

The Career Development Needs of Elementary School Students

Olcay Yavuz¹

Abstract

Providing early career exploration opportunities improve students' academic performance and help them "connect the dots" between self-concept, education, and various career paths. Since there is a growing emphasis to expand elementary students' early career awareness, the purpose of this quantitative survey study is to explore how elementary students' self-perceptions change regarding main career development domains including (1) developing self-concept, (2) exploring college and career options, (3) making a connection with personality, education, and career paths. The quantitative findings also report how gender is related to elementary students' career cluster choices. Elementary school leaders and counselors can use the results to improve young children's career development by creating systemic and targeted career exploration activities.

Keywords: Elementary Career Development, Student Perspectives, Career Need Assessment

Recommended Citation:

Yavuz, Olcay. (2022). The Career Development Needs of Elementary Students, *International Journal on New Trends in Education and Their Implications (IJONTE)*, 12 (2), 47-57.

Introduction and Career Development Theories

There are many theories of career development that discuss how early should students start thinking and planning their college and career futures (Edwin, & Prescod, 2018). Osipow (1968) conducted a comprehensive comparison of career theories. Particularly, he compared and contrasted seven theories of career development are examined in previous chapters: (1) Roe's personality theory, (2) Holland's career typology theory, (3) the Ginzberg, Ginsburg, Axelrod, and Herma Theory, (4) psychoanalytic conceptions, (5) Super's developmental self-concept theory, (6) other personality theories, and (7) social systems theories.

In general, there is a consensus that career exploration and career development is a lifelong process that begins in the early school years (Blackhurst, Auger, and Wahl, 2003; Howard, Ferrari, 2021; Setiowati and Nuryanto, 2022). Overall, Osipow evaluates not to find the superior theory, but to show in which context each is most likely to be useful. It is noted that various career development theorists have focused on the importance of the elementary years for an individual's career development. Particularly, career theorists Roe (1957), Super (1963a), Ginzberg, and associates (1957) who support the normal human development process, advocate for the implementation of early career exploration activities.

For instance, according to Super (1980), students in elementary school years are in the growth phase. exploration of information about the self and the world. During elementary school, students tend to acquire and access career information and start to build awareness of their likes and dislikes. In other words, Super emphasizes how the self-concept starts to shape in the early school years. The Ginzberg approach, similar to Super's, describes career development as a series of events in a predictable sequence (Osipow, 1968). Ginzberg indicates that the career choice process includes three main

¹Corresponding Author: Olcay Yavuz, Associate Professor, Educational Leadership and Policy Studies, Southern Connecticut State University, yavuzo1@southernct.edu, ORCID: 0000-0003-1060-5401.

periods which are fantasy, tentative, and realistic choices. Particularly, Ginzberg (1972) believes that elementary school years involve both fantasy and tentative periods.

During the fantasy period (0-10) children mostly engage in play. During these plays, observations and communications, children get an opportunity to learn about different jobs and careers Ginzberg (1972). In this period, the influence of the educational process, the emotional factors, individual interests, and family values have the potential to shape children's career choices. In the fantasy stage, the child is free to pursue any occupational choice, however, Ginzberg believed that children first engage in play (dressing up linked to jobs) to later on during the fantasy stage play out different actual jobs.

According to Ginzberg (1972), after the fantasy period, the second period is called the tentative stage and it starts at Age 11. Therefore, upper elementary children are likely to recognize more of the intricacies of the different job roles. Particularly, while students in 4th and 5th grade, children learn likes and dislikes. Ultimately the interest stage might play a significant role in students' career choices. In addition to the interest stage, the upper elementary school years include the capacity stage which children learn how their capacities, knowledge and skills are aligned with the requirements of various jobs and careers paths (Ginzberg, 1972).

Since children spend the majority of their time with their parents between Age 0 to 10, Roe (1957) has placed emphasis on the role of early family experiences on the development of childhood personality traits. Particularly, Roe divided up the child parent relationship in 3 main categories (1) Emotional concentration on the child (overprotective or overdemanding), (2) Avoidance of the child (emotional rejection or neglect), (3) Acceptance of the child (casual acceptance or loving acceptance). According to Roe (1957), when a child's psychological and emotional needs were not satisfied during early school years, the child can forget/ignore about those needs, or use/apply them as motivators in choosing a career. For instance, when children who experienced loving acceptance parenting styles would choose careers in education, entertainment, or service. In other words, children's subconscious minds and learning experiences during early school years have important influences on their future career choices.

