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STUDY OF THE INFLUENCES OF A HIGH SCHOOL CAREER
EXPLORATION PROGRAM ON THE ADULT PROFESSIONAL
LIVES OF FORMER PROGRAM PARTICIPANTS

A Dissertation

Submitted to the Graduate Faculty of the
University of New Orleans
in partial fulfillment of the
requirements for the degree of

Doctor of Philosophy
in
The Department of Curriculum and Instruction

by

Roger H. Nadeau

B.S., University of New Orleans, 1971
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May, 2005

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ABSTRACT

This phenomenological study documented the influences of a high school career exploration program, Experience-Based Career Education (E.B.C.E.), on the professional lives of nine adults who are former program participants.

E.B.C.E. was an experience-based, student-centered program that helped students develop long-term career goals and then reassessed those goals based on community-based, externship experiences. The findings in this study indicate that the utilization of John Dewey's experience-based, student-centered philosophy, the basis for E.B.C.E., effectively enhanced the learning process.

The study's data, which was gathered exclusively through an Internet focus group session and follow-up email questions, documented the long-term influence of E.B.C.E. on program participants at Ellen Martin High School, a school that admitted only honors students in a large city in the South. E.B.C.E. participants from Ellen Martin High School participated in the Program for the last two years of high school. Program participants discovered their career interests and researched their career options while learning job skills and life skills during their junior year of E.B.C.E. Their non-paid externships, during their senior year of E.B.C.E., helped students learn how they might fit into the adult work world. Study participants developed life guides/philosophies, such as the importance of responsibility, commitment, dedication, and hard work. Adult mentors played an important role in the lives of the E.B.C.E. students, both personally and professionally and several study participants have maintained contact with their former E.B.C.E. mentors.

These mentoring experiences helped E.B.C.E. participants develop a sense of confidence about their abilities in the adult world. They have maintained this sense of confidence in their present profession. Most of the study's participants experienced flow, a condition linking high challenges to feelings of enjoyment, self-worth, and ongoing development, based on their successfully meeting challenges. Some of these challenges were purposely placed in the paths of students to test them while they participated in E.B.C.E. The positive feelings about overcoming challenges, in the adult work world led E.B.C.E. students to seek higher level challenges and this recursively upward pattern of seeking higher challenges has led them to continue seeking higher challenges in their professional lives.

CHAPTER ONE

INTRODUCTION

This is a phenomenological study of the long-term influences of a high school career exploration program, Experience-Based Career Education (E.B.C.E.), on the professional lives of nine adults who are former program participants from Ellen Martin High School in a southern city in the United States. First, I documented the influence of the career exploration program on the professional lives of former program participants. Secondly, I documented the aspects of the career exploration program that most influenced the professional lives of former program participants. Finally, I documented the challenges that led to “flow” for participants while participating in the program. Flow is a condition in which high challenges are linked to feelings of enjoyment, self-worth, and ongoing development for study participants (Schneider & Csikszentmihalyi, 2000). The data was gathered through Internet interviews and one online focus group with nine adult, former participants in the high school career exploration program, Experience-Based Career Education, E.B.C.E., at Ellen Martin High School. For the sake of clarity, E.B.C.E. at Ellen Martin High School will be referred to as the Program in this study.

The philosophy of John Dewey, states of flow, contextual education, and adult education are important influences on career education. Dewey’s experiential (contextual) education philosophy is the basis for career education. The influence of adult education strategies are explored because Program students worked as non-paid externs in an adult work world during their senior

year of high school. Flow and its influences on the study participants are essential to document long-term experiences related to E.B.C.E. Studies and evaluations, from the 1970's to the present of career education, the Experience-Based Career Education (E.B.C.E.) Program, flow, adult education, and are cited in this study. The influence of career education on student populations are documented as well as the influences of career education programs on the adult lives of former adolescent participants in those programs. Among the studies of career education cited are a 1999 study by Giddens and Stasz (Skills for Work), a 1999 study by The National Employer Leadership Council (School-to-Work), and a 1997 study by Taylor (Welfare recipients and School-to-Work). Studies and evaluations of the Experience-Based Career Education (E.B.C.E.) Program are cited, including a 1981 national assessment of E.B.C.E. by Owens and Owens, a 1982 study of experiential education by Conrad and Hedlin, a 1975 evaluation of four pilot E.B.C.E. Programs by Goldhammer and others, and a 1974 evaluation by Hagans and McClure.

Studies of flow, such as Csikszentmihalyi's 1975, 1990, 1993, and 1997 studies of flow in addition to a 1988 study by Csikszentmihalyi and Csikszentmihalyi as well as a 2000 longitudinal study by Csikszentmihalyi and Schneider and other studies are cited in this study. Among the studies of adult education cited are a 1993 study by Bowman and others (Information Processing Model), three studies by Brookfield concerning adult learning (1985, 1986, and 1995), and a 1980 study by Knowles (comparing pedagogy and -andragogy). Studies of contextual learning are cited in this study, such as a 1995 study by

Heggoy and others (Rural Gifted Adolescent Females), a 1995 study by Imel (Teaching Adults), and a 2000 study by Lewis (Reform Strategies in Adult Education), including additional studies of adult education.

Research Questions

The most important step in the study process is defining the research question (Campbell, Daft, & Hulin, 1982). “Research is about questions and not necessarily about answers” (Yin, 2003, p. 60). A good questioner utilizes an answer to a question to formulate a number of new questions in an atmosphere of “adaptiveness with rigor but not rigidity” (Yin, 2003, p. 61).

The research questions for this study are:

1. What was the influence of the Experience-Based Career Education (E.B.C.E.) Program on the adult professional lives of former E.B.C.E. students at Ellen Martin High School?
2. What aspect(s) of the E.B.C.E. Program had the greatest influence on the adult professional lives of former E.B.C.E. students at Ellen Martin High School?
3. With regard to the relationships between program aspects of E.B.C.E. and their influence on students, do these relationships represent examples of flow?

Purpose

This phenomenological study documented the influences of a high school career exploration program, Experience-Based Career Education (E.B.C.E.), on the professional lives of nine adult former program participants at Ellen Martin High School in a large Southern city. The E.B.C.E. Program, a national experience-based, student-centered program implemented from the early 1970's through the mid-1980's was designed to help students develop long-term career goals and enhance academic skills based on community-based, career experiences (Hagans & McClure, 1974; Goldhammer et al., 1975; Conrad & Hedlin, 1981, 1982; McLean, et al., 1983) The E.B.C.E. Program at Ellen Martin was an experience-based, student-centered program designed to help students develop long-term career goals in the eleventh grade of high school and then reassessed those career goals based on community-based, career experiences after working as non-paid externs during their senior year of high school. This study also documented aspects of the program that influenced the professional lives of adult former participants. The participants were taught job-seeking skills and life skills before working as non-paid externs in career areas they were interested in pursuing after graduation from Ellen Martin High School. Finally, this study identified flow experiences recalled by former Program students while they participated in the program.

Study Need

Educators involved in such programs as School-to-Work, Tech Prep, and Small Learning Communities need to understand the long-term influence of career educational programs on the lives of students. From 1986 to 1990, I developed a career exploration program, and like many who develop education programs, I sought data to discover if this career exploration program had influenced the professional lives of the high school participants. What aspect of this program had the greatest influence on the program's participants? This study will help program-developers better understand the long-term influence of career exploration programs. I also documented challenges experienced by study participants while they participated in a career exploration program in high school. This portion of the study will help program developers understand how challenges affect the internal motivation of students. Very few studies have examined the long-term influences of secondary career exploration programs on the professional lives of former adult program participants. A rare longitudinal study of the changes in adolescent attitudes concerning careers as these adolescents progress through their secondary education by Csikszentmihalyi & Schneider (2000) found that "young people in general are developing rather negative images of work" (p. 93). The study also found that "when activity is seen as like both work and play, the experience tends to be positive on all counts; self-esteem is highest in such activities" (p. 72). The most important explanation "why some teenagers go on to have satisfying and productive adult jobs while others do not, one might say that what counts is how motivated the teenager is" (p. 56).

However, I found no studies of the influences of career exploration programs on the professional lives of former participants. Additionally, there are no studies of the long-term influences of flow experiences (Hektner & Csikszentmihalyi, 1996). Research on flow has focused on contexts or activities that elicit flow (LeFevre, 1988) and on the range of peoples' experiences in flow (Adlai-Gail, 1994). To fully experience flow, individuals must recognize challenges in their environment that match their skills, thus creating a state of flow.

Definitions

Ellen Martin High School: The first magnet high school in the city, drawing students from throughout the city, serving exclusively students classified as honors students engaged in a more traditional college preparatory curriculum. The Ellen Martin student population was carefully screened academically and behaviorally before admission. An Ellen Martin applicant was required to have a minimum 3.00 grade point average on a 4.00 grading scale and a "B" average or higher in conduct with no "D's" or "F's" in conduct for a period of two years prior to applying for admission to Ellen Martin High School.

Externship: A training program that is part of a course of study of an educational institution and is taken in private business (Merriam-Webster Dictionary Online, 2004).

Flow: A condition linking high challenges to feelings of enjoyment, self-worth, and ongoing development for study participants (Csikszentmihalyi 1990a, Csikszentmihalyi & Schneider, 2000).

Experience-Based Career Education (E.B.C.E.): A national experience-based, student-centered program from the early 1970's through the mid-1980's was designed to help students develop long-term career goals and enhance academic skills based on community-based, career experiences (Hagans & McClure, 1974; Goldhammer and others, 1975; Conrad & Hedlin, 1981, 1982; McLean, et al., 1983).

Internship: An advanced student or graduate usually in a professional field (as medicine or teaching) gaining supervised practical experience (as in a hospital or classroom (Merriam-Webster Dictionary Online, 2004).

Spencer Alternative High School: Spencer Alternative High School, an alternative high school originally called Gateway, which started in 1972 and based on the Far West Laboratory (FWL) Model and as a magnet school that served students throughout the city without any admission requirements. E.B.C.E. was the focal point of the curriculum of Spencer Alternative High School. Spencer was viewed as a school for experimentation and creativity to enhance the learning environment for a very eclectic student population.

Experience-Based Career Education (E.B.C.E.)

Experience-Based Career Education (E.B.C.E.) was initiated by the U.S. Office of Education Commissioner Sidney Marland in 1970 (Hagans & McClure, 1974; McLean, et al., 1983) for both college-bound and non-college-bound students. The primary goal of the initial E.B.C.E. programs in the 1970's was the integration of student career knowledge with the acquisition of cognitive, interpersonal, and affective skills through a series of planned experiences with identified learning outcomes by getting students out of the classroom and into real world experiences (Farrar, et al., 1980). The goal of Experience-Based Career Education (E.B.C.E.), to help students to develop career goals through an experiential curriculum, was the focal point of the curriculum at Spencer Alternative High School, an alternative high school originally called Gateway, which started in 1972 and based on the Far West Laboratory (FWL) Model. The Far West Laboratory (FWL) Model for Experience-Based Career Education (E.B.C.E.)'s core program goals were organized into three broad categories: career development, basic skills, and life skills (Far West Model, 1978). The Far West Laboratory's program goals were: (1) career development; (2) self knowledge; (3) reading skills; (4) problem solving skills; (5) oral communication; (6) writing skills; (7) interpersonal skills; (8) quantitative skills; and (9) maturation skills (Goldhammer, et al., 1978).

Philosophy of the E.B.C.E. Program

The experiential-learning aspect of E.B.C.E. was based on the philosophy of John Dewey, who identified his philosophy as pragmatism (1916). Dewey believed that education occurred when a child's powers were stimulated through the experience of social situations, which require the child to act as part of a group. In that regard, he proposed a child-centered (1956), experiential learning (1933), problem-solving (1938) philosophy, and recognized the need for giving more attention to the interests of students (Page, 1990). In addition to vocational education, Dewey's experientially-based philosophy is the basis for school laboratories, home economics and physical education.

The Setting

I taught social studies and speech at Spencer Alternative High School from 1979 – 1986, a high school in the same building as Ellen Martin High School, a high school with a traditional and college preparatory curriculum. The E.B.C.E. Program was a requirement for all Spencer eleventh and twelfth grade students as well as Spencer teachers were also responsible for placing all program students at community externships in various academic areas. For example, the social studies teacher might place students with a law firm or court, while the science teacher might place students with a veterinarian. This format was altered several times between 1979 and 1986 when Carl, the new principal for Martin, decided to alter the E.B.C.E. Program curriculum completely and combine the two high schools in an effort to recruit more high achieving students

to Martin. Part of Carl's plan placed me in charge of the new program as the sole coordinator with total responsibility to make needed changes in the curriculum.

The principal of Martin was also the principal of Spencer, but Spencer had a separate administrator who was subordinate to the Martin principal. The curricula and student populations at the two schools could not be more different. Spencer Alternative attracted a very eclectic student population that had academic and social skills completely across the spectrum. Spencer teachers tried a variety of teaching strategies to personalize the instruction with Experience-Based Career Education playing a major part in that strategy. The faculty at Martin used a more traditional pedagogy to work with honor students who wanted to go to colleges throughout the nation.

Spencer Alternative High School

There were four school site administrators who oversaw Spencer Alternative High School from 1976 to its end with the graduation of the class of 1986. I interviewed three of those administrators to verify background data for this study. I interviewed Larry, who was the administrator for Spencer from 1975 to 1981; Jim, who was the administrator for Spencer from 1981 to 1985; and Carl, who was the principal of both Ellen Martin High School and Spencer Alternative High School at the same time during the period 1984 to 1986. Jim served as the administrator of Spencer and the assistant principal of Martin during Carl's first year as principal of Martin. Carl's seemingly difficult task of administering two schools simultaneously was made easier because both schools were in the same building.

Spencer was viewed as a school for experimentation and creativity to enhance the learning environment for a very eclectic student population. Spencer was a magnet school that served students throughout the city without any admission requirements. It would not be uncommon to find two Spencer students sitting side by side who had entirely different academic abilities. For example, one tenth grade student might be able to read and understand academic material on the college level but was at Spencer because he/she desired a small class environment with an experiential learning approach. Sitting right next to that student might be another tenth grade student who might struggle to read material at the fourth grade level. Individualization was utilized often by Spencer teachers to enhance the learning opportunities of students from a population that was so diverse.

It was not uncommon for a teacher at Spencer to inform the office that he or she would be taking his or her students to court or some other community activity to experience something that had become a source of curiosity to students. This community-based activity could become the focus of classroom activities for an extended period of time. Because Spencer's student population of approximately 200 was very eclectic, teachers made an effort to involve students in activities that were both interesting and community-related.

I started at Spencer Alternative High School in 1979 as a social studies teacher, speech teacher, and as every one of the other eight Spencer teachers, an E.B.C.E. teacher. I taught social studies and speech during morning classes and worked with Spencer E.B.C.E. students assigned to me in the afternoon.

Ellen Martin High School

Ellen Martin High School was the first magnet high school in the city, which means that it served students from throughout the city. Its student population was exclusively classified as honors students engaged in a more traditional college preparatory curriculum. The Ellen Martin student population was carefully screened academically and behaviorally before admission. An Ellen Martin applicant was required to have a minimum 3.00 grade point average on a 4.00 grading scale and a “B” average or higher in conduct with no “D’s” or “F’s” in conduct for a period of two years prior to applying for admission to Ellen Martin High School. The Ellen Martin “students were bright but they had no model of academic rigor” (Carl, 2004). Seventh and eighth grade was viewed as a crash course “to get them ready for a high school program and compete with the best and the brightest and get into Georgetown and Harvard, and they did” (Carl, 2004).

E.B.C.E. Program at Spencer Alternative High School

Even after Spencer moved to a wing of the Ellen Martin building, in 1976 (Larry, 2004), it was an all-encompassing program which utilized the philosophy “school without walls” (Jim, 2004) to allow students to access community resources in content areas. An important aspect of Spencer’s philosophy was the E.B.C.E. Program, which utilized community-based non-paid externships for the academically and socially diverse population of eleventh and twelfth graders during the afternoon hours. Each of Spencer’s nine teachers worked with a group of eleventh and twelfth grade students, who then placed their advisees in

externships based on the academic focus of the advisor/teacher. For example, the social studies teacher might place E.B.C.E. students, who chose their area(s) of interest, in business or governmental entities, while the science teacher might place students in medical or health related placements. Based on these placements, students would conduct independent studies to determine the job skills needed to enter the career field. Teachers also utilized these placements to enhance students' academic skills by using the externship experiences as a focal point for extended study.

When Larry, who was the administrator for Spencer from 1975 to 1981, left in 1981 to become the assistant principal at a junior high school, Jim became the administrator for Spencer. Jim eventually took on the dual role of administrator for Spencer and assistant principal for Ellen Martin High School. He altered the structure of the E.B.C.E. program, reducing the teachers involved from nine to four. Teachers were encouraged to assist program advisees in securing placements in a wide range of career areas. Program advisors were not limited by their academic focus in placing externs. Examples of student placements were the zoo, hospitals, veterinarians, and businesses. Some advisors engaged students in special projects, for example, a project for students to videotape interviews with their mentors at their placements. The students who participated in this project learned interviewing skills, videotaping skills, editing skills and other related skills. Each student had an opportunity to direct news teams while putting together a video documentary about E.B.C.E.

Spencer was identified as “a program for low achieving students who couldn’t make it at ‘Ellen Martin’” (Carl, 2004). Carl summed up the view of many concerning the Spencer student population:

If you can’t make it at ‘Ellen Martin’, in the
‘Ellen Martin’ program or if you hate school
and you’re a non-traditional student which
means that you don’t like to read. Then, go
into this program (Carl, 2004).

This occasionally caused problems for Spencer teachers and administrators. Spencer’s “students would catch the bus after lunch and simply leave campus” to go to their externship placement sites”. Some Spencer students started to leave the building earlier and earlier during the school day. On several occasions, Carl had to locate Spencer students who had simply left school without permission or who had failed to go to their placement. He went down to “Ronald’s” barroom four times the first year he was there and found half a classroom of Spencer students, “were shooting pool and drinking beer, from the barroom at ten in the morning”. Carl “threatened to call the police and close down ‘Ronald’s’ bar if it happened again”. So, the Spencer situation was causing problems for Carl’s efforts to recruit high achieving students for Ellen Martin because Spencer didn’t have the “intellectual and academic integrity” that was needed. Carl decided that changes had to be made. In 1985, he changed the status of Spencer High School to Spencer Program at Ellen Martin High School.

Combining Programs

Making Spencer a Martin program did not solve the concerns Carl had with the differentiated curricula and the problem of recruiting high achieving students for Martin when the community perceived that discipline problems existed within the Martin building. Almost everything about Spencer, including the teachers, classes, curriculum, and the treatment of students, was more informal than Ellen Martin, and these differences created a dynamic tension and divisiveness that made it very difficult for Carl as the principal of both schools to create one magnet school in the building. His goal was to fill Ellen Martin High School with high achieving students and integrate Spencer into the Ellen Martin program so that “everybody resonated the same note” (Carl, 2004), creating a place for all students across the achievement spectrum. “The kids that they (Spencer) were attracting did not add value to the school as a learning community, in my judgment” (Carl, 2004). There were two schools and “the general culture of those two schools was so different that it made it almost impossible to create a school culture” (Carl, 2004).

In 1986, Carl told Spencer staff members that he wanted to integrate Spencer into Ellen Martin completely. He believed that he couldn’t build a magnet school with two separate programs and “one principal running between two lines” (Carl, 2004). Spencer students were grandfathered into Ellen Martin High School and Spencer High School was abolished. Ellen Martin, finally, had one identity which was defined by a group of people working hard to create an academically

rigorous learning environment where more kids could achieve success, especially for students from communities where they had no models of success.

The Spencer faculty argued for limitations on the integration process leading Carl to tell the Spencer staff that if they wanted to maintain their identity as Spencer, he would “move them lock, stock, and barrel” (Carl, 2004) to Thomas Booker High School, a school with a vocational education focus whose student population had achievement levels generally lower than the student achievement level of Spencer High. Once the Spencer students became Ellen Martin students, some encountered academic difficulties and eventually left Ellen Martin. Other Spencer students successfully blended into the Ellen Martin academic environment. However, except for the first year the two schools were combined, in 1986, most Spencer students did not choose to enroll in the Program, which Carl agreed to maintain as a curricular component in Martin High School as an experiment.

A New Direction for the E.B.C.E. Program

Carl knew from his experience as administrator for both Martin and Spencer that E.B.C.E. could create problems that had to be addressed. E.B.C.E. gave students extensive independence to leave the building, which threatened the “coherence of the school’s routine” (Carl, 2004). Any program like this is “going to survive based on its ability to integrate in a coherent way into the routine of the high school”. “A school can’t have students wandering around the building saying, ‘I’m in E.B.C.E.’” (Carl, 2004). Things have to happen in a school “in ways that are predictable and ways that other teachers see as adding value to

the high school”. If teachers are coming to the principal saying, “those kids are floating around the building, they’re in the back yard, they’re getting Cokes, they’re in the cafeteria, they don’t come, it’s not going to work.”.

He believed that the E.B.C.E. program could help develop a bridge between the two schools but the attitude toward the program had to change. Some former Spencer faculty members viewed E.B.C.E. as something to uplift students who had failed academically. Carl believed that none of those teachers understood his philosophy of one single place. He told the Spencer faculty that the Spencer idea had to evolve in the direction of integrity and educational values. Carl viewed the program differently.

In Carl’s opinion, the E.B.C.E. program was not intended for kids who are failures. It was for kids who had a different perspective about what they want to do in terms of excellence. E.B.C.E. “fits the needs of a niche of kids, not all kids but a niche of kids who may not be adequately served by the high school” (Carl, 2004). Carl was not going to allow E.B.C.E. to remain an early release program housed at Ellen Martin. This would have become destructive to the entire Ellen Martin population “because those students (Spencer) were not the kinds of model students we were trying to build there” (Carl, 2004). Carl stated, “there’s a philosophy, if the low performing students are emulating the model students, you have a good school. And, if you have the model students emulating the low performing students, you have a bad school (Carl, 2004). Students with potential were “emulating and trying to be like the kids who were losers” (Carl, 2004). Every single program that was a non-example of a model program had to be

changed. The real advantage of E.B.C.E. to Ellen Martin was that “it added educational integrity to the ‘Spencer’ program and it was made it available, in the end, to all students, not just ‘Spencer’ students” (Carl, 2004).

Researcher Background with the Program

When I returned from sabbatical leave in 1986, Carl asked me to take over the E.B.C.E. Program and upgrade it academically so that Ellen Martin students would be interested in enrolling in the class. Carl believed that I offered an opportunity to make these students examples of a different way of expressing the Spencer idea. I represented to Carl someone who would help integrate the Spencer “programmatically ideas and the kids who wanted to be part of something worthwhile” (Carl, 2004) into the Ellen Martin program “with integrity so that there would be academic integrity” (Carl, 2004) but also maintained what Spencer wanted, “an opportunity to do outreach” (Carl, 2004). He wanted students going into the community to give them “a more applied experiential approach to their own education which they could then bring back to the school building and have an intellectual, theoretical, idea-based exchange” (Carl, 2004) with me in my role as E.B.C.E. coordinator. Learning takes place “while students are experiencing learning” (Carl, 2004). “Schools are imagine-places. It doesn’t have to be real. It doesn’t get real until later. So, they’re incubators. It’s what we think about. It’s how we solve our problems (Carl, 2004). Carl viewed E.B.C.E. as an incubator for student decision-making. He believed that E.B.C.E. needed a teacher who was passionate about keeping it rigorous and a willingness to stand up to students who wanted to take a short cut. E.B.C.E., in Carl’s opinion, had to be

connected to the school as a larger entity and that it would add value to Martin and demonstrate records of success where kids were reporting that they were changing.

The principle that guided the revision of E.B.C.E. curriculum was putting students in a safe, challenging environment that would lead to the students making career choices while they were still in high school. Carl abolished the externship portion for eleventh graders and asked me to devise a career education component for them. Prior to 1986, all eleventh and twelfth grade students at Spencer left the school building to work as non-paid externs in the community. He took a lot of criticism for killing Spencer but, in his view, he wasn't killing Spencer, he was building Ellen Martin. Some Spencer faculty members, now members of the Ellen Martin staff, complained to Carl about supporting my efforts to alter the Program, the last vestige of Spencer High School left remaining. There was a real furor when students couldn't leave campus in the afternoon. "Those kids saw high school as, after tenth grade, we are out. We're not doing any more work" (Carl, 2004). The Spencer students in E.B.C.E. complained because they didn't want to work and thought that Carl was making E.B.C.E. exclusively a classroom-based activity instead of a community-based activity. Many students entered Spencer believing that they were just going to be able to leave school after lunch each day. The big language was, "when do we get to leave?" Students complained to Carl that the program "was losing its unique feature" and that I was "killing E.B.C.E." (Carl, 2004) through the changes I proposed. Carl stated that the students "fought me tooth and nail" but they also

went to Carl and complained, along with the Spencer faculty, that this was “killing the ‘Spencer’ idea”. The teachers complained to Carl that I didn’t understand the Spencer philosophy. Carl shielded me from the most heated arguments.

The program 1 created was more what Carl “was looking for because it added intellectual and academic integrity to the curriculum” (Carl, 2004). Literacy was not the only goal. “It’s learning how to be. It’s like actually going out there and learning while I’m experiencing it” (Carl, 2004). Students have to be given a chance to critically examine the experiences with a mentor who helps them reflect on the influence of the experience (Carl, 2004). “You see, the program’s got to change me. It just can’t teach me. It has to change me. And, that’s why I think it has value” (Carl, 2004). I was given a lot of freedom to create the program that both Carl and I would want. Other than those instructions and guidelines, I was given *carte blanche* to design a program that would meet the academic and career needs of students at Ellen Martin. He believed that I could “bring it” (Carl, 2004). That’s why he gave me a free hand so that I could create a program that added relevance for a population of students who would not have had this type of experiential learning experience had it not been for that. “And, schools need those kinds of things integrated into their programs” (Carl, 2004).

I recruited heavily within Ellen Martin High School for the Program, and high achieving Ellen Martin students started to respond to the appeal to learn about their career options. Carl liked the idea that I worked at making E.B.C.E. more rigorous academically and was willing to go out into the community and get positive career experiences and “hold the standard of excellence” (Carl, 2004).

Carl wanted the juniors to prepare one year in the classroom before being placed as externs because the preparation to go out and do that is not easily done. “It’s challenging. You can’t just say, ‘hey, I’m going to send you out to a hospital because you said you want to be a nurse.’” If a student doesn’t know what to look for, if a student doesn’t know what to think about, if a student doesn’t have an opportunity to come back and challenge those ideas, then there is a definitive lack of purpose. So, for the first time in the history of E.B.C.E. at either Spencer or Martin, juniors would not leave campus in the afternoon to go to their externships.

E.B.C.E. Curriculum

I changed the Program’s focus from a subject-area focus to a career awareness focus, divided into two one-year classes: Program 1 for eleventh graders and Program 2 for twelfth graders. During the junior year of the Program, students spent two class periods a day in the classroom, for the entire school year, learning about themselves, their goals, their skills, their interests, researching careers, learning job-seeking skills, problem solving skills, interpersonal skills, as well as improving their writing and speaking skills while learning how to promote their strengths in the job market. The following paperback books were used as textbooks in Program 1 to give students an opportunity to develop career skills:

1. *Career Planning – Skills to Build Your Future* (Second Edition)
by Clarke G. Carney and Cinda Field Wells, 1987.
2. *What Color is Your Parachute? – A practical manual for job-hunters*

and career changers by Richard N. Bolles, 1986

Students completed the following objectives as part of their junior year of the Program, while in the classroom working in a student-centered classroom using a hands-on and a peer-tutoring approach to learning by:

1. understanding their strengths and weaknesses.
2. understanding their career interests.
3. developing organizational skills.
4. developing the skills necessary to produce goals and objectives.
5. understanding the relationship between career success and goals and objectives.
6. developing their interpersonal skills.
7. improving their communication skills.
8. researching career interests.
9. developing job-seeking skills.
 - a. resume building
 - b. interviewing skills
 - c. application skills
 - d. marketing yourself in the job market
10. researching college majors.
11. researching college admission requirements.
12. developing problem solving skills.
13. improving test taking skills.

14. understanding connection between academic success and career success.

15. developing life skills.

- a. check writing skills
- b. personal economics
- c. taking responsibility for actions
- d. making choices

Approximately two-thirds of eleventh graders in the Program 1 did not want to participate in an off-campus externships because:

1. Some students' participation in early entry college programs conflicted with the times for E.B.C.E.
2. Class scheduling problems developed.
3. Lack of interest in the Program.

The twelfth graders, who did participate in the Program, spent afternoons working as non-paid externs in areas that they had researched during their eleventh grade E.B.C.E. classes. The students were required to complete a professional interview conducted by their work-site mentor. Examples of mentoring situations were law firms, nursing stations in hospitals, dental schools, elementary school classrooms, doctors' offices, architecture firms, engineering firms, zookeepers, radio stations, TV stations, surgical teams in hospitals, city director of health, accounting firms. In each case, the student chose the career area based on a year of self reflection, research of career interests, interviews with individuals in various careers, development of career, and development of

research skills necessary to operate as a member of the job site while researching the opportunities of that career area.

I set up the externships based on the career interests of the students. For example, one student wanted to work with primates in the zoo, a difficult request because the student wanted to actually feed the primates and work alongside the zookeepers who take care of the primates. I approached the chief of operations at the local zoo, a long-time friend, and asked him about allowing a student to work alongside the zookeepers who cared for the primates. I explained that this student wanted to pursue a career studying primates and also explained, as I always did for every student in E.B.C.E., that this was a high-achieving, motivated, responsible student. The zoo's chief of operations agreed to talk to the student and then referred her to the zookeeper in charge of the primates and to the education curator for the zoo. After all three interviewed this student, she was allowed to work at the zoo, but she still had to prove herself. She had to prove that she wouldn't be a detriment to the care of the primates and that she was the motivated, responsible student that I had promised. It took the student a few weeks to prove herself, but she was eventually allowed to work alongside the primate zookeepers and do everything that they were allowed to do. This example was repeated for every externship student.

Once I learned the career interest of the students, and they thoroughly studied this career for one year, they were trained to undergo a professional job interview. I always promised the E.B.C.E. mentors that the students would be well-prepared for the interview. I also promised the mentors that the students

were high-achieving, motivated, responsible students who had thoroughly researched the career. I told the mentors to handle interviews the same way that they would if they were actually hiring someone for their organization. I also told the mentors that they shouldn't accept E.B.C.E. externs unless they wanted them in their organization.

To encourage students to take preparation for interviews seriously, I told them that mentors would reject them as possible externs if they did not prepare for the interview and didn't understand the career area. These students had their junior year in E.B.C.E. to prepare for this interview and took preparation for the interviews very seriously. No student was ever rejected during an interview while I coordinated the program. In fact, mentors regularly praised students for their interview preparation and their knowledge of the career.

When Carl first asked me to take over full responsibility for the Program, all students did not take program externships seriously. Not all of the original students were the motivated and responsible individuals, even though that's what I promised the potential mentors. However, I felt I had no choice but to promise them a responsible and motivated student. By the time the graduating classes of 1989 and 1990 were E.B.C.E. students, the classes being studied, they were motivated and responsible students.

The program changes were starting to have an academic impact on the student population. "A program doesn't have a chance unless it has adaptability within the school culture" (Carl, 2004). This program worked, in Carl's opinion, "because a teacher made success unavoidable for the students" (Carl, 2004).

E.B.C.E. was set up so that students walked directly “into learning experiences every single day on a regular basis” (Carl, 2004). The teacher must have “a level of integrity that brings the program beyond some product but more into an incubator for successful citizens of the future” (Carl, 2004). The high point for E.B.C.E. occurred in 1990 when twelve Ellen Martin graduating seniors interviewed for the “Paul Johnson” College Scholarship for high achieving Ellen Martin students. Each applicant for the scholarship had to be recommended by all of their teachers to simply earn an interview for the scholarship. Seven of the twelve graduating seniors who interviewed for the “Paul Johnson” Scholarship in 1990 had participated in E.B.C.E. for two years and stated that their most important academic experience during their four years at Ellen Martin was through the E.B.C.E. Program.

Contextual Learning

Career education initiatives, such as E.B.C.E., School-To-Work (S.T.W) or Tech Prep, provide a lens through which to look at the strengths, limitations, and challenges of work-based learning and utilize a contextual learning strategy which is synonymous with experiential learning, real-world education, active learning, experiential learning, and learner-centered instruction. These career experiences are characterized by learning that helps students shape thinking by engaging with situations, objects and events through a socially shared environment (Weinbaum & Rogers, 1995). The work-based learning aspect of E.B.C.E. or other career exploration programs, “refers to learning that results from work experience that is planned to contribute to intellectual and career

development” (Office of Technology Assessment, U.S. Congress, 1995).

Students, who participate in work-based learning experiences, apply a “hands-on” approach to refine and extend what they learn at work so that they can develop the skills, habits, and attitudes necessary to be successful in a career area (Taylor, 1997).

Students are not motivated by non-experiential educational methods because they do not see a connection to their needs and interests and, therefore, don’t accept the learning experience as relevant to their future (American Youth Policy Forum 2000). This instruction methodology utilizes authentic assessments, not standardized tests to assess student learning. Authentic assessments, which are more appropriate for a contextualized teaching strategy, allow students to demonstrate that they understand how to apply what they have learned. (American Youth Policy Forum 2000).

Adult Education

E.B.C.E. Program participants worked alongside adults as non-paid externs and had to adapt to the learning styles of their adult mentors to understand the skills needed to complete their assigned tasks at their worksites. Adult learning is based on the triangular relationship between individuals, ideas and the referents they seek to understand (Knowles, 1970, 1980). Participants valued their independent roles and became more self-directed as their externships developed. They appreciated the “hands on” or active learning approach of both the Program 1 class during junior year and the externship in Program 2. These students developed problem solving skills based on the

problem or situation they confronted at their externships. Several participants developed a value system based on their E.B.C.E. experiences, which they still utilize today. Several reassessed their career goals based on their experiences.

Flow

E.B.C.E. participants encountered states of flow while in the program. Flow is an spontaneous, effortless experience achieved when there is a close match between a high level challenge and the skills necessary to meet the challenge (Scherer, 2002). Csikszentmihalyi describes flow as the only condition linking enjoyment, self-worth and development (Csikszentmihalyi & Schneider, 2000). Individuals in flow report intense concentration and centered attention with a minimization of distractions. Flow theory suggests that intrinsically motivated individuals learn more and experience more positive effects and self-esteem (Deci & Ryan, 1985).

