is one of the most successful. This conclusion is reflected in a statement by Shandra and Hogan (2008): “Participation in school-based [transition] program appears to be best for increasing the likelihood that students with disabilities will be stably employed and working full-time” (p. 127). As such, this final section of the literature review focuses on the existing quantitative research studies related to the topic and also identifies a lack of qualitative research and deficient circulation of vocational training practices.

Existing Quantitative Research Findings
As discussed above, the systematic literature reviews conducted by Landmark et al. (2010) and Test et al. (2009) endorsed that vocational training/programming is one of the most predictive high school interventions influencing the postsecondary employment outcomes of students with disabilities. These results are corroborated by the previously-discussed recommendations of Stuart and Smith (2002), who ascertained that two important aspects of transition planning for students with disabilities are a “coordinated set of activities (e.g. real work experience) and development of employment objectives” (p. 234). These authors also emphasized that employment training for students with disabilities must include work experience and instruction of work-related behaviors, as well as educational programming that provides students with vocational skills. The employment, or vocational, training described by Stuart and Smith (2002), Landmark et al. (2010) and Test et al. (2009) has also been endorsed by several empirical research studies (Baer et al., 2003; Benz et al., 2000; Benz, Yovanoff, & Doren, 1997; Harvey, 2002; Phelps & Hanley-Maxwell, 1997). An overarching conclusion of the empirical research and meta-analyses conducted is that there is a positive relationship between vocational training programs and post-school employment outcomes for students with disabilities (Baer et al., 2003; Benz et al., 2000; Dougherty et al., 2018; Harvey, 2002; Landmark et al., 2010; Shandra & Hogan, 2008; Southward & Kyzar, 2017; Test et al., 2009; Wagner, 1991; Wagner, D’Amico, Marder, Newman, & Blackorby, 1992). The following discussion will present research findings from more than two decades, which support this conclusion.

In the early 1990s, the National Assessment of Vocational Education (NAVE) reported an increase in the enrollment of students with disabilities in vocational education programs and ensuing improvement in their postsecondary outcomes (NAVE, 1994a, 1994b). More specifically, empirical research by Wagner (1991) quantitatively analyzed data from the first
National Longitudinal Transition Study (NLTS) for a sample of over 8,000 students across the United States. Findings indicated that students “enrolled in occupationally oriented vocational education” (p. 1) were significantly less likely to drop out and more likely to obtain paid postsecondary employment, compared to students with disabilities who did not participate in this programming. In another investigation of NLTS data, Wagner and Blackorby (1997) similarly endorsed the predictive power of vocational education for employment after high school. These authors described: “…there were strong positive contributions of both survey and concentrated vocational training to the probability of competitive employment” (p. 114). As evidenced in this statement, Wagner and Blackorby (1997) distinguished between survey, or introductory vocational courses, and concentration courses, which involve a track of four or more vocational courses. Comparing these two possibilities, Wagner and Blackorby (1997) reported that students who took a concentration of vocational courses experienced more postsecondary employment gains over time than those who only took survey vocational courses.

At the turn of the century, quantitative research by Benz et al. (2000) determined that the post-school outcomes of students with disabilities in Oregon were improved by vocational education, instruction in functional academic and transition skills, as well as paid work experiences during high school. Similarly, a quantitative investigation conducted in Ohio by Baer et al. (2003) found that the variables of vocational education, participation in work-study opportunities, enrollment in a rural school, and diagnosis of a learning disabilities had the strongest positive correlations with the full-time employment of students with disabilities after high school. Moreover, in the second National Assessment of Vocational Education (NAVE), Silverberg, Warner, Fong, and Goodwin (2004) concluded that vocational education was correlated with improved employment earnings for students, both one and seven years after high
school graduation (p. 4). These authors also concluded that the described earning benefits associated with vocational education extend to economically disadvantaged students and those with disabilities.

More recently, empirical research within the past ten years has also been dedicated to investigating vocational training programs and the postsecondary transition of students with disabilities (Daviso et al., 2016; Dougherty et al., 2018; Fabian, 2007; Flannery, Yovanoff, Benz, & McGrath-Kato, 2008; Gold et al., 2013; Haber & Sutherland, 2008; Lindstrom et al., 2011; Shandra & Hogan, 2008; Wagner et al., 2016; Wehman et al., 2014). First, quantitative research by Fabian (2007) investigated the postsecondary employment outcomes of urban minority students with disabilities, who participated in the Marriott Foundation’s “Bridges from School to Work Program.” The Bridges Program is a vocational training intervention for urban youth with disabilities that began in 1990 (Fabian, 2007). It aims to transition students to competitive postsecondary employment using the following three phases over the course of one high school semester: (a) career counseling and job placement, (b) paid, supported work experience, and (c) follow-up support (Fabian, 2007, p. 131). The findings of Fabian’s (2007) analyses indicated that the vocational training provided by the Bridges Program was highly predictive of postsecondary employment outcomes for urban youth with disabilities. Similar positive findings were reported by the quantitative research of Gold and colleagues (2013), which also investigated the impact of the Bridges Program. These authors indicated: “We found universally high job placement rates of a large sample of youth with disabilities enrolled in high school over several recent years of operation (2006 to 2011) across their socio-economic and disability characteristics, and across diverse urban areas” (Gold et al., 2013, p. 31).
Secondly, like Fabian (2007) and Gold et al. (2013), Wehman et al. (2014) conducted quantitative research on a specific high school vocational training program and its impact on the employment outcomes for students with autism and intellectual disabilities. In this case, the program is called Project SEARCH, a national transition program developed by Cincinnati Children’s Hospital. Project SEARCH aims to connect students with autism and intellectual disabilities to competitive employment using a 9-month internship program during students’ final year of high school (Wehman et al., 2014). Using a randomized clinical trial methodology, Wehman and colleagues (2014) compared the employment outcomes of high school students with autism who participated in a variation of Project SEARCH with the outcomes of students who participated in their school’s typical transition programming. The results indicated that 87.5% of students with autism who participated in systematic vocational training through the Project Search intervention obtained employment, while only 6.25% of students in the control group acquired employment (Wehman et al., 2014, p. 487).

Third, the research of Shandra and Hogan (2008) investigated general school-to-work programming utilized by high schools, rather than a specific intervention, such as those discussed above. These authors conducted quantitative analyses on the National Longitudinal Survey of Youth in 1997 (NLSY97), which is another survey funded by the United States Department of Labor to document the transition from school to work for nearly 9,000 students. Using this data source, Shandra and Hogan (2008) determined the efficacy of secondary school-to-work programs for over 2,000 students with disabilities by calculating dependent measures of stable employment, financial compensation, and receipt of fringe benefits, such as insurance offered by the employer and paid sick time. Overall, results indicated that high school-to-work programs, such as vocational training, had a significant, positive correlation with stable
employment and full-time work for students with disabilities after graduation (Shandra & Hogan, 2008, p. 117). More specifically, Shandra and Hogan (2008) determined that work-based programs, such as job shadowing, mentoring, or internship opportunities, were positively associated with increased benefits for employed individuals with disabilities, such as the provision of paid sick time or health insurance paid by employers.

During the last few years, three selected quantitative studies also documented the benefits of career and technical education (CTE) programs for students with disabilities and their postsecondary employment outcomes. Wagner et al. (2016) utilized quasi-experimental analyses to investigate the link between career and technical education coursework during high school and employment postsecondary outcomes for a national sample of students with learning disabilities. These researchers found that four or more credits in occupational specific CTE courses during high school were significantly predictive of students with learning disabilities achieving full-time employment up to two years after graduation. Additionally, Wagner et al. (2016) highlighted the importance of students with disabilities taking occupational specific courses within a vocational training program, as opposed to courses that provide general career exposure. Specifically, they endorsed: “Our findings suggest that concentrating CTE course taking in an occupationally specific area can be an effective part of a high school program that can help students with LD [learning disabilities] be career ready leaving high school” (p. 665).

Likewise, Daviso et al. (2016) studied the impact of CTE programs on the postsecondary employment outcomes for students with disabilities. While Wagner et al. (2016) focused solely on students diagnosed with learning disabilities, Daviso et al. (2016) broadened their scope to consider students with intellectual, health, emotional, learning, and multiple disabilities. These authors utilized three predictors of post-school employment outcomes identified by the National
Security Transition Technical Assistance Center (NSTTAC, 2013), which are: (a) vocational (career and technical) education, (b) work study, and (c) school-supervised community work while in high school (Daviso et al., 2016, p. 10). Daviso et al. (2016) conducted a secondary quantitative analysis on transition data collected from nearly 5,000 students with the aforementioned diagnosed disabilities residing in the midwestern United States. These researchers found a significant positive correlation between vocational (career and technical) training and competitive postsecondary employment outcomes for students with health impairments and learning disabilities. In addition, they found a positive correlation between school-supervised work in the community and competitive employment outcomes following graduation, but only for students with multiple disabilities.

Lastly and most recently, Dougherty et al. (2018) completed longitudinal causal research on the relationship between the participation of students with disabilities in Massachusetts’ Career and Technical Education (CTE) programs and their educational outcomes. Using quantitative analysis on data from the Massachusetts Student Information Management System (SIMS), these authors determined that students with disabilities who participated in secondary CTE programs had higher probabilities of graduating high school on-time or earning industry-recognized certificates than their peers with similar disabilities who did not participate in CTE programs (p. 108). Although Dougherty et al. (2018) did not investigate postsecondary employment outcomes specifically, they did determine that students with disabilities who participated in CTE programming had higher probabilities of earning industry-recognized certificates, which would offer competitive employment opportunities in the community.

Overall, a review of quantitative research related to secondary vocational training programs and the postsecondary employment of students with disabilities yields the following
conclusions: (a) there is an abundance of quantitative investigations related to this topic and (b) vocational training programs in high school are highly predictive of improved employment outcomes for students with disabilities after graduation.

**Lack of Qualitative Research**

Despite the quantitative findings that link high school vocational training programs to improved postsecondary employment outcomes for students with disabilities, little qualitative research exists regarding how these programs support students with disabilities in achieving employment after high school. As such, there is a deficient circulation of processes and practices used by a real-life vocational programs to prepare students with disabilities for postsecondary employment.

Lindstrom et al. (2011) conducted one of the only qualitative studies located on the subject of vocational training for students with disabilities. These authors conducted case studies with eight young adults who had graduated high school seven to ten years prior. The aim of this qualitative research was to examine the participants’ postsecondary employment outcomes and understand the high school processes that influenced these outcomes (Lindstrom et al., 2011). The results of interviews and an examination of secondary sources (e.g. record review, background questionnaire, job history form) revealed that according to the young adults, key factors related to employment after graduation included: (a) participation in work experience, (b) high school transition services, and (c) family support (Lindstrom et al., 2011, p. 423). Though this qualitative research provides an important perspective from young adults with disabilities and their transition to postsecondary employment, it does not provide pragmatic information about the delivery of the vocational transition services received by these individuals.
Considering the lacking circulation of educational practices on the topic, there is a striking a need to conduct qualitative research regarding the implementation of vocational training programs by individual high schools. The criticality of addressing this deficiency is consistent with the findings of Baer et al. (2003), which endorsed that future research on the post-secondary transition of students with disabilities should involve investigations conducted within an actual school setting in order for best practices to be considered by educational practitioners. Similarly, Shandra and Hogan (2008) emphasized that their quantitative research “could be well supplemented in future survey or case study research which can account for program-specific implementation” (p. 128). Further, Daviso et al. (2016) recommended: “To ensure that transition-to-work programs are available to all students with disabilities who will benefit, researchers need to examine how these programs work” (p. 10). Most recently, Dougherty et al. (2018) endorsed “future research should also attempt to elucidate the specific pedagogical practices employed in these [Career and Technical Education] schools to evaluate how and why they are supportive of the education of students with disabilities” (p. 117).

**Summation: Projecting Forward from What is Already Known**

**Thesis Statement**

Based on the existing research literature, there is adequate knowledge regarding transition planning for students with disabilities, their poor employment outcomes, attempted secondary interventions, and the predictive power of vocational training programs for improved postsecondary employment employment outcomes. Despite these findings, the literature indicates a deficient circulation of vocational training practices by functioning secondary programs serving students with disabilities.
Thesis Analysis

An analysis of the background literature leads to three primary conclusions about the current state of knowledge. For one, research overwhelmingly indicated the profound difficulties that young adults with disabilities experience in securing and maintaining postsecondary employment, despite federal legislation and empirical research related to transition planning (Gold et al., 2013; Fabian, 2007; Houtenville, 2013; Joshi et al., 2012; Kang et al., 2018; Newman et al., 2010; U.S. Department of Labor, 2015; Schmitz, 2008; Wagner, 1991; Wagner & Blackorby, 1997). Secondly, the existing literature highlighted vocational training as one of the most successful evidence-based interventions used by high schools to support students with disabilities in their transition to employment (Baer et al., 2003; Benz et al., 2000; Fabian, 2007; Gold et al., 2013; Landmark et al., 2010; Shandra & Hogan, 2008; Test et al., 2009; Wagner, 1991; Wagner et al., 1992). Third, the literature review revealed there is a multitude of quantitative research regarding the significant and positive relationship between vocational training programs and increased postsecondary employment outcomes for students with disabilities (Daviso et al., 2016; Fabian, 2007; Flannery et al., 2008; Haber & Sutherland, 2008; Harvey, 2002; Shandra & Hogan, 2008; Silverberg et al., 2004; Wagner et al., 2016; Wehman et al., 2014).

However, a problem of practice lies in the deficient circulation of qualitative description of vocational training practices used by functioning secondary programs serving students with disabilities. The existing literature documents a need to provide descriptive, pragmatic information regarding the practices of real-life vocational training programs (Baer et al., 2003; Dougherty et al., 2018; Hendricks, 2010; Shandra & Hogan, 2008). Therefore, a descriptive case study of a high school vocational program was conducted. Information collected will
undoubtedly assist: (a) school district administrators evaluating school programs and transition resources, (b) students, their parents and special education teams planning for postsecondary transitions, and (c) other scholar-practitioners by beginning to catalog vocational training practices.
Chapter Three: Research Design

This chapter will address the methodological underpinnings of the study conducted. It begins by reiterating the purpose, as well as research questions posed. Next, the overarching research design and specific methodology will be presented and justified. The remainder of the chapter will address discrete aspects of the research processes, including: (a) research site and participants, as well as the recruitment/access (b) data collection procedures, (c) data storage, (d) data analysis, and (e) steps taken to preserve trustworthiness.

Purpose of Study and Research Questions

As demonstrated by the literature review, historically poor postsecondary employment outcomes for students with disabilities continue today and there is a striking need to investigate interventions used by schools to address this issue. Quantitative research has determined vocational training programs are predictive of improved postsecondary employment outcomes for student with disabilities (Benz et al., 2000; Daviso et al., 2016; Lindstrom et al., 2011; Shandra & Hogan, 2008; Test et al., 2009; Wagner et al., 2016). However, there is a lack of qualitative research on the subject and an ensuing deficient circulation of vocational training practices by functioning secondary programs serving students with disabilities. Therefore, the purpose of this descriptive case study was to describe the processes used by a high school program to provide vocational training and preparation to a vulnerable population of students.

Based on the identified problem of educational practice, the following research question was posed: How do educational practices and curriculum in a high school vocational program prepare students with disabilities for successful postsecondary employment? The associated sub-questions are as follows: (a) How does the vocational program utilize goal setting, instruction, development of occupational skills, and work experience to prepare students with disabilities for
employment after high school? (b) How do the intended, enacted, and experienced components of program curricula relate to preparing students with disabilities for postsecondary work?

**Qualitative Research Approach**

Considering the purpose and associated questions, qualitative research was most appropriate to address these distinct aims. For one, the research study centered upon deriving meaning from the verbalized and observed experiences and practice of educators working in a vocational program, which is consistent with a defining characteristic of qualitative research (Creswell, 2013). Secondly, according to Creswell (2013), qualitative research occurs in a natural setting, such as the urban high school selected as the research setting. Moreover, the research questions’ focus on “how” implies a quest for comprehensive understanding of the ways the school’s existing vocational training program influences the preparation of students with disabilities for postsecondary employment. In this way, the research questions align with Creswell’s (2013) assertion: “Qualitative researchers try to develop a complex picture of a problem or issue under study” (p. 47).

**Research Paradigm**

While qualitative in nature, the stated research purpose and questions also adhered to a specific research paradigm. As articulated by the work of Burrell and Morgan (1979) and Ponterotto (2005), a research paradigm is a collection of philosophical assumptions that forms an organizing structure through which social phenomena may be understood. For this study, Ponterotto’s (2005) constructivist/interpretivist research paradigm was the most appropriate organizing structure to investigate how a high school vocational training program prepares students with disabilities for postsecondary employment. Namely, the constructivist research paradigm emphasizes the socially constructed realities of individuals in the same way that this
research intended to describe the experiences and perspectives of individual educators (Ponterotto, 2015). Further consistent with Ponterotto’s (2015) presentation of the constructivist paradigm, this research aimed to uncover the “lived experiences” (p. 129) of participants through research questions that generally asked “how” a vocational training program, the preparation of students with disabilities, and implemented curricula look in a real-life context.

In addition to its relation to the research purpose and questions, the constructivist paradigm also impacted the methodological tradition selected, a case study, and the associated role of the researcher, which will be discussed in the section to follow. Just as Ponterotto (2005) asserts the constructivist’s position that research should involve a comprehensive investigation of a socially constructed reality, so too does a case study intend to provide an in-depth description of a particular case, or contextualized reality. By way of interviews, classroom visits, and document reviews, the current case study endeavored to describe a high school vocational training program and the processes utilized to prepare students with disabilities for postsecondary employment. Within this methodology, the role of the researcher was also impacted by the constructivist paradigm. Specifically, constructivist researchers are participatory and there is a dynamic interplay between participant and researcher, such that the study’s findings are co-constructed (Ponterotto, 2005). In this study, knowledge was gained through interactions between researcher and participants during interviews and observations.

Case Study Methodology

The methodological approach selected to investigate the identified problem of practice was case study. Since it was the intention to provide an in-depth description and understanding of one particular vocational program, or case, using different types of data collected within the context of a high school, a case study was the most appropriate qualitative approach. More
specifically, the study was *descriptive* in nature. According to Yin (2014), a descriptive case study is used to describe an intervention or phenomenon and the real-life context in which it occurred. Stake’s (1995) process of case study research was aligned best given its constructivist underpinnings and defined application to the investigation of educational programs. For instance, Stake (1995) ascertained that his approach to case study presents “effective ways of studying educational programs, particularly adaptable to program evaluation” (p. xii). Given the interest in the organizational processes used to provide vocational training and preparation for postsecondary employment to students with disabilities, Stake’s (1995) model for studying educational programs was deemed well suited to achieve these aims.

Generally speaking, a case study is defined as “an empirical inquiry that investigates a contemporary phenomenon (the ‘case’) in depth and within its real-world context” (Yin, 2014, p. 16). Yin (2014) further specified that a case study utilizes multiple data sources and benefits from having an established theoretical framework to guide the data collection and analysis processes. Scholars often credit French sociologist Le Play with the first examples of case studies, as evidenced by his systematic research on families during the late 1800s (Creswell, 2013; Gerring, 2007; Hamel, Dufour, & Fortin, 1993; Mary, 2000). Since the work of Le Play, many approaches to case study research have been developed, which create a scholarly debate regarding the most effective way to conduct this type of empirical investigation. As stated by Stake (1995): “Before you is a palette of methods. There are many, many ways to do case studies” (p. xii). For instance, Merriam (1988) proposed a general framework for conducting case studies within the field of education, while Gerring (2007) focused on increasing the rigor of case studies by strategically combining investigations of multiple cases with an in-depth look
at one case. Stake (1995) emphasized the identification of a unique case as a driving force of the research, while Yin (2009, 2014) specified the methods and techniques related to case study.

Within the different case study approaches presented above, scholars highlight the specific debate between Stake’s (1995) and Yin’s (2014) conceptualizations of case study research and endorse them as two of the most influential models to date (Baxter & Jack, 2008; Boblin, Ireland, Kirkpatrick, & Robertson, 2013; Creswell, 2013; Johansson, 2003). Philosophically speaking, it has been said that Stake’s (1995) approach to case study is more constructivist in nature, while Yin’s (2014) has postpositivist influences (Boblin et al., 2013). For instance, Boblin and colleagues (2013) indicated that the following philosophical assumptions underlie Stake’s (1995) case study: (a) reality is subjective and requires consideration of context, (b) the researcher interacts intimately with the case, (c) there is recognition and utilization of researcher biases, and (d) research methods involve flexible, inductive reasoning (p. 1269). On the other hand, the underlying assumptions associated with Yin’s (2014) approach are: (a) reality is objective, (b) the researcher is purposefully withdrawn from the case, (c) there is an active attempt to control researcher biases, and (d) research methods have elements of deductive reasoning and an interest in cause-and-effect relationships (Boblin et al., 2013, p. 1269).

**Rationale for Theorist Selected**

Upon consideration of the catalogued approaches to case study research, Stake’s (1995) was determined to be the most appropriate for three primary reasons. First, as indicated above, his approach aims to provide a methodological lens through which education can be investigated. Stake (1995) stated that his approach to case study presents “effective ways of studying educational programs, particularly adaptable to program evaluation” (p. xii). Secondly, Stake’s
(1995) form of case study provided the constructivist foundation needed to answer the type of research questions posed. Specifically, his focus on “how things work” (Stake, 2010, p. 11) aligned with the intent of the research questions, which is to understand the processes and procedures of a secondary vocational training program. Finally, Stake’s (1995) processes for data collection and analysis are more flexible than those of Yin (Baxter & Jack, 2008) and thus provided a more appropriate match for investigating the dynamic interplay that occurs within real-life educational programs.