Like theorists Roe (1957), Super (1963), Ginzberg, and associates (1957), Gottfredson's theory (1981) emphasized the importance of childhood in the shaping of students' personality and career choices. Gottfredson believes career development has four stages, beginning in early childhood. At each stage, children rule out jobs that don't match how they see themselves, through a process called circumscription (Gottfredson, 2002). According to Gottfredson's theory, in Stage 1 (ages 3 to 5), children start to see jobs and careers as held by grown-ups such as parents, and relatives. In stage 2 (ages 6 to 8) which involves early elementary school years, students become aware of stereotypical gender roles and begin having ideas about their own careers.

According to Gottfredson, students have already eliminated a host of career options based on their gender and social prestige, by the end of elementary school (Edwin, & Prescod, 2018). For instance, since a very significant amount of elementary teachers are female, students might start to think that teaching careers are best fit for females, not males. In Stage 3 (ages 9 to 13) which includes upper elementary school years, students learn how jobs vary in status and eliminate some jobs because they don't see themselves working in these roles. (Gottfredson, 2002). Therefore, during 4th and 5th grades, if students receive inaccurate information and biased ideas about certain job requirements, they might permanently eliminate to consider these career opportunities.

Overall, there are several theorists who support how occupational aspirations are developed during the preschool through college years. Aligned with the human development process, the self-concept changes and develops throughout people's lives that including elementary school years (Super, 1954). Since personality development is crucially related to the events of early childhood, individuals' occupational behavior is more likely to be affected through the elementary school years (Osipow, 1968). Like human development and career theories, there are several research studies that focused

on how various factors such as personal, academic, and demographic characteristics are related to the career decision-making process and eventual educational attainment (Mau & Heim Bikos, 2000). Then, the next part is designed to explore previous research studies related to elementary career development.

Research on Elementary Career Development: Opportunities and Gaps

The researcher explored several studies that focus on what career planning really means for elementary students and why elementary school is a good time for early career development and exploration. It is noted that considerably fewer studies have focused on the educational aspirations and career development of younger students in the elementary school years. The majority of career exploration studies focused on high school students. For instance, in 1983, Campbell determined five categories of student outcomes when children in secondary school were exposed to career development. It is reported that when students participate in targeted career development activities, (1) they improve school engagement and academic performance, (2) they develop more personal and interpersonal work skills, (3) they are more prepared for their future careers, (4) they build career planning skills, and (5) they also gain career awareness and exploration skills.

The existing research suggests that important findings and decisions about educational attainment may be formed in middle school or even earlier. Through focused interviews with 119 elementary students, Blackhurst, Auger, & Wahl (2003) examined children's understanding of vocational preparation requirements for 15 well-known jobs. In this study, results indicated that, by fifth grade, many elementary students have developed the conceptual framework for understanding career preparation requirements but they were highly inaccurate in their application of the framework to a specific career path. Since at the elementary level, career development is tied to success in many other aspects of an individual's development in childhood and adulthood, this study emphasizes the importance of providing valid and reliable information for students' early career development.

Particularly, previous researchers indicated that there is a connection between career development at the elementary level and academic achievement and school success for students (Akos, Niles, Miller, & Erford, 2011). Aligned with this finding, Evans and Burck (1992) found that elementary students seemed to benefit the most in their academic achievement when they participated in career development interventions. Moreover, Mau & Heim Bikos (2000) suggested that students who have higher occupational aspirations will, consequently, aspire to greater school success and educational attainment. Therefore, it is crucial that educators and counselors integrate certain career development activities into the elementary school curriculum. For instance, since developing career awareness is a lifelong process, educators are encouraged to teach these self-exploration skills and self-determination practices during primary school years (Papay, Unger, Williams-Diehm, & Mitchell, 2015)

Papay, Unger, Williams-Diehm, & Mitchell (2015) also reported that unfortunately there is a very common misconception that career planning and transition begin during secondary school years. It is reported that instead of waiting for high school years, teachers and counselors can engage students and their families in transition-focused activities throughout teaching and learning activities for their elementary-grade students. Since students with disabilities need more personalized support and targeted counseling services, as a part of the longitudinal nature of transition planning, these strategies are strongly recommended to be applied to special education students (Papay, Unger, Williams-Diehm, & Mitchell, 2015).