Description of the Study

This is a phenomenological study of the influences of a high school career exploration program, Experience-Based Career Education (E.B.C.E.), on the professional lives of adult former program participants. Experience-Based Career Education (E.B.C.E.), a student-centered, experientially-based career exploration national program was based on John Dewey's experiential education philosophy which began in the 1970's. This study documented the influences of E.B.C.E. on the professional lives of adults who participated in the program, as high school students, in the late 1980's at Ellen Martin High School in a southern city in the United States. I documented aspects of the Program that influenced the

professional lives of the former E.B.C.E. students. This study also documented states of flow, a state of consciousness that integrates high but effortless concentration, intrinsic motivation, loss of awareness of self and feelings of competence and freedom to challenges (Csikszentmihalyi, 1990a) recalled by the study participants. E.B.C.E. emphasized broad career, personal, and intellectual goals while focusing on the gathering and development of information on which to base decisions about future careers (Hagans & McClure, 1974; Goldhammer and others, 1975; Conrad & Hedlin, 1981, 1982; McLean, et al., 1983). Students made these decisions after working as non-paid externs in off-campus experiences in careers they wished to explore. Very few studies have examined the long-term influences of secondary career exploration programs on the professional lives of former adult program participants. Additionally, there are no studies of the long-term influences of flow experiences (Hektner & Csikszentmihalyi, 1996).

The teaching strategies, the mentors, the community-based externships, the career focus, the skills learned are all examples of components of E.B.C.E. that influenced the professional lives of these former students. It is very difficult to know if someone has had a flow experience even if the event takes place in the present. This study documented recollections of events that happened years ago. To identify flow experiences, I documented participant descriptions of situations where challenges were successfully met during E.B.C.E. while the participants also indicated that the situation caused them to lose track of time

and/or react positively to successfully meeting challenges encountered (Schneider & Csikszentmihalyi, 2000).

Research Methodology

I followed a phenomenological study protocol based on the philosophies of Husserl and Heidegger (Kerry & Armour, 2000). Phenomenologists must maintain rigorous detachment and focus on the pure consciousness of those being studied not on observable behavior or recognizable conceptual modes (Stone, 1979) and must be directly involved in data collections (Burns, 1994; Eisner, 1993; Oiler, 1986). I gathered data exclusively through Internet interviews. One survey determined the educational backgrounds and work histories of each of the study participants (See Appendix A). Next, participants posted answers to questions about their E.B.C.E. experiences (Appendix B). These answers were used to develop follow-up questions, which were the basis of an Internet focus group (Appendix C) posted on the University of New Orleans Discussion Board. Finally, individual answers were probed via email. To identify flow experiences, I documented participant descriptions of situations where challenges were successfully met during E.B.C.E. while the participants also indicated that the situation caused them to lose track of time and/or react positively to successfully meeting challenges encountered during E.B.C.E.

I chose this research topic because I wanted to understand how the Experience-Based Career Education (E.B.C.E.) Program had influenced the professional lives of my former E.B.C.E. students and if they had experienced flow while participating in E.B.C.E. When I became the coordinator of E.B.C.E. at

Ellen Martin High School in a large southern city in 1986, I changed the program's focus from one that was preparing students for jobs immediately after high school graduation to one that was preparing students for entry into a professional career after receiving a university degree. I was the only teacher involved and had the authority to determine the direction of the program. I immediately changed the curriculum from one that sent eleventh and twelfth graders out as non-paid externs seeking job skills for immediate employment after high school to a program that focused on students making long-term career decisions.

The decision to study E.B.C.E. created potential problems and advantages, because there was a real possibility of researcher bias and the possibility that study participants might alter their answers to please the researcher, their former teacher. There is also a possibility that study participants may not remember important information regarding their experiences in E.B.C.E. The real advantage of studying a program that I taught was that I have a history with study participants and I have unique information about the program's structure. I developed close attachments to the students because of the nature of this course, E.B.C.E. allowed students to develop career and educational goals while working as non-paid externs in various career areas. Some of the close relationships I developed with these students continue to this date. I mention this to describe the researcher bias associated with this study.

Researchers must also be cognizant of the potential influences of self on their research or their subjectivity as researchers (Glesne, 1999). I utilized

Peshkin's (1986) Subjectivity Model to become aware of my researcher biases. I believe that knowledge of my subjectivities while bracketing what I already know about the E.B.C.E. phenomenon helped me in overcoming my researcher biases. As the researcher in this study, I was aware of my subjectivity as the former teacher of the study participants and coordinator of the Program at Ellen Martin High School. I am the researcher but I am also an individual who cares a lot about the participants and about the E.B.C.E. program. I followed the phenomenological research methodology of bracketing or setting aside what I already knew about E.B.C.E. by concentrating on the collection of new data when the study began so that prior knowledge of E.B.C.E. wouldn't influence the study results (Spiegelberg, 1975; Vankaam, 1969; and Giorgi, 1971).

Summary

This phenomenological study documented how the Experience Based Career Education (E.B.C.E.) Program, a career exploration program, influenced the professional lives of nine adult former program participants by first documenting the influence of the Program on the professional lives of the former Program participants, at Ellen Martin High School in a large southern city, and then documenting which aspect of E.B.C.E. had the most influence on the former students. Finally, I documented instances of flow, a condition linking high challenges to feelings of enjoyment, self-worth, and ongoing development, experienced by the study participants while they participated in E.B.C.E. as high school students.

E.B.C.E. was experience-based and student-centered. It helped students develop long-term career goals and then alter those goals based on community-based, externship experiences. There are very few studies that document the influences of career education programs on the adult lives of former adolescent participants in those programs. There are also few studies documenting long-term influences of flow experiences, a state of consciousness that integrates high but effortless concentration, intrinsic motivation, loss of awareness of self and feelings of competence and freedom to challenges (Csikszentmihalyi, 1990a), while linking enjoyment, self-worth and development (Csikszentmihalyi & Schneider, 2000).

I utilized findings from available studies and evaluations of career education programs and flow experiences in this study. I also conducted a literature review to locate articles concerning the philosophy of John Dewey, the basis for E.B.C.E.'s experiential and career education components, in addition to articles concerning flow, scaffolding, adult education, and a curricular model developed by Jere Brophy. I gathered data through an internet survey to determine the educational backgrounds and work histories of participants (Appendix A); an internet survey to determine participant answers to four questions concerning their E.B.C.E. experiences (Appendix B); an asynchronous internet focus group (Appendix C); and probing questions via individual email.

CHAPTER TWO

REVIEW OF THE LITERATURE

Studies and evaluations documented findings for Experience-Based Career Education (E.B.C.E.) Program, a contextual learning program based on the philosophy of John Dewey. Additionally, a literature review was conducted to document the factors common to successful educational programs, both career education programs and non-career education programs. These factors are adult education, flow , scaffolding, and the Jere Brophy Curriculum Model.

E.B.C.E. - The Foundation

The emergence of career and vocational education, specifically Experience-Based Career Education (E.B.C.E.) and school laboratories are directly attributable to John Dewey's belief that student interests and needs should be the basis for instruction (Page, 1990). Contextual learning, the basis for career education programs, is synonymous with experiential learning, real-world education, active learning, experiential learning, and learner-centered instruction and is characterized by learning that helps students shape thinking by engaging with situations, objects and events through a socially shared environment (Weinbaum & Rogers, 1995). Experience-Based Career Education (E.B.C.E.), which began in early 1973, emphasized broad career, personal, and intellectual goals focused students enhancing academic skills, using career exploration and multiple off-campus sites to help students shape their educational and career plans (Farrar, et al. 1985).

Dewey

John Dewey, who identified his philosophy as pragmatism (1916), which holds that knowledge enables us to adapt the environment to our needs and to adapt our aims and desires to the situation in which we live, proposed a child-centered (1956), experiential learning, (1933), problem-solving (1938) philosophy. The emergence of vocational education, school laboratories, home economics, and physical education, illustrations of Dewey's philosophy, are recognitions of the need for giving more attention to the interests and needs of students (Page, 1990). The emergence of vocational education, specifically Experience-Based Career Education (E.B.C.E.) is directly attributable to Dewey's belief that student interests and needs should be the basis for instruction (Page, 1990).

For education to be effective, it must capture the student's vocational interest, involve the student actively, have intrinsic worth and involve the student in problem solving leading to new questions and inquiry over a considerable time period (Dewey, 1933). Dewey believed that student interest, learning by doing, problem solving, inquiry, reflective thinking give students the ability to re-create society and integrate intellectually into society (Page, 1990) leading students to become self-directed learners (Wyett, 1996). The curriculum becomes important to the learner when it is used in purposeful activities. The learner should be completely integrated with the learning environment. The learner's experiences should modify the person which then leads to additional modifications based on these experiences and so on. Therefore, education becomes a life-long process

of adjustments and re-adjustments based on learning experiences. This reflective thinking process requires the learner to define problems, hypothesize, reason and test (Dewey, 1933). Eliot Wigginton, the founder of the Foxfire Project, also believes that work has to flow from student interests and reflections. Students, according to Wigginton, should be involved in challenging work but not challenging beyond the competence of the students. Under this scenario, the teacher becomes a collaborator and team leader guiding the students through the learning process (Wigginton, 1986). Wigginton, a committed experiential learning advocate, also believes in problem solving, reciprocal student/teacher relationship, and student interest as a basis for learning (Page, 1990) while keeping the basic tenets of Dewey (Wigginton, 1986).

Contextual Learning

Contextual learning, the basis for career education programs, is synonymous with experiential learning, real-world education, active learning, experiential learning, and learner-centered instruction and is characterized by learning that helps students shape thinking by engaging with situations, objects and events through a socially shared environment (Weinbaum & Rogers, 1995). All contextual learning is characterized by socially-shared learning engaged with objects, events and specific situations (Weinbaum & Rogers, 1995). “We do not see everything in our surroundings. We see what we select out of our environment, ...(because) we see what we have experience to see... (and) we see what we have purpose to see” (Kelley, 1947, p. 170 – 171).

Contextualized teaching motivates students through applied learning (Imel, 2000) and the integration of academic and career and technical education (American Youth Policy Forum 2000; Lewis, 2000; Steinberg et al., 1999). This instruction methodology utilizes authentic, or real, assessments, not standardized tests to assess student learning. Unlike many educators, who struggle to interest students in the learning process when they are not motivated by extrinsic means such as grades and uninteresting learning tasks which seem pointless to many of them, career and technical educators incorporate students' interests and backgrounds into the contextual teaching strategies as a motivational tool (Grubb & Villeneuve, 1995). Several studies have validated the positive influence of experiential or contextual learning on student achievement. Giddens and Stasz (1999), Conrad and Hedlin (1981, 1982), Heggoy and others (1995), Stupka (1993), Leinenbrach and Raymond (1996) all found that contextual learning had a positive influence on student learning. Exposing students to the world of work contextualizes learning and gives students opportunities to work with adults in work and community settings outside the classroom (American Youth Policy Forum, 2000). A two-year collaborative action research project, (Leinenbach & Raymond, 1996), focused on the use of a "hands-on equations" mathematics manipulatives teaching strategy in an eighth grade algebra class. Findings indicated that students' confidence, interest, and ability to solve algebraic equations were extremely high due to the experiential nature of the course.

Authentic assessments, that allow students to demonstrate that they understand how to apply what they have learned are more appropriate for

contextualized teaching, should be used on an ongoing basis to determine how well students are learning the material (American Youth Policy Forum 2000). A situative case study, (Giddens & Stasz, 1999), of the workplace skills of students who built a transportation system and cared for patients at home demonstrated how students learned the needed job skills within the context of the workplace culture. The skills became multi-dimensional because they were learned through the context of actual work, which required the students to draw on information from several disciplines while performing tasks and solving work-related problems. The experience helped students to develop complex reasoning skills, work-related attitudes, cooperative skills, job-specific knowledge and academic knowledge. A study by Browne-Ferrigno (2001) of an experiential principalship training program concluded that experiential learning must be the core element of principal preparation to ensure needed skill development and socialization into the community practice. A 1995 study (Heggoy, et al.) of seven gifted female first-year college students from the rural south (three African-American and four European American) found that the most influential aspects of their secondary curriculum came from mentors through participation in informal educational opportunities not from their gifted secondary programming. The study also found that these students benefitted from support of their interests in nontraditional subjects and careers and encouragement to develop their perceived strengths by experiences. These experiences broadened their career and educational options and help them to continue to develop their personal identity.

Experience-Based Career Education

The national push to develop Experience-Based Career Education (E.B.C.E.) began in early 1973 as part of the Federal commitment to career education research and development. The program emphasized broad career, personal, and intellectual goals while focusing on the gathering and development of information on which to base decisions about future careers and training instead of just focusing on vocational skills. Students moved off campus for firsthand experience in everyday community places to allow students to investigate career areas before graduation. E.B.C.E., which was not a traditional work/education program, used planned experience as a basis for learning academic subjects. This program used career exploration and multiple off-campus sites to help students take a greater role in shaping their educational and career plans (Farrar, et al. 1985). Students earned academic credit, explored the real dimensions of many careers, learned much about who they are and what they want to become, and mastered many of the skills they will need to succeed as adults in America (Bucknam & Brand, 1983).

E.B.C.E. was initiated by the U.S. Office of Education Commissioner Sidney Marland in 1970 (Hagans & McClure, 1974; McLean, et al., 1983) for both college-bound and non-college-bound students. It was also “intended to make education more relevant by getting students out of school and into the world of ‘real experience,’ where they are expected to learn academic subjects at the same time as they explore careers” (Farrar, 1980, et al., p. 85). The primary goal of the initial E.B.C.E. programs, in the 1970’s, was to integrate a student’s

knowledge of a variety of careers with the acquisition of cognitive, interpersonal, and affective skills through a series of planned experiences with identified learning outcomes. One model of the program organized goals into three broad categories: career development, basic skills, and life skills. The primary goal and the three broad categories were used to develop nine program goals: (1) career development; (2) self knowledge; (3) reading skills; (4) problem solving skills; (5) oral communication; (6) writing skills; (7) interpersonal skills; (8) quantitative skills; and (9) maturation skills (Owens et al., 1974).

Evaluations (Goldhammer et al., 1975) of pilot E.B.C.E. programs in four initial communities, for example the Appalachia Educational Laboratory program in Charleston, West Virginia; Far West School in Oakland, California; Community Experiences for Career Education Program in Tigard, Oregon; and the Academy for Career Education in Philadelphia, demonstrated generally positive student outcomes (Goldhammer, et al., 1975). The Far West Laboratory (FWL) model, which was the basis for E.B.C.E. at Ellen Martin High School, organized its core program goals organized into three broad categories: career development, basic skills, and life skills (Parkway Experience-Based Career Education Annual Interim Report, 1977). The Far West Laboratory's program goals: (1) career development; (2) self knowledge; (3) reading skills; (4) problem solving skills; (5) oral communication; (6) writing skills; (7) interpersonal skills; (8) quantitative skills; and (9) maturation skills. A 1977 evaluation of the Far West Laboratory (Watkins & Corder) indicated strong parental support for the program because of

improved student motivation; increased maturity, responsibility, and self confidence; and improved interpersonal skills.

By spring 1978, E.B.C.E. was operating in forty-two states but the program was uniquely implemented at each school site. For example, at some schools, students were given permission to be out of the building during school hours, while at other sites, E.B.C.E. evolved into a strong counseling program. Some teachers turned the program primarily into a tutoring project and often played down the career guidance and community exploration aspects of E.B.C.E., while other E.B.C.E. programs emphasized career exploration at the cost of the academic content of the program, while some non-E.B.C.E. teachers regarded the program as a nuisance, shortchanging students (Farrar et al., 1980

The evaluation of thirty experiential learning programs in independent, public, and parochial schools around the United States, during the late 1970's and the early 1980's, demonstrated that experiential career education programs gave students the opportunity to act autonomously and develop collegial relationships with adults, a powerful predictor of the students' personal growth (Conrad & Hedlin, 1981).). A 1979 evaluation of the third year of a Rhode Island Experience-Based Career Education (E.B.C.E.) project determined that E.B.C.E. students showed no significant increase in career maturity, career knowledge, learning attitudes, or self concept and E.B.C.E. juniors performed statistically better on a math concepts scale than non-E.B.C.E. juniors (Rhode Island Department of Education, 1979). A 1982 national study (Conrad & Hedlin, 1982) of 27 experiential programs concluded that educational programs which are

experientially-based can have a significant positive influence on the social, psychological and intellectual development of adolescents. An evaluation of the St. Charles parish schools (Louisiana)'s E.B.C.E. Program's first year (1976 – 77) found that there was no career maturity among E.B.C.E. students but there was an increase of self-concept among E.B.C.E. students (Pioneer Cooperative Educational Service Agency's Experience-Based Career Education Interim Report, 1977). A 1977 evaluation of the first year of the E.B.C.E. Program in Rhode Island concluded that students need more skill development and the program must eliminate sex bias and sex stereotyping in career areas (Hunter & Ewing, 1977). An evaluation of the Pioneer Cooperative Educational Service Agency (CESA) Program's first-year (1976-77) found that there was a positive student growth in career development, basic skills and general attitudes toward learning, school, self, and adults. Additionally, parents and the community responded positively to the program (Pioneer Cooperative Educational Service Agency's Experience-Based Career Education, 1977). An evaluation was conducted on the first year operations of the three-year Parkway, Missouri, Experience-Based Career Education (E.B.C.E.) program found that E.B.C.E. students performed better on criterion-referenced tests than non-E.B.C.E. students (Parkway Experience-Based Career Education, 1977).

The work-based learning component of E.B.C.E. or any work-based learning program, "refers to learning that results from work experience that is planned to contribute to the intellectual and career development" (Grubb & Villeneuve, 1995, p. 6) for students engaged in work-based learning activities.

Students, who participate in work-based learning experiences, apply a “hands-on” approach to refine and extend what they learn at work so that they can develop the skills, habits, and attitudes necessary to be successful in a career area (Taylor, 1997). In the mid-1990’s, School-To-Work (S.T.W.) initiatives, which have subsequently been replaced by Tech Prep programs, replaced vocational education programs. Career education initiatives, such as School-To-Work or Tech Prep, provide a lens through which to look at the strengths, limitations, and challenges of work-based learning. These career education initiatives involve partnerships between employers, schools, and other community institutions, for example, technical and community colleges and universities. The S.T.W. work experience was combined with classroom instruction by using work as a context and motivator to academic learning at high standards by emphasizing adult mentoring relationships to change both the pedagogy and the base of experience outside the classroom for students and help the students make transitions from high school to careers through further education (Taylor, 1997).

Most School-To-Work models incorporated the following:

1. Mentoring relationships with caring and competent adults
2. Contextual learning and instruction
3. Credentialing of competencies and skills learning on the job
4. Technical assistance

(Taylor, 1997, p. 10).

Experientially-based career education programs can have a positive influence on student academic achievement. A National Center for Education Statistics (N.C.E.S) study in 2000 found that students who experienced a combined vocational concentration and college preparation curriculum not only outperformed vocational concentrators only but were statistically indistinguishable from those who completed a college preparation curriculum. Vocational education integrates components of academic and career-technical education by combining contextual and work-based learning (Wonacott, 2001). Studies of programs that superseded E.B.C.E., for example School-To- Work (S.T.W.), found that vocational education and career education programs helped students prepare for the future. A 1999 national study by the National Employer Leadership Council found that S.T.W. students increase their academic achievement level through workplace learning experiences, had better attendance, lower dropout rates and better college preparation than non-S.T.W. students. The results were even more pronounced for African-American students. A 1995 study by Flynn found that career counseling helped students helped students develop long-term academic plans. A third study, (Taylor, 1997), found that students learned the job skills most sought by employers through S.T.W.

Today, many workers pursue varied career paths, not linear career paths that used to keep individuals in one job all of their lives. This job mobility, although no longer stigmatizing, can be very stressful and is most prevalent among individuals who are first entering the labor market. The ability to be

flexible and readjust one's goals to accommodate personal values and interests is extremely important (Brown, 2000). In 2000, Csikszentmihalyi and Schneider conducted one of the very few longitudinal studies, (1992 - 1997) to determine career awareness and career development , for personal, academic, and career issues, for more than a thousand students from thirteen school districts across the United States. The study found that it is important for young people to learn what job opportunities will be available to them; practice the appropriate skills to take advantage of these opportunities in addition to learning to enjoy the intrinsic rewards of hard work that is essential to successful development; and learn values, attitudes, and expectations in an effort to become productive adults. A 1995 study (Borgen & Amundson) found that young people left high school unprepared for current realities and that both the career and personal areas of their lives were in a state of change and uncertainty. Approximately nine and eighteen months following graduation, depression, self-esteem, and anxiety were correlated with a range of perceived problems.

E.B.C.E. – The Foundation Summary

Contextual learning, the basis for career education, is synonymous with experiential learning, real-world education, active learning, experiential learning, and learner-centered instruction and is characterized by learning that helps students shape thinking by engaging with situations, objects and events through a socially shared environment (Weinbaum & Rogers, 1995). The emergence of vocational education, specifically Experience-Based Career Education (E.B.C.E.) and school laboratories are directly attributable to Dewey's belief that student

interests and needs should be the basis for instruction (Page, 1990). Experience-Based Career Education (E.B.C.E.), a program for both college-bound and non-college bound students, emphasized broad career, personal, and intellectual goals, while assisting students make decisions about future careers and training instead of just focusing on vocational skills.

Eliot Wigginton, the founder of the Foxfire Project, believes that work has to flow from student interests and reflections. Students, according to Wigginton, should be involved in challenging work but not challenging beyond the competence of the students. Several studies have validated the positive influence of experiential or contextual learning on student achievement. Giddens and Stasz (1999), McKay and Montgomery (1995), Sims (1994), Conrad and Hedlin (1981, 1982), Heggoy and others (1995), Stupka (1993) all found that contextual learning had a positive influence on student learning. Exposing students to the world of work contextualizes learning and gives students opportunities to work with adults in work and community settings outside the classroom (American Youth Policy Forum, 2000).

Views of Learners and Learning Related to E.B.C.E.

I encountered several aspects of learners and learning related to E.B.C.E. The first of these was adult education, which incorporates life experiences and life skills into a real situation (Lindeman, 1961). Another aspect of learners and learning related to E.B.C.E. is flow and its influence on the challenges of study participants while in E.B.C.E. Flow is a condition linking enjoyment, self-worth and a state of consciousness while integrating high but effortless concentration,

intrinsic motivation, loss of awareness of self and feelings of competence and freedom to challenges (Csikszentmihalyi, 1990; Csikszentmihalyi & Schneider, 2000). A curricular model by Jere Brophy addresses the value/interest/appreciation aspects of motivated learning, including learning in exploratory situations that require focused achievement. Scaffolding, a joint but necessarily unequal engagement in a valued activity, with a gradual shift in responsibility is an important element of career education.

Experience-based learning meets the educational needs of adults because it allows the adults to incorporate their life experiences and life skills into a real situation and lends itself easily to the teaching of vocational skills (Lindeman, 1961). Adult learners are internally motivated to learn and use their life experiences to add to their knowledge through an active-learning, problem-centered learning process (Knowles, 1980). Adults prefer a performance-based curriculum based on social and work factors rather than a subject-centered curriculum (Knowles, 1970).

People feel that they can achieve challenging but realistic goals when challenge and skills are in balance, creating a positive influence that Csikszentmihalyi has termed flow (Csikszentmihalyi & LeFevre, 1989). Flow is a state of consciousness that integrates high but effortless concentration, intrinsic motivation, loss of awareness of self and feelings of competence and freedom to challenges (Csikszentmihalyi, 1990a). Individuals in flow report immersed concentration, centered attention with minimization of distractions. Jere Brophy (1999), who believes that Csikszentmihalyi's (1993) flow concept does not

describe intrinsic motivation and does not explain why people seek flow experiences in some situations but not in others, designed a curricular model, “untested through research design” (Brophy, 1999, p. 84). Brophy’s Model addresses the value/interest/appreciation aspects of motivated learning, including learning in exploratory situations that do not require focused achievement. The role of scaffolding in resource-based learning environments, such as the one used in E.B.C.E., involve students solving complex, real world problems that can be approached in many ways and have multiple solutions.

Adult Education

Learning is based on the triangular relationship between individuals, ideas and the referents they seek to understand. Adults learn best when they see relevance between their learning needs, the goal of the lesson and the results of their efforts (Kidd, 1977). Experience-based learning meets the educational needs of adults because it allows the adults to incorporate their life experiences and life skills into a real situation and lends itself easily to the teaching of vocational skills (Lindeman, 1961). Adult learners are internally motivated to learn and use their life experiences to add to their knowledge through an active-learning, problem-centered learning process (Knowles, 1980), and prefer performance rather than subject centered on social and work (Knowles, 1970). Adults need to be involved in the educational process and have control over the learning environment (Mast & Van Atta, 1996). They also need to be treated like adults, while being given the opportunity to make learning choices (Merriam & Caffarella, 1999). Adults must be given sufficient time to learn and be allowed to

divide projects into smaller tasks to meet their learning needs. Instructors of adults must give adult learners immediate feedback, and become a facilitator helping the learner to transfer learning to relevant situations (Austin, 1981; Klevins, 1982; Brookfield, 1985; Rogers, 1983; Cyr, 1999). Adult learners prefer self-directed learning (Mast & Van Atta, 1996; Darling, 1996; Merriam & Caffarella, 1999), which helps to create unlimited educational possibilities (Wlodowski & Ginsberg, 1995).

Several theorists have attempted to identify differences in learning characteristics related to age. Knowles (1980) drew up a list of assumptions which he believed differentiated between adult and childhood learning. Based on Knowles' comparison of the characteristics of adult and non-adult learners, in Table 1, adult learners are independent, self-directed, self-disciplined with a rigid behavior pattern. Adults do not seek to implement theoretical solutions in real life settings; have a highly developed value system; and seek active and unvaried learning based on life experiences. On the other hand, non-adult learners learn best in the dependent role; are other-directed with a wide range of behaviors; want the "correct" answer; are likely to implement classroom solutions to real life situations; do not have a strongly developed value system; are influenced by perception and problem solving instead of life experience; and have varied learning needs. E.B.C.E. students' learning needs were somewhat in the middle of the adult and non-adult learner needs lists because E.B.C.E. students experienced both types of teaching strategies. For example, E.B.C.E. students

experienced an adult educational approach through the active learning with an increasingly independent role, particularly in their senior year externships.

Table 1	
Comparison of Characteristics of “Adult” & Non-Adult” Learners	
Non-Adult	Adult
a. strongly dependent role	a. increasingly independent role
b. Other-directed, external discipline, little self-operating in effect	b. Self-directed, self-disciplined, self-operating
c. Teacher-centered, passive learning	c. Student-centered, active learning
d. Wants a “correct” answer for most classroom problems studied	d. Usually finds no correct answer for most problems studied/lived
e. wide latitude for behavior	e. Rigid behavior associated closely with cultural/social stereotypes or tradition
f. Likely to implement classroom solutions in real life situations.	f. Not likely to implement theoretical solutions in real life settings.
g. Does not have a strongly developed value system.	g. Highly developed value system may create conflicts with teacher.
h. Influenced by perception, problem solving and decision making due to lack of life experience.	h. Life experiences affect perception, problem solving and decision making.
i. Amount of time spent on an activity unimportant.	i. Amount of time spent on an activity very important and may determine involvement in the activity.
j. Varied learning is common	j. Active, unvaried learning is usually practiced in areas of interest.

(Knowles, 1980)

E.B.C.E. students experienced a student-centered, active learning, problem-solving non-adult teaching strategy, particularly during their junior year of the E.B.C.E. Program’s classroom instruction, (Program 1). E.B.C.E. students didn’t have enough life experience to have a highly developed value system but their value system was being developed through their research and through contacts with their E.B.C.E. mentors on the job. E.B.C.E. students at Ellen Martin High School learned that there wasn’t one “correct” answer to a problem because they were experiencing problem-solving situations every day on the job site, as

seniors. They had to solve job site problems by themselves and/or through the help of their job mentor.

John Dewey's criticism of traditional education encouraged adult educators to seek a new methodology for teaching adults and realize that one size does not fit all educational needs for everyone (Pattison, 1999). Von Glaserfeld and Steffe (1991) proposed a constructivist approach to education which would engage learners in a self-paced curriculum (Hammond & Collins, 1987). This experiential learning environment helps learners, of all ages, develop problem-solving skills in a real learning environment.

In the mid-1960's, Malcolm Knowles first used the term "andragogy" to describe adult education's concepts, theories, principles and practices (Knowles, 1970). Malcolm Knowles' theory of adult learning, andragogy, asserts that adult learners learn differently from younger learners and hence require a different kind of education (Roberson, 2002). Andragogy is the art and science of helping adults learn (Merriam & Caffarella, 1999). It lays out a humanist view of learners and their potential for growth, with implications for teaching, social philosophy, and human relationships (St. Clair, 2002). Knowles defined andragogy as "the art and science of helping adults learn" (Knowles, 1970, p. 2; 1980, p. 2). He defined pedagogy as the "art and science of teaching children" (Knowles, 1970, p. 2; 1980, p. 2), the basis for all education until the early 1900's. Malcolm Knowles began to verbalize his ideas about the educating of adults after talking to a friend from Yugoslavia in the 1970's. The friend told Knowles, "You are doing andragogy..." (Knowles, 1977, p. 6), referring to Knowles' work with adults.

Andragogy has been used as a term in Europe for years to identify education with adults (Merriam and Caffarella, 1999). Adults can accept pedagogical methods of instruction in formal instruction but do not like that type of instructional environment.

Until the early 1900's adult education in the United States was frequently voluntary, pragmatic, pluralistic, diverse, task oriented, and reflective of events influencing on American society as a whole" (Cyr, 1999, p. 1). Adult education, and all education, utilized a pedagogical model in the United States. Starting in the 1930's, educational researchers found an increasing need for alternative instructional methodologies for adult learners (Knowles, 1977, Essert, 1960). In 1945, adult education came of age, resulting from the need for vocational training to support the war effort. Over time, it became evident that schools weren't meeting the training needs of adult workers. Because schools weren't meeting the vocational training needs of adults, these programs increasingly turned to the behavioral objectives and accountability concepts used today in adult education (Elias & Merriam, 1995). The behavioral model (a teacher-centered model), designed by Tyler (1949) and still utilized today, starts with objectives, followed by designed learning experiences and finally evaluation. Humanists, who believe in a student-centered model, recognize and value the individuality of each individual in a never-ending process to learn (Lindeman, 1961).

It wasn't until the 1960's that there needed to be a new approach to teaching adults that considered the unique learning needs of adults (Lawler, 1991). Instructors of adults started to understand that adults and children have

different learning needs and the pedagogical model was inappropriate for teaching adults (Pattison, 1999). It was at this point that educators started to consider the needs of the learners. Lindeman (1961) opposed an educational system where subject matter and curriculum drives the process instead of student learning needs. He believed that especially with adults, methodology, not content, should be the driving curriculum force.

In 1962, Malcolm Knowles proposed a version of andragogy, a student-centered approach to learning that would help promote life-long learning skills through self-directed instruction based around the adult learner's needs. This approach focuses on learning rather than teaching and is student-centered rather than teacher-centered (Pattison, 1999). Today, most adult educators believe that adult education has differentiated itself from pedagogical practices, which was the basis for all education until the early 1900's. These adult educators also agree that andragogy addresses the needs of society, especially as they apply to race, gender and financial minorities within both formal and informal educational formats (Cyr, 1999). Andragogy answers a lot of the concerns about the differences between the adult and non-adult learner. Andragogy, the theory of adult learning, establishes the learner as self-directed, problem-centered and internally motivated. Through andragogy, adults utilize experiences to add to knowledge at a time of life when the adult is ready to learn and participate in every phase of the learning process where the facilitator creates a climate conducive to learning (Knowles, 1980; Merriam & Caffarella, 1999).

In the 1980's, studies by Long (1983) found that adult learners set their own pace for learning using their own learning style in situations which are self-directed, flexible and can show immediate results. Research of adult education environments supported similar research conducted in the 1970's and 1980's (Bowman, et. al., 1993; Brookfield, 1985, 1986, 1995; Ewert, 1994; Forlizzi, et al., 1994; Galbraith, 1991; Garrison, 1994; Hiemstra, 1994; Hiemstra & Sisco, 1990; Imel, 1995; Merriam, 1996; Wlodkowski, 1991). The research of Rogers (1983) and Knowles (1970, 1980) support a student-centered model for adult education with the teacher serving as the facilitator (Pattison, 1999) who assesses learning needs and interests which leads to the defining of objectives in a climate of trust and evaluation of the results (Knowles, 1980).

Adults need to understand why they are learning something and why this knowledge will influence their lives (Knowles, et al., 1998). If adults understand the reasons for learning and how this knowledge will influence their lives, they will become internally motivated and increase their self-esteem. Teachers must help link learners to resources while enhancing self-directed learning while the learners are learning new skills (Knowles, 1980). Teachers must help learners recognize when information is needed and how to access the resources needed to provide the information which will help students understand that they are responsible for their own learning (Green & Gilbert, 1995). In today's educational environment, it is necessary for teachers to teach critical thinking skills, information literacy and collaboration instead of subject content (Tripathi, A.K., 1999).

Andragogy can apply to all learners, depending on the learner and the situation, now the age of the learner. Knowles refers to non-adult learning as a dependent or student role while he refers to adult learning a non-dependent or member of the learning environment (See Table 2). This clearly illustrates Knowles belief that the adult learner learns best in a self-directed environment where the adult instructor becomes a facilitator of learning instead of an instructor who has control of the learning process. However, andragogy has been criticized by many adult educators. Knowles has been accused of reflecting a white, male, Western orientation on life and learning rather than the individual webs of cultural significance and have challenged adult educators to move beyond the separatist ideas of andragogy and incorporate culturally responsive teaching in a culturally plural world (Roberson, 2002). Additionally, several critics of andragogy, for example, Tisdell and Taylor (2000), believe that andragogy

Table 2		
Adult Learning Theories		
Pedagogy vs. Andragogy		
	Pedagogy	Andragogy
Learner	Dependent	Self-Directed
Learning Experience	Builds on Experience	Resource for Learning
Orientation to Learning	Subject Centered	Problem Centered
Motivation	External	Internal

(Cyr, 1999, p. 6).

only addresses certain types of learning and only at certain times. Additionally, these critics believe that andragogy does not provide a clear delineation between education of children and education of adults (St. Clair, 2002).