Role of Researcher

In Stake’s (1995) conceptualization of a case study, the researcher is central to the research process and interacts intimately with the case selected. As stated in his most recent book, Stake (2010) described that case studies “call for persons most responsible for interpretations to be in the field making observations and making interpretations iteratively” (p. 55). Moreover, Stake (1995) indicated that a case researcher plays many different roles, such as “teacher, participant observer, interviewer, evaluator, consultant, etc.,” and makes continuous decisions- conscious or unconscious- about how much to involve each role during a study (p. 91). During the current research, this researcher actively interacted with the staff and processes of the vocational training program through observations, interviews, and document reviews, in order to remain consistent with Stake’s descriptions. Moreover, since this researcher is a staff member at the school that houses the vocational training program, she had the necessary interpretive access, without being overly familiar with the program’s functioning.

Reflexivity

In addition to Stake’s (1995, 2010) notion of researcher involvement in a case study, an individual’s reflexivity, or identity in relation to the study, was considered. “A form of meta-
analysis, reflexivity allows researchers to assess how their personal experiences and social position(s) shape their inquiry” (Cox, 2012, p. 132). Reflexivity is a longstanding tradition of qualitative research, which encourages a researcher to self-assess underlying interest in a topic, as well as the skills/experiences that one brings to the qualitative investigation.

First, my work as a high school psychologist fueled a passion for ensuring the successful transitions of students with disabilities into postsecondary life. The nature of providing psychological services also equipped me with skills related to conducting observations, clinical interviewing, and analyzing data. For instance, the process of conceptualizing a student’s learning profile is a complex puzzle that involves the integration of many sources of information, much like qualitative case study. Secondly, as an advocate for students with disabilities, I am acutely aware of the challenges these young adults face in finding work independently without proper vocational exposure and training. This awareness underlies a motivation to determine how to adequately prepare high school students with disabilities for productive, sustainable, and enjoyable postsecondary employment opportunities. Next, as an alumni of a Northeastern University graduate program, I have experienced the benefits of a practice-based educational model. In this model, real-life occupational exposure, alongside learning in the classroom, provides excellent employment preparation. I believe the same to be true for vocational training in high school as a vehicle to prepare students for postsecondary work. Finally, as a developing scholar-practitioner pursuing leadership studies, I am interested in enhancing systems and programs to promote better educational outcomes. Through Northeastern’s EdD program, I have developed competencies related to understanding organizational systems, engaging in leadership that promotes change, and analyzing research to make data-based decisions. In sum, the described skills and experiences further defined my position as a research instrument, as well as
my interest in studying the problem of practice. Just as Creswell (2007) indicated there is an “autobiographical element that drives the research interest,” (p. 28) so too is the proposed case study impacted by this my life experiences, interests, and motivations.

**Discrete Aspects of Methodology**

Now that Stake’s (1995) approach to case study research has been identified, the ensuing section will specifically delineate aspects of the study’s methodology. Namely, this section will discuss the (a) research site and participants, as well as the recruitment and access to both, (b) data collection procedures, (c) data storage, (d) data analysis, and (e) steps taken to preserve trustworthiness.

**Research Site and Participants**

**Research site.** The research site was the Launch Program, a Chapter-74 approved vocational technical education program. It is housed in an urban public high school within the state of Massachusetts. According to data from the 2017-2018 school year published by the Massachusetts Department of Elementary and Secondary Education (DESE), the high school serves 1,965 students, with a 10:1 student to teacher ratio. The student population is 52.1% male and 47.9% female and represents the following race/ethnic categories reported by the DESE: African American or Black (30.2%), Asian (11.5%), Hispanic (13.7%), Multi-race/Non-Hispanic (5.8%), Native American (0.5%), Native Hawaiian or Pacific Islander (0.2%) and White (38.2%). Additionally, this high school serves the following percentage of selected populations: English language learners (5.8%), economically disadvantaged (30.2%), students with disabilities (17.9%), and students whose first language is not English (26.1%; Massachusetts Department of Elementary and Secondary Education).
Launch is a vocational training program housed within the larger organization of the high school. All students, including those with disabilities, have access to take electives in the Launch Program, or participate in one of 11 Chapter 74-approved Career and Technical Education (CTE) Programs, including: automotive technology, biotechnology, carpentry, culinary arts/hospitality, early education/care, engineering, creative design, graphic communications, health assisting, information technology, and media technology. The twelfth program, business education, is not yet Chapter-74 approved. During freshman year, students can elect to participate in an exploratory rotation, which exposes them to each of the different programs for a truncated amount of time over the course of a semester. Sophomores have the option to take electives associated with a particular area of focus. By junior year, students who choose to fully participate in the program select their track of interest. Finally, in their junior and senior years, students spend half of their school day involved in the training and internship opportunities associated with a particular area of study, with the goal of achieving concentration-specific certification by graduation. It is further noted that all students have the option of taking electives across Launch concentrations at any time during their sophomore, junior and senior years, but they will not receive the associated certification without fully participating in a particular program of study.

The Launch Program was selected as the “case” to be investigated because it is an established secondary vocational training program that provides a venue for the research questions to be investigated and the research purpose to be actualized. According to Stake (1995), there are three types of cases: intrinsic, instrumental, and collective (p. 3-4). An intrinsic case is one that presents itself to a researcher and is of interest because of its unusual or unique makeup (Creswell, 2013; Stake, 1995). Comparatively, Stake (1995) indicates that an
**instrumental case** is one that is chosen to gain understanding of a particular problem or question posed. In other words, a particular case is selected in order to investigate a researcher’s area of interest of problem of practice (Creswell, 2013). Finally, a **collective case** refers to the use of multiple cases that are interpreted together in order to investigate a researcher’s guiding issue (Creswell, 2013; Stake, 1995). Considering these differences in case composition, it stands to reason that the proposed case is an **instrumental** one because the Launch Program assists in investigating the larger issue identified by this researcher. This underlying issue is a lack of qualitative research focused on the real-life functioning of high school vocational training programs that prepare students with disabilities for postsecondary employment.

Besides discriminating between types of cases, Stake (1995) also provided criteria for selecting cases. The first is that the case should “maximize what we can learn” (p. 4). In other words, he ascertained that cases should provide for advanced understandings and conceptualizations of the unit under investigation, as well as provide a context for assertions and interpretations to be made. Secondly, Stake (1995) emphasized the importance of feasibility when selecting a case. He stated: “Our time and access for fieldwork are almost always limited. If we can, we need to pick cases which are easy to get to and hospitable to our inquiry, perhaps for which a prospective informant can be identified” (Stake, 1995, p. 4). Stake (1995) further described that “many of us case-workers feel that good instrumental case study does not depend on being able to defend the typicality of the case” (p. 4). Using this line of reasoning, the Launch Program was selected as the instrumental case to be studied due to the wealth of potential learning regarding its processes and procedures, as well as its feasibility/access for this researcher. The benefits of this researcher’s access to Launch were pre-established relationships, associated trust, and their facilitative impact on building rapport with participants and data
collection (e.g. interviewing and observations). In short, this researcher as an “insider” to the school environment had access to information and relationships with staff members that an “outsider” would not.

**Participants and recruitment.** To begin, 30 Launch staff members were recruited and invited to anonymously answer survey questions (Appendix A) using the online program Qualtrics. A complete list of Launch staff members for the 2017-2018 school year, including teachers, administrators, and support staff, was obtained from the Executive Director and subsequently for email distribution of the survey questions. The rationale for inviting all staff members to participate in the survey questions was three-fold. First, the survey provide data collection for the research question related to the specific curricular components of the Launch program. Secondly, by inviting all staff to participate in the survey questions anonymously, all participants were provided a level of confidentiality. Specifically, staff were unaware of which of their colleagues chose to participate. Confidentiality was ensured by the Qualtrics anonymity feature which does not allow an individual’s computer IP address to be traced. Third, the survey provided a foundation from which to draw a representative sample of interview and class visit participants, which will be described next.

Following the four survey questions, staff were asked whether they wanted to participate further in an interview and/or classroom visit. They were also made aware that they could receive $10 Starbucks gift cards for participation. Staff were able to choose from the following answer options: (a) “No,” (b) “Yes” and provide name and best contact method (e.g. phone or email) on the form, or (c) “Yes,” but would like to contact the student researcher directly with name and contact information. There were two different options provided for a “yes” response to further assist in protecting participant confidentiality. Once “yes” responses were collected and
contact with the willing participants was established, a series of short follow-up questions was administered by phone or email aligned with a protocol developed. Potential participants obtained from the survey were informed that their willingness to participate in interviews and/or classroom visits did not necessarily mean that they would be selected. Instead, recruitment of these participants was determined based on the follow-up questions and criterion established to obtain a representative sample of staff from the program. Volunteer participants who were selected, as well as those who are not, were emailed using an established protocol. Specifically, participants selected for interviews and classroom visits were emailed a description of the role of participants, reminder that participation was voluntary and confidential, as well as copies of their respective informed consent forms.

From the group of survey participants who indicated a willingness to participate in interviews, seven were recruited using criterion sampling procedures, or selection based on a pre-existing set of criteria, determined by the student researcher (Creswell, 2013). In this case, the defining criteria were staff members who: (a) taught in Launch or worked in direct affiliation with the program, (b) had at least three years of experience working in Launch, and (c) provided instruction or support to students with disabilities. The seven interview participants selected included the Executive Director, classroom teachers, and support staff. The Executive Director provided an administrator’s perspective on the program and related research questions. Similarly, support staff assisted in collecting information regarding the questions’ particular focus on students with disabilities. Moreover, classroom teachers were selected from different areas of specialization in order to provide a representative sample.

Participants for classroom visits were also recruited from the survey responses and associated follow-up, as described above. Participants were chosen based on the following
criteria: (a) position as classroom teacher, (b) differing concentration areas, in order to provide a breadth of representative perspectives. Four observations of separate Launch classrooms occurred in scheduled class visits. Teachers were assured that the purpose of classroom visits was to better understand the processes and procedures of the program, as well as delivery of vocational curricula, rather than assess teaching competencies or observing students. Moreover, though the researcher was a nonparticipant observer and did not interact directly with the classroom (Creswell, 2013), the teachers were considered participants in the study. The students were not participants in the study.

**Access and protection of human subjects.** Prior to accessing the research site and recruiting participants, approval for the study was obtained from school district administration and Internal Review Board (IRB) at Northeastern University. In accordance with the ethical obligation to protect human subjects, specific steps were taken to protect participants selected. First, in a quiet, confidential location, recruited participants were apprised, verbally and in writing, of the research purpose and the nature of their participation. Secondly, participants were reminded that their involvement in the study described was completely voluntary and could be terminated at any time. This included, but was not limited to, requests to discontinue participation, or requests to deny the use of an interview/classroom visit in the written report. Third, a consent form was reviewed with each participant and questions were answered prior to obtaining a signature. The signed consent forms were secured in a locked filing cabinet.

**Data Collection**

Consistent with the recommendations of Stake (1995, 2010), the proposed case study involved multiple data collection methods- survey questions, interviews, document reviews, and observations (classroom visits). As described by Maxwell (2005): “this strategy reduces the risk
that your conclusions will reflect only the systematic bias or limitations of a specific source or method” (p. 93). Throughout data collection, the researcher also kept a separate notebook in order to catalogue insights associated with the process. This practice aligned with Stake’s (1995) assertion: “A considerable proportion of all data is impressionistic, picked up informally as the researcher first becomes acquainted with the case” (p. 49).

**Survey questions.** All Launch staff members were recruited to participate in the survey question portion of data collection, according to the procedures described. Using a list of staff members from the Executive Director, staff were emailed with a description of the research, along with a link to the questions posed on Qualtrics (Appendix A). The questions posed were as follows: (a) How would you describe the goals (or intentions) of the Launch curricula in preparing students with disabilities for employment after high school? (b) How would you describe the actual implementation of Launch’s vocational educational curricula when serving students with disabilities? (c) How would you describe the student experience of the Launch vocational education curricula? (d) How would you describe the staff experience of the Launch vocational education curricula? The responses to the survey questions were anonymous, as determined in the setup on Qualtrics. At the end of the research survey questions, staff were also asked if they were willing to be interviewed, or participate in classroom visits. The email to staff indicated a participation due date that was ten calendar days from the day the initial email was sent.

**Interviews.** Semi-structured interviews were conducted with the seven participants identified. The interviews centered upon eight questions, which aligned with the overarching research questions, and were held for approximately an hour each. Interviews occurred before or after school, at the educator’s convenience, in a private office space at the high school. A copy of
the interview protocol is included in Appendix B. The number of guiding questions was determined by consulting Stake’s (1995) procedure for case studies, which endorses: “With most I find eight to be about the right number of interpretive questions for an hour” (p. 97). As a hallmark of qualitative research, the interview protocol allowed for natural deviations from the eight interpretive questions posed, depending on the answers received by participants. The importance of this flexibility was reflected in Stake’s (1995) assertion: “Qualitative case study seldom proceeds as a survey with the same questions asked of each respondent; rather, each interviewee is expected to have had unique experiences, stories to tell” (p. 65). Interviews were recorded using an electronic application, “Voice Record Pro,” which was accessed on the researcher’s iPhone. When the interview session concluded, the recording was downloaded on the researcher’s personal USB drive. A transcriptionist from Rev.com was hired to transcribe the interview recordings and signed an IRB-approved confidentiality statement.

During the interviews, the primary aim was to gain the staff’s first-person perspectives on the curricular and educational practices of the Launch Program. More specifically, the interviews helped to understand program goals related to serving students with disabilities, delivery of instruction about various occupations, and opportunities for hands-on work experience. Interviews also provided information regarding the curricular intentions and staff’s experience of the implementation of these vocational training aims. Moreover, interview data afforded commentary about the daily, real-life workings of the Launch Program in a manner that could not be accomplished by classroom visits and document reviews.

**Document Review.** The researcher also reviewed documents associated with the Launch Program, such as information provided on the website, syllabi for courses and written program documents like mission statements, course catalogs/guides, and reports. Additionally, news
articles, skill rubrics, and printed handouts were examined. In order to obtain these documents, the researcher enlisted the assistance of the program’s Executive Director. Ultimately, documents reviewed provided information needed to answer the research questions posed, such as detailing the Launch Program’s goals and processes for developing the occupational skills/work experience of students with disabilities. Also, the documents described the intended components of program curricula, or what is planned/intended by program developers (Billett, 2011). Interviews and classroom visits aided in studying how the enacted and experienced curricular components relate to preparing students with disabilities for postsecondary employment. Overall, while considering the documents to be reviewed, the researcher heeded Stake’s (1995) advice: “Quite often, documents serve as substitutes for records of activity that the researcher could not observe directly” (p. 68).

**Classroom visits.** The last method of data collection were observations, which were called “classroom visits” for the purpose of this research. Following interviews and document reviews, visits were conducted in four Launch classrooms. Classrooms were selected according to teacher willingness to participate, as described above. The reason for conducting classroom visits last in the data collection series was to provide additional context to data obtained from interviews and the document review, thereby adhering to Stake’s (1995) suggestion: “observations work the researcher toward greater understanding of the case” (p. 60).

Classroom visits were conducted using the same observation protocol, which is attached as Appendix C. This protocol was shared with teachers prior to their respective visits. The student researcher acted as a nonparticipant observer and wrote observations in a notebook rather than typing on a computer, so as not to disrupt the activities of the classroom. The written notes were later typed on the researcher’s personal computer and organized into the chart shown in
Appendix B. All notes protected the identity of staff in the classrooms and meetings. Following the hour classroom visit, the researcher met with the teacher to debrief for 15 to 30 minutes. The purpose of this debriefing session was to garner the teacher’s perspective of what students experienced as a result of the curriculum delivered on that day. Teachers were asked to describe how the curriculum was experienced by students based on a tangible product completed during class, as selected by the teacher. This information addressed the aspect of the classroom visit protocol (Appendix C) termed “Experienced Curriculum: what learners experience as a result of implementation.”

Further, it is noted that the classroom visits focused on the processes/procedures of the Launch Program and delivery of vocational curricula, rather than observing teaching competencies or students in any way. As such, students were not identified, written about in the researcher’s notes, or evaluated. Since students were not the focus of the research, written permission was not needed to observe the classrooms. Further, as a trusted member of the school community, the researcher’s presence in the classrooms was not disruptive to the functioning of the classroom.

**Data Storage**

All data collected from survey questions, interviews, document reviews, and classroom visits were kept confidential. Only this researcher and the Principal Investigator had access to the data. More specifically, participant names were changed to pseudonyms and associated transcripts were saved using the pseudonym. The electronic recordings of the interviews and all other electronic documents collected were saved to the researcher’s personal USB drive. All electronic data files were encrypted and password protected using Apple’s built-in MacOS software on the researcher’s computer. Additionally, transcribed documents were saved in the
same encrypted and password-protected manner as other electronic data files. Written
documents, such as notes from classroom visits or interviews, were kept in a locked drawer in
the home of this researcher over the course of the study. None of the research data or analysis
were stored in the workplace. Once the research concluded, all audio and written data were
destroyed. Electronic data files saved to the personal USB drive, as well as signed consent
documents, will stored in a locked drawer at the researcher’s home for five years following the
completion of the study, at which point they will be deleted.

Data Analysis

Data analysis was a dynamic process whereby data were analyzed at the time they are
collected, throughout the research process, and as a collective whole at the close of the study. In
this manner, analysis procedures aligned with those of Stake (1995), who asserted: “there is no
particular moment when data analysis begins. Analysis is a matter of giving meaning to first
impressions as well as to final compilations” (p. 71). At the close of data collection, data from
survey questions, interviews, document reviews, and classroom visits were transcribed, coded
and analyzed to identify common themes. Specifically, as mentioned above, a transcriptionist
from Rev.com was hired to transcribe the interviews conducted. Written notes from interviews,
document reviews, and classroom visits were typed by the researcher in order to increase the
efficiency of coding. Once interview transcripts were received by the researcher, they were
emailed to each participant in order for them to check the accuracy of what has been transcribed
prior to the start of coding.

The process of data analysis was grounded in Miles, Huberman and Saldaña’s (2014)
approach. To start, a conceptual framework was developed and visually displayed to indicate the
aspects of data to be considered. Data collected from surveys, interviews, document reviews, and
classroom visits were then cleaned, or edited for spelling/grammatical errors and to remove irrelevant information. Next, data sources were coded one at a time using the established tenets of the conceptual framework. Survey and interview data were analyzed first using in-vivo and descriptive coding procedures (Miles et al., 2014). The same procedure of descriptive coding was then utilized with data from document reviews and classroom visits. Themes, or pattern codes, were then established for each source according to the tenets of the conceptual framework and any unexpected findings. These themes were written on individual index cards, including the name of the data source and color corresponding to the aspect of the conceptual framework. Index cards were sorted and themes for each element of the conceptual framework were triangulated using the four data sources. Ultimately, these clusters were visually depicted using a network display model, conclusions were established, and the initial conceptual framework was updated based on these findings.

**Trustworthiness**

This research employed a variety of strategies to maintain the trustworthiness and validity of the study, as discussed by Creswell (2013). From the outset, the study clearly outlined this author’s position as the primary research agent and identified the associated biases that may have impacted the analysis of data and interpretation of results. Secondly, data collection involved gathering and juxtaposing information from multiple sources: survey questions, classroom visits, interviews, and an extensive review of program documents. Next, following data collection, data obtained from the sources were translated into thick, detailed description so that readers can actively interact with the information (Creswell, 2013). Finally, after creating a draft of data analysis and findings, staff participants were asked to verify the accuracy of the themes generated. This process is consistent with Stake’s (1995) endorsement of “member checking as a
strategy to assist in triangulating, or establishing validity for a researcher’s interpretations (p. 115).

It is further noted that there were plausible threats to the internal validity of the study, such as the location chosen and this researcher’s familiarity with participants. For one, the selection of this author’s workplace as the location for the study posed a potential threat to internal validity due to the biases inherent in being an employee in the school chosen for case study. Another potential threat to the study’s internal validity was this author’s familiarity with participants, on account of being colleagues at the same school.

In spite of the potential threats to internal validity, the benefits of pre-established relationships, associated trust, and their facilitative impact on building rapport with participants and data collection (e.g. interviewing and classroom visits) were considered to outweigh potential negative influences. In short, this researcher as an “insider” to the school environment had access to information and relationships with staff members that an “outsider” would not. This point is supported by Creswell (2007), who indicated: "engagement and persistent observation in the field include building trust with participants,” (p. 207). Further, the act of conducting qualitative research in one’s own workplace is reinforced by established scholars (Biklen & Casella, 2007; Cox, 2012; Lincoln & Guba, 1985; Stake, 1995). Specifically, Stake (1995) emphasized the importance of feasibility when selecting a case and endorsed the study of a familiar location or system. Similarly, Lincoln and Guba (1985) explained that credibility of qualitative research findings increases when there is engagement on the part of the inquirer. Moreover, Cox (2012) asserted: “Practitioner–researchers are well-positioned to apply qualitative methods to the study of significant problems of educational practice” due to their proximity to the problem in educational systems (p. 129).
Summary and Conclusions

Taken together, the study was grounded in the constructivist/interpretivist research paradigm, as well as Stake’s (1995) method of case study research. This descriptive case study aimed to describe the practices and processes used by a high school vocational program to provide vocational training and preparation for postsecondary employment to students with disabilities. The research took place at the Launch Program, a Chapter-74 approved vocational education program housed in an urban high school in Massachusetts. Survey questions, semi-structured interviews, classroom visits, and document reviews provided data necessary to qualitatively investigate the defined research questions. Also, these data aimed to address the established problem of practice related to a deficient sharing of processes used by current, functioning vocational programs. Consistent with Stake’s (1995) conceptualization of case study, this researcher played an active role in the investigation and reflexively considered the experiences and skills that drew her to this area of interest. Data collection adhered to the protection of human subjects, ensured confidentiality, and allowed for analysis of themes using Miles et al.’s (2014) framework. Moreover, the trustworthiness of the study was maintained by asking participants to verify the accuracy of themes obtained and translating the data into a thick, detailed description of the case. Using these defined research methods, the study provided a needed descriptive investigation of a functioning vocational training program and its curricular practices, which will positively impact practitioners and enhance the existing scholarly research on the subject.
Chapter Four: Report of Research Findings

Despite the quantitative findings that link high school vocational programs to improved postsecondary employment outcomes for students with disabilities, little qualitative research exists regarding how these programs support students with disabilities in achieving employment after high school. As such, this gap in the research points to a possible deficiency in sharing processes and practices used by real-life vocational programs to prepare students with disabilities for postsecondary employment. The purpose of this descriptive case study was to describe the processes used by a high school program to provide vocational training and preparation to a vulnerable population of students.