Viviano (2015) also emphasized the importance of career planning for elementary school students. Particularly, he claimed that elementary career development and career exploration curriculum help younger students determine who they are and what their strengths are. When students identify their challenges, interests, and values, they are more like to make an informed decision about their post-secondary and career plans. Since many elementary students have no clear understating of careers, job requirements and the real world. Edwin and Prescod (2018) recommend that during elementary school years, career readiness activities should aim to explore and help students get to know

themselves and discover their uniqueness. Self-exploration might include their interests, likes, dislikes, skills, knowledge and values is important in this stage because these aspects play a major role in students' selection of careers.

Similar to Edwin and Prescod (2018), Akos, Niles, Miller, & Erford (2011) also indicated that early career development and career exploration to expose students to a variety of careers and build self-awareness should be the goal of elementary schools. Since career awareness promotes self-awareness from an early age as children discover about themselves, elementary career awareness activities should be systemically integrated into the K-5 curriculum (Papay, Unger, Williams-Diehm, & Mitchell, 2015). These types of career exploration activities will help younger kids to think about their future from the elementary school years, so they can be more curious and more engaged in school works.

Since early career planning is mostly about self-discovery and helping younger kids make sense of the world around them. Viviano (2015) suggests that elementary children need to know their options to discover their interests and shape their related skills accordingly. It is also noted that elementary school years are an opportunity to introduce career development skills, and post-secondary options. Therefore, elementary school teachers and counselors can help their younger kids in the development of knowledge about current and emergent careers, as well as self-awareness, and career development motivation by implementing career development interventions (Mariani, Berger, Koerner, & Sandlin, 2016).

Similarly, Edwin & Prescod (2018) also report that school counselors can use targeted career exploration units to support students' career awareness and to begin the lifelong process of preparing them for success in the world of work. They also claim that elementary students should begin learning about the relationship between academic performance, school success, postsecondary education options, and career paths. Therefore, there is an overall consensus that it is appropriate and beneficial for students to begin the process of career exploration during early school years.

Mariani, Berger, Koerner, & Sandlin, (2016) also reported that upper elementary students had significant increases in their knowledge of college and career readiness standards, desire to go to college, and their interests in careers after participating in a career development intervention unit. It is also indicated that, by the fifth grade, children have developed a fair understanding of the broad categories of occupational characteristics (Blackhurst, Auger, & Wahl, 2003).

Besides improving students' self-awareness, it is also noted that elementary career development activities can also help students gain resiliency, self-management, and interpersonal social skills. These are all abilities students need to acquire to become successful in their school and career journey. In addition to career counseling services, Clemens, Carey, & Harrington (2010) indicated that implementation of the school counseling services resulted in increases in positive classroom climates in elementary schools. Since school counselors are the most qualified professionals, in school buildings, to provide career development interventions, it is recommend that including elementary schools, each student should have an opportunity to work with a certified school counselor (ASCA, 2012).

Purpose and Research Questions

Current research shows that students' development of career readiness skills is improved when a comprehensive school counseling program is established (Dahir, Burnham, & Stone, 2009). Since there is a growing emphasis to expand elementary students' career awareness, the purpose of this study is to explore how elementary students' self-perceptions change regarding main career development domains including (1) developing self-concept, (2) exploring college and career options, (3) making a connection with personality, education, and career paths. This study is particularly designed to respond the following research questions.

Research Question 1: How do elementary students' self-perceptions change regarding the "Developing Self-Concept" Domain?

Research Question 2: How do elementary students' self-perceptions change regarding the "Exploring College and Career Options" Domain?

Research Question 3: How do elementary students' self-perceptions change regarding the "Making Connection with Personality, Education and Career Paths" Domain?