Flow

Mihaly Csikszentmihalyi calls flow the only condition linking enjoyment, self-worth and development (Csikszentmihalyi & Schneider, 2000). It is a state of consciousness that integrates high but effortless concentration, intrinsic motivation, loss of awareness of self and feelings of competence and freedom to challenges (Csikszentmihalyi, 1990a). Individuals in flow report immersed concentration, centered attention with minimization of distractions. “People report that they lose track of time and their daily problems, forget about hunger and fatigue, and feel well-matched to the activity at hand” (Whalen, 1999, p. 162). Mihaly Csikszentmihalyi’s Theory of flow defines the difference between enjoyment and pleasure; an optimal experience which is created when experiences are so enjoyable that they are pursued for their own sake (Csikszentmihalyi, 1997b). Flow is the spontaneous, effortless experience achieved when there is a close match between a high level of challenge and the skills to necessary meet the challenge (Scherer, 2002). Flow is the “engine of evolution propelling us to higher levels of complexity” (Csikszentmihalyi, 1997c, p. 142).

While in a state of flow, people often report feeling happy, satisfied, and creative with complete involvement in a task. Flow creates deep concentration enhanced by moment by moment feedback about the steps taken and the next required step (Csikszentmihalyi & LeFevre, 1989; Csikszentmihalyi & Schneider, 2000). Clear goals and immediate feedback are necessities in activities if they are to lead to flow. There must be immediate feedback to the individual engaged

in a challenging activity. Individuals who experience flow feel more confident because they feel as though they are a part of something bigger than themselves (Csikszentmihalyi, 1997c). Flow happens when an individual understands how his/her actions are assisting in the achievement of the activity's goals. These elements can lead eventually to an experience, which becomes autotelic, which is an experience which is worth having for its own sake (Csikszentmihalyi, 1997b).

Individuals in flow report a deep state of concentration. They know at every moment what actions to take in an activity while receiving immediate feedback concerning their actions that match skills and challenges at an elevated state. In this state of deep concentration, all stimuli is excluded, leading to the forgetting of problems and a sense of control. During flow there is a disappearance of self-consciousness leading to a sense that time is passing much faster because of the heightened levels of concentration needed to complete the task. "After being in flow people report being more successful, feeling better about themselves, and feeling that they are living up more to their own and others' expectations" (Csikszentmihalyi, 1997c, p. 139) leading to an enhanced sense of self-esteem. This phenomenon is reported by people who are engaged in physical activities like rock climbing and basketball. It is also reported by students engaged in challenging academic activities (Csikszentmihalyi, 1997c).

In the 1970's, Mihaly Csikszentmihalyi (Csikszentmihalyi, 1975), while studying young artists for his doctoral dissertation at the University of Chicago,

first noticed the complete devotion to their work but their complete disinterest at the end of finishing a painting or a sculpture. Csikszentmihalyi noticed that the artists looked at the completed art and then quickly began working on a new art project. He realized that the art wasn't motivating the behavior of the artists; it was the activity itself. This was Csikszentmihalyi's first connection to flow experiences (Csikszentmihalyi, 1997a). Csikszentmihalyi then began a series of interviews with creative artists to further understand their experiences with flow. In 1975, a well-known composer stated that he was "in an ecstatic state" (Csikszentmihalyi, 1997a, p. 61). Csikszentmihalyi's research of flow has found that those who experience flow feel as though they are in a different world which is no longer routine. Those who experienced flow felt as though they didn't exist and had lost self-consciousness (Csikszentmihalyi, 1997a). One artist stated, "My hand seems devoid of myself, and I have nothing to do with what's happening" (Csikszentmihalyi, 1997a, p. 62). One musician stated, "I'm just there watching it (my hand) in a state of awe and wonderment and the music just flows by itself" (Csikszentmihalyi, 1997a, p. 62). It was after that interview that Csikszentmihalyi started to use the term flow to describe this experience. A poet described the experience as "It is like opening a door that's floating in the middle of nowhere.... You just have to float. If there's any gravitational pull, it's from the outside world trying to keep you back from the door." Csikszentmihalyi, 1997a, p. 64).

The state of flow is experienced by people across the world from all cultures and social classes. Surveys in the United States and Germany have

found that about fifteen percent of the population claims that they experience flow several times a day while fifteen percent state that they never experience such situations. However, the remaining 70 percent report a flow experience on average once every few weeks (Csikszentmihalyi 1997a). Small children are often in flow when they learn to walk and talk. Once they go to school, they lose this feeling of flow because they can't choose their goals and they can't choose their level of challenge. About fifteen percent of the adult population cannot remember ever experiencing flow. On the other hand, about fifteen percent of the adult population experiences flow several times a day (Csikszentmihalyi & Schneider, 2000).

When challenges and skills are in balance, people feel that they can achieve challenging but realistic goals, thus creating a positive experience because the mastery of achievable challenge stretches capabilities. Flow promotes the development of new skills and increases self-esteem and personal complexity (Csikszentmihalyi & LeFevre, 1989). Relaxation or the adolescent experience of "downtime" that teens love and need does not lead to growth of skills. On the other hand, flow does lead to the growth of skills because adolescents learn to enjoy the challenges necessary for reaching their goals (Csikszentmihalyi & Schneider, 2000). Optimally challenging activities stretch skills and engage the challenges at a high level (Csikszentmihalyi, 1975, 1990). When these factors are present then individuals have an optimal experience or flow, an experience highly associated with intrinsic motivation, by balancing high levels of challenge with high levels of skill.

Several studies have linked intrinsic motivation to flow or optimal experiences in which individuals engage their skills in challenging activities (Csikszentmihalyi, 1990a). Flow theory suggests that intrinsically motivated individuals learn more and experience more positive affect and self-esteem (Deci & Ryan, 1985). Intrinsically motivated individuals own the kind of learning that they want to acquire because they are interested in it as opposed to those who learn in order to avoid failing or for extrinsic reasons (Whalen, 1999). A key dimension of intrinsic motivation is interest in the activity (Deci, 1992). Games and simulations incorporate the principles of intrinsic motivation by defining clear goals and rules with the option to alter the degree of challenges by altering the rules or variables (Rezabek, 1994). The Csikszentmihalyi and Schneider study of adolescent states of Flow (2000), found that adolescents in flow reported above average levels of concentration, happiness, motivation, self-esteem, and engagement in the activity. Additionally, the study found that adolescents believed that the activities that send adolescents into flow are believed to be important to future goals of the participants. Adolescents who experience flow regularly start to take a broader view of life and career development (Csikszentmihalyi & Schneider, 2000). Individuals can become immersed in an activity when challenges and skills are in balance, goals are clear and immediate feedback is available. Students in flow enjoy challenges that help them reach their goals. This relationship has been validated by numerous studies (Csikszentmihalyi, 1993; Hektner & Csikszentmihalyi, 1996). This immersion leads to the forgetting of self because so much concentration is needed to meet

the challenges at hand (Csikszentmihalyi, 1997b). Health, wealth and success are important but not as important as happiness (Csikszentmihalyi, 1997c)

Enjoyable experiences are usually described as having a cluster of related subjective dimensions making time seem to pass quickly. These dimensions include a balance of challenges and skills, knowing what must be done from one moment to the next, immediacy of feedback, disappearance of problems, a loss self-consciousness or the “me” aspect of the self described by George Herbert Mead (1934/1974). When all these aspects of the experience are present, flow is present (Csikszentmihalyi, 1975). Individuals who report extreme states of concentration experience “one-pointedness of mind” (Csikszentmihalyi, 1997b, p. 9). When concentration reaches an extremely high level, people begin to feel “ecstatic” (Csikszentmihalyi, 1997b, p. 9). When individuals become very deeply involved in activities, there is no possibility to go off on tangents because human attention cannot be split more than a few ways (Csikszentmihalyi, 1997b). The original Greek meaning of ecstasy is “to stand to the side or to step to the side” (Csikszentmihalyi, 1997b, p. 9). The feeling of ecstasy associated with flow is necessary for the survival of any culture (Csikszentmihalyi, 1997b).

There are eight major dimensions to the flow experience:

1. Clear goals: an objective is distinctly defined; immediate feedback: one knows instantly how well one is doing.
2. The opportunities for acting decisively are relatively high, and they are matched by one’s perceived ability to act. In other words, personal skills are well suited to given challenges.

3. Action and awareness merge; one-pointedness of mind.
4. Concentration on the task at hand; irrelevant stimuli disappear from consciousness, worries and concerns are temporarily suspended.
5. A sense of potential control.
6. Loss of self-consciousness, transcendence of ego boundaries, a sense of growth and being part of some greater entity,.
7. Altered sense of time, which usually seems to pass faster.
8. Experience becomes autotelic: If several of the previous conditions are present, what one does becomes autotelic, or worth doing for its own sake.

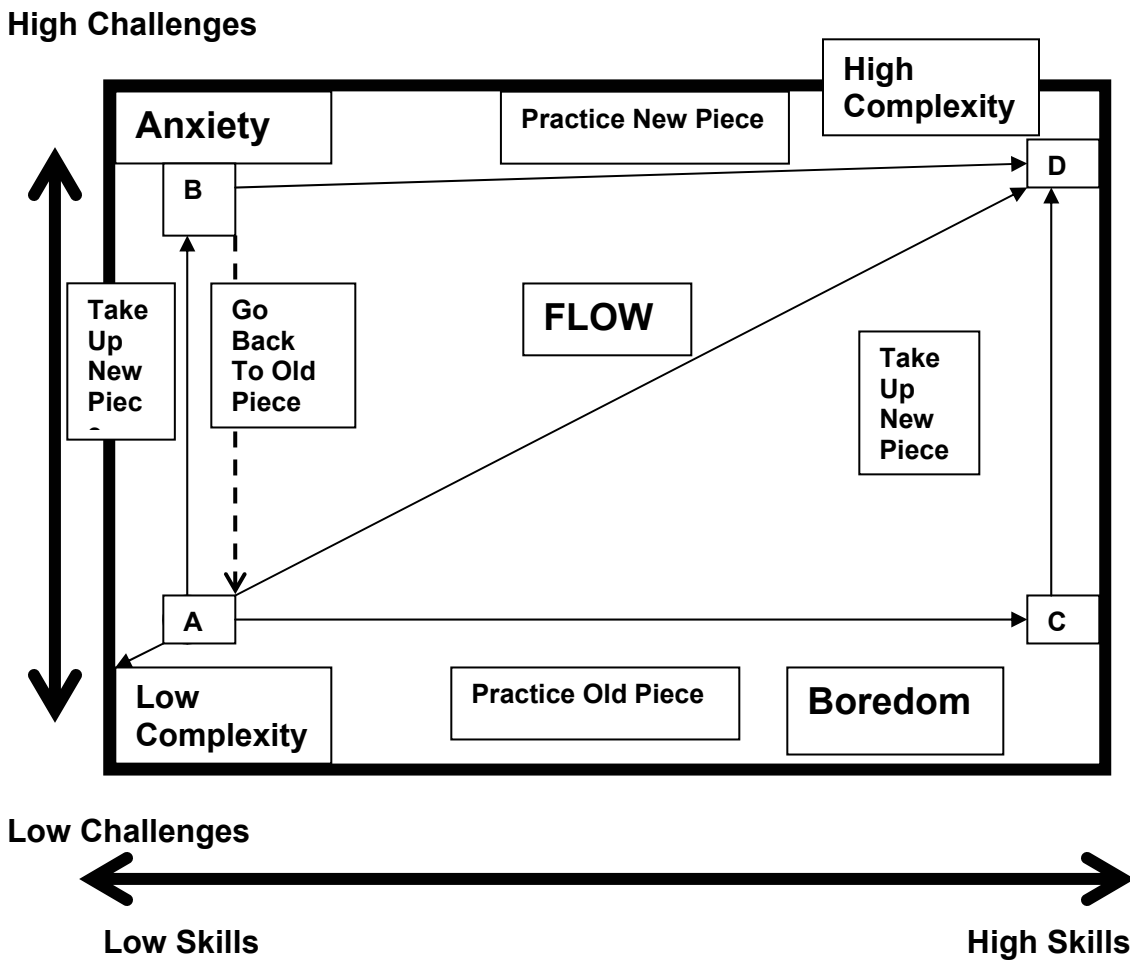
(Csikszentmihalyi, 1997c, p. 123).

Concentration during flow requires focusing on the present and ignoring the problems of the present leading to people forgetting their troubles and lose self-consciousness. Self-consciousness is really a burden because self-consciousness brings with it all of the mental processes that engaged the individual in the present and/or the past. Flow helps self-consciousness or ego to disappear. However, through flow, individuals develop a new self-consciousness as a stronger, more energetic individual than the one who has not experienced flow. Skills increase with practice so that the balance between skills and challenges are not stable over time. To re-enter a state of flow, individuals seek new challenges to meet their increasing level of skills leading to self-directed learning (Hektner & Csikszentmihalyi, 1996). If an individual has developed a skill level to meet challenges at an equally high level, it will be difficult for that

individual to return to a lower level of challenges because the skill level has been increased to meet prior higher-level challenges. A return to lower level challenges after the skill level has been raised will create boredom. A musician who is used to playing music at an elevated level, will become quickly bored with playing only scales instead of new and challenging musical pieces (Csikszentmihalyi, 1997b).

The full influences of flow only appear when challenges and skills are not only in balance but are also relatively high (See figure 1). Flow can be contrasted with three other states defined by the ratio of challenge to skills: anxiety, in which the challenge of the activity is higher than average but the required skill is lower; relaxation, in which skill is reported as higher than average but challenge is lower; and apathy, in which both challenge and skill are below the person's weekly average. (Csikszentmihalyi & Schneider, 2000). A state of flow occurs when challenges are high and the skill level is equal to the high level of challenges. Apathy occurs when the challenge level is low and the skill level is equally as low. Boredom occurs when an individual's skill level is high but the challenges are low. Anxiety occurs when the challenge level is high but the individual's skill level is low. Finally, arousal occurs when skills are average or middling but challenges are high. Individuals in arousal have a desire to act, to learn the required skills (Csikszentmihalyi, 1997b).

**Figure 1
Alternative Paths for Returning to the Flow Channel**



(Csikszentmihalyi, 1997a, p. 41)

The horizontal axis represents an individual's skill level for a particular challenge, with high skills at the far right and low skills at the far left. The vertical axis represents a challenge faced by an individual, with high challenges at the top of the diagram and low challenges at the bottom of the diagram. Flow is represented by the area between the two parallel, diagonal lines in the middle of the diagram, with low complexity activities at the lower end of the flow area

(lower left) and high complexity activities at the higher end of the flow area (upper right). The arrows within the diagram represent the natural progression faced by the participant in an activity as he/she experiences increased challenges. The dashed lined represents the decision by the activity's participant to return to lower-level challenges and a lower complexity.

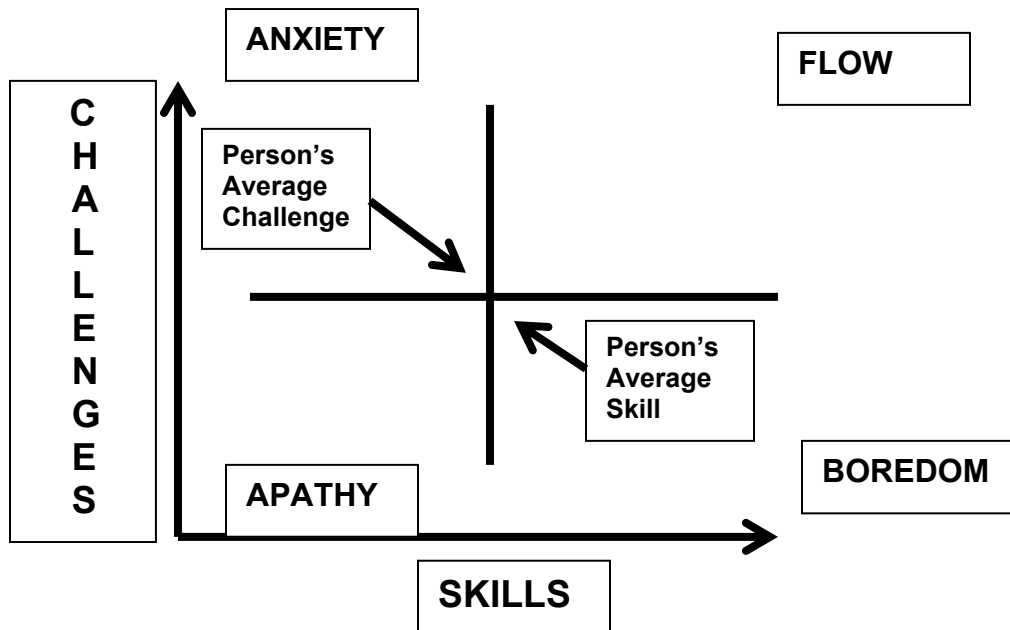
What happens when someone participates in an activity, for example playing music? The individual starts at point "A" with no skills and very low challenges. At this point, the individual is, by definition, in a state of flow, which is the balance of skills and challenges (Csikszentmihalyi & LeFevre, 1989), but this state of flow is one of low complexity. One of two things can happen after this point. Either the activity's participant can experience more difficult challenges, for example, a more difficult musical piece challenging the participant's skill level. This would cause anxiety for the participant, leading to point "B", which is one of high challenges and low skills. The other possibility is that the participant's skill level improves but he/she continues to play the same piece over and over again leading to a state of boredom, Point "C".

There are always several possibilities if participants are in this state of anxiety, possibility "B", where the challenge is too high. The participants could develop new and higher skills and get back into flow at a higher level than before. In this case, the participant in the musical activity could practice a new musical piece, thus developing new skills to meet the challenges of the new musical piece at a high complexity level. Another possibility is that the musical participant can feel anxious and decide not to seek new challenges because the new

challenges would put that individual out of his/her comfort zone. That individual could simply continue to play the old musical piece and return to his/her comfort zone, a lower complexity level of flow, again. An individual who decides to go back to Point “A” or on to a different activity, is not developing complexity. On the other hand, an individual who keeps increasing his/her skills and challenges takes the route toward complexity and a higher state of flow (Csikszentmihalyi, 1997).

The Four-Channel Flow Model, (figure 2), demonstrates an individual’s skill level and level of challenges can send that individual into one of four states: apathy, anxiety, boredom or flow. Tackling challenges without the necessary skills creates anxiety but may lead to the development of higher skills in order to overcome the higher challenges, thus returning to flow. Alternating anxiety with flow experiences helps adolescents to understand and develop the learning process that works best for them while their skills grow to meet new challenges (Csikszentmihalyi & Schneider, 2000). The anxiety of tackling a challenge without having the skills necessary to surmount it is part of the process of learning, prompting us to develop higher skills in order to return to flow. Alternating anxiety with the joys of flow helps adolescents to understand that learning is a process that helps their skills to grow (Csikszentmihalyi & Schneider, 2000).

Figure 2 - The Four-Channel Flow Model



(Massimini & Carli, 1986)

Apathy occurs when an individual experiences low-level challenges with little to no skills to meet the challenges. This individual can remain within this comfort zone of apathy or seek new challenges and develop the skills necessary to overcome these challenges. Boredom occurs when an individual has developed a high skill level but doesn't seek new challenges. Rather, this individual participates in challenges that are at a lower level than his/her level of skills. Flow occurs when challenges and the skill level are balanced at a heightened level (Csikszentmihalyi, 1997a).

The average individual doesn't seek the highest level of challenges because they either lack the skills necessary to overcome challenges at the highest level or those individuals choose not to participate in challenges at the highest levels because that would put those individuals out of their comfort zone. The average individual seeks challenges, somewhere in the mid-range of

challenges, and develops the mid-range of skills necessary to overcome these middle level challenges (Csikszentmihalyi, 1997a). (See Figure 2).

Individuals experience different average levels of challenges and average level of skill each week. Csikszentmihalyi (1997a) researched more than a quarter million individuals to determine responses to challenges. The study determined that the most positive experiences of flow occur when both challenges and skills are above their average point. When challenges and skills are in balance but at a high level, individuals feel happy because they feel in control. Arousal and control are positions where individuals can easily move into flow. From arousal, an individual can move into flow with an increase of skills to meet higher challenges. From control, someone can move into flow with an increase of challenges (Csikszentmihalyi, 1997b). Thus, when an individual is focusing on the skills needed to meet a heightened level of challenges, the mind cannot focus on those skills and an activity outside the parameters of the activity that is engaging the participant. Most people prefer to participate in non-challenging activities that require few skills or little expenditure of energy (Csikszentmihalyi & Schneider, 2000). For example, watching television takes up the largest portion of most people's free time (Kubey & Csikszentmihalyi, 2002). However, the most meaningful, enjoyable events in the lives of people are those where tasks were confronted and mastered, becoming milestone events (Csikszentmihalyi & Schneider, 2000).

Intense flow experiences may be relatively rare in everyday life, but almost everything , including play, work, study, and religious ritual, is able to produce it, provided challenges are high and the skill level is equal to the high level of challenges. Research indicates that athletes and performing artists often talk about “being in the zone” , a state in which the body and mind work in harmony to create a calm, energized, focused, confident response to challenges at a high level (MayoClinic.com, 2002). Individuals “in the zone”, synonymous with a state of flow, seek to re-create the actions that caused them to react calmly, confidently, and energized in response to heightened levels of challenge.

This phenomenon is experienced by individuals in all professions and jobs. Members of surgical teams often experience a sense of flow because they are engaged in challenging activities as members of a team while receiving immediate feedback about their successful achievement of the goals of the surgical activities (Csikszentmihalyi, 1997c). Flow can be work-related and varies based on the career area. Some managers prefer solving problems and writing. Some clerical workers prefer typing and keypunching. Some blue collar workers prefer fixing equipment. Novelty and variety produces the type of excitement that leads to flow on the job. However, some individuals find flow in jobs that are boring and depressing for others. For example, assembly line work sends some into flow (Csikszentmihalyi, 1997c). On the other hand, quiet activities such as vegetable gardening may also produce a state of flow (Csikszentmihalyi, 1997c).

Spending time in flow promotes learning and the acquisition of skills because an adolescent is so absorbed in an activity that he or she loses track of

time and feels at one with the activity (Csikszentmihalyi 1990a). Productive activities, such as homework and class work, are the largest source of flow for adolescents. Whereas, resting, eating, listening to music, watching TV are all sources of relaxation. These relaxation activities, with low-levels of challenges, require low levels of skills and, therefore, do not produce flow. Students experience anxiety at a very high level when engaged in academic and work-related activities but anxiety is almost non-existent when adolescents are engaged in relaxing activities. Alternating anxiety with flow experiences helps adolescents to understand and develop the learning process that works best for them while their skills grow to meet new challenges (Csikszentmihalyi & Schneider, 2000).

Young people who report high levels of flow also report valuing such things as “preparing yourself for a secure job” and “living up to your parents’ expectations”, leading them to seek material benefits and social recognition as well as the rewards of a job well done (Csikszentmihalyi & Schneider, 2000). Adolescents who are often in flow are able to envision more potential rewards for their efforts than their peers do, helping them to sustain their motivation even when the task increases in difficulty. Students report higher levels of flow in nonacademic courses such as vocational education, computer science, and art (Csikszentmihalyi & Schneider, 2000).

Students who experience high levels of flow also “report higher levels of concentration, self-esteem, and a stronger concern for relevant future goals (Csikszentmihalyi & Schneider, 2000). They experience flow when they spend

time engaged in academic activities (class work and homework) and job-related activities (vocational education) instead of passive activities like watching TV or listening to music. Alternating anxiety with flow experiences helps adolescents to understand and develop the learning process that works best for them while their skills grow to meet new challenges (Csikszentmihalyi & Schneider, 2000). The Csikszentmihalyi and Schneider (2000) study confirmed that these students are far more optimistic about the future than students who do not experience flow or who only have a low level of flow experiences. Adolescents who are apathetic or anxious do not feel confident about the future or open to new experiences (Csikszentmihalyi & Schneider, 2000).

Flow involves a movement toward becoming more intrinsically motivated to be a self-directed learner. As students develop flow experiences through their school work, they devote more time to their school work and less time to leisure activities. In contrast to most students who have negative feelings toward school work, students who experience flow through school work, have very positive feelings toward their school work (Hektner & Csikszentmihalyi, 1996). Those capable of flow could often be described as having an “autotelic” personality, a tendency to become involved in activities for their own sake (Csikszentmihalyi 1975). Talented students with autotelic personalities, tended to have a more positive view of their lives, especially during productive activities such as studying, doing homework, or working (Adlai-Gail 1994; Csikszentmihalyi, 1993; Hektner & Csikszentmihalyi, 1996).

Research of flow has focused on contexts or activities in eliciting flow (LeFevre, 1988) and on the range of peoples' experiences in flow (Adlai-Gail, 1994). However, there have been only a few longitudinal studies of the flow experiences (Csikszentmihalyi, et al., 1993; Hektner & Csikszentmihalyi, 1996; Csikszentmihalyi & Schneider, 2000), and these studies focused on the flow experiences of adolescents. To fully experience flow, individuals must recognize challenges in their environment that match their skills, thus creating a state of flow. In a longitudinal study of adolescent social development (Bidwell, et al., 1992), not flow experiences, of students in grades 6, 8, 10, and 12 at sites across the country, it was determined that concentration and importance to future goals were the most important factors in the production of flow while mood was the least important factor. In another study, (Hektner & Csikszentmihalyi, 1996), it was found that flow and the quality of the experience remains stable over time. In a 1996 study of adolescents, Hektner and Csikszentmihalyi found that school work brings about the most positive experiences for students but also creates moods and motivation far below weekly averages. The study also found that students viewed school work as being important for their future goals and required a high level of concentration. "Adolescents who increase in flow do more school work, build stronger links between their current activities and their career goals, and feel more strongly that their daily activities are important to their future goals" (Hektner & Csikszentmihalyi, 1996).

Brophy Curriculum Model

Jere Brophy (1999) believes that Csikszentmihalyi's (1993) flow concept, which is limited to an optimal match between the challenges of the task and the individual's skill level, does not describe intrinsic motivation and does not explain why people seek flow experiences in some situations but not in others. For some activities, skills can be developed by mere exposure to these skills. However, for other activities, a mentor is needed to scaffold novices' "entry point that will allow them to experience activities in the domain as meaningful and satisfying" (Brophy, 1999, p. 82). Mentors, guided by the motivational and learning goals of the learning activities, mediate the motivated learning of students through sociocultural learning within a motivational zone of proximal development (Hickey, 1999; McCaslin & Good, 1992). Educators can create motivationally optimal learning situations by developing optimal curricula and bringing them to life in the classroom using optimal instructional methods. The E.B.C.E. Curriculum placed students in externships where mentors could help create motivationally optimal learning situations.

Jere Brophy designed a model, (see Table 3), that addresses the value/interest/appreciation aspects of motivated learning, including learning in exploratory situations that do not require focused achievement. Jere Brophy's curricular model, "untested through research design" (Brophy, 1999, p. 84), mirrors the E.B.C.E. curriculum and further explains the intrinsic motivation experienced by some of the participants, in this study, when they encountered challenges. Brophy's model, which didn't exist when I developed the E.B.C.E.

Program, proposes that learning activities must match a learner’s prior knowledge and experiences to stimulate interest in the activity. The learner must recognize an activity but cannot be overly familiar with it. “If a learner does not understand an activity or appreciate its potential value, or if the learner has had unrewarding experiences with the activity, then there wouldn’t be learner interest in the activity” (Brophy, 1999, p. 77).

Table 3	
Theoretical Schematic: Planning Curriculum and Instruction for Cognitively and Motivationally Optimal Learning	
Goals	Identify knowledge, skill, attitude, value, and dispositional outcomes most worth developing (in this domain).
ZPD Filters	Identify potential learning goals that lie within the learners’ cognitive ZPD’s and are either below or within their motivational ZPD’s.
Curricular Choices	Within ZPD guidelines, choose content that optimally blends all three curriculum sources (society’s needs, learners’ current capacities, and knowledge of enduring values) and focus on authentic activities that provide a basis for learning for understanding, appreciation, and life application.
Mediation	Model, coach, and scaffold in ways that help learners both to acquire meaningful understandings and to value this learning as self-relevant and applicable to life outside of school.

Note: ZPD = zone of proximal development
Brophy, 1999, p. 81

Vygotsky’s (1978, 1986) idea of the Zone of Proximal Development (ZPD), defined as the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving, under adult guidance or in collaboration with more capable peers, provided new tools to enhance the influence of adult-child interactions on children’s development (Stone, 1998). Moving the learner

into the ZPD and supporting the learner to move beyond it is an essential part of scaffolding. The ZPD, one of the most used and least understood educational constructs, helps frame the negotiated nature of teaching (Stone, 1993; Wertsch, 1984). In the E.B.C.E. Program, adult mentors helped scaffold student skills

Knowledge, skills, attitudes, values, and dispositional outcomes most worth developing must be identified and taught through an authentic approach. The students must assist in the development of these goals so that they can develop their own career knowledge, skills, attitudes, values, and dispositional outcomes. One of the findings in this study illustrates the importance of the development of career goals/philosophy that has guided the professional development of the former E.B.C.E. participants. E.B.C.E. learning goals were created because they were either below or within the students' motivational and cognitive ZPD's. Junior year of E.B.C.E. was used to assist students in preparing for activities they may encounter above their motivational and cognitive ZPD's. As the findings indicate, E.B.C.E. students did encounter cognitive challenges above their cognitive ZPD but not above their motivational ZPD. Earning the respect of adult co-workers and motivation by

The need for students to make career choices was the focal point of the E.B.C.E. curriculum. Society's needs and knowledge of enduring values were not a planned part of the E.B.C.E. curriculum but the findings indicate that both have influenced the professional lives of program participants. Several participants have become mentors to others and two have established programs similar to E.B.C.E. Also, several participants have established a career philosophy about

their careers based on their E.B.C.E. experiences. The E.B.C.E. activities were authentic and the findings indicate that the participants appreciated the real work activities and understood their real life applications. Modeling, coaching, and scaffolding were utilized to help learners both to understanding and to value learning as self-relevant and applicable to life outside of school. Mentors played an extremely important role in this phase of E.B.C.E.

Scaffolding

Through resource-based learning, such as the one used in E.B.C.E., students can fully demonstrate their independence from the teacher. The role of scaffolding in resource-based learning environments usually involve students solving complex, real world problems that can be approached in different ways and have multiple solutions. These learning environments require self-regulation and sophisticated forms of cognitive processing (such as application, analysis, and synthesis) that are often problematic for novices who, by definition, do not possess the knowledge necessary to solve problems in a new content area (Brown, et al, 1986; Butler, 1998; Palinscar, 1986; Palinscar and Brown, 1984). From its inception, the scaffolding metaphor was intended to refer to a situation in which a more capable other (usually an adult) helps a child to accomplish a task in which the child shares at least an interest. Can collaborative student groups also be used to “scaffold” student learning?

In the late 1970's and the 1980's, use of the metaphor scaffolding reflected a growing disenchantment with Piaget's individual-child-learner model of development (Rothenberg, 1996). Vygotsky's idea of the Zone of Proximal

Development (ZPD) (Doolittle, 1997), defined as the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving, under adult guidance or in collaboration with more capable peers, provided new tools to enhance the influence of adult-child interactions on children's development (Stone, 1998). Moving the learner into the ZPD and supporting the learner to move beyond it is an essential part of scaffolding. The ZPD, one of the most used and least understood educational constructs, helps frame the negotiated nature of teaching (Stone, 1998; Wertsch, 1985).

Scaffolding is consistent with a constructivist view of teaching and learning. From the constructivist perspective, mistakes provide valuable information about what the child understands and how he or she understands. The skilled teacher can use such information to generate prompts and hints that stimulate student reconstructive activity, such as rethinking of a situation, resulting in a different understanding. One key component is that the teacher's involvement in the instructional process changes as students gain competence in strategy use. The second key component is the role of dialogue (Palinscar, 1986). Through talking with teachers and more knowledgeable peers, learners are encouraged to expand and to internalize new understanding.

The most important source of scaffolding in the classroom is the teacher, (Flick, 1998) even though there is enormous diversity in the ways in which teachers provide scaffolding (Palinscar, 1986; Palinscar, Brown, & Campione, 1993). Usually, educational programs stress skill acquisition but not task

construction and transfer. To be effective, scaffolded instruction must address both skill acquisition and task construction using acquired skills while assisting learners to direct themselves successfully and create responsible leadership roles while transferring responsibility to the learner (Biemiller & Meichenbaum (1998). The key notion captured by most discussions of the scaffolding metaphor is that a joint but necessarily unequal engagement in a valued activity, with a gradual shift in responsibility. In an exploratory phenomenological study of the teacher and student roles in, and reactions to, a student-centered instructional geometry program, pairs that were more homogeneous tended to form more collaborative relationships (Hannafin, et al., 2001). The presentation of a solution up front in collaborative learning is completely opposite to the function that Bruner (1985) assigns to the role of the adult in assisted learning.

When the Zone of Proximal Development (ZPD) is above the cognitive ZPD, the individual is not yet able to learn. If the learning situation is above the motivational and cognitive ZPD, the learning situation is beyond the capabilities of the learner. If the learning situation is within the motivational and cognitive ZPD, the learner is able to learn with mediation. If the learning situation is below the motivational and cognitive ZPD, the learner has already learned what is expected to be learned but the potential learning goal is beyond the current cognitive capabilities of the learner, even with mediation. If the learning situation is within the cognitive ZPD, the learner is able to learn with mediation. If the learning situation is above the motivational and cognitive ZPD, mediation could help learners attain potential learning goals but cannot overcome current learner

limitations. If the learning situation is within the motivational and cognitive ZPD, the learner is able to learn with mediation. If the learning situation is below the motivational and cognitive ZPD, the learner has already learned from this learning situation. If the learning situation is below the cognitive ZPD, the learner has already learned what is expected to be learned from this situation. If the learning situation is above the motivational and cognitive ZPD, learners already appreciate the value of the domain but attainment of the potential learning goal is beyond the current cognitive capabilities of the learner, even with mediation. If the learning situation is within the motivational and cognitive ZPD, the learner is able to learn with mediation.

