

Growth and Exploration: Career Development Theory and Programs of Study

Natalie R. Kosine
University of Louisville

Morgan V. Lewis
Ohio State University, Retired

Abstract

Super's theory of career development states that the life stages of growth and exploration are inherent to the process of acquiring knowledge of how one's interests and abilities align with the requirements of occupations. Virtually all high school students are in the exploratory stage of their career development. This article examines the implications of this stage for the choices high school students must make concerning programs of study. Evidence relative to the theory and effectiveness of interventions designed to facilitate career development is reviewed.

The importance of one's work cannot be overstated. Philosophers and scholars throughout the ages have recognized the importance of a human being's work and attested that finding a vocation is one of life's most challenging tasks. Our work in many ways signifies who we are—defining our personality, our habits, and our lifestyle. Finding the right career can lead to a lifetime of satisfaction, but not finding the right career can lead to poor self-esteem, lowered self-efficacy, a lack of life satisfaction, and even depression (Csikszentmihalyi & Le Fevre, 1989; Haworth & Hill, 1992; Wang, Lesage, Schmitz, & Drapeau, 2008; Warr, 2007). Research has demonstrated that people who find satisfaction in their work exhibit higher levels of commitment, competency, and productivity and report higher levels of life adjustment (Auty, Goodman, & Foss, 1987; Henderson, 2000; Mueller, 2003; Stott, 1970).

Developing a career is a process, not just a destination. Unfortunately, not enough attention is paid to the process that is required for thoughtful, thorough career development. Students are confronted with substantial career and life decisions at an early age with limited opportunities for career exploration. In the typical high school, students are expected to choose and follow a program of study (POS) that will prepare them to exit high school with the skills necessary to continue their education and to enter the workforce. Career and technical education (CTE) students are often required to choose specific occupational areas even though many do not continue the same career emphasis upon completing high school (Bishop, 1989; Levesque et al., 2008). The CTE student's POS consists of an occupational track with rigorous

academic and CTE courses; these are sometimes referred to as career clusters. Too often, however, these students are offered few opportunities to engage in career exploration and are given little useful information with respect to postsecondary options (Dykeman et al., 2003). The result is that career development is often a by-product of educational curriculum, with a *figure it out as you go along* mentality prevalent among educators and students regarding career exploration.

The Need for Intentional Career Development Efforts

One of the central purposes of POS is to prepare students for postsecondary education and the world of work by providing them with the CTE and academic skills needed to make a smooth transition to their chosen vocational field. However, there appears to be a lack of persistence between high school POS and post-high school work-related activities. For instance, Levesque et al. (2008) synthesized findings from 11 different surveys conducted by the National Center for Education Statistics. They concluded that there was no systematic relationship between the occupational credits that students earned in high school and the occupations in which they were employed when surveyed. Miller and Gray (2002) found that while postsecondary education and training was high (91%) for students who completed a high school Tech Prep program, only 45% of these students persisted in the same occupational areas at the postsecondary level. Similarly, a research synthesis conducted by Bishop (1989) found that less than one-half of secondary students trained in vocational education programs were employed in training-related occupations upon completing high school.

One of the probable reasons for this lack of persistence is that the role of career development for students in CTE programs has been largely ignored, and that most of the emphasis to this point has been placed on skill preparation (e.g., Schmidli, 2001). Although skill preparation is essential in preparing students for the world of work, career exploration is needed to aid students in effectively directing their efforts. The purpose of this article is to explore this issue by applying career development theory in the context of CTE programs of study. An overview of career development using the framework of Super's (1990) life-span, life-space theory is presented. Research relevant to the current state of career development services for students is also presented. Furthermore, intentional efforts toward the career development of students are advocated.

The Life-Span, Life-Space Approach to Career Development

Super's (1990, 1996) life-span, life-space theory addresses career development at different stages and recognizes the need for intentional efforts toward career development. Over a 60 year period, Super's theory evolved in response to research and social changes resulting in its most recent formulation in Super, Savickas, and Super (1996). Like any complex field of study, career theories have developed from

one another, merged, and branched off in other directions, thereby, weaving an intricate path with the goal of understanding the hows and whys of the career process. The core of most career theories, however, is the same: an effort to explain the “evolving sequence of a person’s work experiences over time” (Arthur, Hall, & Lawrence, 1989, p. 8).