Research Question 4: How gender is related to elementary students' career cluster choices?

Method

Setting and Participants

Since the early school years are crucial for students' future career choices, this quantitative survey study is designed to explore how elementary students' self-perceptions change regarding (a) Developing self-concept, (b) Exploring college and career options" and (c) Making a connection with personality, education and career paths. Study participants were drawn from third, fourth, and fifth-grade classrooms in an elementary school in one public school district in the Northeastern United States. This school was selected because the composition of its student body is representative of the district's enrollment, which is predominantly White (75.4%) and includes a mixture of families from the working class and professional backgrounds. Based on the Connecticut State Department of Education (2020) district profile data, approximately, the percentage of students who were African American is 4.3 percent and Hispanic is 9.5 percent.

Earlier studies indicated that upper elementary students are aware of a variety of occupations and their characteristics (McGee & Stockard, 1991). Therefore, in this study, the data used to examine the above research questions came from comprehensive career development need assessment survey with 149 children in the third (35.8%), fourth (n = 26.6%), and fifth (n = 37.6%) grades in the public school district. All students whose parents consented to their participation were given the comprehensive career development need assessment survey during their computer class yielding 149 participants. Participants were 43.6% female and 56.4% male. Around twenty percent of the students received free/reduced-price lunch

Instrument

Career development starts early in elementary school years and it is a complex and ongoing process. Since the career exploration process needs to be frequent and consistent throughout students' education, the researcher developed a comprehensive Elementary Career Development Need Assessment Survey (ECDNAS). This survey is a 15-item instrument designed to explore how elementary students' self-perceptions change regarding main career development domains. To ensure content validity, the comprehensive elementary career development student needs assessment survey was reviewed by an expert panel consisting of a certified social worker, school counselors and certified school administrators, and university professors. The 15 items are scored on a three-choice Likert scale and comprise three subscales: The first subscale is developing self-concept (five-item subscale, e.g., "I know my interests (What I like to do, for fun) and I know my individual skills and abilities (sport, art, math, science)

The second subscale is named "Exploring College and Career Options" (five items, e.g., "I know the names of different careers and jobs and I know your education and training options after high school). The third subscale is called "Making Connection with Personality, Education and Career Paths" has also have five items, e.g., "I know how to use my interests and skills to plan my education path and I know how to set career goals based on my interests and skills". In addition to administering the comprehensive career development need assessment survey, the researcher asked students about their demographic information including grade level and gender.

The researcher quantified these items and entered them into the student database to conduct quantitative analyzes. Since few instruments have been developed to investigate career development

at the elementary school level, this survey is recommended as a helpful tool for research or career development programs at elementary schools.

Procedure and Analysis

In collaboration with the principal investigator and the computer teacher, elementary teachers administered the online comprehensive career development need assessment survey during school time. Student responses to the survey were individually recorded, coded, and then entered into a dataset. This dataset was sent to the author as an archival dataset including student perfection data, and demographic information (gender, grade level, and career cluster data) gathered from student records. In this quantitative explorative study, the researcher applied descriptive and inferential statistics to analyze responses to the quantitative research questions. Particularly, the mean and standard deviations of all items were computed to answer the first three research questions that focused on exploring the highest and lowest career developmental needs as perceived by elementary school students.

Particularly, in the first three research questions, the descriptive analysis has been used to explore how elementary students' self-perceptions change regarding career development domains. We calculated the average percentages on each subscale. Different from the first three research questions, the fourth research question focused on exploring how urban high school students' perceptions of their career cluster choices change based on gender. The Chi-Square Test of Independence was used to answer the fourth research question. The students' career development self-selected results were disaggregated by gender. The Chi-Square Test of Independence determines whether there is an association between categorical variables (i.e., whether the variables are independent or related). It is a nonparametric test.

Findings

Research Question 1: How do elementary students' self-perceptions change regarding "Developing Self-Concept" Domain. In the career development self-assessment survey, students were asked to rate their level of agreement for each domain by using the rating scale: 2= Yes, 1= No, 0= I am not sure.

