THE AFFECT OF COOPERATIVE EDUCATION ON THE COLLEGE OF TECHNOLOGY (2005-2009) GRADUATES FROM BOWLING GREEN STATE UNIVERSITY

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ABSTRACT

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Bowling Green State University’s cooperative education program integrates their students’ academic programs with hands-on training in the workforce. In 2010, a study was organized to identify the affect of cooperative education on the College of Technology, Bachelor of Science graduates who participated in the required cooperative education program at Bowling Green State University. A behavioral change and attitudinal assessment survey, which was developed by Karen Bloomfield for a similar 2005 study, was utilized to evaluate the learning outcomes of the College of Technology graduates in this study. The survey was e-mailed or mailed to 1,181 College of Technology graduates from 2005 through 2009, and almost 13% of the graduates responded to the survey.

From the data gathered, demographic, employment-related, and behavioral change and attitudinal assessment information was collected from the respondents. Under demographic information, the results of the survey showed that about 65% of the respondents were males. Under the employment-related information, the survey showed that approximately 59% of the graduates secured their first job before graduation.

The behavioral change and attitudinal assessment evaluation contained thirty questions and statements. The respondents were instructed to respond on a four-point Likert scale to what degree they agreed with each statement. Almost 91% of the respondents indicated that they either agreed or strongly agreed that their co-op
experiences increased their self-confidence. Also, approximately 92% of the respondents replied that their co-op experiences helped to develop their professional work habits.

As a result of this study, updated demographic and employment-related information was obtained for the College of Technology at Bowling Green State University. In whole, the results showed that cooperative education has had a positive effect on the 2005 through 2009 College of Technology graduates from Bowling Green State University.
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CHAPTER I. INTRODUCTION

Context of Problem

Cooperative education (co-op) has become an important tool in academic curricula, especially throughout the 1970s, 1980s, and 1990s. Cooperative education is an “instructional method that links classroom instruction and work for the purpose of enhancing the total educational program for students” (Ryder- & Wilson, 1987, p.0). Colleges and universities use experience in a work environment as an integral part of many professional criteria. Usually, these experiences occur after or near the completion of a course or a program and are called internships or practicums (Mason, 2002). The purpose of a co-op experience is to provide the opportunity for students to pursue their career goals through work experience in selected jobs in the community and through related instruction in school. The goal is to be qualified for beginning employment in their chosen occupations, after graduating (Mitchell, 1977).

The cooperative education curriculum has been utilized by programs for over 100 years. Since the introduction of this concept, the goal of a co-op was to enhance superior programs, and therefore, the quality of a student’s education. The first co-op program was instituted at the University of Cincinnati in 1906 by Professor Herman Schneider. Schneider was an engineering professor, who was later Dean of Engineering and even the President of the University of Cincinnati for a brief time. Although he developed this idea in 1903 while working at Lehigh University, he was not given authorization to implement the first program until 1906 (Knowles, 1971).

Through the cooperative education program, Schneider sought to solve two problems. First, Schneider noticed that some components of most professions could not be taught effectively (or even at all) in a classroom, and these elements needed practical experience in the
workplace in order to be mastered. Second, Schneider observed that most students wanted to work during their college education, but the students were only hired for jobs that were basic and unrelated to their degrees. By establishing the co-op program, Schneider could satisfy the students’ needs as far as experiences, meaningful jobs, and money. (Knowles, 1971)

*Experiential learning* is a term commonly used to describe programs that use the work environment as an important part of the curriculum, and it is often used to describe cooperative education. There are three main purposes of using the work environment as a learning experience. The first purpose is to help students explore the work environment and to assist them in making an occupational choice. The second purpose is to assist students in overcoming personality and behavioral problems. Additionally, it provides practice to what a student has learned in the classroom and helps them in the transition from school to work. The third purpose is to help students develop specific occupational skills, knowledge, and attitudes that they can apply in the workplace environment (Mason, 2002).

At Bowling Green State University, cooperative education was implemented into the curricula in 1968, and the program has been operating for over forty years. A Co-op is required for all majors in the College of Technology. These majors include Architectural/Environmental Design Studies, Aviation Studies, Construction Management and Technology, Electronics and Computer Technology, Electromechanical Systems Technology, Engineering Technology, and Visual Communication Technology. In the College of Technology, students alternate periods of employment in industries related to their majors with periods of classroom curriculum. They are required to participate in semester-long, full-time cooperative education opportunities. In the technology co-op program at Bowling Green State University, students obtain four credit hours for each semester-long co-op. The program also requires that each student’s co-op must be
directly related to his or her major, and that each co-op a student completes must have an increase in difficulty and responsibility as they progress through their collegiate curriculum.

**Problem of the Study**

The problem of this study was to measure the influence that the required cooperative education curriculum had on its College of Technology graduates at Bowling Green State University.

**Objectives of Study**

The following objectives were established by conducting this study:

- To analyze the data of the demographic, behavioral, and attitudinal assessment and compare it to the learning outcomes of the College of Technology co-op curriculum.
- To compare data from a previous study to identify differences or similarities in the responses.

**Significance of Study**

The College of Technology and its students could benefit from this study in the following ways. First, the co-op program administrators could use the results of this study as they apply for reaccreditation with the Accreditation Council for Cooperative Education. The co-op program must be able to demonstrate it “facilitates breadth of practical experiences for students and/or provide for progression to increased responsibilities as they advance in their education program” (Accreditation Council for Cooperative Education, n.d.d) By becoming accredited, co-op programs can establish credibility and respect among other academic institutions in education and also with the students involved in the programs. Furthermore, the results of this study could be used as an indicator of program relevance to industry needs. The College of Technology and its programs can use this study as a basis to periodically reevaluate their
program learning outcomes as part of their program assessment. The co-op program at Bowling Green State University can compare the results of this study to from the results of Ms. Karen Bloomfield’s study, which was conducted as part of her master’s thesis at Bowling Green State University in 2005.

As of July 2009, there were ten accredited cooperative education programs in the United States: The University of Alabama at Huntsville, Case Western Reserve University, Georgia Institute of Technology, Georgia Southern University, Mississippi State University, North Carolina State University, University of Central Florida, University of Cincinnati, University of North Texas, and Bowling Green State University. For a cooperative education program to become eligible for accreditation, the program must have been in continuous operation long enough to have graduated one class of students. Also, the program must be based at a regionally accredited post-secondary institution, and a fee must be paid along with the application for accreditation (Accreditation Council for Cooperative Education, n.d.b,c).

Along with being eligible for accreditation, a cooperative education program seeking accreditation must also follow criteria established by the Accreditation Council for Cooperative Education. The co-op program must abide by the Accreditation Council for Cooperative Education’s missions and goals, such as to clearly define and guide program activities, develop students through learning collaboration, periodically evaluate and approve the institution, and make itself available to potential participants. The co-op program must also demonstrate how effectively the program is integrated into the academic curriculum, how the academic program is awarded (academic credit) to students, what role of faculty in takes to support, endorse, develop, and evaluate the program, the qualifications of the professional designed to lead the program, and the processes used to evaluate the program’s effectiveness. In relation to employers, co-op
programs seeking accreditation must also show that employment locations are appropriate; the work assignments are prepared, progressive, and overseen; the participating employers support the program’s goals; long-term relationships are established with the employers; and that the ethical standards of the program are followed (Accreditation Council for Cooperative Education, n.d.a,c,d,e,f).