Overview of Super’s Theory

The career development process is unique to every person. Factors like gender, ethnicity, ability, personality, socioeconomic status, family, geography, and opportunity all, to varying degrees, play a part in the development of one’s career path. At the foundation of Super’s theory lie life stages, vocational tasks, and self-concept (Patton & McMahon, 2006). The life-span perspective recognizes that career development does not end in young adulthood but continues throughout life resulting in an increased sense of career maturity. The work of Super and his colleagues “changed the focus of career choice from that of a static point-in-time event to that of a dynamic process where career development was viewed as an evolving process of life” (Patton & McMahon, 2006, p. 53). Additionally, Super acknowledged that many factors influence career development, such as social learning experiences, personality development, and one’s needs, values, and abilities. These constructs, among others, were highlighted with the introduction of the Archway Model (Super, 1990).

Super’s theory is a combination of stage development and social role theory (Super et. al, 1996), which posits that people progress through five stages during the career development process, including growth, exploration, establishment, maintenance, and disengagement. It should be noted that Super’s theory is not a rigid stage theory in which an individual’s age dictates his or her progression from stage to stage, a process referred to as maxicycling. Super contended that movement through the five stages could be a flexible process where people recycle through certain stages during various periods of life. Super referred to this process as minicycling. For the purposes of this article, the exploration stage will be discussed in-depth within the context of its traditional occurrence during adolescence.

There are several key constructs included in Super’s theory that serve as a foundation for the career development process, including vocational self-concept and career maturity. According to Super (1957), the growth stage begins as children and adolescents are introduced to a variety of occupations and begin to develop their careers or vocational self-concepts. Giannantonio and Hurley-Hanson (2006) defined general self-concept as “one’s abilities, personality traits, values, self-esteem, and self-efficacy” (p. 320). Vocational self-concept includes attributes that are vocationally relevant to the individual (Super, 1963). This sense of vocational self-concept is advanced during the growth stage as individuals are exposed to occupations through family, school, community, and the media, among other sources. Through these experiences, young people develop a sense of autonomy and

industry, begin to develop work-related skills and habits, and identify relevant role models, all the while developing a better understanding of their own interests along with a burgeoning awareness of their abilities (Patton & McMahon, 2006; Super et al., 1996).

During the exploratory stage, individuals engage in experiences that aid in developing their vocational identity by investigating careers, engaging in educational training and apprenticeships, and other work-related experiences. They learn about themselves, their interests, and abilities, furthering the development of their self-concepts. According to Super (1957), individuals apply what they learn through the exploratory process by matching their interests and abilities to occupations and applying their self-concepts to both work and life roles. Moreover, Blustein (1988) has suggested that exploration is intrinsically motivated by natural curiosity.

The establishment stage is a period in which the individual is focused on establishing a stable work environment and working towards career advancement. The major goal during this stage is for individuals to stabilize their role within the career context. Some individuals may work towards promotion and advancement in their careers, thus, increasing their job-related responsibilities (Patton & McMahon, 2006).

During the maintenance stage, “individuals are concerned with maintaining their self-concept and their present job status” (Giannantonio & Hurley-Hanson, 2006, p. 323). Nevertheless, individuals may decide to make career changes during the maintenance phase (e.g., moving to other organizations or positions or changing occupations). According to Super’s theory, this results in the individual recycling through the exploration and establishment stages—referred to as a minicycle. The central focus for individuals, however, is towards preserving or maintaining their positions within their established careers (Patton & McMahon, 2006).

The final stage, disengagement, is the process of disengaging from the world of work, which usually comes in the form of retirement. During this stage, individuals engage in the process of planning for retirement, begin to reduce their workloads, and finally leave the work setting. In all the stages, one’s self-concept is formed and solidified through one’s experiences. Furthermore, career maturity is accomplished as individuals age and progress through the stages. This sense of maturity is coupled with an individual’s readiness to cope with developmental activities, including biological, social, and societal expectations (Super, 1990). In the following sections, this process is addressed in-depth during the exploration stage, including a discussion of relevant research. Finally, the role that POS may play in the career development process is examined.