Table 1

Percentage Distribution of Developing Self-Concept (N = 149)

Statements for Developing Self-Concept	Yes	No	Not Sure
I know my interests (What I like to do for fun)	90.7%	1.3%	8%
I know my individual skills and abilities (Sport, art, math, science)	90.0%	5.3%	4.7%
I know my personality & character traits (What makes me happy/sad)	88.7%	3.3%	8.0%
I know my strengths (I am good at something at or is easy for me)	90.7%	3.3%	6.0%
I know my weaknesses (I'm not good at something or difficult for me)	76.0%	8.7%	15.3%

Regarding the "Developing Self-Concept" Domain, there was consistency across each item. Approximately 90% of the elementary students indicated a positive (Yes) statement related to self-concept. In other words, a sizable majority indicated that they were aware of their interests, skills, abilities, personality traits, and strengths. Only one item "I know my weaknesses (I'm not good at something or difficult for me)" received less than 80% positive statement.

Research Question 2: How do elementary students' self-perceptions change regarding "Exploring College and Career Options" Domain

Table 2

Percentage Distribution of Exploring College and Career Options (N = 149)

Statements for Exploring College and Career Options	Yes	No	Not Sure
---	-----	----	----------

I know the names of different careers and jobs	83.9%	7.4%	8.7%
I know your education and training options after high school	43.6%	30.9%	25.5%
I know about different works, job activities, and tasks	75.2%	10.1%	14.8%
I know what specific education is required for different careers	37.6%	31.5%	30.9%
I know the role and importance of different careers	64.4%	18.1%	17.4%
I can name 2 or 3 possible career areas that might interest me	87.76%	4.50%	7.74%

Different from the "Self-Concept" Domain, elementary students' responses were inconsistent in the "College and Career Exploration" Domain. For instance, a sizable majority (75% +) of elementary students indicated that they have a positive statement about naming different careers and jobs (83.9%) and knowing about different work environments, job activities, and tasks (75.2%). On the other hand, 62.4% of elementary students reported that they do not know or they are not sure what specific education is required for different careers. Similarly, 56.4% of the participants indicated that they do not know or they are not sure what education and training options are available after high school.

Research Question 3: How do elementary students' self-perceptions change "Making Connections with Personality, Education and Career Paths" Domain?

Different from the first and second domains, the last domain focused on exploring students' perceptions about making connections with personality, education, and career paths. The results of descriptive statistics are listed below.

Table 3

Percentages of Making Connection with Personality, Education and Career Paths (N = 149)

Statements for Making Career Development Connections	Yes	No	Not Sure
I know how to use my interests and skills to plan my education path	64.4%	12.1%	23.5%
I know how to set career goals based on my interests and skills	69.1%	14.1%	16.8%
I know how to use my time effectively for my school success	63.1%	15.4%	21.5%
I know who can help me develop my college and career readiness	47.0%	34.2%	18.8%
I know the importance of personal responsibility and work habits to become successful in school and life	76.5%	8.7%	14.8%

Elementary students reported that out of three domains of career development, with an 87% positivity rate, "Developing Self-Concept" Domain has the highest agreement among elementary students. On the other hand, "Making Connection with Personality, Education and Career Paths" has the lowest agreement (63%) among participants. Particularly, 53% of elementary students reported that they do not know, or they are not sure who can help them develop their college and career readiness plans. Additionally, only 63.1% of students indicated that they know how to use their time effectively for their school success.

Research Question 4: How gender is related to elementary students' career cluster choices?

For 15 of the 16 enumerated career clusters, no significant differences were found between participants' genders and their responses. The sole exception was for the cluster "Education and Training" for which the Chi-Square test revealed a statistically significant difference in responses according to the participants' gender ($\chi^2 = 7.99, p = 0.005$). Elementary school counselors and educators can use these findings regarding career clusters to support students' career development and to prepare them for success in the world of work. The implications of the findings for the policy and practice are discussed in the next section.

Table 4

Percentage Distribution and Chi-Square Significance Value of 16 Career Clusters?