Quality employers that are interested in taking part in co-op programs are attracted to universities that are accredited because it shows that these universities are distinguished. Also, accreditation can assist a cooperative education program in enforcing its policies, procedures, and requirements. Students and employers know there is a level of flexibility in unaccredited institutions; however, with accredited co-op programs, the enforcement of rules and processes is easier to follow through (Accreditation Council for Cooperative Education, n.d.e).

Assumptions

The assumptions to this study include the following:

- The graduates that will be sampled will reflect on the effect that cooperative education had on their career development and career maturity.
- The graduates that will be sampled will respond with honest and unbiased answers.

Limitations

The limitations to this study include the following:

- The graduates who are sampled are those that graduated from Bowling Green State University with a Bachelor of Science in Technology, and who have participated in the cooperative education program as part of their collegiate curriculum. The students sampled will be limited to those who have graduated during the following semesters:
May, August, December 2005; May, August, December 2006; May, August, December 2007; and May, August, December 2008; May, August, December 2009.

- The contact information available is from Bowling Green State University’s Office of Alumni Affairs.

- There have been changes in the number of co-ops required for each major since Bloomfield’s study in 2005. Several majors, including Architecture/Environmental Design Studies, Aviation Studies, and Electronics and Computer Technology have recently reduced the number of co-ops (from three to two), and it is impossible to detect which students followed the former curriculum checklist or the newly modified version.

**Definition of Terms**

The terms used throughout this study were:

- **Cooperative Education**: “An instructional method that links classroom instruction and work for the purpose of enhancing the total educational program for students” (Ryder & Wilson 1987, p. 0).

- **Experiential Learning**: “The acquisition of a wide range of learning experiences; From involvement in such learning experiences, the coordinator may learn about potential training stations, may acquire additional knowledge about occupational fields, and may gain expanded local support” (Mason, 2002, p. 676).

- **Internship**: “A period of occupational experience by a person who has completed all the academic requirements for admission to a profession prior to certification (licensing) as a recognized practitioner” (Mason, 2002, p. 677).
CHAPTER II. REVIEW OF LITERATURE

Affect of Cooperative Education at the University Level

“Cooperative education is a structured education strategy integrating classroom studies through productive learning experience in a field related to a student’s academic or career goals” (National Commission for Cooperative Education, n.d., para. 2). This learning style provides progressive experience through integrating experience and theory, and it incorporates professional relationships among students, educational institutions, and employers.

A co-op experience is designed to develop and enhance the skills and abilities of the students, employers, and educational institutions, as described by the National Commission for Cooperative Education (n.d.). The co-op learning experience should improve a student’s academic, personal, and professional proficiency. Under this academic category, the student should ascertain the ability to integrate classroom theory with workplace practice, obtain clarity regarding their academic goals, receive technical knowledge through the most up-to-date equipment, and acquire academic motivation. Thus, the student should be able to clarify career goals, gather an understanding of the workplace culture and environment, and develop competencies, skills, professional networking, and career management through the professional segment of cooperative education. A student also should develop his or her personal aptitude through cooperative education, such as determining strengths and weaknesses and improving responsibility, productivity, and interpersonal skills.

Benjamin Blair and Meghan Milea, both associate professors at Mississippi State University, conducted a study to support the benefits to cooperative education. The study from Mississippi State University compared 5,506 co-op and non-co-op students who graduated between the fall 2000 and spring 2002 semesters. The average starting salaries and GPAs were
compared for students who had participated in a co-op and those who had not participated in a co-op experience. It was found that the average GPA of co-op students was 3.16, and the average GPA of non-co-op students was a 3.04. Also, co-op students were found to have earned significantly more than non-co-op students: co-op students earned $41,738 as a starting salary and non-co-op students earning $35,436. Overall, this study suggests that the benefits of participating in a co-op program can include a higher GPA and a higher starting salary for the student.

Furthermore, the National Commission for Cooperative Education (n.d.) also lists advantageous outcomes from an employer’s perspective. Co-ops can produce well-prepared short-term employees, allow flexibility for the co-op company to address human resource needs, and generate cost-effective recruitment and retention of employees. Another important benefit for the employer is that the employer will have direct access to candidates with sought-after skills and credentials (National Commission for Cooperative Education, n.d.). Employers also create partnerships with educational institutions that maintain cooperative education programs. Thus, employers can have an input on the quality of a university’s academic curriculum.

Additionally, universities can use their co-op programs as a tool to recruit new students, retain current students; it can be a way to offer a wider range of learning opportunities for students and to have a better image in the community. By implementing cooperative programs, educational institutions should be able to improve the rate of employment for graduates, obtain increased alumni participation, and create partnerships with businesses, local government, and community organizations.
Cooperative Education Models

According to the National Commission for Cooperative Education (n.d.), educational institutions must have certain characteristics in order for their cooperative program to be accredited. The school must demonstrate that it formally recognizes its members’ educational strategy that integrates learning and progressive work experience with a constructive academic relationship between teaching faculty and cooperative education faculty or administrators. The institution must also show that it has a “structure for multiple work experiences in a formalized sequence with study leading to a degree completion of an academic program” (National Commission for Cooperative Education, n.d.). Also the work experience must be an integration of an appropriate learning environment and productive employment. The work should be related to a student’s academic and career goals. In addition, the work experience must be recognized on a student’s academic records, which can be shown by a grade, credit hours, part of degree requirement, or a notation on transcripts, to name a few ways. Furthermore, the student should have access to ongoing advising.

As stated previously, several agreements must be in place among the student, the employer, and the cooperative education program of the learning institution. For a cooperative experience, there should be a clear job description, and the student must be officially enrolled at the university during along the time of the co-op. The National Commission for Cooperative Education (n.d.) also specifies that co-op work should be monitored by the educational institution and supervised by the co-op employer, and that the employer should recognize the student as a co-op employee. Evaluations should be conducted by the student, the university, and the employer. Also, specified minimum work periods, which equal the length of an academic term should be arranged (National Commission for Cooperative Education, n.d.).
Each co-op model contains distinguishable characteristics that make it specific, such as “differences in the structured role for employers beyond student supervision and evaluation, the structure of multiple terms and the pattern of participation (alternating or parallel), and the method and degree of formal recognition of co-op by the school” (National Commission for Cooperative Education, n.d.). In an alternating co-op program, the student works approximately 40 hours per week, full-time, during the academic term. Comparatively, in a parallel cooperative education program, the student works roughly 20 hours per week, part-time, during the academic term.