Making the Case for Exploration

According to Savickas and Super (1993), career-relevant concepts develop in childhood, strengthen in adolescence, and function as determinants of adolescent career maturity. Exploration typically begins during adolescence and lasts into young adulthood (14 to 24 years of age). Typically, individuals within this age range seek

opportunities to explore careers through education and work experiences. These endeavors help them to identify their career-related desires and options which further the development of vocational identity (Patton & McMahon, 2006) or vocational self-concept. Vocational self-concept has been defined as, “The constellation of self attributes considered by the individual to be vocationally relevant, whether or not they have been translated into a vocational preference” (Super, 1963, p. 20). According to Jordaan (1963), vocational exploration consists of clarifying one’s self-concept in occupational contexts, developing an understanding of occupations related to one’s vocational self-concept, and applying this vocational sense of self to relevant activities.

The exploration stage is comprised of substages or tasks, including crystallization, specification, and implementation. Those engaged in the exploratory stage seek self and world knowledge, and in an effort to increase their understanding of reality, they experiment and search for new experiences and perspectives (Jordaan, 1963). It is through the exploration process that the individual *crystallizes* his or her career interests by narrowing choices, *specifies* a vocational choice, and then *implements* the choice by making it a reality via training, education, and work.

Erikson (1959) considered one’s occupational identity as key to one’s overall identity development stating, “In general it is primarily the inability to settle on an occupational identity which disturbs young people” (Erikson, 1959, p. 92). This statement reflects the urgency and importance in fostering teens’ engagement in exploration. Exploration is seen as critical during adolescence in promoting general identity formation and helping teens to develop a sense of vocation. Further, identity development and vocational decision making are closely linked, in that individuals who possess well developed career interests also display an overall stronger sense of self (Blustein, Devenis, & Kidney, 1989; Vondracek, Schulenberg, Skorikov, Gillespie, & Wahlheim, 1995; Weyhing, Bartlett, & Howard, 1984). The work of Super and Erikson illustrates the bidirectional influence of general and vocational identity development; because without a sense of self or identity, a fulfilling vocation appears to be out of reach. Discovering one’s true vocation appears scarcely attainable without self-understanding.

Research efforts have established links between general and vocational identity development. Moreover, these links reveal that the ties between general and vocational identity development aid in career decision making. For example, Gushue, Scanlan, Pantzer, and Clarke (2006) examined the career development of African American students and found that higher levels of career decision making self-efficacy were related to a more differentiated vocational self-concept and more engagement in career exploration. In a similar study with Latino students, Gushue, Clarke, Pantzer, and Scanlan (2006) found that students with higher levels of career decision making self-efficacy possessed a more differentiated identity and were more engaged in the career exploration process. Shoffner and Newsome (2001) conducted a study with gifted adolescent females and found that vocational exploration and commitment contributed strongly to the identity development of this population.

These studies revealed the influence of exploration on vocational identity development, demonstrating that engagement in exploratory activities enhances the career development process. Another example of the importance of exploration in career development, demonstrated in a study by Lapan, Aoyagi, and Kayson (2007), found that students who engaged in an enhanced career development program that included an exploration component, reported greater progress in transitioning into life roles, a better sense of direction in their work, and a greater sense of life satisfaction.

To further demonstrate this link, Wallace-Broschious, Serafica, and Osipow (1994) conducted a study based on the constructs of exploration and identity status. Their results supported these constructs as fundamental to the career development process. They discovered that students' identity status played a role in predicting career certainty, indecision, exploration, and planning. Specifically, individuals identified as having an achieved identity reported higher levels of career decidedness and career planning than those struggling with identity formation. Age and gender influenced exploration and career decision making with older students engaging in more exploration than younger students, females engaging in more planning and exploration than males, and females reporting higher levels of career decidedness. This finding supported the link between exploration and crystallization, in that the females in this study appeared to crystallize their career interests through the exploration process.

In summary, the studies presented supported the link between career exploration and vocational identity development. Furthermore, they provided evidence of the need for exploration activities and intentional career development efforts. An examination of the exploration activities of students engaged in CTE programs is presented next.

Exploration in K-12 Settings and CTE Programs of Study

Evidence supports the importance of growth and exploration in helping individuals develop their vocational identities and engage in thoughtful career decision making. What efforts then, do schools take in helping students engage in career exploration? Is there a difference in the career exploration outcomes of students who are enrolled in traditional educational programs versus those who are enrolled in the CTE programs that preceded POS?