Studies of scaffolding have shown mixed results. Some of this may be caused by inconsistent implementation of scaffolding in the classroom. For example, in a study by Dickinson and Flick (1997), there was no consistency in approaches utilized by teachers in implementing scaffolding in the classroom. Teachers who had high achieving students used scaffolding techniques extensively according to the findings of a study by Wharton-McDonald, et al., (1998). Teachers of high achieving students used scaffolding techniques extensively to enhance the teaching practices of early elementary (K-2) teachers, according to the findings of a study by Wharton-McDonald, et al., (1998). The purpose of the study was to understand how teachers attempt to help students develop conceptual understanding of science. There was no consistency in approaches utilized by teachers in implementing scaffolding in the classroom. The kindergarten teacher used students' ideas in each lesson, yet did not always

allow students to draw their own conclusion. One teacher focused on students' expression of ideas, and drew the conclusions for the students because she was very concerned that students would draw erroneous conclusions if allowed to make conclusions on their own. Knowing the importance of student ideas did not guarantee recognition of all ideas according to the findings in a study of elementary school science teachers (Dickinson & Flick, 1997). In a study of the implementation of scaffolding model in a college computer-based instruction program, students were divided into three groups (full support, scaffolded support, and the least support), the students in the full support condition did not perform significantly better than the control group. A 3-D contingent scaffolding model systematically varied the instructor's support in response to the learner's performance in a learning task consisting of a sequence of steps/sub-tasks. The scaffolded group got significantly higher average scores than the other two groups. (Kao, et al.,1996)

When scaffolding is implemented on a consistent basis, the results are more positive. In a Flick (1998) study of two experienced middle school science teachers, instructional scaffolding was focused on using inquiry skills and not on learning the skills themselves nor how and when to employ those skills in scientific problems. Both teachers were active in creating scaffolds for instruction that supported learning in science in general and learning through inquiry in particular. They created learning environments and procedures that allowed students to do what they would otherwise be unable to do if unaided. The project entitled "Fostering Communities of Learners" (Brown et al, 1993) helped teachers

redesign classrooms to enable children to learn how to learn. The children were engaged in research activities in which they pursued a particular theme. Using an artful combination of benchmark lessons in which key ideas were introduced; small-group activities in which children collaboratively pursued specific topics through reading, writing, discussing, and interviewing experts; and other activities through which children developed individual expertise that they then could contribute to the class, children were enculturated into the community practice of scholars (Palincsar, 1998).

Scaffolding can assist teachers in developing a child-centered curriculum in the classroom. The teacher and dialogue are the two most important components in the successful implementation of scaffolding. Scaffolding can be embedded, particularly within computer programs. Two studies of embedded scaffolding within computer programming led to two completely different findings. These studies show the value of scaffolding. However, it is unclear from the findings that embedded computer programs aid scaffolding more than the important scaffolding component, the teacher. When teachers design scaffolding strategies in the classroom, the culture of the students must be a primary concern in the design. Students should understand that there are good reasons for what they are learning. Modeling, coaching, and scaffolding were all used as teaching strategies throughout the process of teaching E.B.C.E. Scaffolding was utilized in E.B.C.E. to assist students in achieving the ultimate goal of fading and removing a scaffold as the student takes on the full responsibility of completing the task (Meyer, 1992).

Views of Learners and Learning Related to E.B.C.E.

Summary

While conducting this study, I encountered several aspects of learners and learning related to E.B.C.E., adult education, flow, The Brophy Curriculum Model and scaffolding. Experience-based learning meets the educational needs of adults because it allows the adults to incorporate their life experiences and life skills into a real situation and lends itself easily to the teaching of vocational skills (Lindeman, 1961).

Mihalyi Csikszentmihalyi calls flow the only condition linking enjoyment, self-worth and development (Csikszentmihalyi & Schneider, 2000). It is a distinct state of consciousness that integrates high but effortless concentration, intrinsic motivation, loss of awareness of self and feelings of competence and freedom to challenges (Csikszentmihalyi, 1990a). Research of flow has focused on contexts or activities eliciting flow (LeFevre, 1988) and on the range of peoples' experiences in flow (Adlai-Gail, 1994). However, there have been only a few longitudinal studies of the flow experiences (Csikszentmihalyi, et al., 1993; Hektner & Csikszentmihalyi, 1996; Csikszentmihalyi & Schneider, 2000), and these studies focused on the flow experiences of adolescents. Jere Brophy (1999), who believes that Csikszentmihalyi's (1993) flow concept does not describe intrinsic motivation and does not explain why people seek flow experiences in some situations but not in others, designed a curricular model which explains participant experiences when they encountered challenges.

Usually, educational programs stress skill acquisition but not task construction and transfer. To be effective, scaffolded instruction must address both skill acquisition and task construction using acquired skills while assisting learners to direct themselves successfully and create responsible leadership roles while transferring responsibility to the learner (Biemiller & Meichenbaum (1998). Resource based learning environments require self-regulation and sophisticated forms of cognitive processing usually involving students solving complex, real world problems in different ways and with multiple solutions (Brown, et al, 1986; Butler, 1998; Palinscar, 1986; Palinscar and Brown, 1984). When scaffolding is implemented on a consistent basis, learning is positively impacted (Flick, 1998; Kao, et al., 1996; Palinscar, 1993; Stipek and others, 1995; Willson-Quayle & Winsler, 2000; Shute & Miksad, 1997; Janes & Kermani, 1997; Kermani & Brenner, 2000; Moss and Strayer, 1990; Palinscar, et al., 1991).

Summary

The national push to develop Experience-Based Career Education (E.B.C.E.) began in early 1973 as part of the Federal commitment to career education research for both college-bound and non-college bound students. The program emphasized broad career, personal, and intellectual goals while focusing on the gathering and development of information on which to base decisions about future careers and training instead of just focusing on vocational skills. The emergence of vocational education, specifically Experience-Based Career Education (E.B.C.E.) and school laboratories are directly attributable to Dewey's belief that student interests and needs should be the basis for

instruction (Page, 1990). Contextual learning, the basis for career education programs, is synonymous with experiential learning, real-world education, active learning, experiential learning, and learner-centered instruction and is characterized by learning that helps students shape thinking by engaging with situations, objects and events through a socially shared environment (Weinbaum & Rogers, 1995).

Another aspect of learners and learning is Csikszentmihalyi's concept of flow, a condition linking enjoyment, self-worth and a state of consciousness that integrates high but effortless concentration, intrinsic motivation, loss of awareness of self and feelings of competence and freedom to challenges (Csikszentmihalyi, 1990; Csikszentmihalyi & Schneider, 2000). Jere Brophy (1999) believes that Csikszentmihalyi's (1993) flow concept, which is limited to an optimal match between the challenges of the task and the individual's skill level, does not describe intrinsic motivation and does not explain why people seek flow experiences in some situations but not in others. Brophy designed a model that addresses the value/interest/appreciation aspects of motivated learning, including learning in exploratory situations that do not require focused achievement. Jere Brophy's curricular model, "untested through research design" (Brophy, 1999, p. 84), mirrors the E.B.C.E. curriculum and further explains the intrinsic motivation experienced by some when they encounter challenges.

The key notion captured by most discussions of the scaffolding metaphor is that it requires a joint but necessarily unequal engagement in a valued activity, with a gradual shift in responsibility. From its inception, the scaffolding metaphor

was intended to refer to a situation in which a more capable other (usually an adult) helps a child to accomplish a task in which the child shares at least an interest. Through resource based learning, students can fully demonstrate their independence from the teacher. It is the goal of many teachers who utilize scaffolding to achieve a child-centered classroom where independent student learning is encouraged.

Adults learn best when the instruction is self-directed (Darling, 1996; Mast & Van Atta, 1996; Merriam & Caffarella, 1999) which helps to create unlimited educational possibilities (Wlodowski & Ginsberg, 1995). Experience-based learning meets the educational needs of adults because it allows the adults to incorporate their life experiences and life skills into a real situation and lends itself easily to the teaching of vocational skills (Lindeman, 1961). Adults need to see relevance in what they are learning (Kidd, 1977) and are internally motivated to learn and use their life experiences to add to their knowledge through an active-learning, problem-centered learning process (Knowles, 1980).

CHAPTER THREE

METHODOLOGY

This is a phenomenological study using the four criteria for qualitative trustworthiness, (credibility, transferability, confirmability, and dependability) to ensure the study's trustworthiness. I utilized Maurice Merleau-Ponty's (1962) recommended phenomenological methodology to describe the program phenomena for the study's participants and I followed Amedeo Giorgi's (1985) four main steps for data analysis in a phenomenological study to find emergent themes. Data was collected exclusively via the Internet, an asynchronous focus group and follow-up questions via individual email. The Program will be referred to as Program 1 for E.B.C.E. year 1 or Program 2 for E.B.C.E. 2. or simply as program.

Qualitative Research

Lincoln and Denzin (1994) describe qualitative research as giving up an authoritative stance by no longer professing to know everything but claiming to know something in an effort to "ever hope to speak authentically of the experiences of the other" (p. 577). Lincoln and Guba (1985) also suggest four underlying paradigms for qualitative research: positivism, post-positivism, critical theory, and constructivism. Orlikowski and Baroudi (1991) and Chua (1986) suggest three paradigms: positivist research, interpretive research and critical research. I adopted an interpretive approach, (phenomenological approach), to this study in an attempt to understand the program phenomena through the meanings of the adults who experienced the program as high school students.

Interpretive studies generally attempt to understand phenomena through the meanings that people assign to them. This method of research is "aimed at producing an understanding of the context of the information system, and the process whereby the information system influences and is influenced by the context" (Walsham 1993, p. 34-35).

Qualitative researchers' knowledge is always partial because it is situated in a particular (historical) context, with the reasonable hope that the description and analysis of the complexities of a study will identify concepts not previously seen or fully appreciated. "The qualitative researcher is sometimes described as a translator of culture" (Glesne, 1999, p. 156). The researcher, who serves as an objective middleperson, works to understand and translate the lives of others in a meaningful account. Qualitative researchers' interpretations depend on their own experiences, knowledge and theoretical dispositions, and collected data to present their understanding of research participant's experiences by developing a sense of meaning in their own lives (Glesne, 1999).

Phenomenological Methodology

I followed a phenomenological methodology recommended by Maurice Merleau-Ponty (1962) to describe the phenomena to reduce researcher assumptions through bracketing, which diminished the influence of theoretical prejudices to contaminate the experience. I accomplished this by describing the essential structure of the experience lived by the participants. I also sought to understand the "intentionality...the total meaning of the object" being studied (Merleau-Ponty, 1962, p. xviii). I collected data through an Internet survey, an

Internet focus group, and follow-up individual emails. All of these are acceptable phenomenological methodologies (Spiegelberg, 1976; Vankaam, 1966; and Giorgi, 1971).

I followed Giorgi's (1985) four main steps for data analysis in a phenomenological study to find emergent themes. First, I read and re-read the entire description of the Program participant experiences. Secondly, I broke down the text into discriminate "meaning units" through coding. Next, I transformed participant comments to determine essential meaning units and then Finally, I recognized commonalities across the participants' experiences of the phenomena. These commonalities or themes were compared to the research questions to determine if the research questions had been answered by these findings.

I chose a phenomenological approach because it alone among qualitative research methodologies, (biography, phenomenological study, grounded theory study, ethnography, and case study (Creswell, 1998), focuses on "experience and understanding" (Imel, et al., 2000, p. 4). "Phenomenology has been referred to as a philosophy, a paradigm, a methodology, and equated with qualitative methods of research and naturalistic enquiry" (Patton, 1990, p. 68).

Phenomenologists must put themselves in the place of others (Crotty, 1996, p. 272). "A phenomenological study focuses on the essence or structure of an experience" (Merriam, 2002, p. 7). Inner experiences are compared and analyzed to identify the essences of the phenomenon being studied. Phenomenological philosophy is philosophical criticism "characterized by the

universality with which criticism is systematically practiced” (Zaner, 1970, p. 79) and criticism “in the systematically adopted attitude of disengagement” (Zaner, 1970, p. 80). Instead of simply understanding phenomenology, It is a critical methodology helping researchers discover how “phenomena immediately present themselves to us” (Crotty, 1996, p. 272) instead of simply understanding phenomena. Kurt Wolff (1984, 1989) uses the notion of “surrender” to describe the phenomenologist’s exercise of opening up to the phenomenon. Wolff recommended becoming passive before the phenomenon, allowing it to grasp and impress itself upon the researcher. He characterizes his approach as “surrender-and-catch”. He compared phenomenologists to fishermen who lift their nets to see what they have caught. It requires that we ruthlessly cast aside the ideas that rule us and “become like those lost at sea” (Gasset, 1932p. 170).

Phenomenology - History

Phenomenological research, based on the philosophies of Edmund Husserl and Martin Heidegger (Kerry & Armour, 2000), was defined in 1931 by Husserl as a descriptive analysis of the essence of pure consciousness. Phenomenology, according to Husserl, “must claim to be ‘first’ philosophy and to offer the means for carrying out every possible critique of reason” (Husserl, 1971, p. 78) while also serving as a theoretical discipline (McDuffie, 1988).

Husserl developed three key ideas or common themes of phenomenology:

1. Meaning
2. Consciousness
3. Intentionality

(Husserl , 1931)

Husserl called upon phenomenologists to “set aside all previous habits of thought” and “learn to see what stands before our eyes” (1931, p. 43) while viewing “intentionality” as creating the assumption that we are always engaged in the world (Willis, 1996). Heidegger (1954), a student of Husserl, felt that Husserl's thinking was trapped by its relationship to a concept of God and the transcendent. While Husserl thought philosophy to be a scientific discipline that had to be founded on a phenomenology understood as epistemology, Heidegger radically changed this view. Instead of taking phenomenology as “prima philosophia” (Heidegger, 1954, p. 2) or foundational discipline, Heidegger took it as a metaphysical ontology: He believed that phenomenological inquiry involves “thrusting aside our interpretative tendencies... because these tendencies conceal the entities...we encounter...of their own accord in our concern with them” (Heidegger, 1962, p. 96). According to Heidegger, philosophy was not at all a scientific discipline but more fundamental than science itself (1954). He believed that modern philosophy had forgotten the question of Being (“is-ness”) and being as the subject of discourse or self-direction. Therefore, phenomenology must be interpretive because truth is both concealing and revealing (Heidegger, 1954). Phenomenology emerged, in the early 1960's, as

an educational research methodology (Vandenberg, 1987, p. 1) due to a strong move to an interpretive or qualitative approach (Burns, 1994, p. 2). Educational administration researchers, such as Vandenberg (1971) utilized phenomenological methodologies to investigate educational administration phenomena (Gronn, 1983). These phenomenological researchers wrote at a theoretical level and investigated phenomena philosophically.

Merleau-Ponty

Another stage in the history of phenomenological research was reached when Merleau-Ponty saw a need in the 1960's for more structure within phenomenology. Merleau-Ponty, who defines phenomenology as "the study of essences including the essence of perception and of consciousness providing a direct description of human experience" (p. vii), accepted that understandings have to be set aside. For someone "to see the world and grasp it as paradoxical, we must break with our familiar acceptance of it" (Merleau-Ponty, 1962, p. xiii). Merleau-Ponty took phenomenology to another stage when he used Husserl's key ideas or common themes of phenomenology to develop four "celebrated themes". These "celebrated themes" provide an entrance through which phenomenology can be accessed within the common themes of phenomenological philosophy, according to Merleau-Ponty (1962). I used these celebrated themes (see table 4) as a guide in this phenomenological study to move from "description to interpretation to the construction of meaning-making life processes" (Borgasi, 1996, p. 267) of the program's phenomena.

Table 4	
Merleau-Ponty's "Celebrated Themes"	
Theme	Description of Theme
1. Description	Description must coincide with the way one experiences phenomena, which means a turning away from scientific knowledge and returning to the "things themselves" (Husserl, in Merleau-Ponty, 1962).
2. Reduction	Reduction is a process where assumptions and pre-assumptions are temporarily suspended or bracketed to ensure that theoretical prejudices do not contaminate the experience (Merleau-Ponty, 1962).
3. Essences	An essential structure or essence is simply the core meaning of any given phenomenon, for example essential themes or essential relationships (Spiegelberg, 1975).
4. Intentionality	This refers to consciousness and asserts that individuals are always conscious of something (Merleau-Ponty, 1962).

(Merleau-Ponty, 1962, p. viii)

Giorgi Methodology

Another stage was reached in the development of phenomenology as a research methodology when Amedeo Giorgi used Maurice Merleau-Ponty's four criteria to devise a phenomenological psychology methodology for data collection and analysis, a move from self (philosophy) to others (psychology) (Giorgi, 1985). I followed Giorgi's Four Main Steps (1985) to analyze the data. Merleau-Ponty's "celebrated themes" (1962) did not refer to a methodology or technique for carrying out research in phenomenology (See Table 5). Instead, Merleau-Ponty proposed a phenomenological method way of understanding phenomenology from a philosophical orientation.

Table 5	
Giorgi's Four Main Steps for Data Analysis	
1. Read and re-read	1. Read and re-read the entire description to understand the experiences of the participants in the study.
2. Discriminate "meaning units"	2. The text is broken down into discriminate "meaning units" with a focus on the phenomenon (Giorgi, 1985, p. 11) without altering the subject's language in any way. A meaning unit, made up of words or phrases, is clearly distinguished from other "meaning units".
3. Imaginative variation	3. Utilize imaginative variation to determine what is essential and what is accidental by asking, "What is essential in this 'meaning unit'?" (Giorgi, 1985, p. 17) to "arrive at the general category" (Giorgi, 1985, p. 17).
4. Synthesize "meaning units"	4. Synthesize transformed meaning units into a consistent statement of the general structure of the experience.

(Giorgi, 1985)

Variations in Approaches to Phenomenology

Even with Giorgi's influence on the data analysis, there is great variation in the way phenomenological data is analyzed. Some researchers (Stanage, 1987; Mitchell, 1990) have used the philosophical principles of phenomenology to develop their understanding of a particular concept or research area. Mitchell used Husserl's key ideas to arrive at a unique way of understanding the phenomenology of educational leadership when he used phenomenology as a philosophical tool to help him focus on the *is-ness* of educational leadership (Mitchell, 1990, p. 6). Stanage presented phenomenology as a useful way for understanding the concerns central to adult educators (Stanage, 1987). Both of these phenomenological studies utilized theoretical and philosophical principles of phenomenology to focus on a particular area of research without involving

subjects directly in the study (Willis, 2001, p. 216). Three studies, Sanders (1981); McDuffie (1988); and Mott (n.d.), used phenomenology as their methodology, yet there was great variation in the way that each interpreted the task and analyzed the data. Their work was underpinned by the theoretical principles of phenomenology; yet the path they traveled to discover the “essence” was different.

Trustworthiness

I ensured that the credibility, transferability, dependability and confirmability of the study, all components of trustworthiness, were followed. Trustworthiness is always negotiable, not a matter of final proof that readers are compelled to accept (Lincoln & Guba, 1985). Lincoln and Guba (1985) describe four constructs for establishing tests for quantitative methodologies and trustworthiness for qualitative methodologies (See Table 6).

Table 6		
Lincoln & Guba Model		
Construct	Quantitative	Qualitative
<i>Consistency</i>	Reliability	Dependability
<i>"Truth Value"</i>	Internal Validity	Credibility
<i>Applicability</i>	External Validity	Transferability
<i>Neutrality</i>	Objectivity	Confirmability

(Lincoln & Guba, 1985)

1. Truth Value is equivalent to internal validity for quantitative studies and credibility for qualitative studies.
2. Applicability is equivalent to external validity for quantitative studies and transferability
3. Consistency is equivalent to reliability for quantitative studies and dependability for qualitative studies

4. Neutrality is equivalent to objectivity for quantitative studies and confirmability for qualitative studies.

Because this is a qualitative study, all four qualitative criteria for trustworthiness, (credibility, transferability, dependability, and confirmability), were followed (See Table 7). Credibility is the extent to which findings are congruent with what is observed by the researcher. Confirmability is the extent to which the findings are the product of the focus of the inquiry and not of the biases of the researcher. The confirmability of findings is based on the researcher's critical self-reflection regarding his or her assumptions, world views, biases, theoretical orientations, values, and epistemological stances (Merriam, 2002a). This reflection should also include acknowledgement of dilemmas encountered in the process, including ethical issues (Hull, 1997). Transferability is the extent to which the findings can be applied in other contexts or with other respondents. Dependability is the dense description including convincing analysis and interpretation (Hull, 1997; James & Mulcahy, 1999) to enable readers to judge the applicability of findings to other settings (Seale, 2002).

Table 7		
Trustworthiness - Qualitative Criteria		
Criteria	Definition	Examples of Criteria Followed in this Study
1. Credibility	Extent to which the findings are congruent with observations.	<ul style="list-style-type: none"> • Triangulation • Member Checking • Interview Techniques • Establishing Authority of Researcher • Structural Coherence • Reference Adequacy • Rival Explanations
2. Confirmability	Extent to which the findings are the product of the focus of the inquiry and not of the biases of the researcher	<ul style="list-style-type: none"> • Confirmability Audit • Triangulation • Reflexivity (Identify foundations upon which findings are based) • Researcher Subjectivity
3. Dependability	Extent to which findings can be replicated with the same or similar respondents in the same or a similar context.	<ul style="list-style-type: none"> • Triangulation • Stepwise Replication of Study Protocol • Description of Research Methods • Peer Examination • Code-Recode Procedure
4. Transferability	Extent to which the findings can be applied in other contexts or with other respondents)	<ul style="list-style-type: none"> • Convincing analysis and interpretation to enable readers to judge the applicability of the findings to other settings • Thick Description of Findings

(Lincoln & Guba, 1985; Hull, 1997; James & Mulcahy, 1999; Seale, 2002)

Credibility

Credibility, the extent to which the findings are congruent with observations made during the study (Lincoln & Guba, 1985; Hull, 1997; James & Mulcahy, 1999; Seale, 2002), is the first aspect of trustworthiness I will explore. As the researcher, I must convey to the study participants and to the reader(s) that I was directly and personally responsible for the maintenance of this study's ethical standards, confidentiality and anonymity, in addition to rational and defensible analysis. Without clear evidence of these standards, the study's credibility is greatly diminished among both the study's participants and the study's readers (Lincoln & Guba, 1985).

To ensure that the findings in this study were congruent with the questions being asked (credibility), I utilized the following strategies:

1. Data and theoretical triangulation were both utilized during this study.
2. Member checking was utilized after the initial phase of data collection was completed.
3. Various interview techniques were utilized during the data collection phase.
4. My authority of researcher was established.
5. Structural coherence was established.
6. References were adequate.
7. Accommodations were made to adjust for rival explanations.

Triangulation

Triangulation is an important aspect of credibility. In this study, the first dependability tool I utilized to ensure consistency was triangulation. According to Denzin (1978), triangulation in research terms means that researchers use different sets of data, different types of analyses, different researchers, and/or different theoretical perspectives to study one particular phenomenon. I utilized data triangulation, theory triangulation, and multiple triangulation were utilized in this study to ensure the study's credibility, dependability, and confirmability. Data triangulation utilizes multiple sources, for example multiple informants. Dewey's experiential education theory and Csikszentmihalyi's theory of flow were both utilized in interpreting the study's data. Additionally multiple data sources were utilized and multiple methodologies (Internet focus group, internet survey, follow up questions via individual email were utilized to gather multiple perspectives and gain a more complete understanding phenomena (Lincoln & Guba, 1985).

Structural Coherence

I followed Merleau-Ponty's (1962) Phenomenological Common Themes, (description, reduction, essences, and intentionality), to ensure the structural coherence of the study. Participants described the phenomena of the Program by returning to their high school experiences in E.B.C.E. and reflecting on how the phenomena influenced their lives. I also asked study participants, based on findings of studies of flow (Whalen, 1997; Hektner & Csikszentmihalyi, 1996; Massimini & Carli, 1988), about challenges they had experienced while in the Program and how they had reacted to those challenges. Additionally, I probed

participant answers to determine specific reactions to challenges and possible states of flow.

During data reduction, I temporarily suspended theoretical prejudices to ensure non-contamination of the participant experiences by seeking to understand the core meaning of the Program experience for each participant. This led to the development of essential themes during the data analysis phase. Merleau-Ponty (1962) stated that individuals are always conscious of something. This is an important theme for this study because the participants were reflecting on the phenomena of long-past experiences, which were often unique experiences. Intentionality provides the credibility that even remote memories can be described accurately if the study format encourages those memories.

Rival Explanations

To strengthen the credibility in this study, I addressed several rival explanations. Rival explanations could be a challenge to the credibility of any study. The simple or direct rival explanation would be that the observed outcomes are the result of influences other than those based on the theoretical basis of the study (Yin, 2003). History or the amount of time that has passed since the study participants participated in the Program could affect their memory. The use of rival explanations provides a good example of pattern matching. The better case studies reflect some theoretically significant propositions (Yin, 2003).

Societal trends could also have played a part in the career development of the participants since graduation from high school, totally negating the influence

of the Program. One way to overcome these rival issues is to match patterns of data. Yin (2003) has identified nine types of rival explanations (See Table 8). The internal validity is strengthened if the empirically based pattern coincides with the predicted pattern, for example, the Program’s experientially-based education (Trochim, 1989). The nine rival explanations listed, null hypothesis, threats to validity, investigator bias, direct rival, commingled rival, implementation rival, rival theory, super theory, societal trends are all possible rival explanations for the findings in this study. However, the most likely rival tests for this study are

Table 8	
Description of Rival Tests	
TYPE OF RIVAL	DESCRIPTION OR EXAMPLES
CRAFT RIVALS:	
1. The Null Hypothesis	The observation is the result of chance circumstances only.
2. Threats to Validity	For example, history, maturation, instability, testing, instrumentation, regression, selection, experimental mortality, and selection-maturation interaction
3. Investigator Bias	For example, “experimenter effect”, reactivity in field research
REAL-LIFE RIVALS	
4. Direct rival (Practice or Policy)	An intervention (“suspect 2”) other than the target intervention (“suspect 1”) accounts for the results (“the butler did it”)
5. Commingled Rival (Practice or Policy)	Other interventions and the target intervention both contributed to the results (“It wasn’t only me”)
6. Implementation Rival	The implementation process, not the substantive intervention accounts for the results (“did we do it right?”)
7. Rival Theory	A theory different from the original theory explains the results better (“it’s elementary, my dear Watson”)
8. Super Rival	A force larger than but including the intervention accounts for the results (“It’s bigger than both of us”)
9. Societal Rival	Societal trends, not any particular force or intervention, account for the results (“The times they are a-changin”)

Source: Yin (2000, p. 116).

investigator bias, the maturation of the participants, and the likelihood of a commingled rival. I have documented the areas of my researcher bias in an effort to better control them. In order to ameliorate my researcher biases, I assessed my biases and determined that my biases are as the researcher, coordinator of the Program, an individual who cares about both the program and about these former students. Diminishing researcher bias strengthens both the credibility and the confirmability of this study.

To address the maturation question, I asked participants about their experiences in the Program and how those experiences may have affected their adult professional lives. In analyzing the findings, I made sure that there was a direct connection between the participants' Program experiences and their adult lives. Anything that influenced their adult professional lives but wasn't part of their Program experiences was ignored. Finally, the Program created a commingling effect, for example mentors, curriculum, externships and others. To overcome this issue, I asked probing questions to clarify participant answers. Poorly constructed questions may lead to response bias.

Reference Adequacy

A literature review was conducted to locate articles and/or studies describing career education, the philosophy of John Dewey, states of flow, contextual education, and adult education. Studies and evaluations, from the 1970's to the present, were located to document the influence of career education programs on student populations. Articles were reviewed concerning the philosophy of John Dewey, the basis for career education, and specifically

E.B.C.E., as well as articles describing the influence of contextual learning, a key component of career education. A literature review of the influence of adult education strategies was conducted because the students who participated in the Program worked as non-paid externs in an adult work world as high school seniors. Finally, a literature review documented flow and its influences on the challenges of participants of the program while they participated in the Program.

Researcher Authority

My background as the developer of the Program at Ellen Martin High School established my authority as the researcher of this study. As the developer of the program, I have unique insights into the workings of the program. Additionally, I established a strong rapport with the participants long ago when they were high school students and I was their Program teacher. However, this background as the developer of the program could create investigator bias, a situation discussed in the previous paragraph.

Confirmability

Confirmability, the next aspect of trustworthiness I will discuss, is the extent to which the findings are the product of the focus of the inquiry and not of the biases of the researcher (Lincoln & Guba, 1985; Hull, 1997; James & Mulcahy, 1999; Seale, 2002). The confirmability of the study is evidenced by clear explication of the research process and findings. An audit of the findings and interpretations can determine if they are supported by the data, establishing the confirmability of the inquiry. To ensure confirmability in this study, I undertook the following steps:

1. Conducted a confirmability audit to determine if the findings and interpretations are supported by data.
2. Utilized both data, theoretical triangulation, and multiple triangulation
3. Identified foundations upon which findings are based.
4. Described measures taken to diminish researcher bias.

This study's confirmability is based on the critical self-reflection of my assumptions, biases, and theoretical orientations (Merriam, 2002a). This reflection also included my acknowledgement of dilemmas I encountered in the process and ethical issues (Hull, 1997). I analyzed my relationship with the study participants, my former students, and how this relationship might influence me as the researcher. This analysis was described in the credibility section of this chapter. I also developed an audit trail to enable the reader determine if the conclusions, interpretations, and recommendations can be traced to their sources, and if they are supported by the inquiry (Lincoln & Guba, 1985). I utilized data triangulation, theoretical triangulation, and multiple triangulation (See Triangulation Section on pages 5 and 6). Finally, the foundation of the E.B.C.E. Program, the experiential education theory of John Dewey, is also one of the foundations of the study as is Mihaly Csikszentmihalyi's Theory of Flow.

Confirmability Audit Trail

All study data was collected via the Internet which was described in the Data Collection Section (pages 118 - 130). During the data analysis phase of the study, I followed Amedeo Girogi's (1985, pp. 11 – 19) four steps for analyzing

and interpreting data from a phenomenological study. (See Data Analysis Section, pages 130 - 138).

Reflexivity

This is an active acknowledgement that my actions and decisions as the researcher inevitably impacted upon the meaning and context of the phenoma under investigation. Reflexivity may be demonstrated by use of the “first person” when the researcher describes the aspects of the research in which (s)he has had personal involvement. Use of the first person does not suggest that the research, or conclusions drawn, lack rigor (Webb & Glesne, 1992). The confirmability audit and the identification of the study’s foundations upon which the study’s findings have been grounded (Henwood & Pidgeon, 1993; Mason, 1996) all strengthen the confirmability of the study.

Researcher Bias.

Phenomenologists bracket or set aside what they already know about the phenomenon when the study begins so that this knowledge doesn't influence the study results (Spiegelberg, 1976; Vankaam, 1969; and Giorgi, 1971).

Phenomenologists must also address their subjectivities in addition to setting aside prior knowledge of the phenomena. The focus group format used in this study diminishes researcher bias because it allows participants to express, in-depth, spontaneous ideas (Bernard, 1995). It also allows participants to react to other participants’ comments instead of reacting to just the interviewer. In this study, an asynchronous online focus group format was used, which removed the

researcher from direct contact with the participants, allowing them to reflect on questions and comments before commenting themselves.

Subjectivity has long been considered something negative because it could influence validity. “We cross borders, but we don’t erase them; we take our borders with us.” (Behar, 1993, 320). In “Virtuous Subjectivity: In the Participant-Observer’s I’s,” Peshkin (1988) challenged the notion of subjectivity as something negative, as others (Denzin and Lincoln, 1994; Oleson, 1994) also have done. Tracing your subjectivities, as Peshkin did during his Riverview Study, shows points on a map of yourself. These points do not create a complete map because no research evokes all of your subjectivity. And most likely, no two people doing the same study would map the same subjectivities, although many educators and social service professionals in my qualitative research classes identify a “Justice I” and a “Caring I” when reflecting upon the subjective lenses involved in their research. Subjectivities that help to shape research are not those of the researcher alone but are the inter-subjective relationship between the researcher and research participants as their subjectivities interact and guide the research process and content (Glesne, 1999).

In this study, I have the following researcher subjectivities:

“Teacher I” – I taught all of the participants in the Program. There is still the connection of student to teacher. Even as 32 or 33 year old adults, eight of the nine study participants referred to me as “Mr. Nadeau” even though I referred to myself as Roger. Only one respondent, Donald, referred to me as Roger. I

also have to be cognizant of situations where participants are altering data to please their former teacher.

“Coordinator I” – I developed the new direction for the Program in 1986 and still I feel a connection to the program that I helped to create.

“Researcher I” – I am the researcher in this study and I must maintain an objectivity in designing the study, gathering the data and analyzing the data. I cannot eliminate the “Teacher I” and the “Coordinator I” but I can set up the study in an objective manner and analyze the data objectively.

“Caring I” – I still care about the participants especially because they indicated that E.B.C.E. had had such a positive influence on their professional lives.

As the developer of many aspects of the Program at Ellen Martin High School, I understand my biases. I also understand my relationship with my former students, who have benefited from the Program. Carl, who was the principal of Ellen Martin between 1986 and 1990, was interested in utilizing the Program as a tool to help bridge the academic gap between Spencer High and Ellen Martin High. These two high schools were located in the same building and shared the same principal. Carl wanted to maintain the Program but elevate the program, academically, as a means of blending Spencer students with Ellen Martin students.

Normally, it is not sound research practice for a teacher to interview one of his/her students. A student can hardly be open to his or her teacher who has both so much power and so much invested in this situation. In this study, I

interviewed former students who may have wanted to please me as their former teacher or may have wanted to exaggerate the influence of the program. It was important to probe student answers to get as many details as possible.

Dependability

The third of the four trustworthiness aspects I will explore is dependability. Dependability is the extent to which findings can be replicated with the same or similar respondents in the same or a similar context. I achieved it by documenting the study methods and study procedures used, and decisions I made as the researcher. I also explained the sample selection and I explained the categories or meaning units used as part of the data analysis. Qualitative study findings may not be absolutely replicable but researchers studying the same community at a similar time should obtain similar data sets through an audit trail (Hull, 1997; Merriam and Muhamad, 2002). To conduct an audit, I examined documents I used and I explained the process of the inquiry I used to determine the dependability of the inquiry. A single audit, properly managed, can be used to determine dependability and confirmability simultaneously. Two questions guide the researcher in determining the dependability of the study:

1. Are the results consistent with the data collected?
2. Are there sufficient accounts of the data and the analysis?

(James & Mulcahy, 1999; Lincoln & Guba, 1997; Seale, 2002).

To ensure dependability in this study, I undertook the following steps:

1. Described the research methodology
2. Replicated the steps of the study's protocol
3. Utilized both data and theoretical triangulation
4. Examined participant answers through a member checking session
5. Conducted coding and recoding procedures

Triangulation

Triangulation is an important aspect of dependability. Data triangulation, theory triangulation, and multiple triangulation were utilized in this study to ensure the study's credibility, dependability, and confirmability (See Triangulation Section on pages 12, 13).