Researchers have studied the comparisons between alternating and parallel cooperative education program structures, hypothesizing that one is more advantageous for students than the other. In 2001, Mark Fenster and Donald Parks conducted a study comparing the two co-op models (alternating and parallel) based on reported learning outcomes experienced by students involved in cooperation education. The participating students were chosen from 14 universities in the United States, which were member schools of the Cooperative Education Network; these included: Antioch College, Eastern Kentucky University, Florida Atlantic University, Indiana Purdue University at Fort Wayne, Kettering University, Mississippi State University, Penn State University, The University of Alabama at Huntsville, The University of Central Florida, The University of Cincinnati College of Applied Science, The University of Hawaii at Manoa, The University of West Florida, The University of Texas College of Natural Sciences, and Valdosta State University. Each university’s student population involved in cooperative education during the fall 2001 term made up the students eligible to partake in this study. Out of 2,764 eligible students, 868 students responded.
Fenster and Parks hypothesized that the students in alternating and parallel programs would have different responses when rated on their learning outcomes. Students rated their learning experiences based on personal development, career development, professional/work skills development, and academic development. The results revealed that students participating in the alternating and parallel programs had similar favorable responses to their co-op experience in the four areas evaluated regardless of their program structure.

Five co-op models described by the National Commission for Cooperative Education (n.d.) are implemented in colleges and universities. In the flexible four-year model, the employer plays an informal role in the co-op program design. The student can choose between alternating or parallel patterns that are designed for multiple academic terms, and there are both credit and non-credit bearing programs. In the community college model, the employer also plays an informal role in the co-op design, but the employer has a formalized role in curriculum design for specific competencies. The student mostly fulfills parallel co-op participation, but may be involved in a full-time co-op experience in the summer and with limited opportunities for multiple terms. This type of model is predominately credit bearing. The nontraditional student model can be modified to fit the community college model or the flexible four-year model. For the nontraditional student model, the employer again plays an informal role in the co-op design. This model incorporates the parallel participation with limited opportunities for multiple terms, and it is mostly credit bearing with industry-specific credentials. The Accreditation Board for Engineering & Technology (ABET) baccalaureate model uses a formalized employer role in the co-op program design, and operates on the alternating participation pattern with multiple terms and a minimum of one year of experience required for the co-op. This model is both credit and non-credit bearing, and it results in a student certificate of completion of the program. The
ABET model is not specific to the engineering field; rather, it can be used with any academic major. The articulated cooperative education model uses a formalized employer role in the curriculum design for specific expertise. This model mostly includes the parallel pattern and full-time summer experience with limited opportunities for multiple terms. At the completion of this co-op program, an industry-specific certificate is awarded. A few examples of educational institutions that implement the articulated co-op model are technical preparatory schools and school-to-work programs.

The University of Cincinnati

The University of Cincinnati (UC) defines cooperative education as “the practice of alternating students’ studies with paid, professional work related to their major.” The University of Cincinnati is a comprehensive state university, and it enrolls approximately 35,000 students. The co-op program at the University of Cincinnati, also known as the “Professional Practice” program, is designed to provide students with a comprehensive professional experience. The extension of classroom studies by practicing in a chosen profession adds a unique dimension to the student’s professional preparation (University of Cincinnati, 2003a). This experience is provided by cooperative education work assignments, which are monitored by an appropriate faculty member, and are alternated with periods of classroom study.

The University of Cincinnati is imperative to this study because it created and introduced the first cooperative education program in 1906 with the help of Dr. Herman Schneider. Schneider began teaching at the University of Cincinnati’s College of Engineering Department in 1903. By 1906, Schneider had become dean of the college. At this time, he approached the Board of Directors regarding to implement a plan of cooperative education in the college, which he was allowed to try for one year. The first co-op class included 27 students.
who began working on September 14, 1906. The first co-op schedule alternated one week of classroom studies with one week of professional work. The integration of theory and practice took place each Saturday morning, when Dean Schneider met with the students to discuss their experiences. The first mandatory co-op program was implemented in 1919 at UC for the College of Engineering. Recently, UC students held 5, 258 jobs through the co-op program during the 2007-2008 school year. At this university, participation in the cooperative education program rose 23% from 2003 to 2008. About 66% of students who participate in the co-op program at University of Cincinnati receive job offers from their co-op employers upon graduation (University of Cincinnati, 2003e).

In addition, cooperative education at UC is derived from the theoretical basis that the integration of knowledge learned in the classroom is practiced during the co-op assignment. Faculty help facilitate this integration of theory by using co-op student learning outcomes in their classroom procedures and approaches. The University of Cincinnati created a video to aid faculty in teaching co-op students; it provides models of the best practices of cooperative education. Thus, the faculty can modify their classroom instruction to incorporate the co-op student learning outcomes, which has many benefits. This is an advantage to the faculty because their teaching is enhanced; it is superior for the students because what they are learning in the classroom is directly related to their co-op experience. As a whole, this strengthens the University of Cincinnati’s cooperative education program, and their employers benefit from this type of teaching.

Once students are registered to participate in the cooperative education program at the UC, they are assigned a Professional Practice faculty member. These faculty members assist more than 3,000 students each year in developing, implementing, and verifying their professional
interests through academic classes and through positions with cooperative education employers. Professional Practice faculty members also meet individually with assigned students at times throughout the students’ enrollment at the University of Cincinnati. In addition, these faculty members are liaisons between the students and their co-op employers, and they are contributors to the ongoing development of the cooperative education program. UC’s schedule is four quarters. At UC, it is mandatory for each student participating in a co-op to schedule and complete an interview with his or her Professional Practice faculty advisor. The students must complete reports, submit quarterly submission packets, and then schedule appointments with assigned faculty members. These appointments allow the students and advisors to review previous co-op experiences, discuss any issues that occurred, and concentrate on the students’ learning outcomes and future objectives (University of Cincinnati, 2003b,c,d,f).

At UC, not all majors are mandated to participate in the co-op program as part of their degree curriculum. However, the Colleges of Engineering, Design, Architecture, and Art and Planning all require co-op experiences in order to fulfill their degree requirements. As for the students in the College of Business and the College of Arts and Sciences, cooperative education experiences are optional.

Bowling Green State University

Because the data from this study deals specifically with alumni from the College of Technology at Bowling Green State University (BGSU), it is important to discuss the co-op program at BGSU. BGSU’s cooperative education program’s mission is to integrate their students’ academic programs with hands-on training in the workforce. BGSU’s co-op program also strives to clarify each student’s area of study and to provide their students with networking experiences with employers that will aid in their job search after graduation. Their goals include
assurance that each student is assigned a valuable work experience that is directly related to the student’s major and field of study, ensuring that the co-op student is mentored at his or her co-op experience by a supervisor who has more knowledge of the work than the student, and ensuring that each student receives feedback on his or her performance at the co-op through an evaluation. The co-op students must complete a satisfactory written report, evaluation, and assessment of of their co-op experiences. Each College of technology student at BGSU will receive about the equivalent of one year’s worth of professional employment experience before graduation, which is directly related to his or her major.

In the College of Technology at BGSU, the cooperative education program follows the alternating pattern for its students’ co-op experiences. These co-op experiences are mandatory in order to fulfill academic curricula, and each co-op experience counts for four credit hours toward a student’s degree requirements. The amount of co-op experiences required is specific to each major in the College of Technology. At the most, students are “required to participate in three semester-long, full-time, paid co-op work assignments which alternate with semesters spent on campus” (Bowling Green State University, n.d.).