Data Sources

The case study conducted utilized four separate data sources of obtained from: (a) surveys, (b) document reviews, (c) interviews, and (d) classroom visits. The number and nature of data items are displayed in Table 1. For the survey data, a link to an anonymous, electronic survey using Qualtrics software was sent to the 30 staff members of the Launch program at the case study institution. A total of 17 responses were recorded by the Qualtrics system as text data, but only 12 of these responses were considered complete because in those 12 submissions each question was answered. Next, 26 items were reviewed as part of the document review data collection. Data was obtained from the text of researcher’s field notes, online websites, printed web materials, and copies of program materials. Next, seven interviews yielded recorded audio files that were transcribed into narrative text by Rev.com. Lastly, data from four classroom visits were first recorded in the researcher’s writing on observation protocols and later typed into the protocol and printed as text documents to be analyzed.
Table 1

*Data Source Characteristics*

<table>
<thead>
<tr>
<th>Data source</th>
<th>Number of items</th>
<th>Type of data obtained</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surveys</td>
<td>12</td>
<td>Text</td>
</tr>
<tr>
<td>Document Reviews</td>
<td>26</td>
<td>Text (printed &amp; copied), online websites, printed web materials</td>
</tr>
<tr>
<td>Interviews</td>
<td>7</td>
<td>Transcribed text</td>
</tr>
<tr>
<td>Classroom Visits</td>
<td>4</td>
<td>Text from typed field notes</td>
</tr>
</tbody>
</table>

**Participants**

The participants of the case study include staff members of the case study institution who participated in the survey, interview, and classroom visits that comprised the data collection. Pertinent demographic information for the staff participants in each of these data sources are provided in narrative and graphic form in the following section. Additionally, the documents and field notes reviewed, as well as the case study institution as a whole, are described for their contributions to data collection and analysis.

**Staff Participants**

Staff participants are represented by staff members of the case study institution who volunteered to engage in survey questions, interviews, and classroom visits. First, there were 12 total staff participants in the screening survey phase of the data collection. In order to ensure anonymity within the survey, qualitative demographic information was not requested. Therefore, demographic details about the survey participants are not reported.

Next, seven staff members participated in interviews and the defining demographic characteristics of those participants are displayed in Table 2. Participants were provided the following pseudonym names, presented here in alphabetic order: Benjamin, Haleigh, Henry, Marie, Nicole, Marcus, and Sylvia. With regard to gender, four interview participants were female and three were male. All participants have worked in the Launch program at the case
study institution for over five years. More specifically, three have five to 10 years of experience working in the program, while four have over 10 years of experience. In terms of role within the Launch Program, four interviewees are classroom teachers and three are considered support staff.

Table 2 also identifies demographic characteristics of classroom teachers who participated in classroom visits. Within this data source, three participants are male and one is female. Additionally, like the interviewees, all participants for classroom visits have worked in the Launch program for over five years. Two have five to 10 years of experience working in the program, while two have over 10 years of experience.

Table 2

*Participant Characteristics*

<table>
<thead>
<tr>
<th>Data source</th>
<th>Number</th>
<th>Demographic information</th>
<th>Years of experience</th>
<th>Role of staff</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Surveys</td>
<td>12</td>
<td>Anonymous</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Interviews</td>
<td>7</td>
<td>Female (4)</td>
<td>5-10 years (3)</td>
<td>Teacher (4)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Male (3)</td>
<td>10+ years (4)</td>
<td>Support staff (3)</td>
</tr>
<tr>
<td>Classroom Visits</td>
<td>4</td>
<td>Female (1)</td>
<td>5-10 years (2)</td>
<td>Teacher (4)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Male (3)</td>
<td>10+ years (2)</td>
<td></td>
</tr>
</tbody>
</table>

*Document Review*

In addition to analysis of data collected from staff participants, data analysis also involved the analysis of various documents and researcher field notes. The documents reviewed included copies of published program guides from 2016-17 and 2017-18 school years, as well as curricular planning materials for the individual courses of study. Additionally, state mandated curricular frameworks were reviewed online within the Massachusetts Department of Elementary and Secondary Education (DESE) website. This website also provided access to transition data for recent graduates from state-wide Career and Technical Education (CTE) programs, which were printed and reviewed. Moreover, the following materials were reviewed and recorded using
researcher field notes: Launch Program website, documents provided by the Executive Director (e.g. 21st Century Life & Career Skills Rubric, program brochures and printed handouts), and local news articles related to the program. It is noted that field notes associated with these document reviews, as well as those written by the researcher during interviews, classroom visits, and data analysis, were recorded in a notebook and then typed in preparation for coding processes.

Institution

Since this descriptive case study focused on a specific vocational training program, the institution itself is considered as an element of the research conducted. The Launch Program is a Chapter-74 approved vocational technical education program within the state of Massachusetts. It is housed in an urban, public high school comprised of approximately 2,000 students. Launch was established in 1886, under a different name, as a vocational training program for boys. At this time, it was housed in its own building in the city. In 1977, the vocational school merged with the comprehensive public high school in the city. The Launch Program and the city’s public high school have been combined ever since. In other words, since the school combined, Launch students take graduation requirements in the traditional high school and all public high school students have access to Launch, in some capacity.

The Launch Program is comprised of approximately 30 staff members, which include classroom teachers and support staff (administrative staff, special educator, guidance counselor). Additionally, based on program data from the 2017-18 school year, reported by the Massachusetts Department of Elementary and Secondary Education (DESE) website, Launch served approximately 720 students. It is noted that approximately 200 students included in this overall number were freshmen who participated in the exploratory rotation. The exploratory
rotation can only be accessed by freshman and exposes them to each of the different programs for a truncated amount of time over the course of a semester.

The Launch Program can accessed by all students, including those with disabilities, that attend the high school for either: (a) elective coursework or (b) multi-year participation in one of its 12 different vocational programs of study. It is noted that 11 of these programs are Chapter-74 approved certification programs, including: automotive technology, biotechnology, carpentry, creative design, culinary arts/hospitality, early education & care, engineering, graphics/print, health assisting, information technology/computer science, and media technology. The twelfth program, business education, is not Chapter-74 approved. Students seeking certification through one of the approved programs participate in three levels of instruction throughout their high school career, which ideally culminates in a paid co-operative education (“co-op”) and work experience during senior year. This sequence takes three years and typically occurs during a student’s sophomore (level one), junior (level two), and senior years (level three) at the high school, with co-op existing only during senior year. The programming occurs concurrently with other academic coursework and graduation requirements. On the other hand, some students access the Launch Program for elective study within the various programs and do not participate in the leveled study associated with state-approved certifications.

According to the most recent available program data reported by the Massachusetts DESE, Launch had 84 graduates complete programming with certification in 2015. It is noted that demographic data was not disaggregated to indicate the percentage of graduates that were students with disabilities. However, the DESE reported that 56 former Launch students (67%) responded to the state’s Vocational Technical Education graduate follow-up survey. Within this survey, former students reported on their status 15 months following high school graduation. The
results indicated that 9% of students reported an “employment related” status, 2% reported “military related,” 16% reported attending a 2-year college program, and 79% indicated attendance at 4-year colleges.

Data Analysis

The data analysis process utilized was grounded in Miles, Huberman and Saldaña’s (2014) approach to analyzing qualitative data. To begin, a conceptual framework was developed according to their description that “a conceptual framework first specifies who and what will (and will not) be studied” (Miles et al., 2014, p. 21). Secondly, data were coded within each data source (survey, interviews, document review, classroom visits) using the established conceptual framework. Next, Miles et al.’s (2014) process of generating meaning by noting patterns and themes was utilized to triangulate data sources and propose findings. Finally, an updated conceptual framework was established using the determined research findings. Each of these distinct aspects of the data analysis process will be explained in the sections to follow.

Conceptual Framework

The conceptual framework for data analysis was constructed using findings of the literature review and the established research questions. It is visually represented by Figure 1. The associated visual was shaped like a school to depict a vocational training program. The roof of the school was formed by the overarching thesis analyzed from existing literature that there is a lack of qualitative research regarding the processes and procedures used by real-life vocational training programs to prepare students with disabilities for postsecondary employment. The theoretical framework, Vocational Education Theory, was represented by a sun, which shines a light on the aspects of the vocational training program investigated in this study. As such, the foundation of the school was formed by the components of the research questions established,
which were grounded in the identified theoretical framework. The foundational pillars of curriculum, goal setting, occupational skills, and work experience, were used to guide analysis of the data sources. The process by which the associated data were analyzed will be described in the next section.

![Conceptual framework used to initiate data analysis](image)

**Figure 1.** Conceptual framework used to initiate data analysis

**Data Analysis Process**

**Data processing and preparation.** Consistent with Miles et al.’s (2014) recommendations, data sources collected were first typed before data processing began. Specifically, survey responses were downloaded from Qualtrics and saved as text within Microsoft Excel, then transcribed interviews were saved as documents in Microsoft Word. Field notes written during document reviews and classroom observations were typed and saved as “expanded write-ups,” or “an intelligible product for anyone, not just the field-worker (Miles et
al., 2014, p. 71). During this process, pseudonyms were assigned to the interview and classroom visit participants, as well as the institution studied.

Once all data sources were saved as text, the data were prepared, or cleaned. In other words, each piece of data was read, edited for spelling/grammatical errors, and scrubbed for any information that was irrelevant to the research. For the interview data source, cleaned transcripts were printed and given to interview participants in order for them to check the accuracy of what has been transcribed prior to the start of coding. Any edits made by the interview participants were updated in the typed transcripts. Finally, typed documents from all four data courses were printed to initiate the process of data condensation, or coding (Miles et al., 2014, p. 12).

Data condensation. During the next phase of analysis data condensation, Miles et al.’s (2014) processes for coding were utilized. As stated by these authors: “Coding is thus a data condensation task that enables you to retrieve the most meaningful material, to assemble chunks of data that go together, and to further condense the bulk into readily analyzable units” (Miles et al., 2014, p. 73). Data sources were coded individually and one at a time using the established tenets of the conceptual framework. More specifically, each data set was coded by hand using colored highlighters corresponding to the assigned aspects of the conceptual framework: (a) curricular components, (b) goal setting, (c) occupational skills, and (d) work experience. For instance, data from the survey were coded first by considering curricular components with an associated highlighter, followed by goal setting, and so on.

Survey and interview data were analyzed first using in-vivo coding (Miles et al., 2014, p. 74) in order to consider participants’ own words related to the conceptual framework. A table was made in Microsoft Word to display in-vivo codes, or repeated words or phrases, along with cited texted examples from the participants for each aspect of the conceptual framework. Once
in-vivo codes were recorded, additional descriptive coding was completed in the same manner to summarize aspects of the survey and interview data using a word or short phrase (Miles et al., 2014). The same procedure of descriptive coding was utilized with data from document reviews and classroom visits. In other words, codes were assigned/highlighted according to the four established pillars of the conceptual framework and were recorded in table format. The tables of codes for each of data source were then printed and reviewed. An example of the coding table is provided below:

Table 3

*Table for Recording In-Vivo and Descriptive Codes*

<table>
<thead>
<tr>
<th>In-vivo/Descriptive code</th>
<th>Example from text</th>
</tr>
</thead>
<tbody>
<tr>
<td>“all students”</td>
<td>“My vision for Launch is to help prepare all students for success in their life after high school.” (Henry)</td>
</tr>
<tr>
<td></td>
<td>“And when we say all students, we have non-selective inclusionary programs here.” (Henry)</td>
</tr>
<tr>
<td></td>
<td>“We’re trained to teach all students… we do that using multi-modal training.” (Marcus)</td>
</tr>
</tbody>
</table>

Next, themes, or pattern codes, were established because “they pull together a lot of material from first cycle coding into more meaningful and parsimonious units of analysis” (Miles et al., 2015, p. 86). Themes were recorded for each data source according to the four tenets of the conceptual framework. These themes were then written on individual index cards, including the name of the data source and color corresponding to the aspect of the conceptual framework. The next section of this chapter will present the themes obtained for each data source using this procedure.

Data display and drawing conclusions. Once themes for each data source were determined using the data condensation process, index cards were sorted according the defining aspects of the conceptual framework. This step is consistent with Miles et al.’s (2014) suggestion that a process of “clustering” occurs once patterns are noted and themes established with data.
sources (p. 278-279). As the established themes from each data source were clustered, a process of triangulation ensued, which will be explained in further detail in a section to follow. Essentially, clusters were determined if three or more data sources identified a similar theme. Next, the clusters for each pillar of the conceptual framework were drawn visually, per the recommendation of Miles et al. (2014). Specifically, a network model display (p. 111) was created to conceptualize the findings and their relation to one another. This network model will be presented in the upcoming section dedicated to triangulation and visual display. Finally, conclusions were established and the initial conceptual framework was updated based on these findings.

**Themes Identified in Data Sources**

Consistent with the process described above, each data source was considered separately when identifying themes. These themes were developed by reviewing and categorizing in-vivo and descriptive codes that occurred most frequently for each distinct pillar of the conceptual framework. In other words, themes were generated separately for: (a) curriculum (intended, enacted, experienced), (b) goal setting, (c) occupational skills, and (d) work experience. The themes obtained will be presented according to the particular data set and corresponding pillar of the conceptual framework.

**Survey**

For the survey data source, the questions posed to staff focused on the curriculum aspect of the conceptual framework so themes from this data set are reported according to the intended, enacted, and experienced aspects of the curriculum. Narrative descriptions will introduce the themes and are then followed by tables indicating the theme established and associated textual examples obtained from surveys.
**Intended curriculum.** The themes obtained from the surveys were generated by compiling and organizing in-vivo codes assigned. The three themes established with regard to the intentions of the Launch curriculum were: (a) focus on all students, (b) preparation for any employment, and (c) teaching technical and soft skills. These themes and corresponding examples from survey text are displayed in Table 4. First, several different staff members responded that the Launch curriculum intends to reach “all students,” regardless of disability. For instance, staff members explained that the program has the “same goal for all students,” “strives to accommodate all students,” and “prepare all students for employment after high school.” Next, survey participants endorsed that the Launch curriculum intends to prepare students with disabilities for any employment, in general, following high school. Specifically, different staff members described these curricular intentions as follows: “try and get them [students] to understand the concepts of becoming employable,” “prepare them for a career in their chosen profession,” and a “built-in expectation” for “preparing students with disabilities for employment.” The final theme obtained was that the Launch curriculum intends to teach both technical and soft skills. Technical skills were described by survey respondents as “competencies” and “skill acquisition” related to a particular course of study within the program. Additionally, soft skills, such as “work ethic,” reliability, and timeliness were cited. Table 4 on the following page summarizes the themes identified, along with cited examples from the survey data collected.
Table 4

Themes for Intended Curriculum from Surveys

<table>
<thead>
<tr>
<th>Theme</th>
<th>Text examples from survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focus on all students</td>
<td>“…same goal for all students”</td>
</tr>
<tr>
<td></td>
<td>“All students are prepared to enter the 21st century workforce on many different levels and in various capacities.”</td>
</tr>
<tr>
<td></td>
<td>“The goal of the Launch curricula is to prepare all students for employment after high school, regardless of any disability.”</td>
</tr>
<tr>
<td></td>
<td>“The curricula, while not perfect, strives to accommodate all students.”</td>
</tr>
<tr>
<td>Preparation for any employment</td>
<td>“The Launch goal for preparing students with disabilities for employment is a built-in basic expectation for our vocational classrooms.”</td>
</tr>
<tr>
<td></td>
<td>“The main goal that I have for my challenged students is try and get them to understand the concepts of becoming employable.”</td>
</tr>
<tr>
<td></td>
<td>“They [students with disabilities] are prepared on many levels including academic, social, professional workplace etiquette and real hands-on life experience and therefore receive a very comprehensive education that does prepare them for a career in their chosen profession.”</td>
</tr>
<tr>
<td></td>
<td>“…try to get them a career that they can handle and succeed in”</td>
</tr>
<tr>
<td>Teaching technical and soft skills</td>
<td>“The Launch curriculum is based on the Chapter-74 approved competencies. We use these competencies (skills) as our training list for all students.”</td>
</tr>
<tr>
<td></td>
<td>“Students’ skill acquisition has direct bearing on their ability to find employment in the field after high school.”</td>
</tr>
<tr>
<td></td>
<td>“The goal of the Launch curriculum in this class/shop is to help students understand the importance of work ethic. The ability of a good employee to show up to work every day, on time and well rested in order to be able to perform at their best, regardless of their disability.”</td>
</tr>
</tbody>
</table>

**Enacted curriculum.** The surveys produced both superordinate and subordinate themes regarding the enacted, or implemented, aspects of the Launch curriculum. The three superordinate themes established for enacted curriculum were: (a) teaching strategies identified, (b) use of hands-on activities and (c) special education support. These overarching themes and corresponding examples from survey text are displayed in Table 5. The superordinate theme of learning strategies was comprised of three subordinate themes extracted from the survey text including: (a) multi-model instruction, (b) use of accommodations, and (c) accounting for various learning needs. Namely, survey respondents described the various modes of instruction
utilized, such as kinesthetic, visual, and auditory. Regarding accommodations, some respondents specifically utilized the word “accommodations” as a teaching strategy, while others described types of accommodations, such as breaking an activity into step-by-step components or repetition of skills. Moreover, several survey participants identified that teaching strategies accounted for various student learning needs by descriptions such as: “We utilize a variety of activities and learn our students learning styles to meet their specific needs.”

The second overarching theme identified was the use of hands-on activities to implement the Launch curriculum. In some way, most survey participants referenced the hands-on components of the vocational curriculum utilized to teach students with disabilities. Some respondents termed these hands-on activities as “project-based” and others contrasted this hands-on approach with the “conventional ‘sit in the classroom and listen to a teacher lecture.’” Finally, a third superordinate theme was special education support as an aspect of the enacted curriculum. With regard to support provided, survey participants specifically described the special educator who works in the Launch program and assists in “lesson accommodations.” Table 5 highlights these themes identified and displays associated examples from the survey text.
Table 5

_Themes for Enacted Curriculum from Surveys_

<table>
<thead>
<tr>
<th>Theme</th>
<th>Text examples from survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teaching strategies</td>
<td></td>
</tr>
<tr>
<td>multi-modal</td>
<td>“Our lesson structure is based heavily on kinesthetic/visual learning.”</td>
</tr>
<tr>
<td></td>
<td>“We write, speak, demo, and then allow for multiple practice sessions in each of our lesson deliveries.”</td>
</tr>
<tr>
<td>accommodations</td>
<td>“As a routine, we accommodate all students to not expose a single student on a plan to the others.”</td>
</tr>
<tr>
<td></td>
<td>“repetition and practice of the skills we are teaching”</td>
</tr>
<tr>
<td></td>
<td>“This activity is always broken down into smaller step-by-step components.”</td>
</tr>
<tr>
<td>learning needs</td>
<td>“Our curriculum is taught to all students meeting their learning styles and abilities.”</td>
</tr>
<tr>
<td></td>
<td>“We utilize a variety of activities and learn our students learning styles to meet their specific needs.”</td>
</tr>
<tr>
<td></td>
<td>“Gardner’s Theory of Multiple Intelligences is very much used in the planning of our curriculum and lesson plans.”</td>
</tr>
<tr>
<td>Hands-on activities</td>
<td>“Most of our curriculum is based on hands-on performance activities.”</td>
</tr>
<tr>
<td></td>
<td>“project-based curricula on all learning levels”</td>
</tr>
<tr>
<td></td>
<td>“hands-on learning over the conventional ‘sit in the classroom and listen to a teacher lecture’”</td>
</tr>
<tr>
<td></td>
<td>“We use a lot of hands-on activities. This helps them [students with disabilities] engage a lot better.”</td>
</tr>
<tr>
<td></td>
<td>“almost always have a hands-on component”</td>
</tr>
<tr>
<td>Special education support</td>
<td>“We have a full-time person in the department to help teachers make lesson accommodations.”</td>
</tr>
<tr>
<td></td>
<td>“We have the support of the special education department by having one staff member from that department working with us on a regular basis.”</td>
</tr>
</tbody>
</table>

**Experienced curriculum for students.** Next, the experienced aspects of the Launch curriculum were considered. To begin, student experiences, per staff report, are presented. Then, staff experiences of the curriculum will be explored in the next section. According to the staff members surveyed, student experiences correspond to four themes: (a) experience success, (b) increased self-worth, (c) varied experiences, and (d) work in teams. More specifically, several different survey respondents commented that students with disabilities find “success” in the Launch curriculum and others indicated that this success might be the first of their educational
careers. For instance, one participant described: “The Launch vocational curricula often serve the student who has been left behind by the traditional education model. I have seen students excel in school for the first time in Launch.” The second theme uncovered was that students experience increased “self-worth” or “self-esteem” within the Launch Program. Next, other survey respondents endorsed that the experiences of students can vary according to disability-related needs. For example, one endorsed: “If the nature of the disability prevents the student from accessing all frameworks and standards, the student may experience a challenge.” Another described: “The students either love it or hate it. Sadly, the ones who really don't want to do any work or have unrealistic perceptions of the world outside of school don't buy into it.” Lastly, the survey data presented a theme of students learning to work in teams. Survey participants juxtaposed individual gains with working “as an intricate part of a team” and “successfully in pairs and as a team.” These themes, along with examples from the survey text, are summarized in Table 6 on the following page.
Table 6

Themes for Experienced Curriculum (Students) from Surveys

<table>
<thead>
<tr>
<th>Theme</th>
<th>Text examples from survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experience success</td>
<td>“I think students in my Launch classroom experience success.”</td>
</tr>
<tr>
<td></td>
<td>“The Launch vocational curricula often serve the student who has been left behind by the traditional education model. I have seen students excel in school for the first time in Launch.”</td>
</tr>
<tr>
<td></td>
<td>“I believe most students thrive. We build on their successes, but also provide a mistake-friendly environment.”</td>
</tr>
<tr>
<td></td>
<td>“I have also witnessed students achieve more success than I previously thought was possible.”</td>
</tr>
<tr>
<td>Increased self-worth</td>
<td>“This not only improves the student’s self-worth, but often keeps the student enrolled in school.”</td>
</tr>
<tr>
<td></td>
<td>“It helps kids who maybe weren’t successful in school in the past and maybe have self-esteem issues due to repeated failure develop self-confidence.”</td>
</tr>
<tr>
<td>Varied experiences</td>
<td>“The student experience of the Launch vocational education curricula is varied. If the student is passionate and demonstrates a natural ability for the subject-matter, success will ensue.”</td>
</tr>
<tr>
<td></td>
<td>“[student experience] depends on the disability”</td>
</tr>
<tr>
<td></td>
<td>“If the nature of the disability prevents the student from accessing all frameworks and standards, the student may experience a challenge.”</td>
</tr>
<tr>
<td></td>
<td>“The students either love it or hate it. Sadly, the ones who really don’t want to do any work or have unrealistic perceptions of the world outside of school don’t buy into it.”</td>
</tr>
<tr>
<td>Work in teams</td>
<td>“Students are encouraged to work in teams.”</td>
</tr>
<tr>
<td></td>
<td>“The students who do buy-in learn that they can be successful working with their hands and in a group as an intricate part of a team.”</td>
</tr>
<tr>
<td></td>
<td>“Students in my classroom develop strong relationships and learn to work successfully in pairs and as a team.”</td>
</tr>
</tbody>
</table>

Experienced curriculum for staff. The final aspect of the conceptual framework investigated by the survey data was staff experiences of the Launch curriculum. The three themes established from survey participants were: (a) enjoyment, (b) utilizing experience from field, and (c) challenges. These identified themes and corresponding examples from survey text are displayed in Table 7. The first theme, enjoyment, was reflected in various staff responses such as “love my work,” “so rewarding,” “love what I do,” “privilege to me,” and “a pleasure.” Secondly, a theme emerged regarding staff members using their prior work in the field to guide
their experience of the Launch curriculum. Specifically, one participant described: “It requires me to take many facets of my former experience in my field and apply it to my classroom work.” Another articulated: “The instruction we deliver is based on each Launch teacher’s career path before becoming a vocational teacher. Combining our life/work experience with good curriculum shows our students that everyone can become a productive member of society, regardless of whether they are a regular education student or a student with disabilities.” The third and final theme identified represents challenges of the staff experience. According to respondents, these challenges include student “buy-in” and a perception of programs being “less than respected.” Further, two respondents commented on the challenge of managing student behavior, within a particular course of study and school, in general.