Career development efforts in high school settings have been portrayed as hit and miss, in that students do not typically receive comprehensive guidance services and do not engage in career planning activities to help them achieve their career goals (Hollenbeck & DeBurman, 2000; Hughes & Karp, 2004). This lack of focus on career development in K-12 programming was demonstrated by Bloch (1996) in a multistate survey of high school principals and counselors that showed a lack of commitment to the career development of students, in particular for those considered at-risk for dropping out. Helwig (2004) examined the career development issues experienced by a group of students over a 10-year period in which data were

gathered six times throughout their K-12 educational experiences. The students in this sample reported mediocre satisfaction with their schools' role in helping them engage in career development activities.

Other large sample studies echo the finding that students are not receiving the experiences and information they need to develop their vocational identities and help them progress through the growth and exploratory stages of career development. For example, Wimberly and Noeth (2005) reported on a large-scale study conducted by American College Testing (ACT) in which 2,942 students in the 8th-, 9th-, and 10th-grades completed the Educational Planning Survey. The survey examined issues related to high school programs, class selection, and the helpfulness of school, family, and friends in educational planning and decision making. Over 77% of the students reported that they planned to attend college; however, only two-thirds of these students described their high school programs as college preparatory programs, indicating some discrepancies between career guidance and program choice. With respect to exploration, almost one-fourth (22%) of the sample indicated that they had not begun considering the education, training, and work options they would pursue upon graduation from high school. Furthermore, although most of the sample had set educational or career goals, they were not engaged in planning activities. When comparing these data with the constructs of Super's theory, the majority of the sample had crystallized their vocational goals but had not engaged in the specification and implementation steps needed to make their goals a reality. The conclusion was that middle and high school students were not engaged in the necessary curriculum to prepare them for postsecondary education. Furthermore, a lack of comprehensive exploration results in missed opportunities due to limited information about postsecondary options.

Although intentional efforts at career development appear to be lacking, there is evidence that participation in the CTE precursors of POS (e.g., career pathways, school-to-work, Tech Prep, career magnets) are more likely to engage students in career development activities, if not directly, then at least peripherally. This suggests that career development may be a by-product of engagement in such programs. Several of these studies will be discussed.

Few studies have examined explicitly the effects of participating in CTE courses focused on career development. A few efforts have been made, however, to examine career development in the context of school-to-work (STW) programs. For example, Perry, DeWine, Duffy, and Vance (2007) examined the self-efficacy of urban students who were part of a school-to-work program. Qualitative measures found that the students who participated in the program showed a more realistic sense of academic self-efficacy and had better strategies for engaging in academic tasks. Additionally, Benz, Yavanoff, and Doren (1997) reported that high school students, both with and without disabilities, who engaged in work-based learning experiences and possessed both social and job search skills were more likely to be engaged in competitive employment one year after graduation. Furthermore, the possession of career awareness skills was also a predictive factor of the students'

productive engagement in employment. It should be noted that some experts have debated the capability of STW programs to provide career development opportunities (e.g., Hanson, 1999; Lent & Worthington, 1999; Worthington & Juntunen, 1997). More recently, however, some experts have declared that STW programs have improved career development efforts in high schools (Gray, 2000; Visser, Bhandari, & Medrich, 2004).

In the article, *Effectiveness of Three Previous Initiatives Similar to Programs of Study: Tech Prep, Career Pathways, and Youth Apprenticeships* (this issue), the researchers examined students' career-related behavior associated with participation in CTE programs that were direct precursors of POS. This included examining the rates of enrollment and persistence in postsecondary education and training programs. Additionally, Leikes et al. (2007) examined the matriculation of CTE secondary students into community college programs and found that in some career pathways, these students rated themselves more college ready than did non-CTE students. In comparison to their non-CTE counterparts, students who completed CTE programs reported (a) feeling more prepared to transition to college, (b) believing that their high school programs of study had prepared them with the necessary information about college programs and courses, and (c) having clear career goals and plans. A study by Bragg et al. (2002) investigated the postsecondary outcomes of 4,600 Tech Prep students. This study found that approximately 65% of the sample enrolled in some form of postsecondary education. Additionally, the participants were more likely to be working than non-Tech Prep students.