Research Methodology: The Study Protocol

A study protocol, desirable for all studies, contains the instrument as well as the procedures and general rules to be followed in using the protocol and is a major way of increasing the reliability of research it is intended to guide the investigator in carrying out the data collection. For qualitative studies, three components of a research design are especially important: a study's questions, its unit(s) of analysis, and the criteria for interpreting the findings (Yin, 2003). A study "investigates a contemporary phenomenon within its real-life context" (Yin, 2003, p. 13). In this study, there is a real-life situation that has not been documented. The long-term influence of a career education program on its participants and the aspect(s) of that program that might have the greatest influence on them have not been documented. Additionally, there have been only

a few studies of the long-term influences of flow (Csikszentmihalyi & Schneider, 2000). Flow is a condition linking enjoyment, self-worth and a state of consciousness while integrating high but effortless concentration, intrinsic motivation, loss of awareness of self and feelings of competence and freedom to challenges (Csikszentmihalyi, 1990; Csikszentmihalyi & Schneider, 2000). Mihalyi Csikszentmihalyi calls flow the only condition linking enjoyment, self-worth and development (Csikszentmihalyi & Schneider, 2000). Individuals in flow report immersed concentration, centered attention with minimization of distractions.

This study documented influences of a high school career exploration program on the professional lives of adult former participants of the program. As the researcher, I documented participant reflections on the influences of a career exploration program on their professional lives and which aspect(s) of their experiences in the high school career exploration program influenced their subsequent professional lives. Finally, I documented challenges the participants encountered, during their experiences in the career exploration program, that may have led to flow experiences.

A study must show an explicit distinction between the issue being studied and its context through an exhaustive collection of relevant data so that the reader can reach an independent judgment regarding the merits of the analysis. One indication of an exhaustive collection of relevant data is a demonstration by the researcher that the research ended at a logical point instead of for non-research reasons, for example, the investigator ran out of time or resources. I

utilized all available study participants in this study and asked them in-depth questions to answer the research questions. Another indication of exhaustive collection is the following of systematic procedures. Many study investigators have been criticized for sloppy research in studies that do not follow systematic procedures or for allowing equivocal evidence or biased views to influence the direction of the findings and conclusions (Yin, 2003). I followed a phenomenological research process and diminished my researcher bias by analyzing my biases associated with this case.

Development of Research Questions.

At the beginning of this study, I already knew that the Program students at Ellen Martin High School learned interviewing skills and other job skills in addition to job skills during Program 1. Also during Program 1, students conducted research to determine their career interest and their strengths and weaknesses. During Program 2, approximately half the students who had participated in the Program 1 became externs working with adult mentors in career areas the students had researched and had chosen. Despite my prior knowledge, I did not know the answers to several questions about the Program:

1. I did not know how the Program had influenced the professional lives of these former E.B.C.E. participants?
2. Which aspect(s) of the Program had helped to create an influence on the former participants.

For these two questions about Program, I developed two research questions:

1. What was the overall influence of the Experience-Based Career Education (E.B.C.E.) Program on the adult professional lives of former E.B.C.E. students at Ellen Martin High School?
2. What particular aspect(s) of the E.B.C.E. Program had the greatest influences on the adult professional lives of former E.B.C.E. students at Ellen Martin High School?

Additionally, I wanted to know if the Program experiences had helped to create a state of flow for the former Program participants. There is really no objective way to measure if a person has experienced flow. There are, however, indicators that have proven reliable and valid measures of flow intensity and frequency. Several studies were conducted in the 1990's of flow activities and the characteristics surrounding flow (Whalen, 1997 & 1999; Csikszentmihalyi, et al., 1993; Csikszentmihalyi, 1997a, 1997b, 1997c). In a 1997 study of flow (Whalen), respondents were asked to list activities that provide six distinct statements associated with flow and psychological complexity. These statements are:

1. "I get so involved in what I'm doing that I lose all track of time."
2. "It's important to me that I do this well"
3. "This gives me a chance to really express myself."
4. "When I do this, it's sometimes as though I know exactly what to do, like things are coming naturally to me."
5. "This is so interesting!"

6. “This really challenges me to stretch myself and my skills.”

(Whalen, 1997, p. 5).

These statements were used to develop an initial question about participants’ Program challenges that could have led to flow and the development of follow-up questions to understand how participants’ Program challenges could have led to flow experiences while in the Program. A 1993 study (Csikszentmihalyi, et al.) found that activities listed under specific flow statements were consistent with prior research. The 1993 study validated a 1984 study by Csikszentmihalyi and Larson which pointed to the importance of an adolescent’s ability to reinterpret conflicts which crop up in raw experience to overcome psychic entropy with long-term challenges and find new meaning and organization of self. To identify flow experiences, I documented participant descriptions of situations where challenges were successfully met during the Program while the participants also indicated that the situation caused them to lose track of time and/or react positively to successfully meeting challenges encountered during the Program. After developing this background information, I formulated the third and final research question:

3. With regards to the relationships between program aspects of E.B.C.E. and their influence on students, do these relationships represent examples of flow?

Phenomenological Methodology.

I followed a phenomenological methodology recommended by Maurice Merleau-Ponty (1962) to describe the phenomena to reduce researcher assumptions through bracketing, which diminished the influence of theoretical prejudices to contaminate the experience. (See Phenomenological Methodology, Pages 2 – 9).

Study Participants.

Qualitative researchers do not view the size of the respondent pool as important. Instead, qualitative researchers concentrate on looking to understand something, both specifically and in general. As the researcher, I interviewed a total of nine former Program students for this study to understand their Program experiences while in high school and how these experiences affected their adult lives.

It has been a long, laborious process for me to develop the study of nine Program participants of the 1989 and 1990 graduation classes of Ellen Martin High School. First, I contacted a former guidance counselor at Ellen Martin to gather a list of Program participants. I looked for the names of individuals who participated in both Program 1 and Program 2 by contacting a former counselor, who still had access to the school records. This counselor provided a list of 71 students who had participated in Program 1 or Program 2. She listed 26 of the 71 as participating in both years of the Program. Upon examining the list provided by the counselor, I saw a few errors. I remembered individuals who were listed

as participating in only Program 1 but who actually participated in both years of the program.

At that point, I joined Classmates.com and started contacting individuals who were listed as Program participants and as members of Classmates.com. I received email responses from most of those listed on Classmates.com. From those contacts, I was able to put together a list of three individuals who participated in both years of the Program for either the graduation classes of 1989 or 1990. I interviewed those three individuals for the pilot study that preceded this study. I was able to get additional information from those three individuals because two of them were organizers for class reunions, one for the class of 1989 and one for the class of 1990.

After interviewing the three individuals for the pilot study, I started to get additional contacts from former Program participants. One individual, Adam, from the class of 1989, is now a doorman for a hotel in a large city in the northeast. Adam emailed me twice but did not respond to my emails when I asked him to participate in the study. The class president of the 1989 class contacted me and decided to assist me in my efforts to contact individuals. She made phone calls on my behalf and provided emails to me. Other former students were also making contacts on my behalf.

I determined that there were 34 students in E.B.C.E One in the 1987 – 1988 school year at Ellen Martin High School. Of those, 12 also participated in Program 2 in the 1988 – 1989 school year. There were 37 students in Program 1 in the 1988 – 1989 school year. Of those, 14 also participated in Program 2 in the

1989 – 1990 school year. Therefore, in the two school years mentioned above, there were a total of 71 students in Program 1 and a total of 26 in both years of the Program. From this information, I was able to identify email addresses and/or telephone numbers for twelve former students who participated in both years of the Program in either the 1989 or 1990 graduation classes.

To verify the identities of the participants in the study, I asked each potential participant about their Program externship while at Ellen Martin High. Through this verification process, I eliminated three potential participants. Two of the three participated in Program 1 but didn't participate in Program 2. One additional individual graduated from Ellen Martin and described an externship experience at a hotel. I determined that she had actually participated in the hospitality program as a senior not the Program. The hospitality program was an experiential program for individuals who wished to enter the hospitality program while in their senior year in high school.

I was able to contact ten of the twelve identified program participants via email and/or telephone. The contact information for two individuals was invalid. I decided to begin the study with ten participants. I sent all ten participants information about the study via email and regular mail and all ten agreed to participate in the study. Nine of the ten signed forms agreeing to participate in an Internet focus group and a follow-up individual email session. I set up the discussion board/focus group on the Town University website. I then emailed all ten telling them that the initial questions had been posted on the discussion board. Nine of the ten contacted by me responded to the request and answered

the questions. I had to call one participant because he admitted that he didn't look at his email often and asked me to leave a phone message for him every time I wanted him to respond to questions.

I could not get the last of the ten to respond to any emails. She did call me on the phone one night but didn't respond to any other contacts from me. So, I went to her place of work, a school in the same city where I live. I went there twice and missed her each time but left written messages for her but she did not respond. I finally decided to stop contacting her and began the study with nine participants.

The participants, ranging in age from 32 to 33, are primarily female and African American. Eight of the nine study participants are female (See Table 9). Seven of the nine participants are African American Females. The one male participant is Caucasian and one female is Hispanic. Seven of the nine participants graduated from high school in 1990 and two graduated in 1989. I did not inquire about the marital status of the participants but some of them volunteered that information and I mentioned the marital status of the participants only if they indicated that a change in that status had had an influence on their professional lives. Each of the participant names was changed to maintain confidentiality. Eight of the nine participants have college degrees. Three of the participants have advanced degrees, one M.D., one M.B.A., and one participant with a Masters Degree in Information Systems. Two participants each have two bachelor degrees. One has a Bachelor of Science in Physics and Chemistry with ACS certification and a Bachelor of Science Degree in Chemical Engineering.

Another participant has a Bachelor of Science Degree in Business Administration and a Bachelor of Science Degree in Public Policy with a focus on Urban and Regional Planning. One participant has a Bachelor of Science Degree in Professional Aviation with a minor in Aviation Management and one participant has a Bachelor of Arts Degree in Communication. The final participant attended college for two years and majored in Anthropology before dropping out of college to become a restaurant manager. She is now interested in receiving culinary arts instruction to enhance her chances of owning her own restaurant.

Table 9				
Study Population				
Particip.	Gender	Ethnicity	Degree	Current Job
"Amanda"	Female	African American	B.S. and M.S. Information Services	Information Services
"Donald"	Male	Caucasian	B.S. Aeronautical Engineering	Entrepreneur – runs transportation company (air and taxi services)
"Donna"	Female	African American	B.S. and M.S. in Business Administration	Manager of Recruiting for a major national corporation
"Lola"	Female	African American	B.S. Chemical Engineering	Chemical Engineer for a national petroleum refining company
"Latoya"	Female	African American	B.S. in Mathematics Education; M.S. in Educational Administration	Mathematics Teacher for an urban public secondary school
"Natalie"	Female	African American	M.D. Pediatrics	Pediatrician
"Patrice"	Female	African American	B.S. Communications	Senior Manager for an advertising agency
"Trina"	Female	Hispanic	Did not complete college	Restaurant Manager
"Samantha"	Female	African American	B.S. Business; B.S. Transportation Planning	Senior Transportation Planner for a major city

Data Collection Process.

I utilized two forms of interviews in this study: an asynchronous Internet focus group session and the follow-up interviews. As the interviewer, I put the participants' experiences in context by gathering as much data as possible in light of the topic being studied up to the present time. I sent each participant a survey, via individual email, asking study participants to describe their work histories and educational backgrounds after graduation from high school to allow me to understand the context of their answers prior to the start of the study (See Appendix A). This information was not shared between the study participants. This allowed me to understand the work histories and educational backgrounds of the study participants.

The initial questions and an asynchronous Internet focus group session were posted on the University of New Orleans' Blackboard and follow-up questions were sent via individual email. I utilized the University of New Orleans' Blackboard to access all nine participants who live in several locations around the country. "Blackboard is a Web-based learning, discussion, and class administration tool designed specifically for faculty that provides a secure, pre-made Web site" (University of New Orleans Blackboard Website, 2004) for individuals registered in a University of New Orleans class. Instructors at the University of New Orleans post announcements, quizzes, online surveys, assignments and grades online accessible securely to each student. This format was chosen to provide an easily accessible and user friendly vehicle for online communications during the study. The Blackboard format requires enrollment for

student access. For the purposes of this study, participants were enrolled in a University of New Orleans course titled E.B.C.E. Research. Study participants were in-serviced in accessing all aspects of the Blackboard portions of the data collection. To maintain anonymity, participants were assigned simple usernames such as participant 1, participant 2, and so on. I emailed participants using their assigned usernames. They were instructed to answer the four questions posted on Blackboard (See Appendix B). Participants were also informed that follow-up questions would be sent via individual email (Appendix C).

During the initial phase of data collection, I posted four questions on the University of New Orleans' Blackboard, (See Appendix B), to gather data about participants. Participants were asked to reconstruct their career and educational backgrounds since graduating from Ellen Martin High School. The participants were asked to give concrete details about their Program experiences. Questions focused on concrete details to determine participant experiences, attitudes and opinions concerning the Program. "The concrete details constitute the experience; attitudes and opinions are based on them. Without the concrete details, the attitudes and opinions can seem groundless" (Seidman, 1998, p. 73). To accomplish this, I asked participants to reconstruct experiences rather than remember them (Seidman, 1998). In order to facilitate the reconstruction of details of their Program experience, I formulated questions that helped the former Program students select events from their past. The participants could impart meaning to them by describing how the Program had influenced their

professional lives and explain which aspect(s) of the Program had exerted the greatest influences on their professional lives.

The first question asked participants to describe any aspect of the Program that had affected their lives after they graduated from high school and determine if the influence was short-term or long-term. The second question was written to determine the most important the Program experience, from the viewpoint of the participants, and to determine how much this experience had influenced the participants. The third question was designed to determine the long-term influence of the Program on the participants. Finally, the fourth question asked participants to describe challenges they experienced while in the Program and how they reacted to the challenges. This was done to determine if these participants had experienced flow while in the Program.

Once participants had answered the questions on Blackboard, I posted participant answers on Blackboard as a form of member checking, with care to protect participant privacy (Yin, 2003). I used the member checking session to correct errors in responses and elicit additional data about questions. Four of the nine participants commented on answers. Member checking is the sharing of the interpretative process, sharing interview transcripts with research respondents. Member checking gave participants the opportunity to verify answers posted by other participants and also gave them the opportunity to post additional comments after additional memories of the Program had been sparked (Glesne, 1999). The member checking session also helped me develop new ideas and new interpretations.

Once I received the participant answers to the initial study questions, I coded the data and organized the coded data into categories. Interview excerpts from transcripts should be organized into categories to allow researchers to search for connecting threads or “meaning units” (Girogi, 1985) and patterns among the excerpts within those categories. I looked for connections between the various categories that might be called themes (Yin, 2003). A good questioner utilizes an answer to a question to formulate a number of new questions in an atmosphere of “adaptiveness with rigor but not rigidity” (Yin, 2003, p. 61). This session helped me to summarize the initial step in the data analysis process before proceeding to the Internet focus group session (Lincoln & Guba, 1985).

Online Focus Group.

I used the data gathered from the answers to the initial questions and the member checking session to devise three follow-up questions (See Appendix C), based on the coding and re-coding process. I posted the three questions on Blackboard to begin an asynchronous Internet focus group session (See Appendix B). I used a logical sequence for the questions, but I was open, as the focus group moderator, to the flow of the session (Merton, et al., 1956). Six of the nine participants participated in the asynchronous focus group. The key to successful interviewing is learning how to probe effectively by encouraging the study participants to produce more information, without injecting yourself into the interaction (Bernard, 1995). This was accomplished when I contacted the six Internet focus group participants via individual email to probe for clarification of

comments posted during the Internet focus group. Focus groups, which provide rich, detailed, and contextual data (Krueger, 1988), are a form of group interview utilizing communication between research participants and exploring people's knowledge, thoughts, and experiences (Kitzinger, 1995) on such topics as attitudes, culture, and behaviors (Morgan, 1993). The goal of focus groups is to discover in-depth information about participants' experiences and feelings concerning a specific topic (Morgan, 1993) so that I could understand the Experience-Based Career Education phenomena from the viewpoint of former participants. The phenomenological study format was helpful because the participants were asked to explore a series of open-ended questions concerning issues surrounding the Program phenomena that influenced their professional lives.

I adhere to the belief that focus groups allow participants to express, in-depth, spontaneous ideas in a format that diminishes researcher bias (Bernard, 1995) because the Internet format diminished contact with me and with other participants via the Internet while allowing participants to maintain anonymity, an option which is not possible for participants of face to face focus groups (Krueger, 1988). I agree with researchers who believe that focus groups are more valid than individual interviews because participants in individual interviews may feel pressured to answer certain questions even though they don't have specific information about the topic (Greenbaum, 2000). In this situation, I asked participants to comment on experiences long in their past and the focus group format helped to reawaken memories of these experiences. The focus group

format allows participants to share ideas with each other about the topic being discussed, allowing participants to improve memories and enhance answers already given by other participants (Greenbaum, 2000).

Even though some researchers criticize the focus group format for undue researcher subjectivity and the lack of quantification due to the small number of participants in focus groups (Szybillo & Berger, 1979), I took steps to overcome researcher subjectivity in this study. I used two strategies to diminish the influence of my researcher bias in this study. I am aware of my potential researcher bias in this study because I taught all of these students and developed the Program being studied. Also, I used probing questions to elicit concrete details from the participants. Finally, the number of study participants was small because there were only a relatively small number of individuals in the Program at Ellen Martin High School.

An online focus group methodology is excellent when respondents are separated by distance and the distances would prohibit the interviewing of individual respondents (Morgan, 1993). The nine participants in this study live in various areas around the country and it would have been almost impossible to gather all of the participants in one place at one time. To date, little attention has been paid to the use of online focus groups (Mann & Stewart, 2000). Gaiser (1997) suggested that the online focus group format represents opportunities for innovation in the focus group methodology. However, Gaiser (1997) went on to state that no guidelines had been established yet for this new focus group.

As with the face-to-face focus group format, online focus groups can take a variety of forms. Online focus groups are not limited to a real-time format (synchronous), for example all participants online at the same time. An online format was used in this study because lends itself to an optional non-real time (asynchronous) format (Mann & Stewart, 2000). This was an important factor in choosing the asynchronous online focus group format because participants could not be online at the same time. The asynchronous online focus group format allowed participants to post detailed, reflective comments while overcoming the time zone differences of the participants in the study (Mann & Stewart, 2000).

Focus groups are small and group participants are not selected by random sampling, nor are they expected to be statistically representative of the broader population from which they are drawn. There are only slight differences in opinion about the ideal size of a focus group. Krueger (1995) believes that the ideal group size should be between four and eight members. However, Kitzinger (1995) believes that a focus group of seven to ten is relaxed and enjoyable and encourages ideal group interaction. While selection criteria for inclusion in the group must be established, all those associated with the project need to keep in mind that generalizations from the small group to a larger population are inappropriate (Bers, 1994). I interviewed eight participants in the Program who graduated from Ellen Martin High School in the 1990 graduation class and one who graduated in the 1989 Ellen Martin graduation class. These individuals participated in both years of the Program while in high school.

In real time focus groups, one or more vocal participants can dominate the group, while shy or introverted members may be silent (Morgan, 1988). However, focus groups can be disparate and can lead to only surface data. I did not experience the introvert member problem or the surface data problem because I utilized probing questions via individual email to gather additional data. The follow-up questions via individual email allowed introverted members to comment and provided a platform for individuals to expand on short answers to questions.

The online focus group format has its own unique problems. Online focus group participants may be confused by the lack of feedback about group dynamics “because fellow participants can be neither seen nor judged in the flesh, participant inhibitions may be loosened” (Mann & Stewart, 2000, p. 116). Online focus group participants may find it difficult to establish rapport with each other because there are no clear visual or aural contextual cues available to group members about other group members (Mann & Stewart, 2000). Online facilitators may need to utilize a very directive approach to avoid the divergent conversations by participants on irrelevant topics (Mann & Stewart, 2000).

In online focus groups, group conflict, known as flaming, may arise because the facilitator isn't present to help prevent these conflict situations before they occur (Mann & Stewart, 2000). Flaming is much more prevalent when focus groups discuss controversial issues that may divide the group and spark flaming. In this study, flaming was not an issue because participants discussed non-controversial issues about their past experiences.

Since the participants were very familiar with an Internet format, they had no problems working with the “Blackboard” or “Discussion Board”/focus group formats. Once participants answered the initial four questions, I emailed them to begin the member checking portion of the study by responding to the participant answers posted on the “Blackboard” site. I occasionally had to leave telephone messages for the one participant who did not check his emails often.

The focus group format wasn't immediately accepted in academic circles. Academics had “a preoccupation with quantitative procedures, assumptions about the nature of reality, and a societal tendency to believe in numbers” (Krueger & Casey, 2000, p. 6). There was also a prevailing view among academics that interview research was one of participant isolation to prevent participant interaction, which was considered respondent contamination. Academics initially ignored the focus group format. However, the business community in its need to conduct market research in a booming economy seized the focus group format as a major tool to determine the marketability of various products at a low cost (Krueger & Casey, 2000). The focus group format was finally accepted by academics because it provided unique insights into the human experience (Krueger, 1995).

In the 1930's, social scientists started to investigate alternatives to individual interviews that used a predetermined questionnaire because, in this format, the researcher takes the lead and the participant plays a passive role (Krueger & Casey, 2000). This concern about predetermined questionnaires led to nondirective interviews using open-ended questions. This allowed the

participants to comment and explain their answers. Roethlisberg and Dickson (1938) cited nondirective interviews in studies of employee motivation and Carl Rogers (1942) cited use of nondirective interviews in psychotherapy studies.

Social scientists used nondirective interviewing for group interviews for the first time during World War II. The researchers discovered that participants felt safe and comfortable in the group format. Post-war work by Merton, et al. (1956) established the format for present-day focus group interviews (Krueger & Casey, 2000). Merton and colleagues studied the social influences of mass communications (Merton, et al., 1956). In the 1980's, academics started to rediscover the focus group format, but returned to the work of Merton to understand the origins of the format so that it could be adapted to the needs of academicians. They learned that focus groups "promote self-disclosure among participants" (Krueger & Casey, 2000, p. 7).

A number of studies by academics from the 1970's to the present have used the focus group format to gather data. In 1970, John Irwin used group interviews to validate one-on-one interview data on criminal careers. In 1988, Frey and Carns conducted group job satisfaction interviews among casino card dealers. Frey and Fontana (1988) conducted group interviews of older workers reentering the labor force. Roberts and Teddlie (1993) conducted focus group interviews in a study of participants of the Louisiana Intern Teacher Assessment Program. The focus group participants offered solutions to perceived problems with the program.

Follow-Up Interviews.

After asynchronous focus group session, I probed participant answers made during the focus group session, the initial survey, and the member checking session for concrete details without interjecting myself into the interaction, which would have only led to a reflection of my own attitudes in the data (Bernard, et al., 1992). Even though I was pursuing a consistent line of inquiry, the stream of questions was fluid rather than rigid (Rubin & Rubin, 1995). Relatively little research has been done on the merits of following one interviewing methodology over others (Brenner, et al., 1985; Hyman, et al., 1954; Kahn & Cannell, 1960; Mischler, 1986; Richardson, et al., 1965). The key to successful interviewing is learning how to stimulate study participants, through probing, to produce more concrete details. Throughout the interview process:

1. I followed the line of inquiry established in the study protocol
2. I asked questions in an unbiased manner

(Becker, 1998, p. 60).

An interview, which has both strengths and weaknesses as a methodology (See Table 10), helps the researcher to focus directly on a study topic, which could reveal causal inferences. However, poorly constructed questions may lead to researcher bias. In order to ameliorate my researcher biases, I assessed my biases and determined that my biases are as the researcher, coordinator of the Program, and an individual who cares about both the Program and about these former students. There could be a response bias or reflexivity, where participants provide the answers that would please the researcher. To ensure that neither of

these latter two situations occurred while collecting data, I probed respondent answers for concrete details to diminish response bias and reflexivity. In this study, poor recall was a potential problem because I asked respondents to describe experiences from their distant past. The member checking session and the Internet focus group format used in this study helped participants recall events because one participant's memory of an event helped to spark the memory of another participant.

Table 10		
Strengths and weaknesses of Interviews		
Source of Evidence	Strengths	Weaknesses
Interviews	<ol style="list-style-type: none"> 1. targeted – focus directly on study topic 2. insightful – provides perceived causal inferences 	<ol style="list-style-type: none"> 1. bias due to poorly constructed questions 2. response bias 3. inaccuracies due to poor recall 4. reflexivity – interviewee gives what interviewer wants to hear

(Yin, 2003, p. 89)

Open-ended questions, which I utilized throughout this study, revealed the “interviewee’s mind as opposed to what the interviewer suspects is on the interviewee’s mind (Krueger, 1988, p. 60). The study’s open-ended interviews required me to operate on two levels at the same time: satisfying the protocol needs while establishing a non-threatening, cooperative conversational atmosphere. For the study to be a success, study participants had to view their roles as informants rather than respondents (Yin, 2003).

Data Analysis.

During the data analysis phase of the study, I followed Amedeo Giorgi's (1985, pp. 11 – 19) four steps for analyzing data from a phenomenological study. I read and re-read the entire description to understand the study participants' experiences and consciousness. Once data was collected from participant interviews and the online focus group session, it was broken down into more manageable units to discriminate meaning units. Words or phrases, focusing on the phenomenon (Giorgi, 1985) were divided into meaning units without altering the subject's language in any way. These meaning units, or data clumps, were determined after initial coding. Participants' expressions were investigated through reflection and imaginative variation to determine what is essential and what is accidental in relationship to the phenomenon and to the research questions. As Giorgi (1985, p. 17) stated, the intent is to "arrive at the general category of going through the concrete expression". Finally, meaning units were synthesized into a consistent statement of the general structure of the experience. It is necessary that all of the meaning units are implicitly contained in the general structure to recognize the commonalities across the sample of subjects' experience of the phenomena (Giorgi, 1985). Phenomenologists assume that individuals are unique and have unique experiences and emphasize an examination of the experiences of a number of subjects so that the essences or essential structures can emerge in the form of emergent themes.

Once the data was analyzed and categorized to determine the study's findings, I compared articles and/or studies, collected during a literature review,

describing career education, the philosophy of John Dewey, states of flow, contextual education, and adult education to ensure reference adequacy in this study. The literature review gave me the information to guide the development of the study and the analysis of study findings. I compared the findings to John Dewey's Theory of Experiential Education (1938). Additionally, I compared the findings to Mihalyi Csikszentmihalyi's Theory of Flow (1975) and compared the Jere Brophy's Curriculum Model (1999) to determine if value/interest/appreciation aspects of motivated learning were found.

Essences or essential structures in the form of emergent themes, "meaning units", or data clumps were determined after initial coding (Giorgi, 1985). As the researcher, I was cognizant of the participants' perspectives as the themes or "meaning units" developed (Kitzinger, 1995). Once data was collected, it was divided and subdivided into categories which were then coded. Coding is a progressive process of sorting and defining and sorting those scraps of collected data into "meaning units" (Giorgi, 1985) or data clumps creating an organizational framework. When analyzing interview data, I organized excerpts from transcripts into categories to connect the "threads and patterns among the excerpts and within those categories and for connections between the various categories that might be called themes" (Seidman, 1998, p. 107). The data was broken down into major code clumps and then subdivided into sub codes. Eventually, the data clumps or "meaning units" were placed in a meaningful sequence that contributed to the analysis of the data (Glesne, 1999).

Participant answers to the initial four interview questions were divided into categories. For example, Patrice stated that she “learned self-confidence” in Program 1. I coded that data “Externship – Self-Confidence – Patrice 2, meaning the Patrice was answering question 2 concerning her externship experience during Program 2 (See Table 11).

Table 11		
Question 2		
Participant	Comments	Coding
Patrice	Learned self-confidence (referring to externship)	Externship-Self-Confidence – Patrice 2

Patrice also credited her classroom experiences in Program 1 to the development of self-confidence. I coded that answer E.B.C.E. – confidence – skills unlimited, meaning that Patrice attributed her development of self-confidence to her classroom experiences. I also added an additional code, skills unlimited, based on Patrice’s answer, “E.B.C.E. taught me that my skills are unlimited – it just depends on how much I am willing to tap into those resources and put them to use.” Patrice’s statement answered question three, so it was also coded Patrice 3 (See Table 12). This was done to divide data into discriminate meaning units.

Table 12		
Question 3		
Participant	Comments	Coding
Patrice	EBCE taught me that my skills are unlimited – it just depends on how much I am willing to tap into those resources and put them to use	EBCE – confidence – skills are unlimited – PATRICE 3

Donna attributed her self confidence to her classroom experiences, “being around driven students” for initial interview question 2. Donna was motivated to achieve because the students around her were driven to achieve. Once she saw these students succeeding, Donna’s self confidence increased as she achieved academically at the same level as her classmates. I coded that comment E.B.C.E. – around driven students – Donna 2 (See Table 13).

Table 13		
Question 2 Comments		
Participant	Comments	Coding
Donna	being around driven students	EBCE – around driven students – DONNA 2

Donna stated, “I don’t really fear too much” in answer to initial interview question 3, referring to her externship experiences. I coded that comment, Donna – 3: Externship – don’t fear (See Table 14).

Table 14		
Question 3 Comments		
Participant	Comments	Coding
Donna	I don’t really fear too much	Externship - Don’t fear – DONNA 3

Patrice also stated, “I learned self-confidence, take charge mentality (when you have to)”. She also stated, “I believe this method helps to instill confidence”. Donna added, “But I don’t really fear too much.” These comments were combined with other participant comments focusing on the development of self-confidence and coded as E.B.C.E. confidence meaning E.B.C.E. I (junior year) or externship confidence meaning externship experience during senior year CONFIDENCE (See Table 15).

Patrice – externship - self-confidence Question 2

I learned self-confidence, take-charge mentality {when you have to}

Patrice – externship instills confidence Question 2

I believe this method helps to instill confidence

Donna – externship - confidence – Question 3

Confidence!

Donna – externship - don't fear much – Question 3

But I don't really fear too much.

These categories were then used to formulate follow-up focus group questions. These questions were posted on the University of New Orleans' Discussion Board. (See Follow-up question 1). One of the categories participants were questioned about during the focus group was self-confidence (See emboldened portion of follow-up question one).

5. After looking at the answers you provided to the first questions, it appears that the biggest influence of EBCE on you, professionally, were in the following areas:

- prepared you for your current career
- helped you develop self-confidence

Please select three aspects of EBCE that had the biggest influence on you professionally (do not limit yourself to the list above), explain why you picked those three and which one had the greatest influence on you, professionally.

See Appendix B for complete entire follow-up survey instrument.

Participants made additional comments concerning self-confidence and other topics during the focus group session. Donna stated, during the focus group session, that her self-confidence developed during Program 1.

So when you add all of these things together, any negative I have ever encountered, through my experiences at (Ellen Martin substituted for name of high school) and with EBCE, I just feel supremely confident (Donna, Focus Group Session).

I coded this response, EBCE – self Confidence – DONNA – Focus 3

I added Patrice’s self-confidence comment to Donna’s comments about self-confidence (See Table 15) to synthesize transformed meaning units into a

Table 15		
Self-Confidence		
Participants	Comments	Coding
Donna	So when you add all of these things together, any negative I have ever encountered, through my experiences at (Ellen Martin substituted for name of high school) and with EBCE, I just feel supremely confident	EBCE: Self -Confidence – DONNA – Focus 3
Patrice	EBCE taught me that my skills are unlimited – it just depends on how much I am willing to tap into those resources and put them to use	EBCE – self - confidence – skills are unlimited – PATRICE Focus 3

consistent statement of the general structure of the phenomena. In this case, the participants stated that the phenomena led to an increase of self-confidence. All facts are interpreted facts and the constructs developed by researchers are second degree (Daly, et. al., 1997). "...The challenge is one of preserving participants' definitions of reality" (Daly, et al., 1997, p. 350), Guba & Lincoln (1989) similarly argue that findings are not facts per se, but are created via the interaction between the participant, the data, the researcher and the evaluator. After I placed data in tables, based on "meaning units", I assessed the data for common themes among "meaning units". Based on that analysis, some tables were combined and others were divided. For example, all of the participant comments in the category "self-confidence" from the initial interview question phase and from the focus group phase were placed in a table format to determine findings for research questions (See Table 16). In some situations, participants I emailed participants to clarify comments they made during either data collection phase. I determined that additional comments were not needed to clarify participant comments concerning self-confidence. After placing the data in the self-confidence table, I determined that the self-confidence category should be combined instead of dividing it into sub-categories: E.B.C.E. and Externship .

In this study, underlying similarities and systematic associations were sought. These and other data can be displayed in matrix form (Miles & Huberman, 1994), where the flow and configuration of events were shown so that themes could be developed. These "meaning units" were compared to the research questions to determine answers to the research questions. In some

situations, a finding could answer more than one question. For example, participants stated that they developed self-confidence in both years of the Program. This would seem to answer research question one concerning how the Program influenced the professional lives of participants. It also seems to answer the second research question concerning which aspect of the Program helped create the influence on the professional lives of the participants. I decided that the data answered research question one because the development of self-confidence was an influence on the professional lives of participants.

I placed all data from the self-confidence “meaning unit” in a table (See Table 16). I devised subsets in the self-confidence category based on the portion of the Program the self-confidence was developed. Some participants attributed their development of self-confidence to their experiences in both years of the Program. However, most of the participants attributed their self-confidence to their externship experiences in year 2 of the Program. A table was set up displaying all participant comments associated with self-confidence but dividing the comments into Program 1 and Program 2 data. After analyzing the data in this table, I determined that self-confidence data could not be sub-divided into Program 1 and Program 2 categories. Therefore, I established self-confidence as a “meaning unit” and utilized all participant responses concerning the development of self-confidence attributed to Program experiences.

Table 16

Self-Confidence - E.B.C.E. and Externships (All Respondents)

Donna	Patrice	Amanda	Lola	Donald	Trina
<p>Program 1</p> <p>So when you add all of these things together, any negative I have ever encountered, through my experiences at “Ellen Martin” and with EBCE, I just feel supremely confident</p> <p>Program 2 Confidence</p> <p>I don’t really fear too much</p>	<p>Program 1</p> <p>EBCE taught me that my skills are unlimited – it just depends on how much I am willing to tap into those resources and put them to use</p> <p>Program 2 Learned self-confidence;</p> <p>EBCE taught me that my skills are unlimited – it just depends on how much I am willing to tap into those resources and put them to use</p>	<p>Program 1 and 2</p> <p>Ability to never let anyone intimidate me,</p>	<p>Program 2</p> <p>EBCE helped me more in the state of mind, where I feel more confident in taking on new things</p> <p>Externship The three impacted me in a number of ways professionally including giving me the confidence to be an effective worker and feel more confident in what I can do.</p>	<p>Program 2</p> <p>Taught me to do my own research by giving me the confidence to speak with other professionals</p>	<p>Program 2</p> <p>Not only did it give us an insight into a small sample of real adult life, but it prepared us to live it through internships and hard work within our chosen units of life. I think that I had the opportunity of a lifetime for the time we had the advantage to live it.</p> <p>Focus I have to agree with your point. In a restaurant environment people that display self-confidence and come in with the attitude that they possess leader qualities usually advance quicker and make the most of income. Fear is definitely a quality people prey on.</p>

Transferability

The final aspect of trustworthiness is transferability. Most contemporary researchers view the applicability of transferability, the extent to which the findings can be applied in other contexts or with other respondents (Lincoln & Guba, 1985; Hull, 1997; James & Mulcahy, 1999; Seale, 2002), in terms of generalizability and address the issue by focusing on those aspects of the inquiry that do not shift (Seale, 2000). To ensure transferability in this study, I collected detailed descriptions of data and thoroughly analyzed and interpreted data (Hull, 1997; James & Mulcahy, 1999) to enable readers to judge the applicability of findings to other settings (Seale, 2002). Finally, I provided thick descriptions of the findings. Specifically, I gathered data the following manner :

1. A background survey used to document participant work histories and educational backgrounds
2. Participant answers to four questions used to gather baseline data about participant Program experiences
3. Posting of participant answers to the initial questions to develop a participant member checking session
4. The coding of participant answers to the initial questions and member checking comments to develop follow-up questions for an asynchronous Internet focus group session
5. Additional probing questions via individual email.