Table 7

*Themes for Experienced Curriculum (Staff) from Surveys*

<table>
<thead>
<tr>
<th>Theme</th>
<th>Text examples from survey</th>
</tr>
</thead>
</table>
| **Enjoyment**              | “I personally love what I do. Teaching students what I know and have learned in my career has been a privilege to me.”  
                          | “Having to really think about what I know and how I can teach and relate to all my different students has often been challenging, but so rewarding.”  
                          | “I love my work here.”  
                          | “I am still learning every day from students, colleagues and others. I enjoy the children and families that I work with.”  
                          | “It’s a pleasure to help students learn a hands-on craft.” |
| **Utilizing prior work in field** | “By license laws we must all have experience in the area we teach in.”  
                          | “Since we all have had exposure in industry, we know what it takes to get a job done.”  
                          | “It requires me to take many facets of my former experience in my field and apply it to my classroom work.”  
                          | “The instruction we deliver is based on each Launch teacher’s career path before becoming a vocational teacher.” |
| **Challenges**             | “I feel that our programs are less than respected and often ignored for the value we provide in the lives of teenagers.”  
                          | “The biggest hurdle for Launch staff is that we need to get the kids to buy-in and want to get involved.”  
                          | Comments about managing student behavior |
Summary of survey data. Taken together, analysis of survey data revealed themes regarding the curriculum pillar of the conceptual framework. First, according to staff surveyed, the data indicated that the Launch curriculum intends to focus on all students, teach technical and soft skills, and prepare them for any employment. Second, the enacted curriculum employs teaching strategies, such as multi-modal instruction, accommodations, and strategies to address all learning needs, along with hands-on activities, and special education support. Next, according to staff members, the positive aspects of student experience include enjoyment, increased self-worth, and work in teams. Data also indicated that student experience of the curriculum can vary according to student needs and interest. Finally, staff thematically described their experience of the curriculum as enjoyable, simultaneously challenging, and an opportunity to utilize work prior work in the field.

Interviews

Once the themes were compiled for survey data using the pillars of the conceptual framework addressed in this data source, the same analysis procedure was utilized for interview data. Namely, pattern codes, or themes, were established for frequently occurring in-vivo and descriptive codes assigned to the seven individual interviews. In-vivo and descriptive codes were considered frequently occurring if they were noted within at least three different interviews. As was the case with survey themes, these interview themes are presented according to the aspect of the conceptual framework to which they correspond. Similarly, narrative descriptions will introduce the themes and are then followed by tables indicating the theme established and associated textual examples.

Intended curriculum. The first aspect of the conceptual framework investigated was the intended curriculum of the Launch Program. Data revealed four overarching themes displayed in
Table 8: (a) use of frameworks, (b) a tri-leveled curriculum, (c) focus on all students, and (d) transferrable skills. Specifically, participants noted that the program’s curriculum is grounded in the Chapter-74 frameworks provided by the state of Massachusetts. For instance, interviewee Marie explained: “We have the frameworks that we base our lesson plans on.” In similar fashion, Benjamin indicated: “…there are the frameworks that the teachers must use to create their curriculum and daily lessons.” Next, interviewees thematically commented on the Launch Program’s tri-leveled curriculum. One participant, Henry, explained: “You [as a teacher] have the role as a presenter. You have the role as a facilitator, and you have a role as a coach. If you think about your level one, two, and three as being consistent with those roles you play.” The third theme indicated in the data revealed a programmatic focus on “all students.” Specifically, as explained by Marcus: “the lesson plans and everything are always developed to teach all students. Specifically, with concern for kids with special needs.” The final theme reflected a goal of providing transferrable skills. For instance, Sylvia described “It’s not important to me that kids go [into this area of study]. It’s important to me that they learn how to work.” Likewise, Benjamin explained: “Those [students with disabilities] may master a minimal amount of different types of skills that are important to bring to the work setting no matter where they go.” Table 8 on the following page provides additional examples from interview transcripts that were coded for the themes identified.
### Themes for Intended Curriculum from Interviews

<table>
<thead>
<tr>
<th>Theme</th>
<th>Text examples from interviews</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Use of frameworks</strong></td>
<td>“We have the frameworks that we base our lesson plans on” (Marie)                                                                                     “We have 12 programs and the curriculum behind each of these is established on what are called the frameworks” (Henry) “These skill-based activities are based not so much on what the teacher feels like doing, but what the Chapter-74 requirements are” (Benjamin) “…there are the frameworks that the teachers must use to create their curriculum and daily lessons” (Benjamin) “The curriculum is based on the frameworks” (Nicole)</td>
</tr>
<tr>
<td><strong>Tri-leveled curriculum</strong></td>
<td>“You [as a teacher] have the role as a presenter. You have the role as a facilitator, and you have a role as a coach. If you think about your level one, two, and three as being consistent with those roles you play.” (Henry) “The instruction is delivered almost exclusively in [level] one. [level] two, we still do instruction, but you would see students doing a bunch of different things by themselves.” (Sylvia) “We anticipate that students will be in our program for three years.” (Henry) “Level one is a broader overview…level two becomes more personalized…Then, or course, taking them to [the real experience] is huge.” (Marie)</td>
</tr>
<tr>
<td><strong>Focus on all students</strong></td>
<td>“We have kids from all ranges and all levels of disability.” (Henry)                                                                             “We treat all kids as if they might have a disability, so all of our lessons are setup that way.” (Marie) “…the lessons plans and everything are always developed to teach all students. Specifically, with concern for kids with special needs.” (Marcus)</td>
</tr>
<tr>
<td><strong>Transferrable skills</strong></td>
<td>“It’s not important to me that the kids go into [this area of study]. It’s important to me that they learn how to work.” (Sylvia) “The grade is based on employability skills” (Marcus) “We look to find opportunities to develop skills and to help disabled people find some level of productivity and enjoyment in being employed” (Henry) “Those [students with disabilities] may master a minimal amount of different types of skills that are important to bring to the work setting no matter where they go” (Benjamin)</td>
</tr>
</tbody>
</table>

**Enacted curriculum.** The next part of the conceptual framework addressed by the analysis of interview data was the enacted, or implemented, curriculum for students with disabilities. Five overarching themes were revealed in this data, including the use of: (a) multiple
modalities, (b) accommodations, (c) scaffolding, (d) hands-on learning, and (e) special education liaison. To begin, several participants endorsed using multiple modalities to present instruction to students. For instance, Sylvia, Marcus and Benjamin commented on the general use of multiple modes, as displayed in Table 9, while Henry specified the use of “visual modality, auditory modality, and kinesthetic modality” and Marie described providing “instruction that meets all of the senses.” Secondly, interview data revealed a utilization of accommodations to implement the Launch curriculum. Specifically, Sylvia ascertained: “If we’re using the accommodations of a person with a disability, we can cover almost all of the class… having the kids with disabilities helps us teach everybody else.”

The third theme indicated in the data involved scaffolding procedures used to teach vocational skills to students with disabilities. Some interviewees, like Marie and Marcus, described a daily process of scaffolding skills that build on one another, while participants like Benjamin spoke about scaffolding instruction of skills according to student learning needs. Fourth, the notion of hands-on learning activities was identified as an overarching theme distilled from interview data. For example, Nicole described “I think that really what sets Launch and other technical schools apart is that it’s hands-on.” Others, such as Sylvia and Marie referred to the hands-on aspects of the implemented curriculum as “project-based learning” or cited students actively practicing a skill, respectively. Lastly, interview data consistently revealed utilization of the special education liaison to enact the vocational curriculum for students with disabilities. Interviewees like Marcus described: “We also have a liaison, who will come in and help us with students who have more severe special needs,” while Nicole endorsed that this individual is “just like a genius” with “modifications.” Table 9 summarizes these themes identified, along with associated text examples from interviews.
### Table 9

**Themes for Enacted Curriculum from Interviews**

<table>
<thead>
<tr>
<th>Theme</th>
<th>Text examples from interviews</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Multiple modalities</strong></td>
<td>“We try to use all modalities. So, it’s always spoken. It’s always written. It’s always demonstrated” (Sylvia)</td>
</tr>
<tr>
<td></td>
<td>“We do that using multi-modal training” (Marcus)</td>
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<tr>
<td></td>
<td>“If a teacher is open and willing to develop any and all kinds of multi-modality approaches, then usually that’s here our students with disabilities have a high success rate” (Benjamin)</td>
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<td></td>
<td>“I think it’s unique in a vocational setting that we can provide instruction that meets all of the senses. Touch, smell, whatever it is, looking, feeling, and we build our curriculum towards that and our lesson plans towards that.” (Marie)</td>
</tr>
<tr>
<td></td>
<td>“We’re always trying to introduce, for every student, visual modality, auditory modality, and kinesthetic modality.” (Henry)</td>
</tr>
<tr>
<td><strong>Accommodations</strong></td>
<td>“If we’re using the accommodations of a person with a disability, we can cover almost all of the class… having the kids with disabilities helps us teach everybody else.” (Sylvia)</td>
</tr>
<tr>
<td></td>
<td>“To the best of our ability, we try to anticipate, understand each student, and how he or she learns. Try to anticipate what might be a challenge.” (Henry)</td>
</tr>
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<td></td>
<td>“Sometimes, it’s breaking it into small pieces, sometimes it’s giving kids holistic approaches.” (Henry)</td>
</tr>
<tr>
<td></td>
<td>“Accommodations that are found in IEPs, many of which are just good teaching practices in general” (Benjamin)</td>
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<tr>
<td></td>
<td>“…four or five formats of a graphic organizer that are pretty transferrable.” (Hayleigh)</td>
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<tr>
<td><strong>Scaffolding</strong></td>
<td>“We scaffold, we build upon what they’re learning on a daily basis” (Marie)</td>
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<td></td>
<td>“Once they [students] acquire the knowledge, they can apply it and practice the implementation of that knowledge” (Henry)</td>
</tr>
<tr>
<td></td>
<td>“We have the scaffolding and hierarchy of not just rote learning, but we make sure that they can apply the learning” (Marie)</td>
</tr>
<tr>
<td></td>
<td>“…scaffolding the skill we’re trying to teach” (Marcus)</td>
</tr>
<tr>
<td></td>
<td>“…in the middle, this is all of the information that you want all of the students to understand. At the bottom part may be the basic information that some students are going to understand. And then, at the top part is where we’re going to challenge those learners that need to be challenged.” (Benjamin)</td>
</tr>
<tr>
<td><strong>Hands-on learning</strong></td>
<td>“I think that really what sets Launch and other technical schools apart is that it’s hands-on” (Nicole)</td>
</tr>
<tr>
<td></td>
<td>“There are certain parts that we go over and over and over again. So, you practice something, you apply it, and then you keep doing it.” (Henry)</td>
</tr>
<tr>
<td></td>
<td>“The project-based learning is what really captures everybody, because they can see what they’re doing and why.” (Sylvia)</td>
</tr>
<tr>
<td></td>
<td>“They can practice on each other; we encourage them to practice at home.” (Marie)</td>
</tr>
</tbody>
</table>
**Experienced curriculum for students.** The third aspect of the conceptual framework analyzed was students’ experience of the Launch curriculum, from the perspective of the staff members interviewed. The resulting themes, displayed in Table 10, were as follows: (a) success, (b) building self-confidence, (c) impact on future, and (d) challenges. Related to students’ experience of success, participants utilized this exact wording in quotations and also provided examples of student success after graduation from the Launch Program. For instance, Sylvia asserted: “I think that students with disabilities, they see a lot of success very quickly. They haven’t had that kind of success in the classroom.” Another interviewee, Marcus, described the experience of three students who graduated from his program: “Two of them are in their own business; one’s graduating from [college] this year. So, three success stories from [our program] here at Launch… all of them had IEPs.” The second theme identified was that students experience increased self-confidence within the Launch Program. According to interviewees, participation in the program can promote a “sense of pride” (Nicole) and “self-esteem” (Marie), as well as result in “kids totally transformed in their self-confidence” (Henry).

Next, data from interview participants consistently referred to the Launch Program’s impact on the futures of students with disabilities. This is clearly illustrated in a quote from Benjamin: “Launch can present to some students, depending on the class, a different slant on their future. And, I think also they’re so accustomed to hearing about college, college, college, that they get a little bit of a different glimpse of hope in a different avenue.” Also, interviewees referenced that students discuss Launch as a reason not to drop-out of high school, as well as a
place to earn college credits due to articulation agreements with local colleges/universities.

Lastly, participants endorsed challenges as the final theme related to student experiences of the Launch curriculum. Specifically, Henry and Benjamin described more global challenges, related to a student’s disability, or learning style, in relation to the prescriptive nature the curriculum, or the approach in a certain shop. For instance, Henry ascertained: “If we want to deliver things in a particular sequence, it’s difficult to allow some students who learn in an alternative approach the freedom to do that.” Participants like Hayleigh noted more particular challenges for students: “I think the hard thing for kids with special needs coming in here is there is a tremendous amount of writing.” These identified themes, along with cited examples from the interview text, are presented in Table 10 on the following page.
Table 10

*Themes for Experienced Curriculum (Students) from Interviews*

<table>
<thead>
<tr>
<th>Theme</th>
<th>Text examples from interviews</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Success</strong></td>
<td>“I think that students with disabilities, they see a lot of success very quickly. They haven’t had that kind of success in the classroom.” (Sylvia)</td>
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<td></td>
<td>“I’d say for most kids whose learning styles are more active, more kinesthetic, maybe more graphic, this is a great success for them.” (Henry)</td>
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<td>“I would say overall, in those classrooms that are less academic and mainly hands-on, usually their [students with disabilities] experience is very positive.” (Benjamin)</td>
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<td></td>
<td>“I think where they [students with disabilities] feel maybe a little inadequate in other classes, or not as good as some of the other students, that they feel just as good or better in some areas because of all that we do.” (Marie)</td>
</tr>
<tr>
<td><strong>Building self-confidence</strong></td>
<td>“The students with disabilities that are usually enrolled in that class, when they earn their [certification], it is a major boost to their confidence.” (Benjamin)</td>
</tr>
<tr>
<td></td>
<td>“…have that self-esteem, have that confidence, that they can do that on their own, in a job.” (Marie)</td>
</tr>
<tr>
<td></td>
<td>“There’s a sense of pride.” (Nicole)</td>
</tr>
<tr>
<td></td>
<td>“And we see many of our kids totally transformed in their self-confidence.” (Henry)</td>
</tr>
<tr>
<td><strong>Impact on future</strong></td>
<td>“Launch can present to some students, depending on the class, a different slant on their future…they get a little bit of a different glimpse of hope in a different avenue.” (Benjamin)</td>
</tr>
<tr>
<td></td>
<td>“Every year, we have kids saying things like ‘If it weren’t for my Launch class, I would have dropped out.’” (Henry)</td>
</tr>
<tr>
<td></td>
<td>“When they leave here, they can go to [college]. We have articulation agreements with colleges. They get credits.” (Marcus)</td>
</tr>
<tr>
<td></td>
<td>“They [students with disabilities] see there’s a light at the end of the tunnel in regards to ‘I will be able to get myself a pretty decent paying job at a very young age.’” (Benjamin)</td>
</tr>
<tr>
<td><strong>Challenges</strong></td>
<td>“I think the hard thing for kids with special needs coming in here is there is a tremendous amount of writing.” (Hayleigh)</td>
</tr>
<tr>
<td></td>
<td>“That [type of disability] is a major factor in how students are going to move forward in learning various different skills, depending on which shop they’re in.” (Benjamin)</td>
</tr>
<tr>
<td></td>
<td>“If we want to deliver things in a particular sequence, it’s difficult to allow some students who learn in an alternative approach the freedom to do that.” (Henry)</td>
</tr>
</tbody>
</table>

**Experienced curriculum for staff.** The experienced element of the Launch curriculum was also analyzed from the perspective of staff members. The data revealed two primary themes
regarding this area of the conceptual framework, which are presented in Table 11: (a) 
relationship building, and (b) lack of prior teaching experience. For one, staff consistently 
referenced their experience building relationships with students within the Launch curriculum. 
Some participants, like Hayleigh, referenced the program’s emphasis on “build relationships,” 
while others, like Nicole, expanded on the description to say: “I’d say most of the kids learn how 
to trust. Sometimes for the first time, they trust and adult and get a distinct relationship.” The 
second theme revealed in the data was that prior teaching experience is not a prerequisite to work 
in the Launch Program. Benjamin explained: “Vocational teachers do not have a student teaching 
aspect to getting their certification. So, many of them have never taught before.” Participants 
cited that this learning “curve is tremendous” (Nicole) and can be “an uphill battle” (Benjamin). 
Table 11 below summarizes the themes identified and associated examples from the interview 
transcripts.

Table 11

<table>
<thead>
<tr>
<th>Themes for Experienced Curriculum (Staff) from Interviews</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Theme</strong></td>
</tr>
<tr>
<td>Relationship building</td>
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<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>No prior teaching experience</td>
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</tbody>
</table>
**Goal setting.** After the intended, enacted, and experienced elements of the curriculum pillar of the conceptual framework were thematically coded, the next pillar addressed was goal setting. Table 12 below displays the themes revealed in the interview data and textual examples, including: (a) preparing all students, (b) employability, (c) student-directed learning, and (d) work in teams. The first theme was the described goal of preparing all students with postsecondary employment skills. For instance, Henry ascertained: “My vision for Launch is to help prepare all students for success in their life after high school.” Likewise, Sylvia explained: “There’s so many steps that we can make everybody successful at something, even if it takes longer for someone to learn something.” Secondly, staff interview responses reflected the Launch Program’s focus on employability. Nicole refers to this as “get them career ready, whether it’s part-time in college or full-time after high school.” Other participants, such as Marie, Henry and Marcus, referenced an overarching goal of “employability.” Specifically, Marie described: “Employability is the main focus of what we do in Launch. All of our goals eventually lead to the student being an independent employee somewhere.” In comparable fashion, Henry indicated: “We try to utilize what we call employability skills. We’re probably the only department that consciously and deliberately teaches kids how to get jobs and keep jobs.”

Student-directed learning was the third theme established as a pattern within the interview data. For example, participants like Hayleigh discussed her practice of classroom instruction and its application on student-specific goals. Similarly, Sylvia asserted: “We try not to direct the kids in any direction, except the one that they want to go, that they choose.” Lastly, the data indicated a goal of students working in teams. This was evidenced by a statement Marie made when asked about programmatic goals for students with disabilities: “…to be part of a
functioning team…we show them a hands-on, real-life setting and what it means to be part of a team.” On a related note, Benjamin endorsed: “…those [goals] that are very applicable for our students with disabilities, such as being able to work with a team.” These themes for goal setting, along with additional text examples, are displayed below in Table 12.