Brief Description of 16 Career Clusters	Girls	Boys	χ^2
---	-------	------	----------

	Yes%	Yes%	p value
1. Agriculture, Food, and Natural Resources	43%	33%	.24
2. Architecture and Construction	14%	27%	.06
3. Arts, Audio/Video Technology, and Communications	42%	40%	.72
4. Business, Management, and Administration	18%	14%	.51
5. Education and Training	29%	8%	.00*
6. Finance	14%	12%	.76
7. Government and Public Administration	11%	4%	.17
8. Health Science	26%	16%	.18
9. Hospitality and Tourism	11%	18%	.27
10. Human Services	16%	6%	.07
11. Information Technology	12%	14%	.79
12. Law, Public Safety, Corrections, and Security	12%	20%	.26
13. Manufacturing	12%	14%	.67
14. Marketing, Sales, and Service	7%	8%	.95
15. Science, Technology, Engineering, and Mathematics (STEM)	13%	18%	.55
16. Transportation, Distribution, and Logistics	9%	14%	.43

Discussion

The findings of the study support the existing career development theories and research students. In the study, a very large number of elementary students indicated that they developed a self-concept. Since the upper elementary students start to discover their interests, skills, and values, it is important that school counselors and teachers provide accurate knowledge of educational and vocational training requirements (Blackhurst, Auger, & Wahl, 2003). Therefore, elementary career development curriculum activity helps younger students determine who they are for their future education and career planning (Viviano, 2015).

The results of this study also suggest that a sizable majority (75% +) of elementary students have a positive statement about exploring college and career options. Over 80% of the participants indicated that they were able to name different careers and jobs and know about different work environments, job activities, and tasks. In this study, elementary students' responses provided considerable evidence to support Gottfredson's developmental theory of occupational choice. This indicated that by the fifth grade, children have developed a fair understanding of the broad categories of occupational characteristics. Therefore, earlier career development exposure could also help elementary students explore what specific education is required for different careers (Ayriza, Setiawati, Triyanto, Gunawan, Anwar, Budiarti, Fadhilah, 2021; Edwin and Prescod, 2018).

Elementary students reported that they have very high positive statements regarding developing self-concept. However, it is noted that "Making Connection with Personality, Education and Career Paths" has the lowest agreement among participants. Particularly, more than half of the elementary students reported that they do not know, or they are not sure who can help them develop their college and career readiness plans. The results of this study suggest that elementary children have a limited understanding of making connections with their self-concept, education, and career paths. This supports Ginzberg's theoretical approach because elementary students are still in the fantasy, and tentative stages (Ginzberg, 1972). During secondary years, they will start to have more realistic choices.

The last question focused on exploring how gender is related to elementary students' career cluster choices. For 15 of the 16 enumerated career clusters, no significant differences were found between participants' genders and their responses. The sole exception was for the cluster "Education and Training" for which the inferential statistical test results revealed a statistically significant difference in

responses according to gender. This specific finding also supports Gottfredson’s career development theory. Particularly, over 95 percent of the teachers in this elementary school were female. In this case, male students might already eliminate being a teacher because students might start to think that teaching careers are best fit for females, not males (Gottfredson, 2002).

Implications for Policy and Practice

Aligned with the previous research studies and based on the results of this study, several recommendations for practice, policy, and future research seem warranted. It is not too early for elementary students to engage in career development and career exploration activities. This process will help students in higher school engagement and higher academic performance. Aligned with the previous studies, this study suggests that late elementary school is a particularly opportune time to provide career education (Blackhurst, Auger, & Wahl, 2003). Providing age-appropriate and specific information about current and emerging occupations will help students to develop realistic and meaningful career goals.

As part of the career readiness program for elementary school, students should be given an opportunity to discover the world of career work. Since elementary students have developed a conceptual framework for understanding general educational requirements for career preparation, career development lessons can involve giving students what careers exist and what careers require (Blackhurst and colleagues, 2003). By each student knowing their personal interests, and career requirements, they can start exploring what careers might be good fit for them. Since elementary kids are very engaged in school and their brain develop rapidly, early career development opportunity should not be wasted.