Crain et al. (1999) examined the outcomes of students graduating from career magnet programs. They found that students in career magnet programs enrolled in more college courses, felt more supported by their parents to go to college, and socialized more with career-minded students. Furthermore, they were less likely to engage in risky behaviors. The authors concluded that career magnet schools created a school culture that supports hard work, dedication, and continuity of purpose which produced career identities. Similarly, in a study by Flaxman, Guerrero, and Gretchen (1997) career magnet graduates enrolled in more career-related courses than the comparison group, which was comprised of comprehensive high school graduates. Career magnet graduates expressed more understanding of the factors that impacted their growth and development, indicated a stronger sense of self-efficacy, and were more trusting of their abilities and skills. Post-high school outcomes for career magnet students revealed that they were more likely to have declared a college major, to be taking more college credits than the comprehensive high school graduates, and to be pursuing professional careers.

Parallel results have been found for career academies. Kemple and Willner (2008) examined the long-term impact of career academies on educational attainment and transition. The results of the study were based on data from students who were selected at random to attend academies and a control group of students who applied, but were not admitted into career academies. The random nature of the assignment provided strong evidence of the independent effects of the academy experience.

Several advantages for students enrolled in career academies were detected. Academy students were more likely to (a) take career-related courses and be exposed to career awareness and career development activities, (b) work in jobs that were connected to their school work, and (c) stay in school, attend regularly, and earn more credits. In addition, approximately 80% of the academy students earned a high school diploma and approximately 50% earned a postsecondary credential, which was comparable to non-academy students.

Finally, in an examination of Tech Prep programs, Hershey, Silverberg, Owens, and Hulsey (1998) reported that schools engaged in Tech Prep placed a greater emphasis on career guidance and development in addition to using a variety of methods to familiarize students with career options. The methods included career exploration software, career development courses and curriculum, career fairs, employer presentations, workplace site visits, job shadowing, and school-based career counseling centers. Additionally, learning experiences alone have been shown to affect vocational self-efficacy, which in turn has been shown to influence career interest and decision making (Tang, Pan, & Newmeyer, 2008; Turner & Lapan, 2002).

Persistence is an important factor in the career development of students engaged in CTE programs. Persistence has two intentions: (a) the engagement in postsecondary education/training or work pursuits and (b) the continuous engagement in one's high school area of study (or major) in postsecondary or work pursuits. Although research on persistence within this context is limited, dual enrollment studies have shown some promising outcomes. For example, Karp, Calcagno, Hughes, Jeong, and Bailey (2007) found that students who engaged in dual enrollment opportunities were more likely to remain enrolled in college two years after graduating from high school. Bragg and Ruud (2007) reported that dual credit programs aided in "accelerated progress and success at earning college certificates and degrees" (p. 4), suggesting that dual credit and CTE may serve as a catalyst for college persistence and completion. Furthermore, Zavattieri, D'Anna, and O'Sullivan-Maillet (2007) measured the impact of a high school-based health science career program on student retention and careers. They found that 97% of the participants continued their education after high school. Forty-nine percent of those who entered two-year colleges and 57% of those who entered four-year colleges pursued health-related careers. Further study is needed, however, to determine the degree to which students continue working and/or studying within their programs of study beyond high school.

What can be concluded from these studies? First, it is evident that students involved in CTE programs (e.g., work-based learning, career pathways, career magnets, career academies, Tech Prep) are likely to have a greater sense of self-efficacy, an increased sense of career awareness, a higher level of college readiness, clearer career-related goals, and a higher level of college participation, to name a few. Additionally, it appears that some of these programs engage students in

intentional career development (e.g., Tech Prep, career academies), where students are exposed to career exploration courses, job shadowing, and career counseling. Overall, it appears that these programs, either directly or peripherally, provide students with the career exploration they need to develop a sense of vocational identity and career maturity. Persistence in one's area of study beyond high school, however, continues to be an issue of concern for researchers and educators.