Summary

I adopted an interpretive approach, or phenomenological approach, to this study in an attempt to understand the Program phenomena. I attempted to understand the meanings of my former students who experienced the Program as high school students. Qualitative researchers need to ensure the rigor of their studies without sacrificing the relevance of their research by ensuring the trustworthiness of the study. Lincoln and Guba (1985) describe four constructs for establishing tests for quantitative methodologies and trustworthiness for qualitative methodologies: dependability, credibility, transferability, and confirmability.

Credibility is the extent to which the findings are congruent with observations made during the study (Lincoln & Guba, 1985; Hull, 1997; James & Mulcahy, 1999; Seale, 2002). I utilized data and theoretical triangulation, member checking and various interview techniques to ensure the credibility of this study. I followed a phenomenological methodology in collecting and analyzing data. To strengthen the credibility in this study, I addressed several rival explanations, such as investigator bias, the maturation of the participants, and the likelihood of a commingled rival.

Transferability is the extent to which the findings can be applied in other contexts or with other respondents (Lincoln & Guba, 1985; Hull, 1997; James & Mulcahy, 1999; Seale, 2002). To ensure transferability in this study, I collected detailed descriptions of data and thoroughly analyzed and interpreted data (Hull, 1997; James & Mulcahy, 1999) to enable readers to judge the applicability of

findings to other settings (Seale, 2002). Finally, I provided thick descriptions of the findings.

Confirmability is the extent to which the findings are the product of the focus of the inquiry and not of the biases of the researcher (Lincoln & Guba, 1985; Hull, 1997; James & Mulcahy, 1999; Seale, 2002). To ensure confirmability in this study, I conducted a confirmability audit to determine if the findings and interpretations are supported by data; utilized both data and theoretical triangulation; identified foundations upon which findings are based; described measures taken to diminish researcher bias.

Dependability is the dense description including convincing analysis and interpretation (Hull, 1997; James & Mulcahy, 1999) to enable readers to judge the applicability of findings to other settings (Seale, 2002). To ensure dependability in this study, specifically structural coherence, I utilized data, theoretical triangulation, and multiple triangulation while following Merleau-Ponty's (1962) Phenomenological Common Themes and Amedeo Giorgi's (1985) Four Steps for Analyzing Data from a phenomenological study. All study data was collected via the Internet, initial questions. Member checking was utilized to allow participants to react to other participant comments before follow-up questions were designed for an Internet focus group.

CHAPTER FOUR

FINDINGS

This is a phenomenological study of the long-term influences of a high school career exploration program on the professional lives of nine adult, former program participants, Experience-Based Career Education, E.B.C.E., at Ellen Martin High School. In conducting this study, I utilized the four criteria for qualitative trustworthiness, (credibility, transferability, confirmability, and dependability) to ensure the study's trustworthiness. I followed a sound study protocol related to a phenomenological methodology, which contained the instrument as well as the procedures and general rules to understand the meaning unit themes that answered the research questions. Data was collected exclusively via the Internet, an asynchronous focus group and follow-up questions via individual email. The E.B.C.E. Program is referred to in this document as Program 1 for E.B.C.E. year 1 or Program 2 for E.B.C.E. 2. or simply as the Program.

This chapter contains the findings for the three research questions that have guided this study.

The research questions for this study are:

1. What was the influence of the Experience-Based Career Education (E.B.C.E.) Program on the adult professional lives of former E.B.C.E. students at Ellen Martin High School?
2. What aspect(s) of the E.B.C.E. Program had the greatest influences on the

adult professional lives of former E.B.C.E students at Ellen Martin High School?

3. With regards to the relationships between program aspects of E.B.C.E. and their influence on students, do these relationships represent examples of flow?

First, I documented the influence of the career exploration program on the professional lives of former program participants. Secondly, I documented the aspects of the career exploration program that most influenced the professional lives of former program participants. Finally, I documented the challenges that led to “flow” for participants while participating in the program. Flow is the only condition in which high challenges are linked to feelings of enjoyment, self-worth, and ongoing development for study participants. The data was gathered through Internet interviews and one online focus group with nine adult, former participants in the high school career exploration program, Experience-Based Career Education, E.B.C.E., at Ellen Martin High School. To main anonymity, names of study participants and locations cited in this study were changed.

I utilized Maurice Merleau-Ponty’s (1962) recommended phenomenological methodology to describe the Program phenomena for the study’s participants and Amedeo Giorgi’s (1985) four main steps for data analysis in a phenomenological study to find emergent themes. I read and re-read the entire description of Program participant experiences and then broke down the text into discriminate “meaning units” through coding. I transformed participant comments to determine essential meaning units and then I recognized

commonalities across the participants' experiences of the phenomena. These commonalities or themes were compared to the research questions to determine if the research questions had been answered by these findings.

Participant answers to the initial four interview questions were divided into categories based on initial coding (See Tables 11 – 16 in Chapter 3). Participant comments were combined after secondary coding took place to develop data clumps or meaning units. An example of this is the meaning unit self-confidence (Tables 11 – 16). These meaning units were then used to formulate follow-up focus group questions. These questions were posted on the University of New Orleans' Discussion Board during the asynchronous focus group session (See Follow-up question 1 in Appendix C). Additional comments made by participants during the focus group session were coded and grouped based on commonalities (See Table 16 in Chapter 3). The groupings were analyzed to determine emergent themes. The emergent themes were then analyzed to determine if they answered the three research questions.

It was determined that emergent themes did answer the research questions with one exception. One ancillary finding, understanding the importance of education, was attached to question two because two former Program participants stated that they better understood the importance of education after experiencing the program. I determined that all the rest of the emergent themes or findings answered one of the study's three research questions. In this chapter, I listed each of the three research questions and the findings for each research question. Each emergent theme or meaning unit is

emboldened followed by data from the study supporting that emergent theme or meaning unit.

Research Question One:

What is the influence of the Experience-Based Career Education (E.B.C.E.) Program on the adult professional lives of former E.B.C.E students at Ellen Martin High School?

Based on the study's findings, the E.B.C.E. Program helped study participants acquire the skills they use today in their professions. Examples of those skills are written and oral communications skills, job skills, networking skills, and people skills. A subset of that category is the leadership skills used by two of the participants today on their jobs. Participants also credited their E.B.C.E. experiences for the development of self-confidence, a life guide/philosophy, a career direction, career research skills, the skills to mentor others, and preparation for the future.

Skills Used Today

Six participants, Donald, Patrice, Lola, Donna, Trina, and Natalie, credit the development of skills they utilize today as professionals to their externship experiences in Program 2. The stories that Patrice wrote for the weekly newspaper where she worked during the second semester of her externship were "reviewed by others". The "criticism prepared" Patrice for her present job. She "learned to accept criticism" and learned to work within the journalism field and "what it takes to put out a paper". Patrice said that while working for the

newspaper, she “wrote copy (for advertising) and provided graphic design and coordination for (advertising campaigns)”, things she still does today.

Because of her externship, Donna is willing “to try different things”. She has made two significant moves, to a major East Coast city and then, recently, to the Midwest. Donna grew up in an economically-challenged, single-parent family. Her “great time” in E.B.C.E., helped to expose Donna “to different people and experiences that were appealing”. But more importantly, she “learned to be a professional regardless of the situation”.

Other participants developed skills they use in their professional lives. Natalie, a pediatrician today, began “networking with medical professionals” through her externship. She has maintained long-term contacts and friends as a result of her externship experiences. Donald’s experiences eventually allowed him to accomplish his current goal of flying jet aircraft. Lola believes that the challenges she experienced through her externship have given her “an edge now in life” because she “learned to be a more people person and an organized person”. She “learned to deal more with people and feelings”. Lola “learned a lot about life in general” and about herself when she “took the E.B.C.E. course”. Although she works in a plant environment, she believes that her Program 2 externship experiences have made her a well rounded, focused individual and “the most people person engineer” that she knows.

Leader/Manager – Effective leader/manager

Trina and Donna, the only two participants who actually serve in management positions today, learned how to be effective leaders or managers. Trina learned “how to become an effective leader” through her externship experiences at the zoo. Through Donna’s externship experience at City University, she learned that “ultimately people desire to feel valued and as a manager you have to understand and acknowledge that”. She also learned to “value each person and their contribution to the organization”, especially “the entry level employees” because she realizes “how critical they are to getting the product out of the door”.

Trina’s “ability to communicate with a vast amount of professional and amateurs really aided” her. Because of her communication experiences in the Program, she is always representing herself and her company “with a positive attitude”. She has “to communicate with people of all ethnic backgrounds and provide them with proper customer service”. Program 2 taught Trina “the importance of always being your best even if you had chaos all around”. She learned “how to become an effective leader to my peers and coworkers and have gained the respect of my superiors”. She also learned that “achievement only comes from hard work...and determination”.

In the restaurant environment where Trina works as a manager,
people that display self-confidence and come
in with the attitude that they possess leader
qualities usually advance quicker and make

the most...income. Those that are uncertain and insecure of their tasks or even something simple like greeting a customer get eaten alive ...Fear is definitely a quality people prey on.

Self Confidence

Seven participants, Donald, Trina, Patrice, Donna, Amanda, Lola, and Latoya all developed a sense of self confidence. Donald developed the “confidence to speak with other professionals”. Patrice learned that she possessed within herself, the power to do things that she “would not have attempted to do”. Patrice learned that her skills were “unlimited”. The stories that Patrice wrote for a weekly newspaper where she worked during the second semester of her Program 2 externship were “reviewed by others”. The “criticism prepared” Patrice for her present job. She “learned to accept criticism”. Finally, Patrice said that while working for the newspaper, she “wrote copy (for advertising) and provided graphic design and coordination for (advertising campaigns)”, things she still does today.

Donna feels “supremely confident” because of her Program 2 externship experiences. She doesn’t “really fear too much” and is more willing to try something different today. This is due in part to her Program 2 experiences and in part to having to “overcome a lot of difficulties to achieve” the success she has achieved. Amanda learned that she has the “ability to never let anyone intimidate” her. Lola’s externship experience gave her “the confidence to be an effective worker and feel more confident in what she can do” and has made her

“more confident in taking on new things”. Lola had to overcome her extreme shyness in “dealing with the general population” in the hospital during her externship. She believes that “nothing could replace the experience of learning about life” in the “day to day” experience in the hospital working with patients. Her externship gave her “the confidence to be an effective worker and feel more confident” in what she can do and “more confident in taking on new things”.

Latoya overcame the challenge of resistance from her adult co-workers who didn't like having a high school student extern working with them. She “realized that the key to acceptance was persistence and exhibiting interest”, something she still does today as a secondary mathematics teacher. Trina developed a sense of the “importance of being your best even if chaos is all around”, a skill that helps her today as a restaurant manager. Through her externship experiences she gained “exposure into the professional world, exposure that shaped the path”. She learned two important life lessons. Most importantly, Trina believes that the environment of college educated professionals that she experienced through her Program 2 externship, gave her view of the path that she wished to follow.

Life Guide/philosophy

Patrice, Donna, Trina and Latoya developed life guides/philosophies that still guide their lives today. The Program helped Patrice to understand “who I am and what approach I take to my career”. She learned the principle “my word is my honor”, a way she strives to live her life in general. This philosophy that still remains with her to this day has led to tremendous professional success. For

example, Patrice was the project manager for two award-winning advertising campaigns. One campaign increased student enrollment in the local school system producing “staggering results”. She has learned that the “inner fear/nervousness” that she first encountered when she interviewed strangers for a story during her E.B.C.E. externship, “means that I am passionate about getting the job done and getting it done right”. The “most important aspects of what E.B.C.E.” taught Patrice have had a tremendous impact on her life professionally. Her job makes her happy. Finally, Patrice learned that “what is written has an affect on others”. Because she learned this principle, she learned to make sure that what she writes is accurate and appropriate, an important principle that she still follows today on the job.

Donald and Patrice learned the importance of responsibility through their Program 2 experiences. Donald learned that a sense of responsibility allowed him to accomplish all that he has accomplished professionally by carrying him to “farther places in the working world”. While working as a reporter in E.B.C.E., Patrice learned that a “sense of responsibility” is “the most important element because it builds character” and “what is written affects others”. Patrice knows that she could seek other jobs today but her job makes her happy and that’s extremely important. She understands the pride that comes from a sense of “ownership” of a task or job and believes that “people are willing to give greater chances” to someone who has commitment. She believes that commitment, dedication, and responsibility are all “important when you enter the work force, magnified one hundred fold” but all are “part of life skills such as morality skills

and how to weigh decisions pro and con; analyze your strengths and weaknesses; and threats to what you are able to accomplish". Of those three, a "sense of responsibility would probably be the most important element because it builds character. She believes that "people are willing to give you greater chances if they sense your commitment". Patrice and Trina learned to understand the importance of commitment and learned that "achievement comes from hard work and determination". Trina also learned to "believe" in herself and learned that "independence was admirable", two lessons that still guide her today.

Donna and Latoya learned the importance of co-workers through their externship experiences. Donna learned that "ultimately people desire to feel valued and as a manager you have to understand and acknowledge that". It's helped Donna now because she really values "the entry level employees" and realizes "how critical they are to getting the product out of the door". Latoya "realized that the key to acceptance" by her co-workers at her Program placement "was persistence and exhibiting interest", a philosophy she still utilizes today as a secondary mathematics teacher.

Lola believes that the challenges she experienced through her externship, have given her "an edge now in life" because she "learned to be a more people person and an organized person". She "also learned to deal more with people and feelings" Although she works in a plant environment, she still deals "with the people aspects of things more than most engineers". Lola also believes that her Program experiences have made her a well rounded, focused individual, "and

learned a lot about life in general” and about herself when she “took the E.B.C.E. course”.

Career Changes Influenced

E.B.C.E. influenced the choice of career pursuits and changed attitudes about careers for study participants. None of the nine study participants are now in the career areas they studied while in the Program. All of the students in this study were high-achieving honor students and could have easily qualified academically for a wide range of college majors. They were interested in experiencing a career area before enrolling in college. Four of the nine participants, Lola, Donna, Samantha, and Donald changed their minds about their career interests, based on their E.B.C.E. externships. Four participants, Patrice, Amanda, Natalie, and Trina, pursued the same career area in college that they studied in E.B.C.E. before making a career change. Latoya, who was an extern in the pharmacy at “Uptown” Hospital during her senior year of E.B.C.E., enlisted in the U.S. Army the day after graduation from Ellen Martin High School and remained in the army for six years before receiving a Bachelor of Science Degree in Public Health, then a Bachelor of Science Degree in Mathematics Education, and finally a Masters Degree in Educational Administration.

Lola “learned more” about what she “did not want to do full term”. She was “set for a career in health” but realized that she “would be burned out way” before her “time” if she “pursued a health career”. At Uptown Hospital II, Lola “had to overcome shyness while dealing with the general population”. She had to “talk to

patients to learn more about the job". She saw "a lot of kids on a day to day basis". "A lot of them were not able to have parents or family there on a daily basis and it was hard on them" and hard on Lola when she talked to them all the time. The children looked forward to Lola's visits "because they could see someone other than the nurses". Lola "distinctly remember a toddler that had been severely burned and the cries just seemed different (and you could hear them often)". Another patient, at Uptown Hospital II, was a 20-year old, terminally-ill patient. While she was "talking about dying", Lola was talking about the prom". Lola's interaction with these young patients, and others, led her to believe that she might become burned out at a young age if she entered the health care profession because the visits to these young people had such a strong emotional effect on Lola.

One of Lola's assignments in Program 2 was to interview the medical staff at the externship site. Lola "talked to a lot of professional staff who were rather discouraging about their jobs". "In particular, the nurse at Dr. Johnson's office said that it would be better to be a doctor than a nurse" and proceeded to tell Lola why nurses were treated like second class citizens, for example, the pay, hours and attention to patients. Lola was also told that nurses were discouraged from questioning doctors even if they thought that they had a better idea because "the doctor had the final decision". The nurses at Uptown Hospital II "only confirmed these same sentiments". It was after these experiences and interviews that Lola started to question her career path.

Even though Lola isn't in the health profession today, she still uses the skills she learned through her externship. She is a well rounded, focused individual who can deal with people and feelings even though she works in an environment of a plant, and believes that she still deals with the people and feelings more than most engineers. Lola enjoyed the health care environment and still volunteers in hospitals and takes her daughter to visit health professionals on a one on one basis so that she will not have a fear of doctors and hospitals, a renewal of the Program philosophy of experiencing a career.

Donald decided to change his career path during his Program 2 externship simply because his personality didn't fit the protocol for the stock brokerage career he was pursuing. Donald worked for one year as a non-paid extern at a stock brokerage firm making cold calls and setting up seminars with the boss. After this experience, Donald decided that the stock brokerage profession wasn't right for him because he realized "how boring office work was". After this experience, Donald ruled out any office work as a career option. He also didn't believe that he could meet the challenge of convincing older people to let him invest their life's savings because he felt "that this job was meant for people with more worldly wisdom". Donald also "found the career to be a bit slimy" because stock brokers are trying to convince people to invest their life savings. The experience helped him refocus his priorities and direction. Had Donald not done that externship experience, he "probably would have spent four years in college studying finance, two years selling insurance and another two years at a stock firm, before really having a chance to see what the business was all about".

Before her Program 2 externship experience, Donna wanted to be a lawyer or a restaurateur, but after her externship at City University and a large law firm, she realized that neither suited her. As Donna has grown older, she thinks that she could have pursued law, but “there's such a thing called work life balance” and “owning and operating a restaurant is very stressful”. E.B.C.E. helped Donna focus her energies first as the director of admissions at two universities and now as the recruiting manager for a large corporation. Samantha also changed her career focus after working at Uptown Hospital during her externship with severely sick children. Donna’s externship experiences convinced her that she was no longer interested in pediatrics because working with severely burned children took a toll on her emotionally.

Continued with Career Direction

Patrice, Amanda, Trina, and Natalie continued to pursue their career dreams in college and majored in the same career area as the one they experienced as Program externs. All four changed their minds after they entered college but they pursued these majors because of their positive externship experiences in Program 2. Latoya, entered the U.S. Army immediately after graduation from high school but did study the health care field, the same area she studied while in E.B.C.E., after she completed her military enlistment.

Patrice majored in Communications at Tulier University and pursued journalism internship experiences throughout college. She was an editorial assistant at The City Times newspaper during college and for a few months after graduation. Patrice then worked as an intern reporter for The City Times where

she covered a variety of stories for the paper. Patrice did not like the way things were shaping up at the newspaper and believes that there were some outside factors that played a role in how far she would have been able to progress professionally with that newspaper. For example, some people saw Patrice and thought that she looked too young to be a reporter. This image had nothing to do with Patrice's abilities, but it was based on her very youthful appearance. She also questioned the approach of the reporters, who Patrice described as a very cynical group that always looked at the negative side of situations. In certain instances, Patrice was able to break through this but her final assessment was that she did not want to spend three-fourths of the time proving to someone that she was mature enough to write a story that presented only the negative side of an incident or event

Amanda wanted to become an engineer because she wanted a great salary and thought she would be a very successful engineer based on her success in high school math and science. She worked as a non-paid extern during Program 2 in the College of Engineering at City University. After graduation from Ellen Martin High School, Amanda discovered that she was not as good as she thought in math and science and failed some classes, such as FORTRAN and Chemistry after passing Calculus and English. She was so frustrated she changed her major from one type of engineering to another only to drop out of college all together after experiencing more academic frustration. Amanda recently received a Masters Degree in Information Systems after working in that area for several years.

While in her Program 2 externship, Trina spent a lot of time learning from others because she was living her dreams and lost herself in her work and in her friends and animals at the zoo. She “learned behaviors that that I did not believe existed.” She attained the respect of her co-workers at the zoo, something that she craved. The co-workers at first did not believe that Trina had what it took to over the obstacles they provided for her. Program 2 taught Trina that hard work and enough research to back up her beliefs could help anyone achieve his or her goals. “Time was never a factor” at the zoo because her life was so rewarding there.

Trina really wanted to work with the primates but the zoo while attending Southwestern University but it wasn't in the same class as the zoo in her home town. Trina decided to leave Southwestern University, due to a lack of funds, after three years. She worked part-time as a waitress in a local restaurant while attending Southwestern. She set tip records at that restaurant because she kept her customers happy through her very personable, effective communications skills that she had enhanced through her Program 2 experiences. If she moved back home to work in the zoo in her home town, she would be forced, for cultural reasons, to live with her parents, and she didn't want to do that. She preferred to live on her own and work in the restaurant, where today she is the manager.

Natalie, who is now a pediatrician in a small southern city, confirmed that pharmacy was not the career for her through her college externship in the same City Hospital Pharmacy because she had a desire for more patient interaction. She changed her college major from pharmacy to pre-med and embarked upon a

career in medicine. Natalie realized that her initial choice was not for her, a decision that saved her “lots of time and money”. Her externship experiences had confirmed her interest in a health care career but it wasn’t until her college experiences that she was able to narrow that focus.

Career and/or personal exploration/research

“Learning responsibility in the workplace to include social as well as professional” behaviors have carried Donald “to farther places in the working world”. As Donald was exploring different career options “through a change in my (his) life”, he used his “experience in E.B.C.E. to govern” his “approach towards exploring the medical profession”. E.B.C.E. taught Donald to do his own research by giving him “the confidence to speak with other professionals” Due to his externship experience, he was able to receive close attention from doctors at a local hospital, who allowed him to view, first hand, their day to day operations. Donald was also awarded a position in a hospital’s initial radiology technology program, “but opted for aviation instead”.

Prepared for the Future

Three participants, Patrice, Trina, and Amanda, believe that their Program 2 externships prepared them for the future emotionally. One of the three, Amanda further described E.B.C.E.’s influence as giving her the tools that lessened the blow when she “grew up” and being “grown up” is challenging. E.B.C.E. gave her “undeniable and irreplaceable knowledge that can be used for a lifetime.” Amanda further stated, students “may not know the effects of E.B.C.E. until the situations actually arise in real life.”

Mentoring Others

Patrice, Donna, Trina, and Lola have used their E.B.C.E. experiences to mentor others. Patrice set up internship programs at two companies where she worked, a funeral home, and now at an advertising agency. Today, Patrice supervises the college interns at the advertising agency, and she stresses that the interns do “real work”. The interns complete real assignments and Patrice expects them to meet the deadlines she provides. They are expected to complete an assigned project and if they have question, they ask Patrice. She doesn’t “stand over them to get the job done”. Patrice believes that this method, very similar to the one she experienced at her E.B.C.E. externship, “instills confidence and a sense of commitment to a job or a project because you know that it’s all on me”. “This helps students puff out their chest and really share and learn about the field that they are considering as a lifelong career”. This is the key.

She is careful to provide the interns with real experiences in the field so they can assess:

1. if they want to be in this field
2. understand everything that is involved with carrying out tasks in the field

These were the same goals Patrice and other Program 2 externs achieved in E.B.C.E. Patrice’s interns are given responsibility for projects and are subsequently held accountable. They learn how to ask questions and it provides them with a greater understanding of what has to be done to accomplish a task. The interns really appreciate this approach because it gives them the opportunity

to make their own decisions about accomplishing a task rather than being told a specific step-by-step methodology.

Donna is now “advocating for a similar (E.B.C.E.) program today” at the corporation where she serves as recruiting manager. Donna views herself as an “advocate for students”. She believes that it is incumbent upon her “to expose others to the same experience (E.B.C.E.). Donna believes that she will be repaying the debt she owes for those who shared with her and helped her to grow in her Program 2 externship. “It’s an honor, when you can do the same and when people value, appreciate, and grow from what you share, even if it’s years later”.

Trina has used the job seeking skills, she learned in Program 1, to help younger people who ask her questions because they trust her insight both professionally and personally. Trina feels privileged when she realizes that she has “become the teacher, speaker, and motivator for others that have not yet learned enough to make proper choices”. Some of these individuals have “lost their way due to drugs”. Trina has been able “to set up interviews with people to help them get their lives back on track”. She “taught them the power of persuasion and also that your dress code is important in how others see you”. Trina believes that she can help someone see the light. “Sometimes it helps in letting them know that there is more out there”. The “ability to talk to others and to listen has been a blessing”, a skill which Trina enhanced through her Program 2 externship. Trina has used this skill to help individuals “overcome their shortcomings”. She has set up job interviews for people “to help them get their

lives back on track”. She believes that she would not be in a position to help these individuals, professional, without the skills she learned as a participant in E.B.C.E.

Lola has “taught friends the skills” she learned in Program 1, such as life skills and job seeking skills. She has shared her belief that “everyone shares responsibility to the public” because individuals “could do more harm than good” with these friends and with her daughter. Lola traces this belief back to her externship experiences in Program 2.

Ancillary Finding

E.B.C.E. reinforced in five participants, Amanda, Trina, Donna, Patrice, and Latoya, the importance of education for the futures. Amanda said, “Education was going to be the key to my future success”. The externship exposed her “to working in an environment with college educated professionals” and helped her to select a college. Trina stated that, after her externship experience, she “knew that education was going to be the key to my future success”. Donna stated that her externship experience “increased my desire to learn”, while the Program helped Patrice to take “school seriously”.

Latoya had a slightly different E.B.C.E. experience, concerning education, but it still reinforced the importance of education. Latoya had a project to complete” for the E.B.C.E. class. She was a

serious procrastinator and just rushed

a presentation and posterboard. Mr.

Nadeau was disappointed and I had

my first dismissal from any class and my first visit to the office because I did not take my education seriously. This experience showed me that someone saw something in me that I did not see in myself. This experience showed me that others besides my family cared about my education. This was the first time in my educational experience that I had to think about where I was going. This was my wake-up call that started the beginning of my competitive drive and my ability to be an overachiever. Thank you.

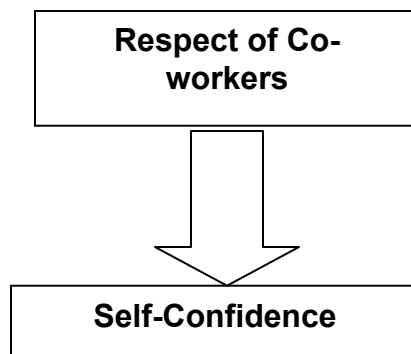
Latoya and Amanda didn't appreciate E.B.C.E. while they were in high school. Latoya "didn't realize the impact shortly after graduation". For her, it was "just like any other class,...English, math, or history". She didn't realize the value of the skills she had learned through E.B.C.E. until she had to "apply it or talk about it. It comes to you when you least expect it and without realizing it". Amanda said that "E.B.C.E. wasn't challenging as in hard but made you think about situations to come". E.B.C.E. made Amanda realize that she "would have to grow up" and apply the topics taught.

Analysis of Findings for Research Questions One

E.B.C.E. helped study participants acquire some of the skills they use today in their professions. The students attribute the skill enhancement to the real work they did at their externship placements. They gained self confidence after they received the respect of their co-workers at their placements (Figure 3).

Figure 3

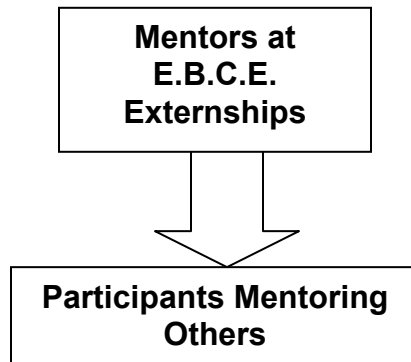
Respect of Co-Workers



Several participants stated that they learned to appreciate education through their E.B.C.E. experiences. Two participants, however, stated that they didn't appreciate E.B.C.E. until after they graduated from high school and had to apply the skills that they learned. The life guides and philosophies developed while participating in E.B.C.E. may be the most valuable aspect of the Program. The participants have used the skills they learned in the Program to mentor others in career development while still seeking to research career options for themselves (See Figure 4)

Figure 4

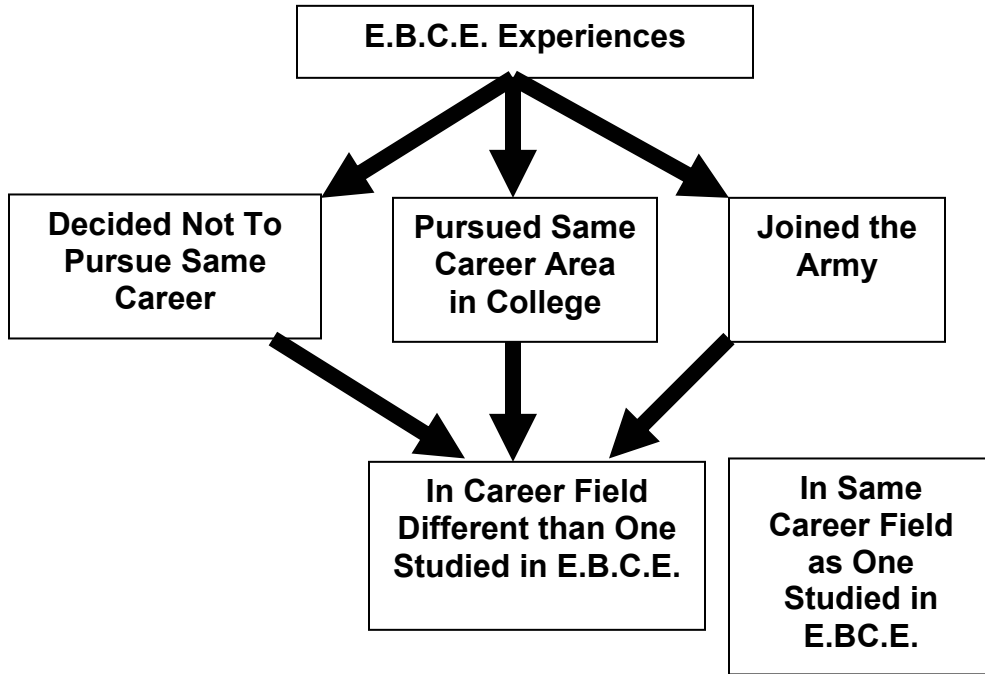
Mentors



None of the nine participants in the study are still in the same career area they studied while in the Program but four of them pursued the same area in college but changed their career goals after their college experiences (See Figure 5). Finally, several participants believe that they are better prepared for the future because of their Program experiences.

Figure 5

Influence of E.B.C.E. Experiences on Career Decisions



Research Question Two:

What aspect(s) of the E.B.C.E. Program had the greatest influences on the adult professional lives of former E.B.C.E students at Ellen Martin High School?

Participants identified networking/mentoring as the most important aspect of E.B.C.E. that influenced their professional growth. Mentoring influence was divided into influence on the professional lives of participants and on the personal lives of participants. Three participants, Amanda, Donna, and Lola, credit the program's experiential learning approach, based on the philosophy of John Dewey, as a major reason why they had successful learning experiences in

E.B.C.E. Donna's "exposure to the professional world" shaped the path she wished to follow. Lola learned "from the experience" while Amanda really liked the "hands on examples to all the topics discussed". They valued the real work they did at their placements with professionals in career areas they wished to some day pursue. Some participants learned the importance of education to their futures through their E.B.C.E. experiences. The winning of the respect of adult co-workers at Program 2 placements helped participants to develop a sense of self-confidence that they still carry today. Some participants became so confident that they offered feedback to their mentors about the job.

Several participants learned skills that they still utilize today in their professions. Examples of those skills are written and oral communications skills, job skills, networking skills, and people skills. A subset of that category is the leadership skills used by two of the participants today on their job. The participants credit their Program experiences for the development of these skills as well as for the development of a life guide/philosophy, a career direction, career research skills, the skills to mentor others, and preparation for the future.

Networking/mentoring

Seven participants, Natalie, Patrice, Lola, Donna, Trina, Donald, and Latoya, stated that mentoring and networking with professionals were the most important aspects of Program 2. Two participants, Donna and Latoya, stated that their E.B.C.E. mentors had an influence on their personal lives while the other five participants stated that the mentors had an influence on their professional lives. All of the participants stated that the mentors pushed them to work harder

and several participants still maintain contacts with their former mentors. For example, Natalie, Patrice, and Lola still maintain contact with their Program 2 mentors and Patrice added that she “still helps” her mentors today by purchasing advertising in the weekly newspaper where she worked as an extern. The participants also mentioned the value of the job skills, life skills, and the experiential learning approach of Program 1.

Professional Influence of Mentors

Six participants, Patrice, Donald, Natalie, Trina, Latoya, and Donna, stated that the mentors that they worked with during their Program 2 externships had a major positive influence on them. Patrice stated, “Putting me in the presence and in the nurturing arms of people who were willing to share their knowledge, experience, and skills with me”. Patrice did have a negative mentor experience during the first semester of her externship. Patrice worked in the public relations department of Uptown Hospital. The mentor was constantly at meetings and generally ignored Patrice. This is why it is so important to her today to provide positive, real internship experiences where interns have to make real decisions at her company.

That is the type of mentoring experience she had her second semester at her E.B.C.E. externship.

The mentors treated me no differently from full-time staff. They critiqued my work, provided insight, and ultimately held me accountable for projects assigned to me. Today, those relationships

are still there - I speak to them occasionally in the professional arena - but we are on opposite sides of the field.

Patrice is now “in a position to help support her former mentors “with dollars provided by my clients”. She remembers how she was mentored, and she fights “hard to make sure they (clients) get a piece of the pie”.