Due to COVID-19, since many schools offer comprehensive computer and technology programs, every student can begin their career development path early during primary school years by exploring and getting a better idea of the world beyond themselves. Exploration of interests, skills, and values is important in this stage because these aspects play a major role in students’ selection of careers (Trice, Hughes, Odom, Woods, & McClellan, 1995). It is also noted that It is noted that the main goal of career development at the elementary level should not be encouraging children to make important career decisions. Instead, age and developmentally appropriate interventions and activities are encouraged to be implemented (Akos, Niles, Miller, & Erford, 2011). Particularly, a self-discovery and self-awareness curriculum can help elementary students find out their challenges and strengths (Viviano, 2015)

It is also reported that typically, most counseling is focused on addressing students’ academic and personal/social issues, which leaves very little time for assistance with career exploration (Viviano, 2015). Therefore introducing a comprehensive and targeted career exploration program might help improve students’ self-discovery and self-awareness (Akos, Niles, Miller, & Erford, 2011). Aligned with the findings of this study and based on the previous early career development studies (Herting Wahl & Blackhurst, 2000; Edwin, & Prescod, 2018), the recommended elementary career development activities can be grouped into three domains. Please see table 5 below.

Table 5.
Recommended elementary career development activities for each career domain

Career Domains	Recommended elementary career development activities
Self-Concept	<ul style="list-style-type: none"> • Introducing the concept of multiple intelligence • Exploring interests, strengths, values, hobbies, likes, and dislikes • Time management, study, and organizational skills workshop • Communication, collaboration, creativity, problem solving workshops
Exploring Careers	<ul style="list-style-type: none"> • Exploring post-secondary educational options after high school • Reviewing career clusters • Incorporate general college/career discussion into class conversations

- Making Connection
- Utilize electronic resources for career exploration (O*NET)
 - Research a career and create a display board for a career fair
 - Organizing a school-wide career fair
 - Invite career speakers, role models to share their own career pathway
 - Virtual Career Tours, Business/Industry/College Visits, Shadowing
-

When the elementary schools provide targeted career development activities, students are more likely to know themselves and have an idea of their interests and abilities which will enhance student engagement at the higher levels of a learner's academic career. These activities can also prevent the premature elimination of careers that can occur when students are not exposed to multiple career options (Gottfredson, 2005). Therefore, besides integrating recommended elementary career development activities to foster early career awareness in elementary school, it is noted that further research is needed to investigate the hypothesis that students' early educational aspirations influence their occupational preferences (Walls, 2000).

During elementary career development activities, the roles of parents should be also considered. Parental involvement is important as parents and guardians have very strong influences on their children's career interests and development (Hutchison, Niles, & Trusty, 2016). Finally, as elementary school counselors and teachers prepare to implement career development activities in their own classrooms, it is important to note that they select age-appropriate activities and modify the lessons based on the diverse student needs and time availability (Edwin, & Prescod, 2018).

References

- American School Counselor Association. (2012). *The ASCA National Model: A framework for school counseling programs* (3rd ed.). Alexandria, VA: Author.
- American School Counselor Association (2014). *ASCA Mindsets & Behaviors for Student Success: K-12 college- and career-readiness standards for every student*. Alexandria, VA: Author.
- Akos, P., Niles, S. G., Miller, E. M., & Erford, B. T. (2011). Promoting educational and career planning in schools. *Transforming the school counseling profession* (3rd ed., pp. 202-221). Upper Saddle River, NJ: Pearson.
- Ayriza, Y., Setiawati, F. A., Triyanto, A., Gunawan, N. E., Anwar, M., Budiarti, N. D., & Fadhilah, A. R. (2021). The effectiveness of quartet card game in increasing career knowledge in lower grade elementary school students. *Current Psychology*, 1-12.
- Blackhurst, A. E., Auger, R. W., & Wahl, K. H. (2003). Children's perceptions of vocational preparation requirements. *Professional School Counseling*, 58-67.
- Campbell, R. E. (1983). *Enhancing Career Development: Recommendations for Action. A Review of Empirical Studies of the Effects of Career Guidance*.
- Connecticut State Department of Education (2020) District Profile and Performance Report. Retrieved from <https://edsight.ct.gov/>
- Clemens, E. V., Carey, J. C., & Harrington, K. M. (2010). The school counseling program implementation survey: Initial instrument development and exploratory factor analysis. *Professional School Counseling*, 14(2), 2156759X1001400201.
- Dahir, C. A., Burnham, J. J., & Stone, C. (2009). Listen to the voices: School counselors and comprehensive school counseling programs. *Professional School Counseling*, 12(3), 182-192.
- Edwin, M. & Prescod, D.J. (2018). Fostering elementary career exploration with an interactive, technology-based career development unit. *Journal of School Counseling*, 16(13). Retrieved from <http://www.jsc.montana.edu/articles/v16n13.pdf>.
- Evans Jr, J. H., & Burck, H. D. (1992). The effects of career education interventions on academic achievement: A meta-analysis. *Journal of Counseling & Development*, 71(1), 63-68. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=aph&AN=9211164638&site=ehost-live>
- Ginzberg, E. (1972). Toward a Theory of Occupational Choice: A Restatement. *Vocational Guidance Quarterly*, 20: 2-9.