The Cooperative Education Office at Bowling Green State University is charged with keeping the content and faculty in the College of Technology up-to-date with advancements and developments taking place in the field. This is achieved through university representatives, who “observe changes and trends in technology, organizations, management, and job content during a site visit each student experiences while completing a cooperative education course” (BGSU, n.d.).

The students have a number of responsibilities and requirements that they must complete for their cooperative education credits. Along with successfully completing the specified
number of co-ops required by each major, the students must alternate their co-ops and must spend their last semester taking classes at the university. Therefore, students cannot spend their last semester before graduation participating in a co-op experience. Furthermore, the students must complete the co-op workshop and obtain satisfactory approval of their resumes by the Office of Cooperative Education.

*Instrument Development*

The electronic survey is quickly becoming a more widely used survey option because of the growth and easy accessibility of the Internet and the increased use of electronic mail for business correspondence. There are a multitude of examples of uses for electronic surveys, “ranging from being distributed as electronic mail messages sent to potential respondents . . . to being posted as World Wide Web forms on the Internet” (Colorado State University, 2009a). Electronic surveys can also be circulated among computers that are available for public access, such as those in schools and libraries. In most cases, electronic surveys are completed on a computer by respondents, rather than on paper.

In conclusion, cooperative education develops and strengthens the proficiency of not only students, but also of employers and educational institutions. Although there are several different cooperative education models, it is up to the educational institution as to which model it chooses to follow for their co-op program. The National Commission for Cooperative Education permits accreditation of qualified co-op programs, which these programs must maintain, eligibility. The University of Cincinnati and Bowling Green State University are two of ten accredited universities in the country
CHAPTER III. METHODOLOGY

This section contains a review of the research process to carry out this study. The review includes the statement of the problem, research design, general characteristics of the study population, data collection instrument, pretesting the data collection instrument, procedures of data analysis, protection of human subjects, the timeline, and the budget.

Restatement of Problem

The problem of this study was to measure the influence that the required cooperative education curriculum had on its College of Technology graduates at Bowling Green State University.

Research Design

The research methodology used for this study is a descriptive study. Bloomfield first conducted a similar study in 2005 on how the required cooperative education curriculum affected the College of Technology, Bachelor of Science in Technology graduates at Bowling Green State University. In her research, Bloomfield studied the graduates from May, August, and December 2000 through 2004. She developed a behavioral change and attitudinal assessment survey based on the learning outcomes of the College of Technology Cooperative Education program and a review of literature. Bloomfield’s survey was either e-mailed or mailed to 773 College of Technology alumni who graduated during the specified semesters (Bloomfield, 2005): 425 graduates received a survey through electronic mail, and 19 of these surveys were returned due to invalid addresses. These individuals were then mailed a survey; therefore, 398 individuals were e-mailed a survey. One hundred and eleven of them responded, which equals a response rate of 27.89%. There were 348 graduates who originally received a survey through postal mail. The total number of individuals who received a mail survey increased to 367, since 19
individuals were mailed a survey due to invalid e-mail addresses. Forty-six of those graduates responded, which yielded a response rate of 14.20%. A total of 157 respondents completed Bloomfield’s study for a response rate of 21.75% (Bloomfield, 2005).

Several similarities and differences exist between this study and Bloomfield’s study from 2005: The differences are as follows:

- The College of Technology Cooperative Education Program’s learning objectives have changed since Bloomfield’s study (they were revised in 2005 as a result of her study).
- On the survey, when a respondent answered with a “strongly disagree” or “strongly agree”, additional questions were asked to investigate why they feel strongly about their answers; Bloomfield’s study did not include additional questions.
- Further analysis of the data by major was conducted to investigate the impact of cooperative education.

The similarities to Bloomfield’s study are as follows:

- The survey service that will be used to collect the data is SurveyMonkey, which was used by Bloomfield.
- This study analyzed the data of the demographic, behavioral, and attitudinal assessments of the respondents and compared the results to the learning outcomes of the College of Technology cooperative education curriculum, as in Bloomfield’s study.

Descriptive research can be either qualitative or quantitative, and its primary goal is to assess a sample at a point in time without trying to make inferences or causal statements. Descriptive research often uses visual aids, such as graphs and charts, to assist the reader in understanding the data distribution, and it
also is heavily dependent on instrumentation for measurement and observation (The Handbook of Research for Educational Communications and Technology, 2007). This type of research is “designed primarily to describe rather than to explain conditions, characteristics, or attributes of people in a population, based on a measurement sample” (Alreck & Settle, 2003, p. 445).

General Characteristics of Study Population

The population for this research study consisted of the graduates of the College of Technology, Bachelor of Science in Technology programs that require cooperative education experiences as part of their academic curriculum for graduation. In particular, the alumni in this study graduated in August and December of 2005; May, August and December of 2006, 2007, 2008; and May and August of 2009.

The majors of the College of Technology included in this study were Architecture/Environmental Design Studies (ARCH), Aviation Studies (AS), Construction Management (CMT), and Electromechanical Systems Technology (EMST), Electronic and Computer Technology (ECT), Engineering Technology (ENGT), and Visual Communication Technology (VCT). The AS, ARCH, and ECT majors only need two co-ops for their curriculum, whereas VCT, ENGT, and CMT major all need three cooperative education experiences for their curriculum. The two College of Technology majors not included in this study were Technology Education and Advanced Technological Education (ATE), because they do not require cooperative education participation.

The Advanced Technological Education major is designed for individuals who already have a technical or applied associate’s degree, are already employed, and desire to continue their education in the field or prepare for advancement. The Technology Education major prepares students to be qualified technology education teachers who are capable of providing leadership
in the field. Instead of mandating cooperative education participation, Technology Education requires a 15-week field experience, known as student teaching.

Data Collection Instrument, Validity, and Reliability

Two survey instruments were created to collect the data for this study, including both an electronic and a mail survey (Appendix B). An electronic survey was justifiable for being utilized in this study due to the alumni contact records that are maintained by the Bowling Green State University Office of Alumni Affairs. The graduates’ contact information, including their e-mail and mail addresses, was requested through the Bowling Green State University Office of Alumni Affairs. An electronic survey typically encompasses a shorter response time than does a mail survey. Also, the cost to utilize an electronic survey was less than other survey configurations. The survey questions consisted of a series of open-ended and selected-response queries. The demographic- and employment-related information was attained using selected-response questions located at the beginning of the survey.