Table 12

Themes for Goal Setting from Interviews

<table>
<thead>
<tr>
<th>Theme</th>
<th>Text examples from interviews</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Preparing all students</strong></td>
<td>“I’m going to ignore the fact that a student has a disability and try to give everyone the same thing. I expect everyone to achieve the highest level possible.” (Marcus)</td>
</tr>
<tr>
<td></td>
<td>“My vision for Launch is to help prepare all students for success in their life after high school.” (Henry)</td>
</tr>
<tr>
<td></td>
<td>“There’s so many steps that we can make everybody successful at something, even if it takes longer for someone to learn something.” (Sylvia)</td>
</tr>
<tr>
<td><strong>Employability</strong></td>
<td>“Our main focus is to get them career ready… Career ready, because that’s what’s really going to feed them.” (Nicole)</td>
</tr>
<tr>
<td></td>
<td>“Employability is the main focus of what we do in Launch. All of our goals eventually lead to the student being an independent employee somewhere.” (Marie)</td>
</tr>
<tr>
<td></td>
<td>“The most important thing we teach here is employability skills…there are five factors: you have to be on-task, safety, punctuality, preparedness, and conduct.” (Marcus)</td>
</tr>
<tr>
<td></td>
<td>“We try to utilize what we call employability skills. We’re probably the only department that consciously and deliberately teaches kids how to get jobs and keep jobs.” (Henry)</td>
</tr>
<tr>
<td></td>
<td>“…that’s what a lot of teachers are constantly reminding students about employability skills.” (Benjamin)</td>
</tr>
<tr>
<td><strong>Student-directed learning</strong></td>
<td>“We try not to direct the kids in any direction, except the one that they want to go, that they choose.” (Sylvia)</td>
</tr>
<tr>
<td></td>
<td>“The goals of the student are really the most important thing…we try to cater to their individual needs.” (Marcus)</td>
</tr>
<tr>
<td></td>
<td>“I feel like I have to be ready and able to prepare kids for their goals for college, for careers, for the workforce.” (Hayleigh)</td>
</tr>
<tr>
<td><strong>Work in teams</strong></td>
<td>“…those [goals] that are very applicable for our students with disabilities, such as being able to work with a team.” (Benjamin)</td>
</tr>
<tr>
<td></td>
<td>“…to be part of a functioning team…we show them a hands-on, real-life setting and what it means to be part of a team.” (Marie)</td>
</tr>
<tr>
<td></td>
<td>“…talk to people, find out who the director is and who the assistant director is, that they have lead teachers or co-teachers…” (Hayleigh)</td>
</tr>
</tbody>
</table>
**Occupational skills.** The next conceptual framework pillar analyzed within the interview data source was occupational skills. Data revealed the following four themes, which are displayed in Table 13: (a) technical skills/competencies, (b) soft skills, (c) independence, and (d) transferable skills. The first theme, technical skills and competencies, was referenced both in general and specifically. For instance, participants such as Henry and Sylvia discussed technical skills as the focus of occupational training early in the Launch Program. Henry commented: “Our first focus is on the acquisition of the technical skills. Which include safety and the specific technical skills related to each of the different programs.” Other participants, such as Marie and Marcus, named specific technical skills that students with disabilities obtain, such as OSHA, CPR and First Aid certifications. As a compliment to the technical skills reflected in the first theme, the second theme centered on the “soft skills” referenced by numerous interviewees. Specifically, Henry juxtaposed the two with his statement: “Not only do we teach the technical skills in each one of the 12 different programs, but we’re also talking about some of the soft social-emotional, employability skills.” Likewise, Hayleigh described that the “21st Century Skills Rubric” is used to infuse soft skill instruction within her courses. Marcus added further specificity by detailing the soft occupational skill aspects of his grading structure, which include: “on-task, safety, punctuality, preparedness, and conduct.”

The third theme that emerged was the notion of independence with occupational skills instructed within the Launch Program. Namely, Henry and Marie both highlighted the importance of building student independence. For example, Marie ascertained: “I don’t think you can put a value on how important it is that [students] can actually perform the skills and do it independently.” Finally, the data reflected a theme of transferrable skills, or those learned by students that can be applied to any field or career. A majority of interview participants referred to
transferrable skills in some manner. As Marcus described: “Those skills are transferrable everywhere. What’s the first thing an employer will ask of you? To be on-time. To be prepared.” Likewise, Henry asserted: “They take with them the benefits of sticking with the job, acquiring skills, learning a lot about themselves. And, we find that a lot of those kids transfer those technical and self-awareness skills into another field.” Table 13 on the following page summarizes the themes identified for occupational skills, along with additional text examples from the interview transcripts.
## Table 13

### Themes for Occupational Skills from Interviews

<table>
<thead>
<tr>
<th>Theme</th>
<th>Text examples from interviews</th>
</tr>
</thead>
</table>
| **Technical skills/competencies** | “Our first focus is on the acquisition of the technical skills. Which include safety and the specific technical skills related to each of the different programs.” (Henry)  
“So, in 10th grade, we work a lot of technical vocabulary. We work on what those words mean because they’re very common in the field.” (Sylvia)  
“Everyone one of our programs has hundreds of these competencies built into the curriculum.” (Henry)  
“They [students] get OSHA certified, CPR, First Aid certified” (Marie)  
“They get an OSHA card; you need an OSHA card to work [in the field.]” (Marcus) |
| **Soft skills**               | “Not only do we teach the technical skills in each one of the 12 different programs, but we’re also talking about some of the soft social-emotional, employability skills.” (Henry)  
“They’re not going out to work just to practice their technical skills and to earn more. They’re also there to learn employability skills…It’s all about employability or soft skills” (Nicole)  
“Then, 21st century skills are the skills they need to be successful in the workforce” (Hayleigh)  
“There are five factors [of our grade]: you have to be on-task, safety, punctuality, preparedness, and conduct.” (Marcus)  
“All of those soft skills…” (Hayleigh) |
| **Independence**             | “I don’t think you can put a value on how important it is that [students] can actually perform the skills and do it independently.” (Marie)  
“You know, the notion of independence is really important.” (Henry)  
“…and then they’ll be doing that independently.” (Marcus)  
“For all of our kids, including the kids with disabilities, it doesn’t mean we’re going to do it for you.” (Henry) |
| **Transferrable skills**     | “Those skills are transferrable everywhere. What’s the first thing an employer will ask of you? To be on-time. To be prepared.” (Marcus)  
“There are all different aspects of every industry. So, that’s the exposure we like to give them so that they don’t think it’s just one little pocket and if they don’t fit into the pocket, then that’s it.” (Nicole)  
“They take with them the benefits of sticking with the job, acquiring skills, learning a lot about themselves. And, we find that a lot of those kids transfer those technical and self-awareness skills into another field.” (Henry)  
“You have to figure out what are the things they need for any of those careers that will carry them through.” (Hayleigh)  
“So, a lot of what we do carries into other career areas.” (Marie) |
**Work experience.** The final pillar of the conceptual framework investigated was the Launch Program’s provision of work experience. Interviews revealed the following themes: (a) real-life work opportunities, (b) co-op learning, and (c) alternatives to co-op. These themes and associated text examples are displayed below in Table 14. For one, interview data indicated real-life work opportunities. Sylvia illustrated this theme by her comment: “Almost all of our shops do live work…we treat it as though it’s a job. We’re your supervisor, these are your colleagues, and these are the things that you need to do, in order to keep your job.” Additionally, staff identified that students with disabilities gain real-life work experience across Launch programs through such opportunities as practicums built into coursework, observations at work sites, or co-op placements, to name few. The second theme that emerged from data was the Launch Program’s co-operative education experience, or “co-op.” As described by Marie: “Senior year, they can go for cooperative learning, which is a program where they can go out to work on Monday through Friday. They are actually employees of the facility.” Nicole further detailed that the co-op experience relates to the area of program study. “So, auto goes to an auto shop or a car dealer, health assisting goas to hospitals or pharmacy…there are different ways of getting each kid out from every shop.” Moreover, alternatives to co-op emerged from the data as a third theme. Two alternate pathways were discussed by Benjamin and Nicole, specifically. Benjamin referenced the “School-to-Work Collaboration” for students who are significantly impacted by the nature of their disability and are educated in the school’s self-contained classes. He explained that this is a “paid opportunity” for students to obtain “work experience in the school store, in the kitchen, and sometimes in other shop areas of the Launch curriculum.” Additionally, Nicole described an “unpaid workplace program” for students who did not qualify for co-op, which
provides another avenue for work experience. These themes for work experience, as well as associated examples from staff interviewed, are included in Table 14.

Table 14

Themes for Work Experience from Interviews

<table>
<thead>
<tr>
<th>Theme</th>
<th>Text examples from interviews</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Real-life work opportunities</strong></td>
<td>“Almost all of our shops do live work…we treat it as though it’s a job. We’re your supervisor, these are your colleagues, and these are the things that you need to do, in order to keep your job.” (Sylvia)</td>
</tr>
<tr>
<td></td>
<td>“We show them a hands-on real-life setting.” (Marie)</td>
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<td></td>
<td>“They’re not going out to work just to practice their technical skills and earn more. But, they’re also there to learn employability skills.” (Nicole)</td>
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<tr>
<td></td>
<td>“For 12 weeks, all of their assignments are practicum-based.” (Hayleigh)</td>
</tr>
<tr>
<td><strong>Co-op learning</strong></td>
<td>“There are jobs for each different program. So, auto goes to an auto shop or a car dealer, health assisting go to hospitals or pharmacy…there are different ways of getting each kid out from every shop.” (Nicole)</td>
</tr>
<tr>
<td></td>
<td>“Senior year, they can go for cooperative learning, which is a program where they can go out to work on Monday through Friday. They are actually employees of the facility.” (Marie)</td>
</tr>
<tr>
<td></td>
<td>[speaking of co-op] “The students take part in the preparation of food, deciding what foods are made, the paying for the food, the setting-up, the presentation, the customer service. So, it’s a job.” (Sylvia)</td>
</tr>
<tr>
<td><strong>Alternatives to co-op</strong></td>
<td>“We created what they call a School-to-Work Collaboration class. I have students who are [in self-contained classes] that are getting work experience in the school store, in the kitchen, and sometimes in other shop areas of the Launch curriculum.” (Benjamin)</td>
</tr>
<tr>
<td></td>
<td>“There are those kids that can’t go on co-op. I have an unpaid workplace program that mimics identically the requirements, but they’re unpaid.” (Nicole)</td>
</tr>
<tr>
<td></td>
<td>“The school-to-work collaboration is a paid opportunity. So, it is almost like having an internship during the school day.” (Benjamin)</td>
</tr>
<tr>
<td></td>
<td>“If they’re not in co-op, then they can assist the teacher or we send them out to different job shadows.” (Nicole)</td>
</tr>
</tbody>
</table>

**Summary of interview data.** Overall, analysis of interview data revealed themes regarding each pillar of the conceptual framework. For one, staff thematically indicated that the intended Launch curriculum involves state frameworks, three distinct levels, and focuses on all
students, as well as the provision of transferrable employment skills. Secondly, the enacted curriculum utilizes multiple modalities of instruction, accommodations, scaffolding, hands-on learning, and support from a special education liaison. Third, according to staff interviewed, the student experienced curriculum reflects success, increased self-confidence, challenges, and an impact on future plans. With regard to staff experience, themes indicated relationship building and the challenges associated with no prior teaching experience. Next, interview data revealed goal setting themes of preparing all students, employability, student-directed learning, and promoting work in teams. Related to occupational skills, the data revealed themes of technical skills/competencies, soft skills, independence, and transferrable skills. Lastly, the themes identified for the Launch Program’s provision of work experience were real-life work opportunities, co-op learning, and alternatives to co-op.

**Document Review**

The collection of documents collected regarding the Launch Program was the third data source analyzed. As was the case with the survey and interview sources, the document review data were analyzed using the pillars of the conceptual framework. Initial codes were established and then organized into larger themes according to each aspect of the conceptual framework, which are presented in the sections to follow. The themes presented in narrative and table format were recorded based on the frequency of their occurrence within and across documents collected.

**Intended curriculum.** To begin, documents reviewed yielded two themes related to the intended curriculum of the Launch Program. Specifically, as indicated in Table 15, these overarching themes were: (a) tri-leveled curriculum and (b) use of state frameworks. For one, documents such as program guides, course catalog, website, and materials provided by the Executive Director discussed the program’s purposeful tri-leveled curriculum. This is illustrated
by an excerpt from the course catalog (2017-18 school year), which explained “students who choose to ‘major’ in one of our programs take Level One course in that field as sophomores, the Level Two course as juniors… and the Level Three course, with the possibility of a Cooperative Education experience, for seniors.” Additionally, field notes reviewed documented conversations with staff that highlighted three roles of a teacher in conjunction with the three levels of the Launch curriculum: the teacher as a presenter of technical knowledge (level one), the teacher as a facilitator (level two) and the teacher as a coach (level three). Further, the intended, or planned, tri-leveled curriculum was illustrated by the program syllabi reviewed, which divided the instruction of technical and career skills into three distinct year-long cycles.

The second theme, use of state frameworks, was also evident across such documents as the program website, printed program guides, state-issued curricular materials, and field notes. For example, the “Vocational Technical Education (VTE) Frameworks” established by Massachusetts guide the instruction of occupationally-specific skills in Chapter-74 approved vocational technical education programs across the state, including the Launch Program. These frameworks were referenced by the Launch website in the following manner: “It is important to note that the Launch courses and curricula are based upon the Massachusetts Department of Elementary and Secondary (DESE) Career and Technical Education Frameworks.” Likewise, the Launch Program guide (2016-17 school year) articulated this aspect of the intended curriculum by stating: “student learning standards are based on the most recently revised frameworks from the Massachusetts DESE.” Table 15 on the following page summarizes these themes, along with additional examples cited from documents reviewed.
Table 15

*Themes for Intended Curriculum from Document Review*

<table>
<thead>
<tr>
<th>Theme</th>
<th>Frequency count</th>
<th>Examples from documents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tri-leveled curriculum</td>
<td>8</td>
<td>Field notes: three teacher roles/course level</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Program guide (2016-17): “Chapter-74 approved programs have three levels and end with certification for successful completion.”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Course catalog (2017-18): explains when students take each level</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Course syllabi reflect tri-leveled scaffolding</td>
</tr>
<tr>
<td>Use of state frameworks</td>
<td>6</td>
<td>Review of Massachusetts DESE frameworks</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Program guide (2016-17): refers directly to “most recently revised frameworks”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Program website: discusses framework as basis for curriculum</td>
</tr>
</tbody>
</table>

**Enacted curriculum.** Next, the document review data revealed four themes regarding the enacted, or implemented, curriculum. These themes, displayed in Table 16, were as follows: a) hands-on learning, (b) scaffolding, (c) use of support staff, and (d) multi-sensory. Each of these themes were reflected across several documents reviewed, including a published program guide (2016-17), course catalog (2017-18) and syllabi, the program website, and a news article. With regard to hands-on learning, the program website highlighted a student quote: “I take this Launch class because I think Launch classes are more hands-on than regular classes.” Similarly, in a news article regarding a specific course of study in Launch, the teacher explained: “Hands-on learning allow student to explore the practical application of the things they might be learning in their traditional academic classes.” Moreover, the published program guide highlighted the program’s “built-in, hands-on shop/lab activities,” while the course catalog explained “the programs in the Launch department provide hands-on experiences that reflect the real world of work.” The second theme regarding the enacted curriculum was scaffolding of skills. Data collected from a review of course syllabi highlighted scaffolding procedures utilized to introduce
the technical and career skills within each leveled course. More specifically, syllabi indicated the skills instructed during each week of the course, as well as instructional methods/techniques, and assessment methods. Additionally, the program guide highlighted the process of scaffolding students’ independence with skills taught. This was articulated as: “we focus no only on the acquisition of knowledge, but also on your understanding- and application- of what you are learning.”

Third, the theme of support staff presented itself within the document review data. Documents referenced both special education and the Launch Career Counselor as two possible avenues of support for students within the program’s curriculum. Lastly, multi-sensory instruction was the final theme referenced across documents reviewed. In particular, course syllabi for various areas of study in Launch consistently cited auditory, visual, and kinesthetic modes of presentation as the instructional “methods and techniques” utilized to teach the skills outlined. Further, a student quoted in the news article reviewed referenced “kinesthetic” learning provided by the Launch Program and the program guide highlighted the program’s enacted “active style of learning.” The themes identified for enacted curriculum and associated examples from documents analyzed are included in Table 16.
Table 16

Themes for Enacted Curriculum from Document Review

<table>
<thead>
<tr>
<th>Theme</th>
<th>Frequency count</th>
<th>Examples from documents</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hands-on learning</strong></td>
<td>8</td>
<td>Website: student perspectives highlighted&lt;br&gt;News article: teacher explanation of “hands-on learning”&lt;br&gt;Program guide (2016-17) &amp; course catalog (2017-18): quotes regarding hands-on learning</td>
</tr>
<tr>
<td><strong>Scaffolding</strong></td>
<td>4</td>
<td>Program guide (2016-17): scaffolding from students’ technical knowledge to application&lt;br&gt;Review of course syllabi</td>
</tr>
<tr>
<td><strong>Use of support staff</strong></td>
<td>3</td>
<td>Course catalog (2017-18) &amp; program guide (2016-17): reference Launch Career Counselor&lt;br&gt;Program guide (2016-17): references special education support</td>
</tr>
<tr>
<td><strong>Multi-sensory</strong></td>
<td>3</td>
<td>Review of course syllabi: instructional methods and techniques&lt;br&gt;News article: reference to “kinesthetic” learning; program guide (2016-17): references “active style of learning”</td>
</tr>
</tbody>
</table>

**Experienced curriculum for students.** Themes related to the experienced curriculum for Launch students were established by reviewing student quotes provided on the program website, within published course guides, and a news article. As indicated in Table 17, initial coding centered upon three themes: (a) real world/life skills, (b) focus on the future, and (c) work as a group. It is noted that the frequency count in the table represents the number of different student quotations related to the established theme. First, students’ described experiences of the Launch curriculum highlighted gaining real world, or life skills. For example, a student quote on the program’s website reads: “My Launch class is very important because it teaches students life skills that could land us a good job and make us successful people.” In similar fashion, a student quoted in the program guide explained: “It [Launch] gives me the skills I need to know in college and in the real world.” Secondly, student comments thematically referenced how the Launch curriculum influenced a focus on the future. In particular, some students quoted on the
website endorsed that “it changed my goals and plans for my future” and “made my future career a possible reality.” Likewise, a student interviewed as part of a news article articulated “The [Launch] program has given me what I want do to in my life.” Additionally, another student ascertained “To be honest, if it was not for my Launch class, I probably would have dropped out of school.”

The third and final theme revealed by the document review data was the student experience of working in a group. Namely, the 21st Century Life & Skills Rubric, a guiding program document, referenced two areas of the student experience regarding group work: “interacts effectively with others” and “works effectively in diverse teams.” From the student perspective, two students quoted on the website endorsed: “group work is key” and “you learn how to work as a group with your classmates.” Table 17 on the following page displays the themes identified for student experiences of the Launch curriculum, as well as associated examples.
Table 17

*Themes for Experienced Curriculum (Student) from Document Review*

<table>
<thead>
<tr>
<th>Theme</th>
<th>Frequency count</th>
<th>Examples from documents</th>
</tr>
</thead>
</table>
| Real world/life skills     | 5               | “…gives me the skills I need to know… in the real world”  
“It teaches students life skills”  
“Launch gives us advantages to know how the real world is”  
“…allows me to learn skills that I will be able to use later in life” |
| Focus on the future        | 5               | “Launch made my future career a possible reality.”  
“…it has changed my plans and goals for my future”  
“…it helps me prepare for the future”  
“…has given me what I want to do in my life” |
| Work as a group            | 4               | “You learn how to work as a group with your classmates.”  
“…group work is key”  
21st Century Life & Career Skills Rubric:  
“interacts effectively with others,” “works effectively in diverse teams”  
Our Guiding Principles (website): “students learn independently and through group work” |

**Experienced curriculum for staff.** Data reviewed from documents collected did not yield noteworthy themes regarding the staff experience of the Launch curriculum. Since program documents did not include staff perspectives in the same manner as the survey and interview data, themes were not reported. It is noted, however, that document data did reflect student perspectives that teachers utilize their prior field experience to instruct their Launch classes. For instance, on the website, a student was quoted: “I can have a better understanding of the field I am getting into and learn from teachers who have real world experience in that field.” In similar fashion, another student perspective from the website endorsed: “The instructors are the greatest. They know their trade like the back of their hand and have a style of teaching that everyone can relate to.”
Goal setting. With regard to the goal setting pillar of the conceptual framework, the document data produced three overarching themes, which are indicated in Table 18: (a) employability, (b) envision future pathways, and (c) “all students.” For one, program documents consistently referenced a goal of employability, either by directly utilizing this term or describing the program’s focus on preparing students for careers. Specifically, the program guide published for the 2016-17 school year described that prospective students “…learn what are called ‘employability skills,’ ways of working that are sought after by people and companies who are hiring—whether for a summer job or for more long-term career employment.” Likewise, the course catalog from 2017-18 stated the following goal: “We aim to provide relevant and up-to-date educational experiences that will lead to fruitful career opportunities.” Furthermore, the introductory statement on the program’s website describes: “Launch prepares students for post-secondary education and careers in some of the fastest growing professions in the world today.”

The second goal setting theme highlighted by document review data was the notion of providing future pathways for students. As described by the program website: “Whether you are planning to continue with your education by attending a liberal arts college or university, a technical institute…or enter the workforce immediately after high school, Launch prepares you for success in your future.” In similar fashion, the course catalog discussed that “All of our technical areas offer pathways to technical, two-, or four-year college matriculation, as well as college credit at selected schools.” To provide tangible evidence of these pathways, the program guide included a section dedicated to “featured graduates,” which highlighted where former students from each Launch course of study were working, in training, or attending college. Lastly, the data revealed a theme of “all students,” which was consistently quoted across program documents reviewed. Specifically, the most recent course catalog and prior program
guide described that the Launch program is offered to “all students.” The website further endorsed: “Taking courses through Launch offers opportunities for students of all abilities, interests, and talents.” These themes for goal setting reflected by documents reviewed and associated examples are presented below in Table 18.