Donald worked with the boss, the head stock broker at a brokerage firm. He benefited from the experience when the boss allowed Donald to ask questions about the business as a pay-back for the work Donald performed for the brokers in the office. It “wasn’t entirely easy” for Donald to work as a co-worker while learning the business. The challenge to Donald” was to earn the boss’ respect, and indulge in ‘brain picking’”. “There was a slight learning curve or plateau”. As time continued, Donald “had to think of new exploring ways to accomplish a complete understanding of the field” he wanted to pursue. E.B.C.E. allowed Donald “to benefit from the respect of adult tutors who were willing to share information with a youth”, while “completing tasks in timely fashion”. “By viewing this potential career”, with the help of his externship mentor, along with “some soul searching”, Donald discovered his current career path, a professional pilot and the owner of a transportation company. This is the antithesis of the office-oriented experience he learned wasn’t for him through his E.B.C.E. externship.

Natalie values the “exposure and ability to network with many medical professionals” who became her mentors and friends throughout her medical

career. Trina values the “chance to meet people who would become my friends and mentors”. At first, Trina’s co-workers did not believe that she had what it took to overcome the obstacles they provided as a test of her interest in the job. These co-workers were won over by Trina’s determination to overcome all obstacles and to become accepted as a primate zookeeper. These co-workers eventually became Trina’s mentors once they were won over.

Personal influence of mentors

Two participants mentioned that their Program 2 externship mentors had a personal as well as professional influence on them. Latoya said that her “mentor (was) very important during family problems”. Latoya’s grandmother, Latoya’s primary caretaker, was very ill and Latoya needed someone to lean on during this stressful family situation. Her mentor, the pharmacist, at “Uptown II” Hospital was “just the most pleasant woman I had met”. She was a “empathetic mentor” and a very “positive person”. “She was there for me when it counted the most to me”. Latoya “liked her inner spirit and it radiated onto others”. The pharmacist made Latoya “want to become a pharmacist even more”. Donna’s mentor at City University was Marvin, who is still her “mentor and friend”. He was “instrumental in my development and keeps it real”. Marvin became a surrogate parent to Donna, who came from an economically impoverished, single-parent family. Marvin allowed Donna to learn on her own. “He was there to answer questions and guide me when I was going astray”. This has helped Donna to “value the entry level employees” because she realizes “how critical they are to getting the product out of the door”.

Donna was surrounded by people, particularly supervisors/employers, who demonstrated how responsible individuals behave”. These mentors “were willing to help” Donna. The mentors didn’t have to “offer us internships...based on what I know as an employer, they really don’t”. They exposed Donna to a “greater vision and understanding”. Donna believes that it is incumbent upon her to expose others to the same experience. “Others shared with me so that I could grow”. “It’s an honor when you can do the same and when people value, appreciate, and grow from what you share, even if it’s years later”.

Earning Respect of Co-Workers

Six participants, Donald, Latoya, Trina, Patrice, Donna, and Natalie, believe that they developed self-confidence while earning the respect of their co-workers/mentors through their Program 2 externship experiences. These participants also indicated that gaining the respect of their co-workers was a major factor in their developing the self-confidence that has remained with them to this day. Donald said that the experience gave him “minor respect”. He had to prove his worth to his co-workers “by working and showing interest”. “Once respect was earned, people shared their knowledge of any question” that Donald had. Latoya said that “initially, some workers weren’t receptive to high school students. The key was persistence and exhibiting interest”. Trina “attained respect of co-workers”. This was something she believes she “needed” to be accepted as a fellow co-worker. “Co-workers at first did not believe” that Trina “had what it took to overcome the obstacles they provided”. They wanted to give

test Trina's "strength in the field" before they would accept her as a full-fledged member of the staff.

When working for a weekly newspaper during Patrice's Program 2 externship, she was asked to write a story about an event sponsored by Coca-Cola. She could have simply written the story and avoided talking to anyone. However, she chose to interview "some people (strangers) at the event to get different perspectives". This was a very challenging task for Patrice who was a very shy individual, at the time. She learned "to overcome her fear in a sink or swim situation". She also learned that she possessed, within herself, the power to do things that she "would not have attempted to do".

Donna, was made the unofficial manager of food carts on the campus grounds while working in food services at City University during the second semester of her Program 2 externship experiences. Donna could decide where to place the carts while maintaining some management control over the college students who worked the hot dog and hamburger carts. Donna didn't have problems with the college students even though she was a high school student. She did have problems with some of the adults "working in the office", though. This experience taught Donna to "value each person and their contribution to the organization". She also learned "how to deal with the clerical staff" even though they "drove (her) crazy". For Donna, "it was the beginning of understanding that you cannot manage people the same. Everyone is different with different needs". Donna learned that "ultimately people desire to feel valued and as a manager you have to understand and acknowledge that". Donna, who now manages the

recruiting department of a large corporation, learned through Program 2 to value “the entry level employees” because she realizes “how critical they are to getting the product out of the door”.

Donna worked at a law firm during her first semester externship and at City University the second semester. Through her Program 2 externships, Donna learned, “If you open your eyes and ask the right questions, or even if you just pay attention, you will stumble across the answers that you really need to help direct you”. Based on Donna’s career choices, she had “a desire to serve”. She thought it was servicing the public by becoming an attorney. Then, she thought she was called to become a business owner. However, her “calling is in a different capacity”. Donna’s calling was “in the realm of serving people to achieve an education”. She began her career by recruiting high school graduates to attend college. She is now recruiting college graduates to work for a major corporation in the midwest. For Donna, this sense of responsibility started with the philosophy of the principal at Ellen Martin, Carl, who often stated, “to whom much is given, much is expected”.

Natalie worked at the pharmacy at City Hospital. Natalie’s mentor, the pharmacist, was being evaluated by a teacher at St. Ignatius University because St. Ignatius also had externs working in the pharmacy. Natalie helped the pharmacist prepare for the evaluation and got so involved with the preparation that she didn’t notice that the teacher came, evaluated the pharmacy and left. Natalie received a good evaluation from the pharmacist for her efforts and his

thanks, something that helped Natalie to feel accepted and respected at the pharmacy.

Real Work

Four participants, Trina, Patrice, Donald, and Lola, believe the “real work” aspects of their Program 2 externships helped to promote positive long-term influences on their lives. Donna values the “exposure to the professional world” that shaped the path that she wished to follow. Program 2 gave Trina an “insight into a small sample of real adult life” and prepared students “to live” their dreams “through internships and hard work within” “chosen units of life”. She believes that she had “the opportunity of a lifetime for the time” and “had the advantage to live it” by working in the primate department at a major zoo. “E.B.C.E. was a bridge to the real world from the speakers (Program 1) to the work involved in becoming a part of the internship of our choice”.

Patrice believes that “many internships offer the students the opportunity to answer the phones”. That’s not what Patrice “would call an internship, that’s secretarial work”. The Program 2 externships “offered real opportunities to work in my career field made all of the difference”. She learned to improve her writing skills through her externship experiences. Her “skills as a writer evolved from fashioning a story from an interview or activity into taking a concept and coming up with something that is truly unique that people still hear and pay attention to Interesting, unique experiences that you wouldn’t have had otherwise”. She got to see what it feels like to have someone trust you to do a job and not constantly monitor and ask you ‘how is it going?’ Patrice learned how a “(news)paper is put

out". While working for the newspaper, she "wrote copy (for advertising) and provided graphic design and coordination for (advertising campaigns)", things she still does today as a senior executive at an advertising agency. She remembers "how important it was to experience a real internship. She doesn't recall the articles she wrote but does remember that she was "treated just like a paid intern/reporter, with the same expectations that I would go to the event/make the necessary phone calls and then come back with a story that the paper would print".

In Patrice's current position, "working under pressure is important". She learned a "take-charge mentality (when you have to)"...and the "value of deadlines". She values "working under pressure without the luxury of lengthy timelines", a value she learned through her Program 2 externship experience. The "opportunity to work alongside people who were in the field and gain just a little bit of their knowledge and expertise, as well as, advice on how to achieve in my field was a blessing" for Patrice. As she stated about her Program 2 externship experience, "The expression that you can't get a job without experience and you can't get experience without a job in most instances holds true". Patrice believes that working with people in the field also provided" her "with more than just textbook knowledge". She had "real hands on experience... that was very important aspect of what E.B.C.E. provided" to her. Patrice is glad that she had a "real hands on experience" that allowed her to really work in a field she wanted to pursue "and experience almost everything". The externship helped Patrice maintain her "desire for the (journalism) career field".

Donald was allowed to “enter the adult world” and see “what really goes on professionally”. Donald truly felt useful “while at the (stock brokerage) office”. He wasn’t a licensed broker, so he was legally unable to do a lot of the regular broker jobs”. His mentor, however, allowed him to “get the closest feel of the job possible”. Donald was “able to help with the cold calling, read/evaluate/plan investor strategies”. He was so motivated that he even “went on evening” calls to investors “and helped set up and deliver a seminar for potential investors” which “ended up feeling like I could make a well-rounded decision on whether or not to pursue this career, due to the outstanding exposure in this field”. The most positive aspect of E.B.C.E. for Donald was the “bonus of real life experiences versus just the idea of a thing”.

Lola wanted to work in the health care profession as either a doctor or a nurse. She worked in a pediatrician’s office, Dr. Johnson, during her first semester externship and in a hospital, “Uptown Hospital II, during her second semester. Lola’s work with Dr. Johnson “was a very positive and enlightening experience”. She “did everything from greeting patients to doing charts for them” and “got more people interaction out of the experience than anything else”. Lola “felt part of the family at the clinic” and “particularly enjoyed taking weight and height measurements”. Through this experience, Lola saw “a lot about private practice and would probably have gone into that” if she hadn’t had the experience in Uptown Hospital II in the second semester. The “day to day” work in a clinic had a profound influence on her because she had to overcome her

shyness while “dealing with the general population” and “talk to patients to learn more about the job”.

She saw “a lot of kids on a day to day basis” who “were not able to have parents or family there on a daily basis and it was hard on them” and hard on Lola. The children looked forward to Lola’s visits “because they could see someone other than the nurses”. Lola “distinctly remember(s) a toddler that had been severely burned and the cries just seemed different (and you could hear them often)”. Another patient, at Uptown Hospital II, was a 20-year old, terminally-ill patient who was “talking about dying” while Lola was “talking about the prom”. Lola’s interaction with these young patients, and others, led her to believe that she might become burned out at a young age if she entered the health care profession because the visits to these young people had such a strong emotional effect on Lola. Nothing could replace just the experience of learning about life”. This “led to some very positive outcomes” for her and she now volunteers at hospitals, shelters, and other needy organizations.

Offering Feedback to Mentors

Three participants, Donald, Patrice, and Trina, gained enough self-confidence through their externship experiences that they offered their mentors feedback on work situations. Donald “wasn’t afraid to offer my feedback”. Patrice was given “constructive criticism” by her mentor(s) but also offered them “feedback” and “constructive criticism”. Trina “believed in” her ideas and offered her mentors “fresh insights” about the day to day operation of the primate section of the zoo. In each of these situations, the mentors were self-confident enough

and had fostered such a positive relationship with these former E.B.C.E. externship students, that the students felt comfortable offering feedback. The feedback to the mentors has helped each of the participants to develop self-confidence in their own abilities, a sense that has helped them develop professionally.

Job/Career Skills

Four participants, Lola, Patrice, Samantha, and Amanda, really valued the career/job skills they learned in Program 1. Lola said that she learned how to “get more information on something” and really values all of the careers skills she learned, especially learning how to write resumes that have impact. Patrice appreciated the “classes that spoke of the need to be on time, don’t do personal work during business time, and other important qualities such as that”. She also appreciated the job/career skills she learned, such as job searching skills, interviewing skills, and learning how to write resumes that have impact. Amanda appreciated learning how to research the classified ads and other skills she was taught in locating the right job. Amanda, Lola, Patrice, and Samantha value the interviewing skills they learned. Amanda really appreciates learning “how to conduct” herself during an interview by using a firm handshake and making “it my point to look someone in the eyes when I am speaking to them”. Samantha believes that the “mock interviews were awesome”. As a government administrator, she has “been an interviewer”. She realizes “how prepared I was in high school (for interviews) when some are ill-prepared after college”.

People skills

Lola, Trina, and Donna identified people skills as an important job/career skill that was learned through Program 2. Lola became “more of a people person” because she “learned to deal with people’s feelings”. Trina learned how to “communicate with people with all different backgrounds” and “with a vast number of professionals” with a “positive attitude”. Donna learned that she had “a desire to serve”. She has a “calling in a different capacity” to serve “people to achieve an education”.

Career and/or personal exploration/research

Donald, Trina, Patrice, Lola, and Donna developed the ability to explore and/or research careers through their Program 1 classroom experiences. E.B.C.E. “was a necessary part” of Donald’s “adolescent growth towards understanding what direction to take”. “E.B.C.E.’s impact has had a fantastic and motivating fuel for personal exploration” for Donald. He was able to “soul search and perform” in a “direction that was right” for him and then, “understanding what direction to take”, he was able to “pursue vocational ideas”. Program 2 allowed Donald “to enter into the adult world, and view what really goes on professionally in the work environment”. Seeing this enforced many ideas of responsibility that eventually allowed him to accomplish his current goal of flying jet aircraft. “Learning responsibility in the workplace, to include, social as well as professional” behaviors, have carried Donald “to farther places in the working world”.

Trina believes that Program 2 “prepared us to live it (our dreams) through internships and hard work within our chosen units of life”. Patrice earned who she is and “developed an approach” to her career. She knows that her “inner fear/nervousness means that she is passionate about getting the job done right”. Lola “learned to deal with people’s feelings” and “learned a lot about life in general and about herself”. Donna learned that “if you open your eyes and ask the right questions, or even if you just pay attention, you will stumble across the answers that you really need to help direct you”.

Life Skills

Amanda, Patrice, and Lola, appreciated the life skills they learned in Program 1. Amanda called the skills “the essentials of being an adult” because of all of the life skills she learned, including how to prepare tax returns, preparing a budget and locating and renting an apartment. Amanda remembers the tax return skills she learned “as if it was yesterday”. She even used those skills to make money while in college “doing others’ taxes”. She also remembers learning budgeting skills, “including everyday living, ...groceries, entertaining, clothing, and learning how to balance a checkbook. Patrice called the life skills she was taught in E.B.C.E. the “importance of being”. Lola really appreciated what she learned about personal finance, such as budgeting, banking, tax preparation, and the academic skills she was taught, such as memory skills, study skills, and test-taking skills. She remembers learning how to balance a checkbook and understanding personal finances “more than most people knew” which helped her to give her “parents helpful financial advice”.

Analyzing Strengths and Weaknesses

Patrice, Lola, and Trina learned how to analyze their strengths and weaknesses through E.B.C.E. Patrice learned who she is and an approach to career exploration and remembers that in Program 1, “we spent a great deal of time learning our strengths and weaknesses”. Knowing that helped Patrice focus her energies on her strengths. It also allowed her “to really understand that this is not a game”. She understands today understanding your professional strengths and weaknesses are critical.

When you realize that your livelihood depends on what you have done during the course of a day, you want to make sure that it matches your personality and that you can feel good about yourself. It has affected me professionally, because I make sure that I accept responsibility for those things in which I am involved.

I also make sure that if I am matched with a project that caters to my weaknesses instead of my strengths, I seek help and input from others.

Lola learned how to deal with people’s feelings and Trina learned “the importance of being your best even if chaos is all around”.

Personal Finance

Amanda and Lola really value the personal finance they learned during Program 1. Amanda remembers the tax return skills she learned “as if it was yesterday”. She even used those skills to make money while in college “doing others’ taxes”. She also remembers learning budgeting skills, “including everyday living,...groceries, entertaining, clothing, and learning how to balance a checkbook. Lola also remembers learning how to balance a checkbook and understanding personal finances “more than most people knew”. Lola “was able to give (her) parents helpful financial advice”.

Analysis of Findings for Research Question Two

Mentors had an extremely positive influence on both the professional and personal lives of participants. The real work aspects of E.B.C.E. and the experiential learning strategies which had a positive influence on the participants, reinforces John Dewey’s experiential learning theories and helped them to understand how professionals work on a daily basis. Participants earned the respect of their co-workers at their Program 2 externship placements and this led to a strong sense of self-confidence that has lasted to the present. The job/career skills learned through Program 1, the people skills, the interviewing skills, and the career research skills, have all had a long-term influence on the professional lives of the participants. The life skills, such as personal finance and learning how to analyze strengths and weaknesses, have been used by participants to assist others.

Research Question Three:

With regards to the relationships between program aspects of E.B.C.E. and their influence on students, do these relationships represent examples of flow?

It is very difficult to know if someone has had a flow experience even if the event takes place in the present. This study documented recollections of events that happened years ago. To identify flow experiences, I documented participant descriptions of situations where challenges were successfully met during Program 2 while the participants also indicated that the situation caused them to lose track of time and/or develop positive reactions to successfully meeting the challenges. Based on that criterion, seven participants experienced flow while addressing the challenges they experienced in Program 2, but only one indicated losing track of time. Six of the seven, Trina, Patrice, Natalie, Lola, Latoya, Donna, and Donald, experienced flow through their externship experiences and one, Donna, experienced flow in the Program 1.

Trina

Trina had a hard time “becoming an intern at the zoo because the program did not exist”. She took the challenges and became the first intern under 18 years of age”. She was “given the same duties as other staff members”. She believed in her ideas because she could give the zoo staff “fresh insights”. One of the hardest things she did was leave the “fun of high school” to work as an “unpaid extern”. When Trina worked at the zoo, time was never a factor”. She

loved “all the hard work and difficulties” she endured because working at the zoo and being accepted by her co-workers “was worth the fight”. Trina’s time was so rewarding that it made (her) life a pleasure”.

She was dedicated to working at the zoo where she lost herself in her work and in her friends and animals. Everything she did rewarded her because she was living her dreams. The challenges that she encountered at the zoo were good. Trina spent a lot of time “learning from others” about being “as professional as possible”. She did all of the same work as the regular zoo staff members, “manual labor, traces on animals, rat problems, medical records” and many others. Trina “learned behaviors” that she didn’t believe existed. She “attained the respect of co-workers”, something that she “needed” to help bolster her self-confidence. At first, Trina’s co-workers didn’t believe that she “had what it took to overcome the obstacles they provided”. They tested Trina’s strength in the field”. Program 2 taught Trina that “hard work and enough research to back up” her beliefs could help her achieve her goals and make “anything possible”. Trina was required to devise the curriculum for her participation at the zoo in addition to scheduling her workloads. She had to find research and material to convince the zoo staff that E.B.C.E. “would be beneficial” She had to make permission slips stating that she “chose to be in a dangerous environment” which had to be signed by both Trina and by her mother.

Trina has used some of the skills she learned in Program 2 to overcome some difficulties as an adult. She has been “involved with a group of people who had lost their way due to drugs”. For Trina, the “ability to talk to others and to

listen” through her Program 2 externship experience, “has been a blessing in making things easier in helping them overcome their shortcomings”. “Trina has “set up interviews with people to help them get their lives back on track”. She has “taught them the power of persuasion and also that your dress code is important in how others see you”. Trina believes that “you can help someone see the light sometimes it helps in letting them know that there is more out there”.

Patrice

Patrice had to respond to a “sink or swim situation” while in her Program 2 externship. While working as a reporter at a weekly newspaper, she was asked to write a story about an event sponsored by Coca-Cola. The editors asked her to write a “fluff piece” about the event but “Patrice decided to write a more in-depth piece. Patrice would have to “talk to strangers” about their reactions to the event, in order to write the more extensive piece. This was a particularly challenging task for Patrice who was a very shy high school student. This experience helped Patrice because she was required to interview strangers in order to get the job done. She “interviewed some people at the event to get their perspectives”. The “article was completely different than what the editors envisioned”. Patrice did feel like she was in a “sink or swim situation realizing that people can only tell you yes or no”. She had to adjust her questions quickly and ask probing questions. Patrice “felt pretty good after the editors read the story” and gave Patrice very positive feedback about the story. Patrice learned “to overcome fear in a sink or swim situation”. She learned that “sink or swim was

positive”. She also learned that she possessed the “power to do things that I would not have attempted to do”.

Donald

Donald had to prove his worth to his co-workers by “working and showing interest”. Once respect was earned, people gladly shared their knowledge of any question” Donald had. The challenge and the flow developed through his efforts to “earn that respect and indulge in ‘brain picking’”. Donald completed “tasks in a timely fashion” to earn the respect of his co-workers and then engage them in a dialogue that would help Donald “continue the learning process while in the field”. Even though Donald was a gifted and talented student, this was a new field for him and “there was a slight learning curve or plateau”. As time continued, Donald “had to think of new exploring ways to accomplish a complete understanding of the field”, he wanted to pursue. Donald also had to “acquire new ways of developing understanding while compiling the big picture”. “Every sense” Donald had “was developing around the exposure of activities, digesting it properly was another matter”.

Lola

At Uptown Hospital II, Lola had to “overcome shyness while dealing with the general population”. She had to “talk to patients to learn more about the job” and saw “a lot of kids on a day to day basis”. “A lot of them were not able to have parents or family there on a daily basis and it was hard on them” and hard on Lola when she talked to them all the time. The children looked forward to Lola’s visits “because they could see someone other than the nurses”. Lola “distinctly

remember a toddler that had been severely burned and the cries just seemed different (and you could hear them often)". Another patient, at Uptown Hospital II, a 20-year old, terminally-ill patient, was "talking about dying" while Lola was talking about the prom". Lola's interaction with these young patients, and others, led her to believe that she might become burned out at a young age if she entered the health care profession because the visits to these young people had such a strong emotional effect on Lola.

Natalie

Natalie's challenge occurred while she was working at the pharmacy at City Hospital. There were externs from St. Ignatius University also working at the pharmacy at City Hospital. A teacher from St. Ignatius was scheduled to visit the pharmacy on an evaluation visit and Natalie was asked to help prepare for the evaluation. Natalie became so involved in preparing for the visit that she failed to notice that the teacher arrived, completed the evaluation and left. Natalie was so focused on her preparatory tasks that she lost track of everything else. The pharmacist was so impressed with "Natalie's" work that he praised her and gave Natalie a very good evaluation.

Donna

For Donna, "just to be in a class, with high achieving, goal-oriented people, is a challenge and pushes you to be your best".

Latoya

Latoya realized that "initially, some workers (at Uptown Hospital) weren't receptive to high school students". Latoya realized that the key to acceptance

“was persistence and exhibiting interest” which led to acceptance as an extern. Latoya still follows this same work philosophy, of persistence and exhibiting interest, as a classroom teacher today.

Analysis of Findings for Question Three

It is very difficult to know if someone has had a flow experience even if the event takes place in the present, but I documented events that happened years ago. To identify flow experiences, I documented participant descriptions of situations where challenges were successfully met during Program 2 while the participants also indicated that the situation caused them to lose track of time and/or react positively to successfully meeting the challenges. (See Figure 6). Several participants indicated that they successfully met challenges while in Program 2 but only one indicated losing track of time. Six of the seven experienced flow through their externship experiences. The participants had real challenges to overcome while they were trying to win the respect of their co-workers, in a career area they wished to pursue. Some of them, like Donald and Trina had to constantly upgrade their skills to keep up with their co-workers. These experiences helped Donald and Trina to understand the importance of hard work. Trina further indicated a possible flow state while in Program 2 by stating that she was living her “dreams” and “time was never a factor”.

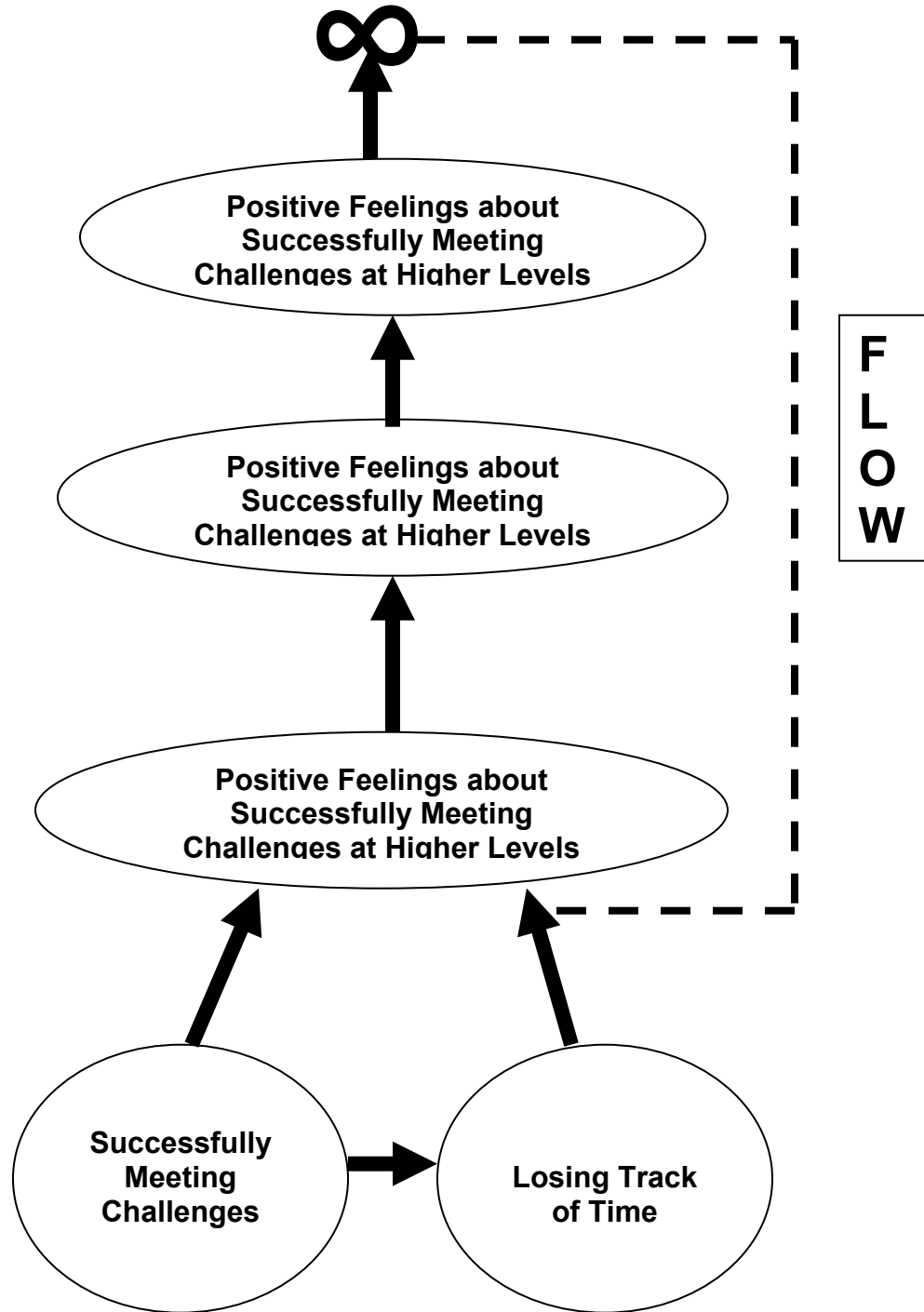
One participant, Lola, had the challenges of dealing with a terminally ill 20 year old patient and dealing with severely ill children. These challenges helped Lola to decide not to enter the health care field. Patrice had the Coca-Cola story challenge. She decided to interview strangers at a Coca-Cola event to get their

reactions to the event. This was an extremely challenging task because she was a very shy young person. This challenge had a major positive influence on her life and has helped to develop her career philosophy about dedication, commitment, and responsibility.

Some individuals engaged in a flow-related activity lose track of time because they are so engaged in the flow-related activity in addition to successfully meeting challenges while others do not lose track of time before losing track of time. Individuals who successfully meet challenges feel positive about their success. This positive feeling about successfully meeting the challenge leads individuals to seek higher level challenges. Individuals who successfully meet higher level challenges feel positive about their success. The recursive nature of meeting challenges leading to positive feelings and then higher level feelings is flow (See Figure 6).

For Program 2 students, successfully meeting challenges at externships, for example striving to win the respect of adult co-workers, led to positive feelings for the Program students and the desire to meet higher level challenges. The positive feelings about successfully meeting challenges and the desire to meet higher challenges was the start of this recursive process for the students.

Figure 6 - Flow Experiences



Summary

The data was gathered through Internet interviews and one online focus group with nine adult, former participants in the high school career exploration program, E.B.C.E., at Ellen Martin High School. Participants identified networking/mentoring as the most important aspect of the Program that influenced their professional growth. The influence of mentors was divided into influence on the professional lives of participants and on the personal lives of participants. Three participants specifically credit Program two's experiential learning approach, based on the philosophy of John Dewey, as a major reason why they had successful learning experiences in E.B.C.E. Participants valued the real work they did at their placements with professionals in career areas they wished to some day pursue. Some learned to value education based on their E.B.C.E. experiences while several learned skills that they still utilize today in their professions. Examples of those skills are written and oral communications skills, job skills, networking skills, and people skills. A subset of that category is the leadership skills used by two of the participants today on their job. Participants credit their Program experiences for the development of these skills as well as the development of self-confidence, a life guide/philosophy, career direction, career research skills, the skills to mentor others, and preparation for the future.

It is very difficult to know if someone has had a flow experience even if the event takes place in the present. This study documented recollections of events that happened years ago. To identify flow experiences, I documented participant

descriptions of situations where challenges were successfully met during Program 2 while the participants also indicated that the situation caused them to lose track of time and/or react positively to successfully meeting the challenges. Based on the criterion of participants successfully meeting challenges that led to positive reactions because the challenges were successfully met, seven participants experienced flow while addressing the challenges they experienced in Program 2, but only one indicated losing track of time.

CHAPTER FIVE

DISCUSSING THE RESULTS

This is a qualitative study in the nature of a phenomenological study of the long-term influence of a high school career exploration program on the professional lives of nine adult, former program participants, Experience-Based Career Education, E.B.C.E., at Ellen Martin High School, a school for college-bound honors students in a Southern city in the United States. E.B.C.E. was a career exploration program based on the experiential learning theory of John Dewey. It was a national program but the curriculum was altered based on the individual educational needs of each school site.

Based on the study's findings, I propose alterations to the Brophy Curriculum Model (1999), for cognitively and motivationally optimal learning (See Table 3) to adapt the general curricular model to the needs of career education programs. I propose that classroom teachers utilize student interest in learning about career options as a focal point in multi-disciplinary lessons. I raised questions about the role of cooperating teachers in mentoring student teachers. I also suggest changes in the manner community resources, including mentors, are utilized in both regular and career education programs. Finally, I recommend the research of the influence of the development of a new academic on staff unity when staff members are philosophically divided about curricular issues. This last issue was raised during the study but was not the focus of the study.

Discussion

In this study, I documented the influence of the career exploration program on the professional lives of former program participants. Secondly, I described the aspects of the career exploration program that most influenced the professional lives of former program participants. Finally, I explained the challenges that led to “flow” for participants while participating in the program. Flow is the only condition in which high challenges are linked to feelings of enjoyment, self-worth, and ongoing development for study participants. The data was gathered through Internet interviews and one online focus group with nine adult, former participants in the high school career exploration program, Experience-Based Career Education, E.B.C.E., at Ellen Martin High School. In this document, E.B.C.E. I (junior year of E.B.C.E.) is referred to as Program 1; E.B.C.E. II (senior year of E.B.C.E. including an externship with a mentor) is referred to as Program 2. The combination of the two years of the E.B.C.E. Program is also referred to as the Program.

Study Background

I undertook this research to understand the influences of the Experience-Based Career Education (E.B.C.E.) Program, a career exploration program on the adult professional lives of the program’s former high school participants. I also wanted to understand which aspect of E.B.C.E. had created these influences. Finally, I wanted to learn if the participants had experienced flow while they participated in the program. The study answered several questions but raised others. E.B.C.E. was the signature program at Spencer Alternative High

School, a school in the same building as Ellen Martin High School, a school with a traditional, college-bound curriculum that only admitted honor students. The E.B.C.E. Program was generally viewed, at both Spencer and Ellen Martin High School, as a program to dump low achieving students when I became the coordinator in 1986 after working as a Spencer teacher in the Program from 1979 to 1986. After becoming the coordinator, I made changes that encouraged high achieving Ellen Martin students to enroll in E.B.C.E. The Spencer Alternative faculty, which was eventually merged with the Ellen Martin faculty, complained to the administrator that the changes being made in E.B.C.E. would ruin the Program philosophy. Complaints about the changes in the Program stopped when it became obvious that students were having positive career experiences. By the time the Program ended in 1990, it was viewed very favorably by students at Ellen Martin High School.

The administrator of the two high schools housed in the Ellen Martin High School building, Ellen Martin High School and Spencer Alternative High School, viewed my changes in the E.B.C.E. curriculum as a way to bridge the differences between the two faculties and the two educational philosophies in the same building. Did E.B.C.E. have an influence on bringing the two staffs together academically? This question arose during the study and the question of utilizing an academic program to bridge the curricular gap between faculty factions should be studied further.

During this study, it became apparent that many of the participants acted in a more mature fashion while in the E.B.C.E. Program than would be expected

of the average high school student. This is another example how the Program encouraged the development of internal motivation in the program's participants. Working in a professional environment did have an influence on the participants, as several participants in this study mentioned. Did the altered E.B.C.E. Program attract high school students who were more mature than the average student or did real work experiences in adult professional environments have a maturing effect on the students? I did not assess the maturity level of students when they entered the program, so I couldn't assess the E.B.C.E. program's influence on the maturity of participants. I did unknowingly apply some adult learning principles while teaching E.B.C.E. The students learning experiences became self-directed because they were able to see that their futures were related to their E.B.C.E. experiences and saw the results of their efforts on a daily basis. These E.B.C.E. program participants were trying to win the respect of their adult co-workers who may have only understood adolescents who were self-directed.

Phenomenological Methodology

This was a qualitative study in the nature of a phenomenological study. Maurice Merleau-Ponty defined phenomenology as the study of essences, including the essence of perception and of consciousness providing a direct description of human experience. Phenomenological research, based on the philosophies of Husserl and Heidegger (Kerry & Armour, 2000), focuses on experience and understanding, making it unique among qualitative research (Imel, et al., 2002). Edmund Husserl, whose key ideas of phenomenology are "meaning", "consciousness", and "intentionality" (1931), viewed "intentionality"

as created the assumption that we are always engaged in the world (Willis, 1996). Husserl saw phenomenology as a philosophy and a theoretical discipline (McDuffie, 1988, p. 53). Merleau-Ponty's four "celebrated themes", description, reduction, essences, and intentionality (1962, v. viii), provide an entrance through which phenomenology can be accessed within the common themes of phenomenological philosophy.

Experience-Based Career Education (E.B.C.E.)