Conclusions

The pragmatic CTE educator may view this discussion of career development as a diversion from the main theme of POS in CTE. This discussion, however, is anything but a diversion, because career development should be the foundation on which POS are built. The choice of a POS intensifies the dilemma of all secondary level occupational programs in that decisions about future occupational goals are made when virtually all students are at the exploratory stage of career development. They select the programs they wish to study as a way of exploring occupations as much as to prepare for them. Many students learn; however, that the occupations that initially interested them are not what they expected or do not fit their personalities and goals. As a result, many reconsider their choices and may engage in further exploration by studying different programs. This should not be considered as a failure on the part of the student, but as an inherent aspect of the career development process that results in the formation of one's vocational identity.

If students are not ready to make firm choices about their interests and future careers, why should they be asked to do so? Would it not be more appropriate to provide opportunities for exploration rather than skill training? The kinds of exploration that schools can offer (e.g., individual guidance, career courses, job shadowing, career fairs) typically take place in middle school and the early years of high school and are limited inherently. For young people to internalize the information from these experiences, they need to make initial choices and be given opportunities to encounter occupations in-depth. To truly test the fit between what they like to do and what occupations require, students must learn to perform the tasks required by the occupations that interest them. The review of youth apprenticeships (presented in the article *Effectiveness of Three Previous Initiatives Similar to Programs of Study: Tech Prep, Career Pathways, and Youth Apprenticeships*) found, however, that few employers are willing to provide skill training for young people. For many high school students, therefore, CTE courses serve as a means of exploring possible career paths as well as preparing to enter those paths, fostering career development.

Obviously, well before students choose POS, schools can provide many opportunities for students to increase their knowledge of occupations. There is a variety of ways that students can learn about occupations in school, and many resources are readily available. A Google search with the words "career exploration lesson plans" yielded 367,000 hits. Even if students come to learn that their initial

occupational goals are not appropriate for them, the study of occupations can still make learning relevant and is vital to the exploration stage of career development.

There is an emerging consensus that interest in occupations can increase students' motivation and engagement. Stone (2004) described the specific ways in which CTE can increase engagement. The Center for Comprehensive School Reform and Improvement (2007) summarized instructional methods schools can take to enhance engagement and achievement. Many of these methods, such as long-term projects, hands-on activities, and differentiated instruction, are inherent to CTE. The U.S. Department of Education's Institute of Education Sciences issued a practice guide on dropout prevention that stated: "Career and technical education (CTE) implemented to allow all students 'multiple pathways' toward careers and higher education is a way to engage the student" (Dynarski et al., 2008, p. 34). The Institute rated the scientific evidence supporting this statement as "moderate." If there is engagement, teachers can ask more of students and challenge them to learn the rigorous and relevant content required of POS. In 1909, Frank Parsons wrote:

We guide our boys and girls to some extent through school, then drop them into this complex world to sink or swim as the case may be. Yet there is no part of life where the need for guidance is more emphatic than in the transition from school to work—the choice of a vocation, adequate preparation for it, and the attainment of efficiency and success. (p. 4)

Some students and educators may wonder, after reading this passage, if much has changed in the 99 years since Parsons wrote these words. Although great efforts have been made to engage students in the educational process and prepare them for the world of work, there is still much to do. Namely, career development should become an intentional process in the education of students. In addition, career development needs to occur earlier during the growth stage of development while children are engaging in the processes of learning, play, and fantasy. These experiences, according to Super and other theorists, provide children with the necessary tools to develop and clarify their career aspirations and, therefore, prepare them for the exploration phase of development that occurs during adolescence and young adulthood.

Career development needs to occur as a deliberate process throughout students' educational experiences. Based on student outcomes, there is evidence of career development occurring in the CTE programs that preceded POS. In many cases, however, the evidence appears to be a byproduct of the curriculum and not necessarily the result of intentional career development efforts. There is a need both for more intentional efforts toward career development and for better studies to evaluate the efforts in CTE programs of study.

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The Authors

Natalie R. Kosine is an Assistant Professor in the Department of Educational & Counseling Psychology at the University of Louisville. E-mail: natalie.kosine@louisville.edu. Phone: 502.852.8796.

Morgan V. Lewis retired from The Ohio State University in 2006. He is serving as a consultant to the National Research Center for Career and Technical Education, University of Louisville. He can be reached at 2240 McCoy Road, Columbus, OH 43220. E-mail: mvlewis13@gmail.com. Phone and fax: 614.451.9921.