There were a number of diverse electronic survey services that were examined. For example, DataStar is an electronic survey, and it is “New England’s leading provider of survey management and data processing services to researchers worldwide.” DataStar creates surveys, reporting templates, and analysis tools that are customized to meet the needs of their clients. However, the high cost of using DataStar’s services to create the study was not feasible. Blackboard, which is used at BGSU, also has the capability of generating and conducting surveys. However, Blackboard is only accessible to current Bowling Green State University students, which means the sample population for this study would not be able to utilize the survey.
SurveyMonkey (surveymonkey.com), which has been operating since 1999 and is now being used in over 40 countries. “SurveyMonkey is an online survey tool that enables people of all experience levels to create their own surveys quickly and easily.” This service focuses on three main parts of surveying, which are design of the study, collection of responses, and analyzing the results. SurveyMonkey offers information regarding the different types of questions asked on a survey, survey templates, validating survey responses, creating custom themes and logos, managing the survey list, setting restrictions, sharing reports, filtering responses, and more. Fifteen kinds of questions can be asked by using SurveyMonkey, including multiple-choice, drop-down menus, single-text, open-ended, and descriptive questions (surveymonkey.com). SurveyMonkey offers different methods to collecting response to surveys, such as creating a link to send in an e-mail message, uploading a personal e-mail address for SurveyMonkey to send as a survey invitation, or creating a pop-up invitation for a web page (surveymonkey.com). The results of a survey can be analyzed in charts or graphs, and an updated survey report can also be run at the request of the creator of the survey.

SurveyMonkey insists that any data used for a study is private and confidential, and SurveyMonkey does not utilize the data collected for its own purposes. SurveyMonkey offers Security Sockets Layer (SSL), which is a “protocol initially developed for transmitting private documents or information via the Internet” (surveymonkey.com). It works through a coding system that secures a connection between the client and the server. SurveyMonkey is coded in ASP.NET, and runs on a SQL server 2005 and Windows 2003 server. The data contained in SurveyMonkey is backed up internally every hour, every night to a centralized back-up system, and is backed up off-site in the event of a catastrophe (surveymonkey.com).
Both forms of the survey included open-ended and selected-response questions. In studying the demographic criteria, the sample population of this study was asked to give information regarding gender, date of graduation, major, current employment, salary, and if they fill a full-time or part-time position currently. In regards to behavioral and attitudinal assessments, the participants of the study were asked to answer questions pertaining to how their co-op experiences influenced their job skills and characteristics, confidence in the working industry, ability to work individually, ability to work as a team, ability to handle multitasking, interpersonal communications, and judgment calls. After the data was collected, each question was broken down and evaluated in order to present an understanding of how the cooperative education program has affected its participants at BGSU in the College of Technology.

Data-Gathering Procedures

An electronic survey was the primary means of communication for the survey, and a mail survey was the secondary means of communication. The alumni of the College of Technology asked to participate in this study were asked to complete the electronic survey first, which was e-mailed to them. The e-mail and mail addresses will be obtained through Bowling Green State University’s Office of Alumni Affairs. There is a possibility that a number of the e-mails for the alumni will not be listed. If they are listed, they may not be current and up-to-date addresses. In this instance, the surveys that cannot be sent electronically will be sent by mail immediately. A reminder to complete the survey was both mailed and e-mailed to the survey participants one week after initially sending the survey. The participants will be given one more week to complete the survey. After that week, the total number of respondents will be compiled by subtracting the number of undeliverable surveys from the original sample.
In order to keep the results consistent, the format of the mail survey is identical to that of the electronic survey. The addresses of the alumni needed for this study were obtained through the Bowling Green State University Office of Alumni Affairs. The participants were given approximately two weeks to complete the survey.

Pretesting the Data Instrument

An important aspect of the survey design was to administer a pilot test of the questions included in the survey. Utilizing a pilot test aids in any misinterpretation, uncertainty, and insufficient survey issues. One undergraduate student per major involved in the study that had completed at least half of his/her required cooperative education was chosen to participate in the pilot study: seven students in total. These students were asked to review and complete the survey.

Procedures of Data Analysis

The results of the electronic survey were gathered and calculated by using SurveyMonkey and Microsoft Excel. Through SurveyMonkey the results of the survey can be viewed immediately, and it provides graphs and charts that are useful in the data compilation process. Microsoft Excel was used to amass the statistics of the data that SurveyMonkey was unable to compile, and descriptive statistics were used to explain the results. The open-ended question responses were classified and evaluated as part of the data analysis. The findings of the mail and electronic survey were calculated using the same method. To compare the results of Bloomfield’s study to see if there was a significant difference in the data from 2005 and the data of this study, a t-test was used. The Statistical Consulting Center at BGSU assisted in ensuring that appropriate statistics were used.
Protection of Human Subjects

All of the research involving human subjects was conducted under the guidelines set by the Human Subject Review Board at Bowling Green State University. This approval included the use of graduates and the electronic and mail survey instruments needed for the study.

Timeline

This section discusses the timeline used over the course of this study, ranging from September 2009 through August 2010. The timeline is as follows:

- September – November: Proposal Development
- November 16: Proposal to Committee
- November 23: Proposal Defense
- December 29: Develop Survey Instrument
- December 29: Pilot Test Survey
- June 7: HSRB Approval of Survey
- June 10: E-mail/Mail Survey to Sample
- June 24: Due Date for Survey; E-mail/Mail Reminder to Sample
- July 5: 2nd Due Date for Survey
- July 15: Compile Survey Results
- July 20: Complete Chapters 4 and 5
- July 29: Thesis to Committee
- August 3: Thesis Defense

Budget

This section discusses the budget that was used to carry out the survey instruments (electronic and mail survey). The budget is as follows:
• Electronic Survey
  o Month 1 Billing (December 13, 2009): $19.95
  o Month 2 Billing (January 13, 2009): $19.95
  o Month 3 Billing (February 13, 2009): $19.95

• Mail Survey
  o Copies of Survey: $110.00
  o Postage for Initial Mailing: $140.00
  o Return Envelopes: $20.00
  o Mailing Envelopes: $20.00
  o Completed Mail Survey Postage: $19.00
  o Follow-up Postcards: $10.00
  o Postage for Follow-up Mailing: $80.00

• Total: $438.90
CHAPTER IV. FINDINGS AND ANALYSIS OF DATA

The purpose of this chapter is to review the findings and analysis of the data from the study to distinguish the impact that cooperative education had on the College of Technology 2005-2009 graduates from Bowling Green State University. This chapter includes information from the participating alumni on the behavioral change and attitudinal assessment evaluation and the survey results.

Behavioral Change and Attitudinal Assessment Evaluation

A behavioral change and attitudinal evaluation was utilized to collect information on the impact that cooperative education had on the College of Technology 2005-2009 graduates from Bowling Green State University. The initial evaluation, developed by Ms. Karen Bloomfield for a 2000-2004 study, was revised based on the current learning outcomes of the College of Technology Cooperative Education program and a review of literature. The behavioral change and attitudinal assessment evaluation included a series of 30 statements that were classified into three sections to measure the impact the co-op program had on its alumni. A Likert-type scale with answer choices that ranged from “strongly agree,” “agree,” “disagree,” and “strongly disagree” was used for this evaluation. An open-ended question was asked if the respondent answered with a ‘strongly agree or strongly disagree answers. This was to ascertain why the participant felt so strongly about his or her response. The statements were categorized into three different sections identified as academic, professional, or personal.

Survey Results

Response Rate

The total number of College of Technology graduates eligible to be in this study was 1,181. These individuals graduated between May 2005 and December 2009. Of the 1,181
alumni contacted in this study, 656 of the graduates were contacted through their e-mail addresses via an electronic survey. Of this group, 525 alumni did not have an e-mail address on file with the Bowling Green State University Office of Alumni Affairs; they were sent a mail survey through postal mail.