The Experience-Based Career Education Program, E.B.C.E., an experienced-based, student-centered program, helped students develop long-term career goals and then alter those goals based on community-based, career experiences during their junior and senior years at Ellen Martin High School in a large Southern city. E.B.C.E. emphasized broad career, personal, and intellectual goals while focusing on the gathering and development of information on which to base decisions about future careers and training instead of focusing on vocational skills. Program students' skills were scaffolded during Program 1 to enable them to work as non-paid externs in real jobs during Program 2. The key notion captured by most discussions of the scaffolding metaphor is that a joint but necessarily unequal engagement in a valued activity, with a gradual shift in responsibility.

The emergence of career and vocational education, specifically Experience-Based Career Education (E.B.C.E.) and school laboratories are directly attributable to John Dewey's belief that student interests and needs should be the basis for instruction (Page, 1990). Contextual learning, the basis

for career education programs, is synonymous with experiential learning, real-world education, active learning, experiential learning, and learner-centered instruction and is characterized by learning that helps students shape thinking by engaging with situations, objects and events through a socially shared environment (Weinbaum & Rogers, 1995). Experience-Based Career Education (E.B.C.E.), which began in early 1973, emphasized broad career, personal, and intellectual goals focused students enhancing academic skills, using career exploration and multiple off-campus sites to help students shape their educational and career plans (Farrar, et al. 1985).

E.B.C.E. at Spencer Alternative High School

Spencer Alternative High School, a school within the Ellen Martin High School Building, was the first site for E.B.C.E. in the city housing Spencer. E.B.C.E., along with the Spencer student population, was merged with Ellen Martin High School in 1986. Spencer Alternative High School and Ellen Martin High School had vastly different educational approaches and entirely different student populations. Spencer referred to itself as a “School without Walls” while Ellen Martin High School was the first magnet high school in the city and attracted a city-wide enrollment, serving exclusively students classified as honors students engaged in a more traditional college preparatory curriculum approach to instruction. Spencer students were “grandfathered into” Ellen Martin High School and Spencer High School was abolished.

Almost everything about Spencer, including the teachers, classes, curriculum, and the treatment of students, was more informal than Ellen Martin

and these differences created a dynamic tension and divisiveness that made it very difficult for Carl, the principal of both schools, to create one magnet school in the building. E.B.C.E. externships could be problematic because it gave students extensive independence to leave the building. Carl believed that the E.B.C.E. Program could help develop a bridge between the two schools but the attitude toward E.B.C.E. had to change. Some faculty members viewed E.B.C.E. as a tool to uplift students who had failed academically. Carl disagreed with E.B.C.E. being utilized in this manner and believed that none of the teachers, who viewed E.B.C.E. as a program to uplift academically at-risk students, understood his philosophy of “one single place”.

It was after Ellen Martin High School and Spencer Alternative High School merged that I was asked by the principal to change the Program curriculum after being given a tremendous amount of freedom to develop a strong academic program at Ellen Martin. I focused on recruiting Ellen Martin students which only admitted honors students, and it is the Ellen Martin student involvement with the Program that was the focus of this study.

Changes in E.B.C.E. Program

Under these conditions, I changed the E.B.C.E. curriculum in 1986. I changed the focus of E.B.C.E. from a subject-area focus to a career awareness focus divided into two one-year classes: Program 1 for eleventh graders and Program 2 for twelfth graders. Program 1 students spent two class periods a day in the classroom, for the entire school year, learning about themselves, their goals, their skills, their interests, researching careers, learning job-seeking skills,

problem solving skills, interpersonal skills, as well as improving their writing and speaking skills while learning how to promote their strengths in the job market. In the senior year, Program 2 students were placed as non-paid externs in career areas that they had researched during their junior year.

Learning and Learners Related to E.B.C.E.

While conducting this study, I encountered several aspects of learners and learning related to E.B.C.E., such as adult education, flow, the Brophy Curriculum Model and scaffolding. Experience-based learning meets the educational needs of adults because it allows the adults to incorporate their life experiences and life skills into a real situation and lends itself easily to the teaching of vocational skills (Lindeman, 1961). Mihalyi Csikszentmihalyi calls flow the only condition linking enjoyment, self-worth and development (Csikszentmihalyi & Schneider, 2000). It is a distinct state of consciousness that integrates high but effortless concentration, intrinsic motivation, loss of awareness of self and feelings of competence and freedom to challenges (Csikszentmihalyi, 1990a). Research of flow has focused on contexts or activities in eliciting flow (LeFevre, 1988) and on the range of peoples' experiences in flow (Adlai-Gail, 1994). However, there have been only a few longitudinal studies of the flow experiences (Csikszentmihalyi, et al., 1993; Hektner & Csikszentmihalyi, 1996; Csikszentmihalyi & Schneider, 2000), and these studies focused on the flow experiences of adolescents. Jere Brophy (1999), who believes that Csikszentmihalyi's (1993) flow concept does not describe intrinsic motivation and does not explain why people seek flow experiences in some situations but not in

others, designed a curricular model which explains participant experiences when they encountered challenges (See Table 3).

Description of Participants

A total of nine former Program students, all students at Ellen Martin High School, a school that only admitted honors students, in a Southern city in the United States were interviewed for this study. The data was gathered through Internet interviews and one online focus group with adult, former Program 1 and Program 2 participants. To maintain anonymity, I changed the names of study participants and locations cited in this study. Eight of the nine participants graduated from high school in 1990 and one graduated from high school in 1989. Eight of the nine study participants are female and seven of the nine participants are African American. The one male participant is Caucasian and one female is Hispanic. The participants range in age from 32 years of age to 33 years of age. I did not inquire about the marital status of the participants but some of them volunteered that information and I mentioned the marital status of the participants only if they indicated that a change in that status had affected their professional lives.

Eight of the nine participants have college degrees with three of the participants having received advanced degrees. One is a pediatrician; one participant holds a Masters Degree in Business Administration, and another has received a Masters Degree in Information Systems. Two participants have two bachelor degrees each. One has a Bachelor of Science in Physics and Chemistry with ACS certification and a Bachelor of Science Degree in Chemical

Engineering. Another participant has a Bachelor of Science Degree in Business Administration and a Bachelor of Science Degree in Public Policy with a focus on Urban and Regional Planning. One participant has a Bachelor of Science Degree in Professional Aviation with a minor in Aviation Management and one participant has a Bachelor of Arts Degree in Communication. The final participant attended college for three years and majored in anthropology before dropping out of college to become a restaurant manager. She is now interested in receiving culinary arts instruction to enhance her chances of owning a restaurant.

Description of Meaning Units/Findings

I followed Giorgi's (1985) four main steps, based on Merleau-Ponty's four themes, to analyze data in an effort to find emergent themes. I read and re-read the entire description of Program participant experiences and then broke down the text into discriminate "meaning units" through coding (See Tables 11 – 16). I transformed participant comments to determine essential meaning units and then I recognized commonalities across the participants' experiences of the phenomena. These commonalities or themes were compared to the research questions to determine if the research questions had been answered by these findings.

Finding One:

What is the influence of the Experience-Based Career Education (E.B.C.E.) Program on the adult professional lives of former E.B.C.E students at Ellen Martin High School?

Several participants believe that they are better prepared for the future because of their E.B.C.E. experiences. Based on the findings, the E.B.C.E. Program helped study participants to acquire the skills they use today in their professions, such as written and oral communications skills, job skills, networking skills, people skills, and leadership skills used by two of the participants as managers today. Study participants developed a sense of self-confidence, life guides and philosophies while participating in the program, especially the externship aspect of Program 2 while working with adult mentors involved in “real work” in career areas the participants wished to pursue. Even though none of the nine participants in the study are still in the same career area they studied while in E.B.C.E., four of them pursued the same area in college before changing their career goals after their college experiences. Some participants have used the skills they learned in E.B.C.E. to mentor others in career development while still seeking to research career options for themselves. This is another example of the participants extending what they learned. Several participants made comments such as repaying the debt for what was done for them by Program 2 externship mentors. Others commented that it was important to them that any mentoring activities should be “real work” modeled after their Program 2 experiences.

Finding Two:

What aspect(s) of the E.B.C.E. Program had the greatest influences on the adult professional lives of former E.B.C.E students at Ellen Martin High School?

Participants identified their mentoring/networking experiences during E.B.C.E. as the most important influence on their professional growth. The influence of mentors was divided into influence on the professional lives of participants and on the personal lives of participants. Participants also indicated that earning the respect of their adult co-workers at their Program 2 externship placements was extremely important to them because the participants were engaged in “real work” while winning of the respect of their co-workers. This helped participants helped them develop a sense of self-confidence that they still maintain today. Some participants became so confident that they offered feedback to their adult mentors about the job even though they were adolescent externs in an adult professional work world at the time. E.B.C.E. also helped some participants learn the value of education based on their experiences in their Program 2 externships.

Three participants mentioned that the experiential learning approach to the Program, based on the philosophy of John Dewey, really helped them. One stated that the “exposure to the professional world” shaped the path she wished to follow. One learned “from the experience” and used it in the future while another really liked the “hands on examples of all the topics discussed”. Some participants stated that the people skills they learned were extremely important,

while others indicated that the life skills such as the career, the personal exploration research skills, the ability to assess strengths and weaknesses or the personal finance skills have become important skills in their adult lives..

Convergence of Findings One and Two with Literature

The experiential-learning aspect of the Experience-Based Career Education Program is based on the philosophy of John Dewey. Dewey believed that education occurred when a child's powers were stimulated through the experience of social situations which require the child to act as a group, proposed a child-centered, experiential learning, problem-solving philosophy, and recognition of the need for giving more attention to the interests of students (Dewey, 1933, 1938, 1956; Page, 1990). E.B.C.E. students experienced real-world education, active learning that helps students shape thinking by engaging with situations, objects and events through a socially shared environment (Weinbaum & Rogers, 1995).

Working with adults in community settings was found to be a valuable educational experience in a study by the American Youth Policy Forum (2000). Program 2's real-world, adult externship experiences encouraged students to develop general, transferable skills (Hull, et al., 1996). This "hands-on" approach helped Program students refine and extend what they learned at work so that they could develop the skills, habits, and attitudes necessary to be successful in a career area (Taylor, 1997). They modeled the work ethic of their externship mentors, exposed students to the world of work, contextualized learning

experiences for them, and gave them the opportunity to work with adults in community settings outside the classroom.

Study participants developed skills such as communication skills, people skills instead of skills associated with a specific career or vocation. They considered these general, transferable skills, developed through the Program, as important skills they utilize in their professions today. Many developed self-confidence because they worked in the adult work world and earned the respect of their adult co-workers. Several developed a value system based on their Program experiences which they still utilize today. E.B.C.E. Program participants altered their career goals based on their experiences and several learned to value education through their Program experiences.

They thrived in the active learning, problem solving, and real life experiences of their externships because they worked every day in an adult environment. Program students' experiences unwittingly paralleled Knowles' Adult Learning Model (1980), which encourages independence, self-direction, and self-discipline while seeking active learning, problem solving, and real life experiences (Knowles, 1980). The real work done by the participants at their placements in an adult work environment helped them to understand how professionals work on a daily basis. Most participants indicated that the combination of the mentors and the externship experience was the most important aspect of their Program 2 experience. These adult mentoring experiences had a major influence on the participants, both professionally and personally. Some have even maintained contact with their Program 2 mentors

today. Participants earned the respect of their co-workers at their externship placements and this led to a strong sense of self-confidence that has lasted to the present.

Finding Three:

With regards to the relationships between program aspects of E.B.C.E. and their influence on students, do these relationships represent examples of flow?

It is very difficult to know if someone has had a flow experience even if the event takes place in the present. This study documented recollections of events that happened years ago. To document flow experiences, I looked for participant descriptions of situations where challenges were successfully met during the Program while the participants also indicated that the situation caused them to lose track of time and/or develop positive reactions because challenges were successfully met. Based on the criterion of participants successfully meeting challenges leading to participant positive reactions, seven participants experienced flow while addressing the challenges they experienced in the Program, but only one indicated losing track of time. Six of the seven experienced flow through their Program 2 externship experiences and one experienced flow in Program 1.

Study participants were required to meet high challenges as high school seniors while working as non-paid externs on a daily basis in the adult work world. They had to win over their adult co-workers while doing many of the same

jobs the adults were required to do. One participant described this experience as “living my dream”. Another extremely shy individual had to deal with a 20 year old who was terminally ill and talking about dying. Another participant had to overcome her shyness in order to write a story that was published in a weekly newspaper. Another participant had to use all his intellectual skills as a gifted and talented student to learn enough about the stock brokerage industry to win the respect of his co-workers so that he could ask them additional questions. In each of these situations, Program 2 students rose to meet the high level of challenges that confronted them. The action of meeting these high challenges led to positive feelings about themselves and states of flow. These challenge situations were so profound that the study participants remember them in great detail more than fifteen years after encountering them.

Convergence of Finding Three with Literature

Flow is the spontaneous, effortless experience achieved when there is a close match between a high level of challenges and the skills necessary to meet the challenge (Scherer, 2002). Flow is the “engine of evolution propelling us to higher levels of complexity” (Csikszentmihalyi, 1997a, p. 142) linking effortless concentration, intrinsic motivation, loss of awareness of self and feelings of competence and freedom to challenges with enjoyment, self-worth and development (Csikszentmihalyi, 1990b; Csikszentmihalyi & Schneider, 2000). Individuals in flow report immersed concentration, centered attention with minimization of distractions. “People report that they lose track of time and their

daily problems, forget about hunger and fatigue, and feel well-matched to the activity at hand” (Whalen, 1999, p. 162).

Successfully meeting challenges leads individuals to seek higher level challenges and higher levels of flow (Csikszentmihalyi, 1997). The recursive nature of meeting challenges leading to positive feelings and then higher level feelings is flow (See Figure 6). For Program 2 students, successfully meeting challenges at externships, for example striving to win the respect of adult co-workers, led to positive feelings for the Program 2 students and the desire to meet higher level challenges. The positive feelings about successfully meeting challenges and the desire to meet higher challenges were the start of this recursive process for Program students that have continued into adulthood.

Rival Theory

An alternate theory for the findings in this study is that the participants were influenced by someone not associated with the Program, for example their parents. I did not question the participants about their parents. It is logical to believe that their parents did have an influence on them and could have possibly taught the participants the same skills they learned in E.B.C.E. That is why I probed the participants’ answers for details about their E.B.C.E. experiences and who influenced them while they participated in E.B.C.E. Most participants gave very detailed descriptions about what they learned, when they learned it and who helped them learn it. Many participants attributed a great deal of the credit to their Program 2 externship mentors and to the challenges they overcame at their externships.

Study Limitations

This study documented the influence of a career exploration program, Experience-Based Career Education (E.B.C.E.), had on the professional lives of nine former program participants who are now in their thirties. This study only documented the experiences of individuals who participated in the Program at one high school, Ellen Martin High School in the 1980's in a Southern city in the United States. These participants were all honor students who were used to achieving academically. Additionally, most of these students were economically disadvantaged who didn't have connections through either family or friends to explore career interests on their own.

I did not question former Program 2 mentors about the program nor did I interview individuals in similar career education programs. E.B.C.E. was uniquely implemented at each site that used the E.B.C.E. Program curriculum. At some sites, it was used to remediate low achieving students, while at other sites it was used to improve academic achievement through the experiential learning process in both career education and academic areas. At Ellen Martin High School, E.B.C.E. was used exclusively as a tool to help students make career decisions after experiencing a career area through an externship.

Data was gathered exclusively through an online methodology, including an asynchronous focus group session and follow-up emails to individual participants. Utilizing solely an online methodology in this study had its benefits and its problems. The interviews did not have to be transcribed, which saved time and maintained the accuracy of the interview. On the other hand, an online

methodology created some problems. For example, it was occasionally difficult to get participants back online after they answered online study questions. I could not get four participants to answer questions during the online focus group session. They stopped answering questions after they answered the background questions and the initial three questions. I had to phone one participant every time he was supposed to get back online to answer additional questions because he often travels and seldom checks his email. Weighing the pros and cons of this methodology, it was the best methodology available to me because participants were spread throughout the country and an online approach was the only way to gather data effectively and rapidly.

I had a problem locating participants for this study. Just determining who was actually in the Program was difficult. I had to rely on a former guidance counselor at Ellen Martin High School to compile a list of participants from school records. The records were fairly accurate but I had to rely on the memories of Program participants to fine-tune the list of participants. These participants are now 32 or 33 years of age and living throughout the country with many females using their marriage name instead of their maiden names. I located several participants after I joined *Classmates.com* but some didn't remember if they had participated in both Program 1 and Program 2. The organizers of both the 1989 and 1990 Ellen Martin High School Reunions were particularly helpful in locating participants. The organizer of the 1990 reunion contacted me after she heard that I was looking for participants and volunteered to contact former E.B.C.E.

participants. I was able to interview three E.B.C.E. participants for a pilot study and interviewed nine for this study.

This was not a longitudinal study, which would have provided data at various intervals during the lives of these study participants. This would have allowed me to better understand the influences of the E.B.C.E. over time and the influences of factors other than the participants' E.B.C.E. Program experiences. I documented the long-term influence of E.B.C.E. on the professional lives of these nine students. I did not assess the influence of any other factors on these students such as the influence of family, friends, or professional colleagues. Studies should be conducted to understand the long-term influence of career and/or vocational programs on other populations. These studies should explore the influence of career and/or vocational programs on non-honors students or students in areas other than urban areas. Studies should also explore the influence of such programs on students from middle income or higher income backgrounds.

Theoretical Implications

Experience-Based Career Education's (E.B.C.E.) experiential, hands-on approach to career exploration, based on the philosophy of John Dewey, had a positive, long-lasting influence on the professional lives of the study participants. This study found that Program students were motivated through applied learning and the integration of academic and career and technical education which has been found to be effective in studies by Imel, (2000); American Youth Policy Forum (2000); (Lewis), 2000; and Steinberg et al., (1999). Society's needs and

knowledge of enduring values were not a planned part of the curriculum but the findings indicate that both have influenced the professional lives of program participants. Several developed a philosophy about their careers based on their Program experiences and have become mentors to others while two participants have established programs similar to E.B.C.E. Participants appreciated the authentic work activities and understood their real life applications. These activities were seen as challenging but enjoyable leading to individual, interpersonal growth, and flow experiences.

Flow experiences and a sense of self-confidence occurred for study participants when challenges and skills were maximized and equal leading to positive feelings about the event (Whalen & Csikszentmihalyi, 1991; Csikszentmihalyi, 1997a). Often, these challenges were purposely placed in front of the students by adults to test them. Mihaly Csikszentmihalyi's Theory of Flow defines the difference between enjoyment and pleasure; an optimal experience which is created when experiences are so enjoyable that they are pursued for their own sake (Csikszentmihalyi, 1997b). Flow is the spontaneous, effortless experience achieved when there is a close match between a high level of challenge and the skills to necessary meet the challenge (Scherer, 2002). While in a state of flow, people often report feeling happy, satisfied, creative with complete involvement in a task, creating deep concentration enhanced by moment by moment feedback about the steps taken and the next required step (Csikszentmihalyi & LeFevre, 1989; Csikszentmihalyi & Schneider, 2000).

Externship mentors played an extremely important role in this entire process by modeling, coaching, and scaffolding learners to understand a career area and to value learning as self-relevant and applicable to life outside of school. They became motivators and teachers to help Program students achieve the goals of the learning activities. Motivation to learn may be optimized when the learning goals and activities are perceived as self-relevant or lie within the learners' motivational zones of proximal development (ZPD) (Brophy, 1999). "Content and learning activities must be matched to the learners' cognitive levels combined with a supportive context without the interference of extrinsic pressures or incentives to foster intrinsic motivation" (Brophy, 1999, p. 76).

Brophy's curricular model (See Table 1) proposes that learning activities match a learner's prior knowledge and experiences to stimulate interest in the activity. "If a learner does not understand an activity or appreciate its potential value, or if the learner has had unrewarding experiences with the activity, then there wouldn't be learner interest in the activity" (Brophy, 1999, p. 77). Program learning goals were created because they were either below or within the students' motivational and cognitive Zone of Proximal Development (ZPD). As the findings indicate, E.B.C.E. students encountered cognitive challenges above their cognitive ZPD but not above their motivational ZPD. Earning the respect of adult co-workers and motivation by mentors helped students to successfully overcome challenges above their motivational ZPD. One participant mentioned that she was "living (her) dream" and another mentioned that there was a "huge learning curve".

Implications for Education

Curricular Implications

Based on the findings in this study, I suggest the addition of three factors to the Brophy Model (Table 3) to change the model from a general curricular model to a career education model: choosing mentors, planned disequilibrium, and adequate preparation of students prior to placing them in externships. Mentors must be carefully chosen and trained to give program participants the maximum career experience. Findings indicate that Program participants valued the close relationship they had with their externship mentors and several have maintained relationships with their Program 2 mentors to this day. The selection of mentors who were willing to work with and motivate young, impressionable students was a critical element in the success of the E.B.C.E. Program.

Both Piaget (Ginsburg, 1982) and Vygotsky (Stone & Wertsch, 1984) believed that disequilibrium was a process necessary to learning, because if everything goes according to plan, nothing rises to the level of consciousness. Disequilibrium, or cognitive imbalance, is a state that occurs when the learner is unable to assimilate an experience or achieve a goal. It motivates the students' search for better knowledge and a valid solution. When students question conflicting ideas as they go about solving problems, the cognitive conflict generated becomes the "mediator between peer interaction and cognitive reorganization" (Forman & Cazden, 1985, p. 339). By placing Program 2 students in real world adult work environments, they experienced disequilibrium, or as they mentioned, striving to earn the respect of their co-workers or having to

overcome obstacles placed in their paths. Based on the findings in this study, participants rose to meet challenges they encountered through Program 2 externship placements. These challenges brought positive results and an increase of self confidence and states of flow.

The recursive process of planned disequilibrium led to an increase of skills to meet higher challenges creating higher order thinking and a further increase in cognitive and motivation capacity. During Program 1, students researched their career interests while learning general “soft skills” like interviewing skills, asking probing questions, and interpersonal skills necessary to succeed at the work place. These skills gave the students the confidence to react to challenges presented to them by their adult co-workers. They entered their externships motivated to fit into the adult environments they encountered and the confidence to adapt. Successful student externships don’t happen without adequately preparing students for externships in the adult work world, carefully choosing and training mentors, or without placing students in planned disequilibrium situations that are within their cognitive and motivational ZPD’s.

Implications for Classroom Teachers

The study’s findings have several implications for classroom teachers. The experiential nature of E.B.C.E. had a very positive influence on study participants. This positive influence leads me to ask several questions about the utilization of experiential learning in the classroom. How can classroom teachers utilize experiential learning in the classroom? How can teachers prepare students to utilize hands-on experiences to foster their learning process? E.B.C.E.

students underwent scaffolding to prepare them for their externship experiences in the community. How do classroom teachers utilize community resources to enhance experiential learning? What preparation is used to scaffold student understanding of the use of community resources by students or experiential learning?

Mentors played an important role in helping Program 2 students develop the skills necessary to succeed at externships while also helping students to develop career and/or personal goals while also helping students both professionally and personally. I propose additional research of current mentoring programs to determine how best to help students develop the skills necessary to succeed in the classroom. Program 2 mentors underwent preparation prior to working with students. Mentors understood the E.B.C.E. Program's goals and were able to interview each student they mentored prior to taking on the role of mentor. When adults volunteer to work with students in the classroom, how much planning goes into preparing the adult mentor to assist in the classroom prior to working with students in the classroom? Are these adult mentors given an opportunity to understand students' individual needs prior to mentoring students in the classroom?

This study found that participants were very eager to experience their career interests through externships. Career exploration can become a focal point for multi-disciplinary lessons in the classroom. The concept of career is one that involves all socio-economic groups and is a source of curiosity for almost all children from a very early age when they are asked, "What do you want to do

when you grow up?” Children act out these interests through play. This same interest in careers can be used in the classroom to help students understand the relevance of mathematics, language arts and other subjects by helping students to discover how those subjects are used in various careers.

Implications for Teacher Education

Cooperating teachers mentor student teachers in their first classroom teaching experiences. These cooperating teachers are usually veteran teachers who have taken a one or two graduate courses to prepare them for the cooperating teacher role. How much is done to prepare the cooperating teacher to work with a specific student teacher? Is the student teacher given the opportunity to observe and/or meet with the cooperating teacher prior to beginning the student teaching process? What are the college’s expectations of the cooperating teacher and the student teaching process? Are these expectations explained to the cooperating teacher and the student teacher? Do all parties in the process participate in designing a strategy to accomplish programmatic goals? Is there an effort made to match cooperating teachers and student teachers based on personalities and/or interests?

Implications for Further Research

Based on the findings in this study, mentors helped students to develop a sense of self confidence while guiding them through their externships. Some participants have maintained a long-term positive relationship with their mentors. None of the study’s participants are in the same career areas they researched while in E.B.C.E., but many have developed a philosophy about what is required

to be successful in careers and in life. E.B.C.E. was a career exploration program that helped students to make career decisions based on their externship experiences. The students weren't taught specific vocational skills prior to their externships and worked primarily in white collar jobs. Students who are taught specific vocational skills, such as welding and carpentry in such program as Tech Prep, prior to experiencing externships should be studied to see if they also develop philosophies about work and/or life.

All participants in this study were honor students when they were in high school. They were used to achieving at a high academic level in many courses. I did not try to determine how much of the participants' success in the E.B.C.E. Program could be attributable to their pattern of success in other academic courses. A study should be conducted with non-honors students to document their success in career education courses to determine the influence of career education programs on career education students.

I did not question externship mentors about their Program 2 experiences. These mentors played an important role in helping Program students make both professional and personal decisions. A study should be conducted to understand the influence of mentors on career education students. Does the mentor play a more important role than the externship location? If the mentor moves to another location, should the students follow? These questions should also be studied.

I did not assess how self-directed E.B.C.E. participants were prior to entering the E.B.C.E. Program. The participants learned how to set goals and achieve goals in Program 1 prior to experiencing their Program 2 externships.

Most of the students participating in the revised E.B.C.E. Program seemed to be self-directed and more mature than the average student, with the exception of two study participants who did not understand the value of E.B.C.E. until they entered college or the adult work world as full-time workers. Did E.B.C.E., at Ellen Martin High School, attract more mature, self-directed high school students than the average high school student or did real work experiences in adult professional environments have a maturing effect on the students? I did not assess the maturity level of students prior to their entry in E.B.C.E. A study documenting the maturity level of participants in career education prior to entering the program would indicate the influence of the program on the maturity of level of the participants if the participants in that program were compared to students who do not participate in a career education program.

The administrator of the two high schools housed in the Ellen Martin Building saw E.B.C.E. as becoming more academically challenging under my coordination. He also saw E.B.C.E. as a focal point to pull together the staffs from the two high schools housed in the same building. I did not attempt to document any influence the revised Program had on pulling the two staffs together. Did the alteration of a signature curricular program for one school in the building, E.B.C.E., which attracted high achieving students from another high school in the same building, serve as a catalyst for the merger of the staffs from two high schools? This question arose during the study and should be studied further.

Participants indicated that they rose to meet challenges placed in their paths at their Program 2 externships. In this study, participants had to recall challenges and their reactions to those challenges. Time could have altered the participants' memories about their Program 2 challenges and their reactions to those challenges. Students in current career education program should be questioned about their challenges and their reactions to those challenges. This may "explain why people seek flow experiences in certain domains and not in others" (Brophy, 1999, p. 77).

Conclusions

I started this study seeking to learn if a high school career exploration program, Experience-Based Career Education (E.B.C.E.), I developed and coordinated in the 1980's had had an influence on the professional lives of the program's participants. Specifically, I wanted to know if the E.B.C.E. Program had influenced the professional lives of its participants and if so what aspect of E.B.C.E. had created this influence. Additionally, I wanted to know if the participants had experienced states of flow while participating in the Program. I was struck by the long-term influences of the Program on participants. All teachers hope to teach something that can influence the lives of students but the E.B.C.E. Program exceeded my expectations.

Externship mentors had a major positive influence on the study participants, both personally and professionally. Participants were struggling to earn the respect of their co-workers at their placements and this struggle led to states of flow and heightened students' sense of self-confidence, something that

has lasted to this day. E.B.C.E. students encountered challenges placed in their paths by their externship mentors and co-workers. The students had to utilize their skills to overcome these challenges. These challenges led to flow experiences for the students, who gained self-confidence, which they still maintain to today. In order to successfully meet the challenges students experienced in the adult work world, they underwent one year of preparation in the classroom, which many of the participants deemed essential before their externship experiences. Mentors were used to model, coach, and scaffold students' skill levels when those skills were within the zone of proximal development. The long-term influence of E.B.C.E. mentors was an unexpected outcome for the E.B.C.E. Program. For some participants, they still have a professional and personal relationship with their mentors.

A lot is known about individual motivation to accomplish clear goals, but very little is known about motivation when there aren't clear, delineated goals. Learning activities must match a learner's prior knowledge and experiences to stimulate interest in the activity. My suggested alterations to the Brophy Curricular Model, (Table 3) are aimed at making the model more usable as a career education curricular model and are based on the findings in this study.

Concluding Remarks

I have grown personally and professionally through this research. I looked forward to researching the influence of E.B.C.E., a program I was intimately involved with for several years. Every teacher wants to know if what was taught influenced students and if that influence was a long-term one. This was the spark

that generated the interest in this study but I feared that researcher biases would make studying the E.B.C.E. Program at Ellen Martin High School very difficult. I anticipated the positive influences of E.B.C.E. but I didn't anticipate the extent of those influences on the professional lives of the participants. I understand my researcher biases in this study which I cannot change, but my awareness of them has helped me to conduct the study fairly and professionally.

Many of the positive influences on the professional lives of the participants in this study were unexpected. I had no idea that the Program would have such a positive influence on the lives of these participants. I believe that Program 1 prepared the students for the challenges they encountered in their Program 2 externships. The findings of the positive influence of challenges on the participants have led me to believe that educators should increase challenges in the classroom to increase the possibility of flow. Participants' learning became self-directed when faced with challenges. Curriculum developers and teachers should seek opportunities to create self-directed student outcomes through planned disequilibrium leading to flow experiences which then lead to self-directed learning.

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APPENDIX A
Background Questions

Background Questions

1. What full-time jobs have you held since you left high school?
2. What is your current job?
3. How long have you held this job?
4. What is the highest level of education you have attained?
5. Are you currently pursuing additional education? If so, what are you pursuing?
6. What is your career goal?
7. How has this goal changed since you left high school?
8. Where do you expect to be, career-wise, in the next five years?
9. Where do you expect to be, career-wise, in the next ten years?

APPENDIX B

Interview Questions

Interview Questions

Interview Questions

1. During E.B.C.E. (Experience-Based Career Education), you participated in a two-year career exploration program that was divided into two parts: your junior year in the classroom and your senior year working as a non-paid intern. Did anything that you learned or experienced through E.B.C.E. have an affect on your life after high school? If so, describe the affect it had.
2. Describe the most important experience you had in E.B.C.E. Why was this experience so important to you? (Probing questions depending on their answers.)
 1. What has been the long-term influence of E.B.C.E. on you?
 2. Describe challenging situations that you may have encountered while you participated in E.B.C.E. How did you react to these challenges?

APPENDIX C

Discussion Board Follow Up Questions

Discussion Board Follow Up Questions

1. After looking at the answers you provided to the first questions, it appears that the biggest influence of EBCE on you, professionally, were in the following areas:
 - prepared you for your current career
 - helped you develop self-confidence
 - helped you to develop mentor/networking relationships
 - developed a sense of commitment and dedication
 - convinced you to change career paths
 - helped you understand the importance of career research
 - taught you career skills (job search, interviewing, resume, etc.)
 - taught you life skills (budgeting, taxes, banking, finding an apartment, etc.)
 - prepared you for the future
 - prepared you to apply skills after leaving McMain
 - developed a desire to learn
 - developed a sense of responsibility
 - helped you find a career that makes you happy
 - became an advocate for students

Please select three aspects of EBCE that had the biggest influence on you professionally (do not limit yourself to the list above), explain why you picked those three and which one had the greatest influence on you, professionally.

2. Some of you mentioned the following aspects of the EBCE program that helped create the influence you mentioned in question 1:
 - internships were real
 - mentoring relationships
 - relationship to EBCE teacher
 - learned job/career skills (job search, interviewing, resume, etc.)
 - learned life skills (budgeting, taxes, banking, finding an apartment, etc.)
 - professional atmosphere of internships
 - learning by asking questions at internship
 - being surrounded by motivated students
 - interesting, unique experiences that you wouldn't have had otherwise

Please select three aspects of the EBCE program that were most responsible for creating the influence you mentioned in question 1, (do not limit yourself to the list above), explain why you picked those three and which one helped you the most.

3. Several of you wrote about challenging situations that led to positive outcomes while you participated in EBCE.
 - For example, one of you mentioned that you had to convince adults that you belonged at the placement. This led eventually to a feeling of being lost in your work, where time was never a factor, and a belief in yourself, because you were living your dream.
 - Several of you mentioned the influence of doing real work, for example learning to overcome fear in a sink or swim situation.
 - One of you mentioned losing track of time when you prepared for an evaluation by outsiders which led to praise by adults at your placement.
 - One of you mentioned encountering a young person who was terminally ill and the long-term influence this had on you.
 - Several of you mentioned other stories.

Please expand on some of these stories to explain how this experience led to positive feelings about yourself, if this led deep involvement in these activities, and what you learned from the experience.

Vita

Roger H. Nadeau was born in New Orleans, Louisiana on May 15, 1948. He graduated from the University of New Orleans in 1971 with a Bachelor of Science Degree in Marketing. After a tour of duty as a U.S. Air Force First Lieutenant, he received his Bachelor of Arts Degree from the University of New Orleans in Secondary Education with a major focus on Social Studies Education and a minor in Speech Education in 1977. Mr. Nadeau taught social studies, speech, and career education in the New Orleans for many years and continues to teach gifted social studies in the suburban Jefferson Parish School System.

After he received his Masters Degree in Curriculum and Instruction from the University of New Orleans in 1979, Mr. Nadeau immediately started work to complete requirements for his Principal Certification, which he achieved in 1984. He completed all requirements for his Level "A" Program Evaluation Certification in 1991, and has worked as a contract program evaluator on evaluations of educational programs and several assessments Louisiana Medicaid Waiver Programs. He entered the Doctoral Program at U.N.O. in 1998 with a focus on documenting the long-

term influences of the career education program he coordinated in the New Orleans Public Schools, the Experience Based Career Education (E.B.C.E. Program). The research, which documented the influence of a career education program on honors students, holds promise for future research into the long-term academic and professional influences of mentors and the long-term influences of career education on high achieving students.