Table 18

**Themes for Goal Setting from Document Review**

<table>
<thead>
<tr>
<th>Theme</th>
<th>Frequency count</th>
<th>Examples from documents</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Employability</strong></td>
<td>12</td>
<td>Program guide (2016-17) stated goal of “future employment;” “you also learn what are called ‘employability skills’”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Course catalog (2017-18): “We aim to provide… fruitful career opportunities.”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Website introduction: “Launch prepares students for post-secondary education and careers…”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Website: Career resources page</td>
</tr>
<tr>
<td></td>
<td></td>
<td>MA DESE website: Framework strand four: “Employability and Career Readiness”</td>
</tr>
<tr>
<td><strong>Future pathways</strong></td>
<td>8</td>
<td>Program guide (2016-17): section about “featured graduates”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Course catalog (2017-18): “All of our technical areas offer pathways…”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Website: articulation agreements; reference to different pathways available after Launch program</td>
</tr>
<tr>
<td><strong>“All students”</strong></td>
<td>4</td>
<td>Program guide (2016-17) &amp; course catalog (2017-18): “open to all students.”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Website: “…offers opportunities for students of all abilities, interests, and talents”</td>
</tr>
</tbody>
</table>

**Occupational skills.** The next conceptual framework pillar analyzed was occupational skills. Document review data revealed four themes, which are displayed in Table 19: (a) transferrable, (b) soft skills, (c) technical skills/competencies, and (d) independence. To begin, the notion of transferrable occupational skills was a theme across documents reviewed. At times, this theme was overtly discussed, such as the news article that reported on a Launch student utilizing skills from all different areas studied. Specifically, when this student was asked about
future plans, “she said she can imagine branching out into all of the fields she has explored through Launch.” Also, on the program website, a different student explained: “It [Launch area of study] allows me to learn skills that I will able to use later in my life in whatever career I choose to pursue.” Other times, transferability of occupational skills was more of a subtle suggestion, such as the program guide’s indication that occupational skills are instructed “that are sought after by people and companies who are hiring.”

The second theme reflected in the document data was soft skills as an area of occupational skills covered by the Launch Program. Specifically, the course catalog cited “confidence and self-esteem” as byproducts of Launch’s skill development. Similarly, the program guide highlighted soft skills of “creativity and innovation,” “critical thinking and problem solving,” “communication and collaboration.” Moreover, the program’s 21st Century Life & Career Skills rubric highlights five categories of soft occupational skills covered across courses, including: (a) “flexibility & adaptability,” (b) “initiative & self-direction,” (c) “social & cross-cultural skills,” (d) “productivity & accountability,” and (e) “leadership & responsibility.” It is further noted that these skill areas are referenced by the previously published program guide and course catalog. Next, the third theme juxtaposes the soft skills of the prior theme with technical skills/competencies. As described on the website, “…students develop extensive competencies in their field of study” and “provide high school students with a foundation of knowledge & skills in a particular area of future study.” Additionally, a review of the Massachusetts Vocational Technical Education (VTE) frameworks and Launch course syllabi yielded evidence of hundreds of technical skills and competencies associated with each of the Launch programs. It is further noted that additional documents provided by the program director
explained that “Skills Manager” is a program utilized to track students’ achievement of technical skills and competencies determined by the state frameworks.

Lastly, a theme of independence with occupational skills was obtained from coding procedures. Though it occurred less frequently, reference to students’ independent demonstration of occupational skills was made across the program guide, website, and 21st Century Skills rubric. Specifically, one skill area in which students are assessed by the 21st Century Life & Career Skills rubric is “works independently.” Likewise, the program guide cited a focus on student “initiative and self-direction” and the website highlighted a student perspective that “they [Launch teachers] never just give you the answer but point you in the right direction to find it yourself.” Table 19 on the following page summarizes the themes identified for occupational skills and examples from documents reviewed.
Table 19

*Themes for Occupational Skills from Document Review*

<table>
<thead>
<tr>
<th>Theme</th>
<th>Frequency count</th>
<th>Examples from documents</th>
</tr>
</thead>
</table>
| *Transferrable*        | 10              | Program guide (2016-17): focus on skills “that are sought after by people and companies who are hiring”  
                       |                  | News article: “…she can imagine branching out into all of the fields she has explored through Launch.”  
                       |                  | Website: skill to use “in whatever career I choose”  
                       |                  | **21st century life & career skills rubric: all skill categories**  
                       |                  | Course catalog (2017-18): self-esteem, confidence  
                       |                  | Program guide (2016-17): creativity/innovation, critical thinking/problem solving, communication/collaboration  
                       |                  | Website: references to problem solving, relationships with coworkers, honesty  
                       |                  | **Technical skills/competencies**  
                       | 8               | Review of Massachusetts DESE frameworks & Launch course syllabi  
                       |                  | Additional documents: “Skills Manager” to track student competencies  
                       |                  | Website: “extensive competencies in their field of study”  
                       |                  | News article: “how to use the tools”  
                       |                  | **Independence**  
                       | 3               | **21st century life & career skills rubric: “works independently”**  
                       |                  | Website: student quote  
                       |                  | Program guide (2016-17): “initiative and self-direction”  

**Work experience.** The final conceptual framework pillar investigated was the provision of work experience by the Launch program. This aspect of data analysis yielded two overarching themes, which are detailed in Table 20: (a) real-life work and (b) co-op. First, documents such as the program guide, course catalog, and website referenced and highlighted examples of real-life work experiences provided by Launch. Specifically, the program guide reviewed ascertained: “Most courses take in ‘Live Work’ which helps students learn how to apply what they’ve learned
in real world situations with real customers/clients.” The course catalog from the 2017-18 school year similarly referenced that “The programs in the Launch department provide hands-on experiences that reflect the real world of work.” Moreover, the website provided examples of “live work” by highlighting program-specific community service learning opportunities. For instance, carpentry students “build projects such as cabinets, storage facilities and playground equipment for use in schools,” culinary arts students “operate a modest take-out restaurant,” information technology students “help install networks,” and automotive students “offer repair services.”

Secondly, the theme of Co-operative Education or “Co-op” was apparent in the previously published program guide and course catalog, along with the Launch website. As explained by the program guide, Co-op is a “paid employment opportunity for highly qualified seniors in which they earn both competitive wages and course credit when they leave during the school day and go to work with area employers in the careers they have been studying.” The website provided the following additional specifications: “As seniors, students who have completed technical competencies equivalent to at least one and one-half years of full-time study in their technical area, and satisfy stringent academic and attendance standards, can apply.” Furthermore, each of the aforementioned documents referenced the application process, which includes a review of a student’s academic, attendance, disciplinary record, as well as signed letters of recommendation. These two themes regarding work experience, as well as associated examples, are summarized in Table 20 on the following page.
Table 20

Themes for Work Experience from Document Review

<table>
<thead>
<tr>
<th>Theme</th>
<th>Frequency count</th>
<th>Examples from documents</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Real-life work</em></td>
<td>5</td>
<td>Program guide (2016-17): “most courses take in ‘Live Work’”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Course catalog (2017-18): “experiences that reflect the real world of work”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Website: examples of community service learning across courses</td>
</tr>
<tr>
<td><em>Co-op</em></td>
<td>3</td>
<td>Program guide (2016-17) &amp; Course catalog (2017-18): “Cooperative Education (Co-op) is a paid employment opportunity.”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Website: discussion of co-op requirements</td>
</tr>
</tbody>
</table>

Summary of document review data. Taken together, data from documents reviewed revealed themes associated with the majority of conceptual framework pillars. First, documents thematically suggested that the Launch curriculum intends to use state frameworks and provides a tri-leveled curriculum. In terms of the enacted curriculum, the documents reviewed indicated themes of hands-on learning, scaffolding, use of support staff, and multi-sensory instruction. Student experiences of the curriculum, as evidenced by direct student quotations cited in documents, reflected themes of real world/life skills, a focus on the future, and work as a group. On the other hand, the documents reviewed did not provide data regarding staff experiences of the Launch curriculum. However, the themes identified for the goal setting pillar indicated an intention of reaching “all students,” addressing employability skills, and developing future pathways. Next, the documents reviewed referenced occupational skills as soft skills, technical skills/competencies, independence, and those that are transferrable. Finally, themes of work experience were co-op and examples of real-life work provided by the Launch Program.

Classroom Visits
The final data source analyzed included protocols from the four classroom visits. Procedurally, these data were analyzed in the same manner as survey, interview, and document review data. Themes were established for each pillar of the conceptual framework. Since the sheer amount of typed information was less than the other three data sources and did not include lengthy text examples, these themes of the conceptual framework were compiled in one chart, Table 21. As displayed below, the table presents the conceptual framework pillar, theme established, frequency counts for number of times the theme was coded within and across visits, and “field note data,” as recommended by Miles et al. (2014, p. 91). Additionally, narrative descriptions are presented for the pillars of (a) curriculum (including intended, enacted and experienced aspects), (b) goal setting, (c) occupational skills, and (d) work experience.

**Curriculum (intended, enacted, experienced).** Data from classroom visits reflected recurrent themes for intended, enacted, and experienced aspects of the Launch vocational curriculum. Related to the *intended* curriculum, the primary theme extracted was consistent indication of the purpose of the lesson across classrooms. Specifically, within each classroom, teachers articulated a clear focus of the lesson, which largely related skills taught and practiced on that day to real-life and employment in the field.

As far as the *enacted curriculum*, the themes were as follows: (a) hands-on learning, (b) multi-sensory, (c) scaffolding, (d) accommodations provided, and (e) special educator. First, protocols from classroom visits consistently referenced students engaging in hands-on, project-based learning. For instance, the classes were observed to involve active problem solving (e.g. diagnosing a problem), along with practice and application of previously taught vocational skills. The second theme revealed by the classroom visit data was a multi-sensory approach to instruction. Specifically, observation protocols documented auditory, visual, and kinesthetic
modes of implementing the Launch curriculum. Next, the data identified scaffolding as a third theme of the enacted curriculum. Namely, field notes documented observable efforts to scaffold curricular material such that declarative knowledge and skills were introduced, then practiced, and applied. For example, during the fourth classroom visit, students were asked to reiterate terminology related to a particular skill, then pair-up with classmates to practice the skill, and finally apply it independently. The fourth theme identified documented accommodations provided to implement the curriculum. In particular, the following accommodations were coded within classroom visit data: preview/review of terminology, use of visuals, and breaking larger skill into small, concrete steps. Lastly, the final theme related to the enacted curriculum was special educator support. The special education liaison was observed to be present during two classroom visits providing support to teachers for curricular instruction, as well as assisting student understanding.

With regard to the experienced curriculum, the data yielded two themes for students: a) working as a team and b) success. Specifically, students working together was consistently coded across classroom visits. Not only were students asked to pair-up, or work in small groups, but teachers also verbalized the importance of being able to work as a team in the field. Additionally, there was consistent evidence regarding student experiences of success within the Launch curriculum. For instance, codes assigned indicated efforts to build a student’s self-confidence and independence. There were also documented displays of the success of prior students, such as their college or postsecondary training pursuits. Moreover, the data revealed two themes regarding the staff experience of the Launch curriculum: (a) prior career experience and (b) building relationships. For one, data consistently indicated that staff members utilized examples from their prior career experience in the field to provide instruction to students. Secondly, the
majority of classroom visits were coded to document staff efforts to build relationships with students.

**Goal setting.** The codes assigned to the goal setting aspect of the conceptual framework reflected the following two themes: (a) employability and (b) “all learner needs.” As indicated by the frequency count in Table 21, the majority of codes related to employability. For example, the delivery of curriculum in each classroom focused on career readiness and teachers made a concerted effort to verbalize how the skills practiced in the classroom will translate to employment in the field. Specifically, teachers across the four classrooms verbally endorsed employment skills related to technical competencies of the program, as well as general employee behavior, such as timeliness, workplace behavior, and adhering to supervisor instructions. The second theme identified was “all learner needs.” Admittedly, this in-vivo code only occurred once, but it was striking in that it relates to data previously collected. During the second classroom visit, the instructor discussed the goal of “meeting all learner needs” within the program. While one instance does not reflect a “theme,” per se, it is reported here due to its relation to data collected from other sources.

**Occupational skills.** Next, coding for the occupational skills pillar yielded the four themes of: (a) technical skills, (b) transferrable, (c) soft skills, and (d) independence. First, the theme observed most frequently was the instruction of technical skills. These skills specifically related to the program of study observed. However, there were general codes applied to the instruction of terminology utilized in the field, operation of tools/machines, and reference to program competencies within each of the classrooms visited. Secondly, the theme of transferrable occupational skills was illustrated by initial codes that documented teacher verbalized connections between the skill taught and jobs within the community. For instance,
during the first classroom visit, the teacher explained how the skill presented on that day could apply to life after high school, regardless of the job obtained by students. The third theme highlighted by the data was the emphasis placed on soft occupational skills during classroom visits. Specifically, initial codes were assigned to instruction and reference to safety skills, communication within the workplace, and appropriate interactions with colleagues and supervisors. Lastly, the classroom visit data revealed a theme of independence, with regard to students’ execution of occupational skills. Across the four classrooms, coding endorsed the teachers’ verbalized or observed emphasis on students independently engaging in the occupational skill taught. For example, during the third classroom visit, the teacher specifically asked individual students to demonstrate the hands-on technical skills instructed earlier in the semester.

**Work experience.** The final pillar of the conceptual framework coded within the classroom visit data was work experience. The data revealed the two themes of real-life work and co-op. Real-life work was thematically coded several times within each classroom visit. Namely, initial codes were assigned for verbalized emphasis placed on “real-life” practice and observed instances where the instructor made a connection to the application of students’ current training to work outside of school. Additionally, co-op was a work experience theme documented by classroom visit data. Specifically, the second, third, and fourth classroom visits were coded for their discussion about co-op in their respective area of study. Table 21 on the following page summarizes the themes identified for each pillar of the conceptual framework, as well as associated field notes.
Table 21  
*Themes from Classroom Visits*

<table>
<thead>
<tr>
<th>Theme</th>
<th>Frequency count</th>
<th>Field notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Intended curriculum</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Purpose of lesson</em></td>
<td>4</td>
<td>Each teacher discussed particular focus of lesson; related codes included: preparation for real-life work, employability, transferability of skills</td>
</tr>
<tr>
<td><strong>Enacted curriculum</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Hands-on learning</em></td>
<td>6</td>
<td>Active, project-based learning and problem solving noted</td>
</tr>
<tr>
<td><em>Multi-sensory</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Scaffolding</em></td>
<td>6</td>
<td>Auditory, visual, kinesthetic modes of teaching Moving from learning declarative knowledge (e.g. terminology) to practice of skills, followed by independent application</td>
</tr>
<tr>
<td><em>Accommodations provided</em></td>
<td>3</td>
<td>Accommodations observed: preview/review of terminology, use of visuals, breaking larger skill into small steps</td>
</tr>
<tr>
<td><em>Special educator</em></td>
<td>2</td>
<td>Presence noted into classroom visits; assisted teachers and individual students</td>
</tr>
<tr>
<td><strong>Experienced curriculum (student)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Working as a team</em></td>
<td>6</td>
<td>Emphasis placed on working as part of a team-verbalized by teacher and observed</td>
</tr>
<tr>
<td><em>Success</em></td>
<td>4</td>
<td>Posted examples of student success (e.g. college programs attended), observed focus on building student self-confidence and independence</td>
</tr>
<tr>
<td><strong>Experienced curriculum (staff)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Prior career experience</em></td>
<td>3</td>
<td>Teacher referencing prior work in his/her career to teach curriculum</td>
</tr>
<tr>
<td><em>Building relationships</em></td>
<td>3</td>
<td>Observed efforts to build relationships with students</td>
</tr>
<tr>
<td><strong>Goal setting</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Employability</em></td>
<td>11</td>
<td>Discussions about career readiness; observed focus on general skills of employee, such as following supervisor instructions, timeliness, and workplace behavior</td>
</tr>
<tr>
<td><em>“All learner needs”</em></td>
<td>1</td>
<td>Staff member referenced “meeting all learner needs” during classroom visit</td>
</tr>
<tr>
<td><strong>Occupational skills</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Technical skills</em></td>
<td>19</td>
<td>Observations of students learning technical skills related to particular area of study, including terminology, use of tools/machines, competency-based skills</td>
</tr>
<tr>
<td><em>Transferrable</em></td>
<td>8</td>
<td>Instances where staff discussed transfer of learned skills to other jobs, or community-based work</td>
</tr>
<tr>
<td><em>Soft skills</em></td>
<td>7</td>
<td>Observed focus on other skills, such as safety, communication, interactions with colleagues</td>
</tr>
<tr>
<td><em>Independence</em></td>
<td>7</td>
<td>Instances of verbalized or observed emphasis on the</td>
</tr>
</tbody>
</table>
Triangulation and Visual Display of Themes

Once the themes were reported, index cards representing the theme and associated data source were clustered according to the associated pillars of the conceptual framework. In other words, similar themed index cards were first grouped for the intended curriculum, followed by the enacted curriculum, etc. Clusters were established based on the convergence, or pattern, of similar themes across data sources. In other words, a chain of evidence was visually conceptualized (Miles et al., 2014, p. 290). Once these clusters of themes were arranged, a triangulation procedure began. According to Miles et al. (2014), we “get corroboration from three different sources, which enhances the trustworthiness of our analysis.” Therefore, a cluster of themes was documented for inclusion in the visual network model if it was obtained from three separate data sources. Figure 2 below illustrates the triangulated themes for the three parts of the curriculum pillar - intended, enacted, and experienced curriculum, while Figure 3 displays those for occupational skills and work experience. Each cluster of themes illustrates which data sources supported it using the following short-hand code: “s” for “survey data,” “i” for “interviews,” “d” for “document review,” and “c” for classroom visits. First, the triangulated themes for the curriculum pillar of the conceptual framework will be described and displayed, followed by the occupational skills and work experience pillars.

Curriculum- Intended, Enacted, Experienced (Students & Staff)

The process of triangulation began by considering the intended portion of the Launch curriculum. As themes converged, a discernable pattern was evident among the themes.
associated with the intended curriculum and those for the pillar for goal setting. Following this observation, data related to these established themes were again reviewed. The data revealed that themes related to goals established by the Launch Program coincided with the intentions, or aims, of the curriculum based on consistency in examples from the raw data and resulting themes, the intended curriculum and goal setting pillars and themes were combined. Therefore, the triangulated themes associated with the intended curriculum represent themes from both pillars. Specifically, these overarching themes of the intended/goal-oriented curriculum were: (a) focus on all students and (b) employability. Additionally, employability was determined to have a subtheme of transferrable skills. These triangulated themes and their associated data sources are displayed in Figure 2.

Likewise, themes were clustered and triangulated for the enacted and experienced aspects of the Launch curriculum. With regard to the enacted curriculum, the overarching themes established from this analysis process were: (a) hands-on learning and (b) instructional strategies. Also, subthemes for teaching strategies were multiple modalities, scaffolding, and accommodations. Additionally, the data indicated that special education supports were utilized by staff to implement these instructional strategies. For the student experienced aspects of the curriculum, the triangulation process yielded the following superordinate themes: (a) success and (b) work in teams. More specifically, the theme of success included student reflections on how the Launch program inspired a focus on the future, as well increased self-confidence. Lastly, the overarching themes garnered for the staff experiences of the curriculum were: (a) relationship building and (b) prior career experience. Data indicated that staff’s prior career experience enriched the curriculum from the student perspective. However, staff also indicated that it presented a challenge with the associated lack of education on teaching principles and student
disabilities. The aforementioned themes and the triangulated data sources are displayed in the figure below:

![Network model for curriculum pillar- intended, enacted, experienced](image)

*Figure 2. Network model for curriculum pillar- intended, enacted, experienced*

The same triangulation procedure was completed for the remaining conceptual framework pillars of occupational skills and work experience. As displayed in Figure 3, superordinate and subordinate themes obtained for these two pillars were also supported by multiple data sources. With regard to occupational skills, the triangulation process yielded superordinate themes of (a) technical & soft skills and (b) independence. It is noted that two subordinate themes of frameworks and tri-leveled curriculum were partially supported by two different data sources, related to teaching technical & soft skills. As far as the work experience pillar, the superordinate themes triangulated were: (a) real-life work opportunities and (b) co-op.
Updated Conceptual Framework

Following triangulation, the conceptual framework established at the start of the analysis process was updated. As described initially, the associated visual was shaped like a school to depict a vocational training program. The roof of the school was formed by the overarching thesis analyzed from existing literature that there is a lack of qualitative research regarding the processes and procedures used by real-life vocational training programs to prepare students with disabilities for postsecondary employment. The theoretical framework, Vocational Education Theory, was represented by a sun, which shines a light on the aspects of the vocational training program investigated in this study.

The pillars of the initial conceptual framework were readjusted using the observed relationships between them and by adding their respective superordinate themes. Specifically, based on analysis and triangulation, the curriculum pillar and associated aspects (intended, enacted, experienced) were moved to underlie the other pillars to reflect that curriculum provides the foundation for the instruction of occupational skills and provision of work experience. Also,
as discussed above, the previously established pillars of intended curriculum and goal setting were combined due to corroboration between superordinate themes across data sources. Further, as displayed in Figure 4, the superordinate themes were added to their respective pillar of the conceptual framework.

![Figure 4. Updated conceptual framework](image)

**Findings**

Lastly, conclusions were drawn based on the data analysis and triangulation described, along with the chain of evidence created throughout this process. These findings are presented according to the updated conceptual framework. Each reflect a conclusion about the processes and procedures utilized by the Launch Program, a real-life vocational training program that prepares students with disabilities for postsecondary employment.

- The program’s intended curriculum encompasses goals established to provide *all students* with *employability skills*, or those that will transfer into any career path they choose.
Launch’s enacted, or implemented curriculum, centers upon hands-on learning and utilizes consistent instructional strategies, such as scaffolding, accommodations, multi-sensory delivery. Additionally, the curriculum is implemented with the support of special education staff.