Of the 656 students who were sent the electronic survey, 42 electronic surveys were returned due to an invalid e-mail address. The individuals with invalid addresses were sent a mail survey. Therefore, this generated 614 e-mailed surveys. Ninety-five of the 614 individuals responded to the electronic survey, which yielded a 15.5% response rate.

Five hundred and twenty-five graduates (525) were originally sent a mail survey by postal mail. The 42 graduates who were mailed surveys due to invalid e-mail addresses increased this number to 567 graduates who were sent mail surveys. Of these 567 students, 25 surveys were returned, as a result of an incorrect or insufficient mailing address. Therefore, this generated 542 alumni who received mail surveys. Forty-nine (49) of the 542 graduates responded to the mail survey, which yielded a 9.0% response rate.

A week after the participants were first contacted for the study, a reminder to complete the survey was sent to all the participants by e-mail or mail in hopes of increasing the response rate. After the response rates were compared between the e-mail survey and the mail surveys, it was concluded that the data collected could be combined due to the similarity in response rate between major and gender. A total of 144 responses were collected from participants, which yielded a 12.5% response rate. Table 1 summarizes the response rate by major.
Table 1

Survey Population Response Rate by Major

<table>
<thead>
<tr>
<th>Majors</th>
<th>Surveys Sent $n = 1,181$</th>
<th>Returned Surveys $n = 82$</th>
<th>Decline to Participate $n = 0$</th>
<th>Completed Surveys $n = 146$</th>
<th>Response Rate %</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCH</td>
<td>124</td>
<td>2</td>
<td>0</td>
<td>12</td>
<td>9.84</td>
</tr>
<tr>
<td>AVS</td>
<td>119</td>
<td>2</td>
<td>0</td>
<td>12</td>
<td>10.26</td>
</tr>
<tr>
<td>CONS</td>
<td>248</td>
<td>7</td>
<td>0</td>
<td>29</td>
<td>12.03</td>
</tr>
<tr>
<td>EMST</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>7.06</td>
</tr>
<tr>
<td>ECT</td>
<td>85</td>
<td>3</td>
<td>0</td>
<td>6</td>
<td>33.3</td>
</tr>
<tr>
<td>ET</td>
<td>21</td>
<td>0</td>
<td>0</td>
<td>7</td>
<td>9.09</td>
</tr>
<tr>
<td>MAN</td>
<td>22</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>6.25</td>
</tr>
<tr>
<td>M DESN</td>
<td>66</td>
<td>2</td>
<td>0</td>
<td>4</td>
<td>14.75</td>
</tr>
<tr>
<td>VCT</td>
<td>497</td>
<td>9</td>
<td>0</td>
<td>72</td>
<td>42.1</td>
</tr>
<tr>
<td>TOTAL</td>
<td>1,181</td>
<td>25</td>
<td>0</td>
<td>144</td>
<td>12.46</td>
</tr>
</tbody>
</table>

Table 2 presents a comparison of the percentage of graduates in the college from May 2005 through December 2009 to the percentage of respondents to this study.

Table 2

Demographic Overview

![Comparison of % of Graduates by Major vs. % of Respondents by Major (2005-2009)](chart.png)

<table>
<thead>
<tr>
<th>Majors</th>
<th>% of Graduates by Major</th>
<th>% of Respondents by Major</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCH</td>
<td>10.5</td>
<td>9.84</td>
</tr>
<tr>
<td>AVS</td>
<td>10.1</td>
<td>10.26</td>
</tr>
<tr>
<td>CONS</td>
<td>21</td>
<td>12.03</td>
</tr>
<tr>
<td>EMST</td>
<td>7.1</td>
<td>6.17</td>
</tr>
<tr>
<td>ECT</td>
<td>1.8</td>
<td>33.3</td>
</tr>
<tr>
<td>ET</td>
<td>1.9</td>
<td>9.09</td>
</tr>
<tr>
<td>MAN</td>
<td>5.6</td>
<td>6.25</td>
</tr>
<tr>
<td>M DESN</td>
<td>42.1</td>
<td>14.75</td>
</tr>
<tr>
<td>VCT</td>
<td>42.1</td>
<td>14.75</td>
</tr>
</tbody>
</table>
Demographic information was collected in the survey for each respondent. The following demographic categories were collected: graduation date, major, gender, previous higher education degrees, plans for future advanced higher education degrees, current employment, salary range, work related to respondents’ major, and full-time or part-time work status.

As seen in Table 3, the largest response according to graduation class was 13.19%, which corresponded with alumni who graduated in May 2008. The largest group of respondents by year was 22.92%, which represented the students who graduated in 2006. The smallest group of respondents according to graduation class was 2.78%, which represented alumni who graduated in both August 2008 and August 2009. The smallest group of respondents by year was 13.19%, which corresponded with those students who graduated in 2009. Table 3 summarizes the respondents by semester and year of graduation.

Table 3

<table>
<thead>
<tr>
<th></th>
<th>2005</th>
<th></th>
<th>2006</th>
<th></th>
<th>2007</th>
<th></th>
<th>2008</th>
<th></th>
<th>2009</th>
<th></th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>May</td>
<td>9.72</td>
<td>14</td>
<td>10.42</td>
<td>15</td>
<td>8.33</td>
<td>12</td>
<td>13.19</td>
<td>19</td>
<td>5.56</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>August</td>
<td>4.17</td>
<td>6</td>
<td>3.47</td>
<td>5</td>
<td>6.94</td>
<td>10</td>
<td>2.78</td>
<td>4</td>
<td>2.78</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>December</td>
<td>6.25</td>
<td>9</td>
<td>9.03</td>
<td>13</td>
<td>6.25</td>
<td>9</td>
<td>6.25</td>
<td>9</td>
<td>4.86</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>20.14</td>
<td>29</td>
<td>22.92</td>
<td>33</td>
<td>21.53</td>
<td>31</td>
<td>22.22</td>
<td>32</td>
<td>13.19</td>
<td>19</td>
<td></td>
</tr>
</tbody>
</table>

Of the 144 survey respondents, the largest proportion of the response was 50.00%, which represented the Visual Communication Technology major. Manufacturing Technology represented the smallest response rate, which was 1.39%. Of the sample study, there were no students in the major of Electromechanical Systems Technology. However, one alumni responded who graduated in that major. This response was grouped into the Electronics and
Computer Technology major. Table 4 summarizes the percentage of respondents according to major.

Table 4

*Percentage of Respondents by Major*

<table>
<thead>
<tr>
<th>Major</th>
<th>%</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>Architecture</td>
<td>8.33</td>
<td>12</td>
</tr>
<tr>
<td>Aviation Studies</td>
<td>8.33</td>
<td>12</td>
</tr>
<tr>
<td>Construction Management Technology</td>
<td>20.14</td>
<td>29</td>
</tr>
<tr>
<td>Electronics and Computer Technology</td>
<td>4.17</td>
<td>6</td>
</tr>
<tr>
<td>Engineering Technology</td>
<td>4.86</td>
<td>7</td>
</tr>
<tr>
<td>Manufacturing Technology</td>
<td>1.39</td>
<td>2</td>
</tr>
<tr>
<td>Mechanical Design Technology</td>
<td>2.78</td>
<td>4</td>
</tr>
<tr>
<td>Visual Communication Technology</td>
<td>50.00</td>
<td>72</td>
</tr>
</tbody>
</table>

There were 50 female and 93 male respondents, and which one respondent did not identify their gender. This brings the number of respondents of the gender category to 143. Of the 50 female respondents produced a response rate of 34.97%, and the 93 male respondents yielded a response rate of 65.03%. Table 5 summarizes the percentage of respondents by gender.