- Gottfredson, L. S. (2002). Gottfredson's theory of circumscription, compromise, and selfcreation. In D. Brown (Ed.), *Career choice and development* (4th ed., pp. 85-148). San Francisco: Jossey-Bass.
- Gottfredson, L. S. (2005). Using Gottfredson's theory of circumscription and compromise in career guidance and counseling. In S. D. Brown, & R. W. Lent (Eds.), *Career development and counseling: Putting theory and research to work* (pp. 71-100). New York, NY: Wiley
- Howard, K. A., & Ferrari, L. (2021). Social-emotional learning and career development in elementary settings. *British Journal of Guidance & Counselling*, 1-15.
- Herting Wahl, K., & Blackhurst, A. (2000). Factors affecting the occupational and educational aspirations of children and adolescents. *Professional School Counseling*, 3, 367-374.
- Hutchison, B., Niles, S. G., & Trusty, J. (2016). Career development interventions in the schools. In B T. Erford (Ed.) *Professional school counseling* (3rd ed., pp. 217- 320). Austin, TX: PRO-ED, Inc.
- Mau, W., & Heim Bikos, L. (2000). Educational and vocational aspirations of minority and female students: A longitudinal study. *Journal of Counseling and Development*, 78, 186-194
- Mariani, M., Berger, C., Koerner, K., & Sandlin, C. (2016). Operation occupation: A college and career readiness intervention for elementary students. *Professional School Counseling*, 20(1), 65-76. doi:10.5330/1096-2409-20.1.65
- McGee, J., & Stockard, J. (1991). From a child's view: Children's occupational knowledge and perceptions of occupational characteristics. *Sociological studies of child development*, 4, 113-136.
- Osipow, S. H. (1968). *Theories of Career Development. A Comparison of the Theories.*
- Papay, C., Unger, D. D., Williams-Diehm, K., & Mitchell, V. (2015). Begin with the end in mind: Infusing transition planning and instruction into elementary classrooms. *Teaching Exceptional Children*, 47(6), 310-318.
- Roe, Anne. Early determinants of vocational choice. *J. Counsel. Psychol.*, 1957, 4, 212-217.
- Setiowati, A., & Nuryanto, I. L. (2022). Identification of Guidance and Counseling Service Needs for Elementary School. In *International Seminar on Innovative and Creative Guidance and Counseling Service (ICGCS 2021)* (pp. 42-45). Atlantis Press.
- Super, D. E. (1953) A theory of vocational development. *Amer. Psychologist*. 8, 185-190
- Super, D. E. (1980). A life-span, life-space approach to career development. *Journal of vocational behavior*, 16(3), 282-298.
- Trice, A. D., Hughes, M. A., Odom, C., Woods, K., & McClellan, N. C. (1995). The Origins of children's career aspirations: IV. Testing hypotheses from four theories. *The Career Development Quarterly*, 43(4), 307-322. doi:10.1002/j.2161- 0045.1995.tb00436.x
- Viviano, T. (2015) *Comprehensive Career Development in Grades K-6*. Retrieved from <https://www.acteonline.org>
- Walls, R.T. (2000). Vocational cognition: Accuracy of 3rd-, 6th-, 9th-, and 12th-grade students. *Journal of Vocational Behavior*, 56, 137-144