The experience of students with disabilities participating in the Launch Program reflects success, sometimes for the first time in their educational career, and a capacity to work with teams.

For staff, their experience of the curriculum involves relationship building and utilization of skills from their prior career in a particular field. While staff prior career experience was found to enrich the curriculum for students, it also presents a described challenge since vocational instructors are not required to have prior education in teaching.

The instruction of occupational skills within the Launch Program focuses on technical and soft skills, using a tri-leveled curriculum and state-wide frameworks, and increasing students’ independence with these skills.

Lastly, work experience is provided by offering real-life work opportunities within each area of study, along with co-op during senior year.

Collectively, these findings provide pragmatic educational information needed to respond to the established problem of practice. Namely, the case study’s findings begin to address the deficient sharing of practiced and processes used by real-life high school vocational programs to prepare students with disabilities for postsecondary employment.

Chapter Five will situate these findings within the body of existing research literature, as well as Billett’s (2011) theory of vocational education. Specifically, the upcoming chapter will discuss how this study’s findings extend prior quantitative research on the subject. Then, the findings will be considered in relation to Billett’s (2011) defining principles of vocational education and components of vocational curricula.
Chapter Five: Discussion of Research Findings

This final chapter presents the study’s findings in relation to the problem of practice and research questions, using the literature reviewed and theoretical framework established. First, a summary of the research purpose, questions, design, and findings will be presented. Next, the findings will be situated within the scholarly literature reviewed, with particular attention given to how the research conclusions inform the knowledge gaps initially identified. Then, findings will be positioned within the theoretical framework. Based on the linkages made between the findings, literature base, and theoretical framework, implications for practice and future avenues for research will be proposed. Lastly, the chapter will offer conclusions regarding the research questions posed and summarize key takeaways.

Executive Summary

According to the most recent statistics published by the U.S. Department of Labor (2018), only 18.7% of all persons with a disability were employed in 2017, as compared with 65.7% without a disability. A body of empirical research related to this national phenomenon has centered on the preparation of high school-aged students with disabilities for postsecondary employment. Despite the quantitative findings that link high school vocational programs to improved postsecondary employment outcomes for students with disabilities, little qualitative research exists regarding how these programs support students with disabilities in achieving employment after high school. As such, this gap in the research points to a possible deficiency in sharing processes and practices used by real-life vocational programs to prepare students with disabilities for postsecondary employment. The purpose of this descriptive case study was to identify the processes used by a high school program to provide vocational training and preparation to a vulnerable population of students.
Based on the identified problem of educational practice, the following research question was posed: How do educational practices and curriculum in a high school vocational program prepare students with disabilities for successful postsecondary employment? Two associated sub-questions were: (a) How does the vocational program utilize goal setting, instruction, development of occupational skills, and work experience to prepare students with disabilities for postsecondary employment after high school? (b) How do the intended, enacted, and experienced components of program curricula relate to preparing students with disabilities for postsecondary work?

In order to frame an investigation of the established problem of practice and research questions, Billett’s (2011) Vocational Education Theory was utilized as the grounding theoretical framework. Billett (2011) emphasized that vocational education centers upon the following four principles: (a) goals and processes regarding the requirements of working life that help learners make transition decisions (b) instruction about particular occupations, which considers appropriateness of fit with student interests, needs and capacities (c) development of the specific concepts, procedures and dispositions required of specific occupations, and (d) experiences associated with understanding working life and developing occupational capacities needed in dynamic, changing work settings (p. 31-32). As a supplement to the defining principles of vocational education, Billett (2011) ascertained that vocational curricula can be broken down into three dimensions, including: (a) what is planned/intended by program developers (intended curriculum), (b) what happens when the curriculum is implemented (enacted curriculum) and (c) what learners experience as a result of its implementation (experienced curriculum, p. 190-191). Billett’s principles of vocational education and components of vocational curricula were used to
develop the research questions, thereby creating theoretical alignment between the problem of practice, theoretical framework, and questions posed.

A descriptive case study of the Launch Program was conducted to respond to the research literature’s call for a sharing of processes and practices used by real-life vocational programs. Launch is a Chapter-74 approved vocational technical education program within the state of Massachusetts. It is housed in an urban, public high school comprised of approximately 2,000 students. The Launch Program has approximately 30 staff members, including teachers and support staff (administrative staff, special educator, guidance counselor). It can be accessed by all students, including those with disabilities, that attend the high school for either: a) elective coursework or b) multi-year participation in one of its 12 different vocational programs of study. Eleven of these courses of study are Chapter-74 certification programs, including: automotive technology, biotechnology, carpentry, creative design, culinary arts/hospitality, early education & care, engineering, graphics/Print, health assisting, information technology/computer science, and media technology. The twelfth program, business education, is not yet Chapter-74 approved.

Qualitative data were collected from survey, interview, classroom visits, and program document sources. Specifically, the case study yielded data from 12 survey respondents, seven interviews, four classroom visits, and 26 documents reviewed. The ensuing data analysis process was grounded in Miles et al.’s (2014) approach, from which a conceptual framework was visually displayed and utilized to guide analyses of the four data sources. First, data were coded within each source using the established elements of the conceptual framework. Next, Miles et al.’s (2014) process of generating meaning by noting patterns and themes was utilized to triangulate data sources and propose findings. Finally, an updated conceptual framework was
developed using the determined research findings. The resulting findings from the case study were as follows:

- The program’s intended curriculum encompasses goals established to provide all students with employability skills, or those that will transfer into any career path they choose.

- Launch’s enacted, or implemented curriculum, centers upon hands-on learning and utilizes consistent instructional strategies, such as scaffolding, accommodations, and multi-sensory delivery of content. Additionally, the curriculum is implemented with the support of special education staff.

- The experience of students with disabilities participating in the Launch Program reflects success, sometimes for the first time in their educational careers, and a capacity to work with teams.

- For staff, their experience of the curriculum involves relationship building and utilization of skills from their prior career in a particular field. While staff prior career experience was found to enrich the curriculum for students, it also presents a described challenge since vocational instructors are not required to have prior education in teaching.

- The instruction of occupational skills within the Launch Program focuses on technical & soft skills, using a tri-leveled curriculum and state-wide frameworks, and increasing students’ independence with these skills.

- Lastly, work experience is provided by offering real-life work opportunities within each area of study, along with co-op during senior year.

In the sections to follow, these findings will be positioned within the research literature, along with Billett’s (2011) Vocational Education Theory, and utilized to discuss implications for practice and future research. Ultimately, using this context, summarized conclusions will be proposed to address the research questions developed at the start of the study.

**Situating Findings within the Research Literature**

An analysis of the background literature revealed three primary conclusions about the current state of knowledge. For one, research overwhelmingly indicated the profound difficulties that young adults with disabilities experience in securing and maintaining postsecondary employment, despite federal legislation and empirical research related to transition planning
(Fabian, 2007; Gold et al., 2013; Houtenville, 2013; Joshi et al., 2012; Kang et al., 2018; Newman et al., 2010; Schmitz, 2008; U.S. Department of Labor, 2015; Wagner, 1991; Wagner & Blackorby, 1997). Secondly, the existing literature highlighted vocational training as one of the most successful evidence-based interventions used by high schools to support students with disabilities in their transition to employment (Baer et al., 2003; Benz et al., 2000; Fabian, 2007; Gold et al., 2013; Landmark et al., 2010; Shandra & Hogan; Test et al., 2009; Wagner, 1991; Wagner et al., 1992). Third, the literature review revealed there is a multitude of quantitative research regarding the significant and positive relationship between vocational training programs and increased postsecondary employment outcomes for students with disabilities (Daviso et al., 2016; Fabian, 2007; Flannery et al., 2008; Haber & Sutherland, 2008; Harvey, 2002; Shandra & Hogan; Silverberg et al., 2004; Wagner et al., 2016; Wehman et al., 2014).

However, a problem of practice lies in the deficient circulation of qualitative description of vocational training practices used by functioning secondary programs serving students with disabilities. The existing literature documents a need to provide descriptive, pragmatic information regarding the practices of real-life vocational training programs (Baer et al., 2003; Dougherty et al., 2018; Hendricks, 2010; Shandra & Hogan, 2008). The current case study offers a focused description of curricular elements, instruction of occupational skills, and provision of work experience within the Launch Program, a vocational training program in Massachusetts. Specifically, this research provides pragmatic information regarding the intended, implemented, and experienced elements of the program’s curriculum. It also offers specific instructional practices used to develop the occupational skills of student with disabilities in preparation for employment after high school. Moreover, this case study yielded rich description of the provision of work experience within a high school vocational training program.
There are several examples of ways that the current qualitative research extends the existing quantitative research findings. First, Shandra and Hogan (2008) determined that work-based programs utilized by high school across the United States, such as job shadowing, mentoring, or internship opportunities, were positively associated with stable employment and increased benefits for individuals with disabilities following graduation. However, these researchers offered few descriptions of the shadowing, mentoring, and internship opportunities that would allow the country’s high schools to either evaluate or implement elements of these positively correlated work-based opportunities. As such, Shandra and Hogan (2008) endorsed that their quantitative research “could be well supplemented in future survey or case study research which can account for program-specific implementation” (p. 128).

The current case study’s finding related to the provision of work experience answers the call of Shandra and Hogan (2008) from more than a decade ago. Specifically, data from interviews, classroom visits, and document reviews described real-life work opportunities offered within each of Launch’s areas of study. Such examples include culinary students’ work in a student-run restaurant, health assisting students’ practicing skills in an actual clinic setting, carpentry students building structures for community-use, early education students working in daycare facilities, and automotive technology students completing repair work for employees in a school-based shop. As articulated by Sylvia, an interview participant: “Almost all of our shops do live work… we treat it as though it’s a job. We’re your supervisor, these are your colleagues, and these are things that you need to do, in order to keep your job.” Likewise, the current research provides description of the cooperative-learning experience, or “co-op” offered by the Launch Program during a student’s senior year. By offering examples of how Launch students are connected with paid work in the community, as well as the application process, this study
provides a real-life context to the shadowing, mentoring, and internship opportunities that were simply named as variables within the research of Shandra and Hogan (2008).

Secondly, and in similar fashion, the current findings contribute to the quantitative findings of Daviso et al. (2016). Daviso and colleagues concluded a positive relationship between high school Career and Technical Education (CTE) programs, as well as work study opportunities, and the postsecondary employment of students diagnosed with other health impairments and learning disabilities. The current research provides a lens through which the curricular processes of a secondary CTE program, as well as work study opportunities, can be understood. For instance, this study’s finding related to co-op, as discussed above, contextualizes the notion of “work study” that is discussed generally by Daviso et al. (2016) as predictive factor of postsecondary employment. As explained by interviewee Nicole: “There are jobs for each different program. So, auto goes to an auto shop or car dealer, health assisting goes to hospitals or pharmacy… there are different ways of getting each kid out from every shop.”

Additionally, the current research found that the instruction of occupational skills within the Launch Program focuses on technical and soft skills, using a tri-leveled curriculum and statewide frameworks. In this manner, the current case study provides an example of how a CTE program, such as those discussed by Daviso et al. (2016), instructs occupationally-specific skills to students with disabilities in preparation for work after high school. Specifically, data collected from each of the four sources indicated that technical skill instruction is based on state frameworks for each course of study, which guide lesson development and course sequencing. Also, the instruction of occupational skills within Launch focuses on building a student’s independence and soft skills, or those that are transferable to any future job. As highlighted in survey and interview responses, staff members commented on instruction regarding work ethic,
punctuality, conduct, and safety. Henry, an interview participant, described: “They [students with disabilities] take with them the benefits of sticking with the job, acquiring skills, learning a lot about themselves. And, we find that a lot of those kids transfer those technical and self-awareness skills into another field.” Taken together, this case study’s finding related to the Launch Program’s instruction of occupational skills begins to build a body of pragmatic information in response to the recommendation of Daviso and colleagues (2016). This recommendation was as follows: “To ensure that transition-to-work programs are available to all students with disabilities who will benefit, researchers need to examine how these programs work” (p. 10).

Lastly, the current study’s qualitative findings contribute to the quantitative research of Wagner et al. (2016). Wagner and colleagues found that four or more credits in occupationally specific CTE courses during high school were significantly predictive of students with learning disabilities achieving full-time employment up to two years after graduation. The current case study’s findings provide an illustration of a programmatic procedure for arranging occupationally specific courses in sequence, as recommended by Wagner et al. (2016). For example, Launch documents and interviews with staff members detailed the program’s tri-leveled curriculum, through which students move and gradually gain independence with occupationally specific skills. Lesson plans reviewed during data collection demonstrated a scaffolding of skills over a three-year sequence with the goal of certification, while staff interviewed described the delivery of instruction in coordinated phases. As Marie articulated: “Level one is a broader overview…Level two becomes more personalized… Then, of course, taking them to [the real work experience] is huge.” Moreover, the Launch Program’s course catalog from 2017-18 further demonstrated the occupationally-specific course sequencing
recommended by Wagner et al. (2016), as opposed to courses that provide general career exposure.

Overall, findings of the current case study contribute pragmatic context to the body of quantitative research that predates it. In other words, described processes used by the Launch Program to instruct occupational skills, provide real-life work and co-op opportunities, and sequence curriculum provide useful information about how actual secondary vocational training programs prepare students with disabilities for employment after graduation. Also, as indicated above, this case study heeds the scholarly call for qualitative description made by the quantitative researchers reviewed. It is further noted that a contradictory aspect of these findings, when considering the body of associated literature, is that the current research did not focus specifically on students with learning disabilities, but rather generally on students diagnosed with any disabling factor. Herein lies a potential avenue of future research, which will be explored in a section to follow.

**Situating Findings within the Theoretical Framework**

The next discussion will position the current research findings within Billett’s (2011) Vocational Education Theory. First, findings will be situated within Billett’s (2011) four defining principles of vocational education. Specifically, connections will be made between the current research and the theoretical framework’s principles of goal setting, instruction regarding occupations, development of occupationally-specific skills, and work experiences. Next, the current findings will be applied to Billett’s (2011) three components of vocational curricula. Again, the case study will be situated within the theorized curricular aspects, including the intended, enacted, and experienced dimensions.
In Relation to Principles of Vocational Education

According to Billett (2011), the four defining principles of vocational education are: (a) goals and processes regarding the requirements of working life that help learners make transition decisions (b) instruction about particular occupations, which considers appropriateness of fit with student interests, needs and capacities; (c) development of the specific concepts, procedures and dispositions required of specific occupations, and (d) experiences associated with understanding working life and developing occupational capacities needed in dynamic, changing work settings (p. 31-32). Findings related to these individual principles will be addressed in succession.

First, the case study found that the Launch Program’s goals, or intended curriculum, seeks to reach all students and provide them with employability skills, or those that will transfer to any career path they choose. The notion of employability skills was consistently reflected within and across the four data sources. For instance, a survey respondent described: “The main goal I have for my challenged students is try and get them to understand the concepts of becoming employable.” Likewise, an interview participant (Marie) endorsed “Employability is the main focus of what we do in Launch. All of our goals eventually lead to the student being an independent employee somewhere.” Furthermore, documents reviewed used the same terminology when stating program goals, such as “you also learn what are called ‘employability skills,’” and classroom visits demonstrated an instructional focus on general career readiness. In this manner, the current research aligns with Billett’s (2011) first principle of vocational education, or goals centered on learners’ preparation for working life. According to Billett (2011), “Some conceptions of vocational education emphasize preparation that is less occupationally specific and seek to primarily develop capacities associated with a general preparation for working life” (p. 28). He proceeds to liken this conception to early ideas of
Dewey (1916), who promoted the importance of learning and applying general vocational skills to benefit the larger community. In other words, the theme of employability extracted from this research situates itself neatly into Billett’s (2011) theoretical construction of goal setting to prepare learners for working life and associated transition decisions.

Secondly, the study’s finding about the instruction of occupational skills within the Launch Program can be positioned within Billett’s second and third principles. According to these two principles, vocational education provides instruction about particular occupations, including consideration of individual student profiles, and develops specific skill sets related to these occupations. As endorsed by Billett (2011), the Launch Program provides 11 state-approved avenues of occupational study, including automotive technology, biotechnology, carpentry, creative design, culinary arts/hospitality, early education & care, engineering, graphics/print, health assisting, information technology/computer science, and media technology. Regarding the instruction of occupationally-specific skills within these areas of study, the current research determined that there is a focus on technical and soft skills, while simultaneously increasing student independence with skills acquired. Launch staff consistently cited that technical skills were determined and instructed according to state frameworks, while soft skills involved general vocational proficiencies, such as work ethic, punctuality, conduct, and safety. In similar fashion, Billett (2011) explained that within the instruction of occupational skills, “there is interdependence between the domain-specific knowledge and those capacities that are not restricted to specific occupations” (p. 31).

The current investigation of occupational skill instruction within the Launch Program also yielded consideration of student needs, capacities and interests, which is further consistent with Billett’s (2011) second principle. One of the themes distilled from the case study was
building student independence with occupational skills. However, there was an underlying pattern that this independence was individually defined and considered. For instance, in her interview, Sylvia explained: “We try not to direct the kids in any direction, except the one that they want to go, that they choose.” Similarly, Marcus described: “The goals of the student are really the most important thing…we try to cater to their individual needs.” Regarding a consideration of student needs and capacities, survey responses endorsed “our curriculum is taught to all students, meeting their learning styles and abilities” and “all students are prepared to enter the 21st century workforce on many different levels and in various capacities.” In sum, just as Billett (2011) defined, themes in the research data indicate Launch students with disabilities are offered instruction about particular occupations, as well as development of associated technical and soft skills, in a manner that considers student interests, learning needs, and capacities.

Finally, the study’s finding regarding Launch’s provision of work experience can be positioned within Billett’s (2011) fourth principle, which indicates that vocational education offers experiences associated with understanding working life and developing occupational capacities needed in dynamic, changing work settings. The current case study found that these experiences are offered through the real-life work opportunities within each area of study in Launch, as well as the senior co-op program. As described earlier, within each area of concentration, Launch students are offered a chance to experience live work. For instance, automotive technology students work in a fully functional garage to repair cars for staff, culinary participate in a student-run restaurant, and health assisting students travel to nearby hospitals to practice skills learned in the classroom. Additionally, for students who meet application requirements, co-op offers an opportunity for them to obtain paid employment within the
community during the school day, related to their course of study. Through these themes of real-life work opportunities and co-op, the research findings align with Billett’s (2011) defining element of vocational education, which encourages exposure to and practice with working life. As stated by Billett (2011): “the identification of, preparation for and ongoing development of individuals’ participation in paid employment (i.e. occupations) stand as the most common, although not exclusive object of vocational education” (p. 83).

**In Relation to Components of Vocational Curricula**

The current research findings can also be situated within Billett’s (2011) components of vocational curricula. He ascertained that vocational curricula can be broken down into three dimensions, including: (a) what is planned/intended by program developers (intended curriculum), (b) what happens when the curriculum is implemented (enacted curriculum) and (c) what learners experience as a result of its implementation (experienced curriculum, p. 190-191). This case study offered findings associated with each of these curricular components, which will be addressed in turn.

For one, the Launch Program’s intended curriculum encompasses goals established to provide all students with employability skills, or those that transfer into any career path they choose. The curricular focus on all students and providing instruction regarding employability skills was reflected across the four data sources analyzed. Based on Billett’s (2011) conceptualization, the intended curriculum is “what should happen as a result of the curriculum being implemented,” (p. 191) as well as “the experiences teachers plan for their students” (p. 192). Within the Launch Program, data collected from surveys, interviews, classroom visits and document reviews reflected a philosophical and programmatic theme that all students, regardless of learning capacity or disabling factor, are welcomed and served within the curriculum. One
survey respondent highlighted this notion by stating “The goal of the Launch curricula is to prepare all students for employment after high school, regardless of any disability.” Similarly, in his interview, Marcus endorsed “…the lesson plans and everything else are always developed to teach all students. Specifically, with concern for kids with special needs.” In addition to serving all students, data collected consistently reflected a curricular intention of building employability skills, which was addressed in detail previously. As such, the overarching themes of all students and employability, create the foundation of the Launch Program’s intended curriculum, from which curricula is then implemented. Likewise, Billett (2011) theorized: “The intended curriculum with all its institutional apparatus has become a key focus for understanding contemporary vocational education and the means by which it is proposed to be enacted” (p. 203).

Working from these overarching intentions, or goals, curriculum is then enacted. According to Billett (2011), “the enacted vocational curriculum comprises what is actually implemented” (p. 193). He further identified that the enacted curricular aspects are influenced by such factors as the program resources, experience and expertise of teachers, their interpretation of what is intended, the kinds of workplaces or practice settings available to students, and where students find support/guidance (p. 193). The current case study found that Launch’s enacted curriculum thematically centered upon hands-on learning activities and utilized consistent instructional strategies, such as scaffolding, accommodations, and multi-sensory delivery of content to students with disabilities. Additionally, it was found that the curriculum is implemented with the support of special education staff. These findings parallel the factors Billett (2011) conceptualized as influencing curriculum implementation. Namely, Launch’s enacted curriculum appears to hinge on teacher expertise and proficiencies for providing
appropriate scaffolding, accommodations, and multi-sensory instruction to students with disabilities. Benjamin cited this very linkage during his interview: “Accommodations that are found in IEPs…if the teacher is open and willing to develop and all kinds of multi-modality approaches, then usually that’s where our student with disabilities have a high success rate.” The theme of multi-sensory instruction also relates to Billett’s (2011) identification of program resources as a determining factor of enacted curriculum. It is only through program resources that Launch staff can provide the auditory, visual, and kinesthetic modes of learning that were consistently referenced across data sources.