Table 5

*Percentage of Respondents by Gender*

<table>
<thead>
<tr>
<th>Gender</th>
<th>%</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>34.97</td>
<td>50</td>
</tr>
<tr>
<td>Male</td>
<td>65.03</td>
<td>93</td>
</tr>
</tbody>
</table>

One hundred and twenty-six (126) alumni were required to complete three co-ops for their major before graduation, which gave a response rate of 87.50%. There were 17 alumni (11.81%) who were required to complete two co-ops, and one respondent (0.69%) who was only required to complete one under the major’s requirements. Table 6 summarizes the number of co-ops the respondents were required to meet before they graduated.
Table 6

*Number of Co-ops Required to Complete Before Graduation*

<table>
<thead>
<tr>
<th>Number of Co-ops</th>
<th>%</th>
<th>n = 144</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.69</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>11.81</td>
<td>17</td>
</tr>
<tr>
<td>3</td>
<td>87.50</td>
<td>126</td>
</tr>
</tbody>
</table>

Twenty-three students who entered the College of Technology with an Associate degree yielded 16.20% of the responses. One hundred and nineteen students entered the College of Technology without an Associate’s Degree, which represented 83.80% of the total respondents. Two respondents chose to not answer this question. Table 7 summarizes the percentage of respondents with a previous higher education degree.

Table 7

*Percentage of Respondent with Associate Degrees*

<table>
<thead>
<tr>
<th>Associate Degrees</th>
<th>%</th>
<th>n = 142</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respondents with Associate Degrees</td>
<td>16.20</td>
<td>23</td>
</tr>
<tr>
<td>Respondents without Associate Degrees</td>
<td>83.80</td>
<td>119</td>
</tr>
</tbody>
</table>

The respondents were asked about their achievement of a higher education degree beyond a Bachelor’s degree, or their plans to pursue a degree beyond a Bachelor’s Degree. The respondents could pick from four options: Already received a degree beyond Bachelor’s Degree; Currently pursuing degree beyond Bachelor’s Degree; Planning on pursuing degree beyond Bachelor’s Degree; No plans for pursuing degree beyond Bachelor’s Degree. Fifteen alumni, which is 10.42% of the total respondents, have already received a degree beyond their Bachelor’s Degree. Eight students are currently pursuing a degree beyond their Bachelor’s Degree, which is 5.56% of the total respondents. Forty-three graduates plan on pursuing a degree beyond their Bachelor’s Degree, which is 29.86% of the total respondents. Seventy-eight alumni have no plans to pursue a degree beyond their Bachelor’s Degree, which yields a response rate of...
54.17%. Table 8 summarizes the respondents’ achievements of a higher educational degree beyond their Bachelor’s Degree or their plans to pursue an additional degree.

Table 8

**Percentage of Respondents by plan for Additional Higher Education Degrees**

<table>
<thead>
<tr>
<th>Additional Higher Education Degree Plan</th>
<th>%</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>I have already received a degree beyond my Bachelor’s Degree</td>
<td>10.42</td>
<td>15</td>
</tr>
<tr>
<td>I am currently pursuing a degree beyond by Bachelor’s Degree</td>
<td>5.56</td>
<td>8</td>
</tr>
<tr>
<td>I am planning on pursuing a degree beyond my Bachelor’s Degree</td>
<td>29.86</td>
<td>43</td>
</tr>
<tr>
<td>I currently have no plans for pursuing a degree beyond my Bachelor’s Degree</td>
<td>54.17</td>
<td>78</td>
</tr>
</tbody>
</table>

Of the 142 respondents who identified their employment status, 96.48% of them are currently employed and 3.52% are not employed. Two respondents did not reply to this question. Table 9 summarizes the respondents’ employment status.

Table 9

**Percentage of Respondents by Employment Status**

<table>
<thead>
<tr>
<th>Employment Status</th>
<th>%</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>Currently Employed</td>
<td>96.48</td>
<td>137</td>
</tr>
<tr>
<td>Currently Not Employed</td>
<td>3.52</td>
<td>5</td>
</tr>
</tbody>
</table>

Of the participants that responded, 93.4% are employed full-time. Of the participants that responded, 6.5% are employed as part-time status. Seven individuals chose not to respond to this question. Table 10 summarizes the respondents’ employment status as part-time or full-time.

Table 10

**Percentage of Respondents Working Full-time or Part-time**

<table>
<thead>
<tr>
<th>Full-time vs. Part-time</th>
<th>%</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-time</td>
<td>93.43</td>
<td>128</td>
</tr>
<tr>
<td>Part-time</td>
<td>6.57</td>
<td>9</td>
</tr>
</tbody>
</table>
Of the 139 total respondents, 122 individuals are working in a field related to their major, which yields a response rate of 87.77%. Seventeen graduates are not working in a field related to their major, which is 12.23% of the respondents. Five individuals did not answer this question. Table 11 summarizes whether or not the respondents are working in a field related to their major.

Table 11

*Percentage of Respondents Working in a Field Related to Their Major*

<table>
<thead>
<tr>
<th>Working or Not Working in Field Related to Major</th>
<th>%</th>
<th>n = 139</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working in a field related to major</td>
<td>87.77</td>
<td>122</td>
</tr>
<tr>
<td>Not working in a field related to major</td>
<td>12.23</td>
<td>17</td>
</tr>
</tbody>
</table>

Almost 9.5% of the 137 respondents are making under $25,000 annually. Eighteen of the graduates are earning above $60,000, which produces a response rate of 13.14%. The smallest response rate was 8.03%, which represents the graduates who earn $25,000-$29,999 a year. The largest response rate was 15.33%, which belongs to both the $30,000-$34,999 and $35,000-$39,999 salary ranges. Table 12 summarizes the salary ranges of the respondents.

Table 12

*Salary Range of Respondents Working Full-time*

<table>
<thead>
<tr>
<th>Salary Range</th>
<th>%</th>
<th>n = 137</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under $25,000</td>
<td>9.49</td>
<td>13</td>
</tr>
<tr>
<td>$25,000-$29,999</td>
<td>8.03</td>
<td>11</td>
</tr>
<tr>
<td>$30,000-$34,999</td>
<td>15.33</td>
<td>21</td>
</tr>
<tr>
<td>$35,000-$39,999</td>
<td>15.33</td>
<td>21</td>
</tr>
<tr>
<td>$40,000-$44,999</td>
<td>13.87</td>
<td>19</td>
</tr>
<tr>
<td>$45,000-$49,999</td>
<td>9.49</td>
<td>13</td>
</tr>
<tr>
<td>$50,000-$54,999</td>
<td>11.68</td>
<td>16</td>
</tr>
<tr>
<td>$55,000-$59,999</td>
<td>3.65</td>
<td>5</td>
</tr>
<tr>
<td>Above $60,000</td>
<td>13.14</td>
<td>18</td>
</tr>
</tbody>
</table>
Employment-Related Information Overview

This section reports the employee-related information that was collected from the survey, which includes data from the following categories: job positions held since graduation, time it took to secure a position after graduation, interviewing, number of job offers, hourly rate of pay for third co-op, how the co-op experience assisted in finding a job, current job title, and learning about a current job position.