Next, this research’s finding that curriculum is enacted through hands-on learning activities corroborates Billett’s (2011) conceptualization that curricular implementation relates to the kinds of workplaces or practice settings available to students. Within Launch, a variety of practice settings within and outside of the school were described during data collection. For instance, each course of study is designed to provide hands-on learning within the practice setting of the classroom, such as the carpentry shop, kitchen, information technology office, design lab, auto garage, etc. Also, the workplace settings referenced by Billett (2011) are implemented with Launch students through such opportunities as co-op and real-life work within classes like a clinical rotation in a nearby hospital, practicum at a daycare facility, or participation in the student-run restaurant, to name a few. Further, the provision of special education support to students with disabilities within the Launch Program aligns with Billett’s (2011) identification of resources and support/guidance provided to students as factors influencing the enacted curriculum. Taken together, the findings of the research align with the factors identified by Billett (2011) for their influence on the enacted curriculum, or that which is implemented.
The final component of vocational curricula defined by Billett (2011) is the experienced curriculum. He defines this dimension as “what students experience when they engage with what is enacted, regardless of whether this is what was planned and intended” (p. 194). According to the current findings, students in the Launch Program experience success, sometimes for the first time in their educational careers, as well as a capacity to work with teams. For instance, when asked about the experiences of a student with a disability in the program, a survey respondent indicated “The Launch vocational curricula often serve the student who has been left behind by the traditional educational model, I have seen students excel for the first time in Launch.” Likewise, interview participant Sylvia explained “I think that students with disabilities, they see a lot of success very quickly. They haven’t had that kind of success in the classroom.” Further, classroom visits highlighted examples of student success, such as postsecondary programs attended and individual skill awards obtained. There was also an observed focus on building students’ self-confidence and independence. This theme of student success while gaining employment skills aligns with Billett’s (2011) theorized importance of the student experience within the curriculum. Specifically, “…if student learning is the most salient concern for educational provisions, ultimately the only thing that is really important is the experienced curriculum: what and how students construe and construct from what is enacted.”

The current case study diverged from Billett’s (2011) focus solely on student experiences to consider the experienced curriculum from staff perspectives, as well. This additional dimension of staff experience offers further context about how the enacted curriculum is experienced within the Launch Program. The case study found that staff experience of the curriculum involves relationship building and utilization of skills from their prior career in a particular field. Also, while staff prior career experience was found to enrich the curriculum for
students, it also presents a described challenge since vocational instructors are not required to have prior education in teaching. More specifically, data collected from surveys, interviews, and classroom visits reflected a focus on relationship building with students, along with the use of prior career knowledge in daily instruction. For instance, in his interview, Henry articulated “…on a day-to-day basis, preparing kids means keeping up the relationship in the fact of student failure to perform, or maybe not maximum performance, maintaining the relationship, encouraging…” With regard to utilization of prior work experience, a survey participant indicated that the Launch curriculum “requires me to take many facets of my former experience in my field and apply it to my classroom work.” On a related note, one of the challenges consistently described by staff regarding their experiences of the Launch curriculum was a lack of teaching education, including the instruction of students with disabilities. Interview participant Nicole generally described “not many have teaching experience. The curve is tremendous,” while Benjamin specified: “Vocational teachers do not have a student teaching aspect to getting their certification. So, many of them have never taught before.” As such, while industry experience is a beneficial aspect of the experienced curriculum for students and staff, there is a simultaneous challenge related to building necessary instructional proficiencies for working students exhibiting a range of learning abilities and needs. This represents one implication for practice that will be discussed in the section to follow.

Implications for Practice

The findings of this case study have important implications for the Launch Program specifically, national educational practices, and the scholarly community. They also relate to the problem of practice and proposed significance of the research discussed in Chapter One. To start, this section will address the insights gained with regard to the established problem of practice, as
well as the significance to the local program and larger educational community. The second section will address the specific implications for the Launch Program, educational practices in general, and scholarly investigations.

**Significance for Established Problem of Practice**

The problem of practice established from the outset is there is a lack of qualitative research on the subject and an ensuing deficient circulation of vocational training practices by functioning high school programs serving students with disabilities. The case study conducted answers the scholarly summons for actual program-specific description and implementation (Baer et al., 2003; Daviso et al., 2016; Dougherty et al., 2018; Shandra & Hogan, 2008). The findings established provide pragmatic information regarding the Launch program’s intended curriculum and goals for students with disabilities, elements of the enacted curriculum, and the curricular experiences of students and staff. Additionally, the findings provide descriptions of the processes utilized to instruction occupational skills and provide work experiences to students with disabilities. As demonstrated above, the findings can be situated within the existing literature, as well as Billett’s (2011) Vocational Education Theory. They also link to the significance of the research proposed from the outset of study conceptualization.

The significance of research conducted to address the problem of practice was hypothesized to positively contribute to real-life investigations of high school vocational programs. Specifically, it was initially proposed that important pragmatic information could be garnered about how these programs are currently serving student with disabilities and preparing them for postsecondary employment. It was further proposed that data collected would assist district administrators in evaluating vocational programming and its support of postsecondary transition of all students regardless of ability. The case study of the Launch program undoubtedly
contributed descriptive, practical information regarding the processes used to serve students with disabilities in preparing them for employment after high school. Additionally, while this research provides rich description of the Launch Program and its work on behalf of students with disabilities, it falls short on being an evaluative measure of the programming, as initially proposed. It is likely that this could be achieved by future, supplemental quantitative research on the specific employment outcomes of students with disabilities served by the Launch Program.

Another avenue of proposed significance for the research completed was contributions to the scholar-practitioner community and associated encouragement to investigate high school vocational training programs serving students with disabilities and a cataloging of best practices. Though the possibility of encouraging future research on other high school vocational programs remains unseen, this study provides a structure and materials that can be utilized to complete case studies of other secondary programs serving students with disabilities. Specifically, the protocols and data collection procedures created for staff surveys (Appendix A), interviews (Appendix B), and classroom visits (Appendix C) could be replicated by other scholar-practitioners across the country. In this manner, themes could be compiled across cases of national high school vocational programs to provide a more robust cataloging of educational practices and procedures used to preparing students with disabilities for postsecondary employment.

**Specific Implications for Launch, Educational Practice, and Scholarly Investigations**

In an effort to close the aperture on the implications of this study’s findings on the problem of practice, this section will consider the specific implications for the Launch Program, general educational practice, as well as scholarly investigations. To begin, the findings offer particular propositions for the Launch Program. Generally speaking, this case study offers a
foundation upon which the program can be reviewed and further developed to encourage access for students with disabilities. More specifically, the findings of the research highlighted the importance of connections between Launch and special education staff. While one special educator is currently available to assist individual students with disabilities and teachers in their instructional practices, consideration can be given to additional collaborations between the program and special education. This may include staffing to support work experiences for students with disabilities within the Launch Program, further assistance in building instructional capacities for skill scaffolding and multi-sensory instruction, along with the development of strategies to increase the number of students with disabilities accessing Launch programming. In this way, the Launch Program can utilize resources within the larger school to enhance the overarching goal and intention to provide employability skills to all students. Similarly, another implication for the program relates to the research finding that staff described the challenges of limited prior education in teaching and the instruction of students with disabilities. This can be used as a basis for increased professional development on inclusive instructional practices for all Launch staff and specifically, new teachers in the program. The staff’s described utilization of prior industry experience is invaluable and their simultaneous description of this challenge can encourage district administration to build their capacities to share this expertise in a manner that reaches all learning styles and needs.

Regarding implications for educational practice, the findings suggest several considerations for vocational training programs working with students with disabilities. For one, alongside the prior quantitative research reviewed on the subject (Daviso et al., 2016; Shandra & Hogan, 2008), the current findings suggests that work experience can be provided to these students by way of a practice setting within the classroom (e.g. kitchen, auto garage, carpentry
shop), or school sanctioned paid employment within the community such as Launch’s co-op program. Secondly, just as American education is increasingly standardized and predicated on statewide standards, so too is the instruction of technical occupationally-specific skills within the Launch courses of study. Statewide frameworks were consistently cited as the guiding force of this program’s course syllabi and associated instruction during the tri-leveled curriculum sequence. However, the study’s finding of the simultaneous instruction of soft employability skills, such as punctuality, conduct, safety and communication with team members will serve students well in any job that they obtain during or after high school. In this way, the Launch Program’s focus on general employability, as well as the specific instruction of soft employment skills in combination with technical ones mandated by state standards, is an important implication for other secondary vocational programs to consider within the current educational climate. Lastly, as reflected by a theme of curricular experience for students within the Launch Program, educators should be reminded that the provision of vocational training and associated hands-on learning opportunities can afford students the chance to find success at high school, perhaps for the first time, and develop a tangible pathway to employment. As stated by Launch students cited on the program’s website: “Launch made my future career a possible reality,” “…it has changed by plans and goals for my future.” Further, interview participant Benjamin summarized: “Launch can present to some students, depending on the class, a different slant on their future…they get a little bit of a different glimpse of hope in a different avenue.”

Moreover, the current research also has implications for the scholarly community. As referenced above with regard to the significance of findings, this study provides a structure and protocols that can be utilized to complete case studies of other secondary programs serving students with disabilities. If additional investigations are completed for other high school
vocational training programs like Launch, themes could be compiled across cases to provide a more robust cataloging of educational practices and procedures used to preparing students with disabilities for postsecondary employment. Also, this case study opens a door to future directions of scholarly research, which will be addressed in the next section.

**Future Directions for Research**

This case study of the Launch Program, as well as the associated findings, offer avenues of future research. For one, this research provides a structure of a case study and necessary protocols that can be replicated and utilized to investigate other high school vocational training programs serving students with disabilities. As discussed above, additional case studies of real-life programming can provide a larger body of pragmatic information about the processes utilized by these programs to prepare students with disabilities for postsecondary employment. Supplementary case studies will not only provide a more robust discussion of educational practices and procedures across programs, but will also allow scholar-practitioners to compare and contrast strategies and educational processes.

Secondly, future qualitative research on vocational training programs and preparation of students with disabilities for postsecondary work could consider separate disabilities categories, rather than general consideration of this population of students. As discussed with regard to the existing literature and current research findings, case studies could be completed to consider a specific type of disability, such as specific learning or emotional impairment, and the educational practices utilized by vocational programs to work with students of this particular category. It stands to reason that research of this kind may be able to provide practitioners with more specific strategies for working with particular student needs when preparing them for employment after high school.
Third, through consideration of the significance of the research findings, there was identification of an avenue of future quantitative research on the Launch Program to complement this study. Namely, quantitative research could investigate the specific employment outcomes of students with disabilities served by the Launch Program in order to provide an evaluative element to the consideration of the program. Documentation of student outcomes could then be understood within the context of Launch’s educational practices described here. It is also plausible that future research on other vocational training programs can involve a mixed methods approach, through which both qualitative description and quantitative documentation of student employment outcomes can be achieved.

Lastly, given the findings related to staff experience of the Launch curriculum, future phenomenological research could be conducted with staff to investigate the needs of teachers working in secondary vocational programs, who do not have prior experience teaching students with disabilities. Findings of such research could provide information regarding the professional development needs of this important group of educators. Given the documented significance and importance of the role that vocational educators play in the high school trajectory of all students, and especially those with disabilities, it is critical to maximize their capacity to work with all students to prepare them for postsecondary employment.

**Conclusions and Takeaways**

The current case study began by asking the primary question: How do educational practices and curriculum in a high school vocational program prepare students with disabilities for postsecondary employment? In order to propose takeaways to this overarching question, the associated sub-questions and associated findings must be considered. First, the Launch Program was found to utilize goal setting, instruction and development of occupational skills, and work
experience to prepare students with disabilities for postsecondary employment. In alignment with these defining principles of Billett’s (2011) theory, the Launch Program maintains a goal of preparing all students with employability skills, or those that will transfer into any future career. The daily instruction of these occupational skills focuses on student acquisition of both technical and soft skills. Technical skills are determined by state-wide frameworks and systematically delivered using a tri-leveled vocational curriculum. In addition to these occupationally-specific competencies, soft skills are also instructed, which include punctuality, conduct, safety, and workplace communication. Launch staff instruct these technical and soft skills with particular consideration given to building student independence. Further, the Launch Program provides work experience by offering real-life work opportunities within each area of study, which may occur within the classroom setting, school, or community, as well as co-op offered during senior year.

For the second sub-question, the findings also corroborate Billett’s (2011) theoretical underpinnings of vocational curricula, or the intended, enacted, and experienced dimensions. The intended curriculum distilled from data analysis indicated that the Launch Program aims to provide employability skills to all students, including those with disabilities, in preparing for postsecondary work. This guiding mission is enacted, or implemented, by providing hands-on learning activities and utilizing consistent instructional strategies, such as scaffolding, accommodations, and multi-sensory delivery of content. Additionally, the findings highlighted the support of special education staff provided to enact program curricula. Moreover, the experienced curriculum was considered from two perspectives: student and staff. This research found that the experience of students in the Launch program reflects success, sometimes for the first time in their educational careers, and a capacity to work with teams. For staff, their
experience involves relationship building and utilization of skills from their prior career in a particular field. While staff prior experience was found to enrich the curriculum for students, it also presents a described challenge since vocational instructors are not required to have prior education in teaching.

Taken together, the conclusions drawn for each sub-question demonstrate alignment with theoretical underpinnings and create key takeaways regarding the overall research question asked. So, how do educational practices and curriculum in a high school vocational program prepare students with disabilities for successful postsecondary employment? This case study maintains the following:

- The Launch Program intends to reach all students, regardless of ability, and teach employability skills within its curriculum. The instruction of these employability skills includes technical proficiencies and soft skills that are transferable across jobs, as well as a focus on building an individual’s independence.

- This intended curriculum is implemented by providing hands-on learning, accessing special education support, and utilizing consistent instructional strategies, such as scaffolding, accommodations, and multi-sensory delivery of content.

- Employability skills learned by Launch students with disabilities in the classroom are solidified by work experience offered through live-work opportunities in the school and community, as well as co-operative education during senior year.

- The experienced curriculum described by Launch staff provides relationship building and expertise from a particular field to assist students with disabilities in preparing for postsecondary employment. One challenge identified by staff is that they are not required to have prior education in teaching, or work with students with disabilities, to become vocational instructors.

- And, the Launch Program’s educational practices and curricula create a positive experience for students with disabilities. Data described that students experience success, sometimes for the first time in their educational careers, and build capacities to work as part of occupational teams.

These takeaways of the current study assist in providing the pragmatic, real-life context required to address the identified problem of practice and gap in the research literature. In other
words, these conclusions provide necessary qualitative descriptions of vocational training practices used by functioning secondary programs serving students with disabilities. This research simultaneously responds to the call made for scholarly qualitative investigation on the subject by Daviso et al. (2016), Dougherty et al. (2018), Shandra and Hogan (2008), as well as Wagner et al. (2016). Moreover, this case study serves as a reminder of the need for vocational education in preparing our nation’s students with disabilities for productive employment after high school. As stated by interview participant, Nicole: “Our main focus is to get them career ready… career ready, because that’s what’s really going to feed them.”
References


exploration of the national longitudinal transition study (Report No. EC303787).


Edeiken-Cooperman (2011). *Transitions for students with low-incidence disabilities: The relationship between the implementation of the individualized transition plan and the*
transition to post-secondary life (Doctoral dissertation, Saint Joseph’s University).

Available from ProQuest Dissertations and Theses database (UMI No. 3467936)


Appendix A

Survey Questions to all Launch Staff

Thank you for consenting to participation in a research study of the Launch Program’s processes and procedures that prepare students with disabilities for postsecondary employment. Please answer each question posed, using as many words as you’d like. As a reminder, your response is completely anonymous and will be used only to gather qualitative perspectives of staff members, without revealing any identifying information.

In the following questions, I would like to get your thoughts on the intentions and delivery of Launch’s vocational educational curricula for students with disabilities [each question allows for a short answer response with unlimited characters]:

1. How would you describe the goals (or intentions) of the Launch curricula in preparing students with disabilities for employment after high school?

2. How would you describe the actual implementation of Launch’s vocational educational curricula when serving students with disabilities?

3. How would you describe the student experience of the Launch vocational education curricula?

4. How would you describe the staff experience of the Launch vocational education curricula?

Thank you very much for completing these survey questions! Before you go, please let me know if you are interested in further participation in this study. There are opportunities to participate in interviews and classroom visits, which are described below:

5. Are you willing to be interviewed as part of this study?

Participation involves one interview, which will last one hour of time and will be scheduled at your convenience during before or after school hours. The interview will focus on your perspectives regarding the Launch Program’s preparation of students with disabilities for postsecondary employment related to goals established, instruction provided, and opportunities for the development of occupational skills and work experience. Additionally, the interview will seek to further understand your experiences with the delivery of the Launch Program’s vocational curricula to students with disabilities. Confidentiality is guaranteed, and participants’ names will never be shared with others or used in the published results. **Participants who complete the interview will receive a $10 gift card to Starbucks.**

[Answers]:
- No
- Yes and I feel comfortable providing my name and preference for contact method (e.g. phone or email) below:
• Yes, but would like to contact the student researcher (Shannon Shute) directly with name and contact information

5. Are you willing to have a classroom visit as part of this study?

Participation in a classroom visit will involve a one hour class visit of the classroom by Shannon Shute, as well as a 15 to 30 minute debrief session. The purpose of the classroom visit will be to gain additional information regarding the Launch Program’s preparation of students with disabilities for postsecondary employment related to goals set forth, instruction provided, and opportunities for the development of occupational skills and work experience. Additionally, the visit will seek to further understand the delivery of the program’s vocational curricula to students with disabilities. It is noted that classroom visits will not focus on teaching performance, behavior management, or the students in the classroom. Instead, the visits aim to better understand the Launch Program as a whole. The 15-30 minute debrief will involve a review of student work obtained from the class observed and teacher perspectives on the curriculum experienced by students. Confidentiality is guaranteed, and participants’ names will never be shared with others or used in the published results.

**Participants who agree to have their classroom observed will receive $10 gift card to Starbucks. If you respond “No” you will not be contacted again regarding the interview.**

[Answers]:
• No
• Yes and I feel comfortable providing my name and preference for contact method (e.g. phone or email) below:
• Yes, but would like to contact the student researcher (Shannon Shute) directly with name and contact information
Appendix B

Interview Protocol

Interviewee:

Interviewer: Shannon Shute

Date:

Location:

Thank you for taking the time to speak with me today. As I mentioned in my email, our interview will take approximately one hour. The purpose of this study is to gain your perspectives regarding the Launch Program’s preparation of students with disabilities for postsecondary employment, related to goals established, instruction provided, and opportunities for the development of occupational skills and work experience. Additionally, the interview will seek to understand your experiences with the delivery of the Launch Program’s vocational curricula to students with disabilities.

As a reminder, your participation in this interview is completely voluntary. At any point, you can choose not to answer or question or elect to end the interview. Also, all of your responses will remain confidential. The only people who will see the transcription of our interview are me and my Northeastern supervisor, Dr. Pawlyshyn. A transcriptionist will be hired to transcribe our recorded interview and will sign a confidentiality statement, ensuring that he/she does not share any information transcribed. Additionally, your actual name will not appear on any of the interview transcripts, but rather a pseudonym will be used to refer to you in the written report and any published materials.

Because I want to be sure to capture everything you say in response to the questions posed, I would like to audio tape our conversation today using an app on my iPhone. I will also be taking written notes during the interview. Only I and the hired transcriptionist will have access to the audio files, which will be destroyed within two weeks once they are transcribed. My written notes will be kept in a locked location I can assure you that all your responses will be confidential and only pseudonyms will be used when quoting from the transcripts.

Here’s a copy of the consent form that I attached to my initial email. It mentions many of the important details I have mentioned here, including your rights as a participant. Please take a chance to read through it again and if you feel comfortable, print, sign and date the form on the second page. I’ll make you a copy for your records. Please also feel free to ask me any questions that you have.

Do I have your permission to begin recording our interview? Thanks...

Please start by telling me how long and in what capacity you have worked with the Launch Program.
Interview Questions:

1. In your experience, what are the goals (written or spoken) that the Launch program has for all students, and especially students with disabilities, in terms of preparing them to make transition decisions and for work after high school?

For the following questions, please focus your answers specifically on your work with students with disabilities in the Launch Program.

2. From your perspective, how does the Launch program develop students’ occupational skills? Are there certain processes used to do so?

3. How is instruction provided regarding the different occupations associated with a particular course of study in Launch? How does instruction account for varying student capacities and needs?

4. How does the Launch program provide real-life work experiences to these students?

Now, I’ll ask you a little bit about your perspectives on the delivery of the Launch curriculum related to vocational training for students with disabilities.

5. Based on your experience working in Launch, which aspects of the vocational curricula are intended to prepare students with disabilities for postsecondary employment?

6. How would you describe the actual daily implementation of this intended curricula within the program?

7. What do you think are the experiences of a student with a disability in this program?

8. How does the program prepare these students for work after school?

9. Considering Launch as a whole and its preparation of students with disabilities for postsecondary work, which elements of the program are most successful at achieving this aim?

10. Are there any changes that need to be made?
Appendix C

Classroom Visit Protocol

Observer: Shannon Shute  Date:
Classroom pseudonym:  Length: 1 hour

*Tally* = Number of separate instances where defined vocational principles are observed

*Evidence* = Qualitative notes detailing evidence of principles and curricular components

<table>
<thead>
<tr>
<th>Vocational Principle</th>
<th>Tally</th>
<th>Evidence Notes</th>
</tr>
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<tbody>
<tr>
<td><em>Goal setting with students about transition decisions</em></td>
<td></td>
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<tr>
<td><em>Instruction about particular occupations</em></td>
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<td><em>Development of specific occupational skills</em></td>
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<td><em>Work experience</em></td>
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<tr>
<td>Curricular Component</td>
<td>Evidence Notes</td>
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</table>
| **Intended Curriculum**  
(observed plan/intention of the program/course) | |
| **Enacted Curriculum**  
(what is observed when the curriculum is implemented) | |
| **Experienced Curriculum**  
(what learners experience as a result of implementation) | *Gained from debrief session with teacher to review student work* |

**Additional Field Notes**  
(e.g. unexpected observations about vocational program delivery)