Seventy-six (76) respondents replied that they have only held one job since they graduated, which represents 53.15% of the respondents. Thirty-nine (39) of the graduates responded that they have held two jobs since graduation, which yields a response rate of 27.27%. Table 13 summarizes the number of jobs the respondents have held since graduation.

Table 13

<table>
<thead>
<tr>
<th>Number of Job Positions</th>
<th>%</th>
<th>n= 143</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>3.50</td>
<td>5</td>
</tr>
<tr>
<td>1</td>
<td>53.15</td>
<td>76</td>
</tr>
<tr>
<td>2</td>
<td>27.27</td>
<td>39</td>
</tr>
<tr>
<td>3</td>
<td>9.09</td>
<td>13</td>
</tr>
<tr>
<td>4</td>
<td>6.29</td>
<td>9</td>
</tr>
<tr>
<td>5</td>
<td>0.70</td>
<td>1</td>
</tr>
<tr>
<td>More than 5</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Eighty-three of the respondents replied that they secured a job position before graduating from Bowling Green State University. This represents 58.87% of the respondents. Seven individuals found a job more than six months after they graduated, which equals approximately 5% of the participants. Three respondents did not reply to this question. Table 14 summarizes the amount of time it took the respondents to secure a position after graduation.
Table 14

Amount of Time to Secure a Position after Graduation

<table>
<thead>
<tr>
<th>Amount of Time</th>
<th>%</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secured Before Graduation</td>
<td>58.87</td>
<td>83</td>
</tr>
<tr>
<td>Less than 1 Month</td>
<td>14.18</td>
<td>20</td>
</tr>
<tr>
<td>1-2 Months</td>
<td>7.80</td>
<td>11</td>
</tr>
<tr>
<td>2-3 Months</td>
<td>2.13</td>
<td>3</td>
</tr>
<tr>
<td>3-4 Months</td>
<td>3.55</td>
<td>5</td>
</tr>
<tr>
<td>4-5 Months</td>
<td>3.55</td>
<td>5</td>
</tr>
<tr>
<td>5-6 Months</td>
<td>4.96</td>
<td>7</td>
</tr>
<tr>
<td>More than 6 Months</td>
<td>4.96</td>
<td>7</td>
</tr>
</tbody>
</table>

Sixty-one graduates interviewed with one company before accepting their first position, which yielded about 45% of the respondents. One respondent interviewed with more than five companies before accepting his first position. Eight individuals did not reply to this question.

Table 15 summarizes the number of interviews the respondents had before accepting their first position.

Table 15

Number of Interviews before Accepting First Position

<table>
<thead>
<tr>
<th>Number of Interviews</th>
<th>%</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>44.86</td>
<td>61</td>
</tr>
<tr>
<td>2</td>
<td>22.79</td>
<td>31</td>
</tr>
<tr>
<td>3</td>
<td>16.91</td>
<td>23</td>
</tr>
<tr>
<td>4</td>
<td>5.88</td>
<td>8</td>
</tr>
<tr>
<td>5</td>
<td>1.47</td>
<td>2</td>
</tr>
<tr>
<td>More than 5</td>
<td>0.73</td>
<td>1</td>
</tr>
</tbody>
</table>

Of the respondents, 64.18% interviewed with one company before they were offered their first position. Of the respondents, 21.64% interviewed with two companies before they were offered their first position. Ten respondents did not answer this question. Table 16 summarizes the number of companies they respondents interviewed with before being offered their first position.
Table 16

**Number of Companies Respondents Interviewed With Before Offered First Position**

<table>
<thead>
<tr>
<th>Number of Companies</th>
<th>%</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>64.18</td>
<td>86</td>
</tr>
<tr>
<td>2</td>
<td>21.64</td>
<td>29</td>
</tr>
<tr>
<td>3</td>
<td>8.21</td>
<td>11</td>
</tr>
<tr>
<td>4</td>
<td>4.48</td>
<td>6</td>
</tr>
<tr>
<td>5</td>
<td>0.75</td>
<td>1</td>
</tr>
<tr>
<td>More than 5</td>
<td>0.75</td>
<td>1</td>
</tr>
</tbody>
</table>

The highest hourly rate of pay was $25.00, and the lowest hourly rate of pay was $5.00.
The average hourly wage was $10.21. Sixteen respondents reported that they had unpaid co-op experiences for TECH 489. Fourteen individuals chose not to respond to this question. Table 17 summarizes the hourly rate of pay for respondents’ TECH 489 experience.

Table 17

**Hourly Rate of Pay for TECH 489 Experience (N=130)**

<table>
<thead>
<tr>
<th>Hourly Wage</th>
<th>Hourly Rate of Pay</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lowest Hourly Wage</td>
<td>$5.00</td>
</tr>
<tr>
<td>Highest Hourly Wage</td>
<td>$25.00</td>
</tr>
<tr>
<td>Average Hourly Wage</td>
<td>$10.21</td>
</tr>
</tbody>
</table>

One hundred and four graduates, or about 72.73% of the respondents, replied that their College of Technology cooperative education experience assisted them in finding their current or previous position(s). One individual did not reply to this question. Table 18 summarizes the percentage of respondents who were assisted by their College of Technology cooperative education experience in obtaining their current or previous position(s).
Table 18

Assistance of COT Co-op Experience in Finding Current or Previous Position(s)

<table>
<thead>
<tr>
<th>Assistance of COT Co-op Experience</th>
<th>%</th>
<th>n = 143</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>72.73</td>
<td>104</td>
</tr>
<tr>
<td>No</td>
<td>27.27</td>
<td>39</td>
</tr>
</tbody>
</table>

Of the 104 respondents who indicated their cooperative education experience aided them in obtaining their current or previous position(s), about 48% of them are or have been employed by one of their co-op employers. One individual who replied that co-op assisted him in finding a position did not answer this question. Table 19 summarizes how co-op assisted the respondents in obtaining their current or previous position(s). APPENDIX E displays the responses from the “Other” choice for this question.

Table 19

How Co-op Assisted in Obtaining Current or Previous Position(s)

<table>
<thead>
<tr>
<th>How Co-op Assisted in Obtaining Position(n0)</th>
<th>%</th>
<th>n = 104</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am/was employed by one of my co-op employers</td>
<td>48.08</td>
<td>50</td>
</tr>
<tr>
<td>I obtained my position by networking with one of my co-op employers</td>
<td>9.62</td>
<td>10</td>
</tr>
<tr>
<td>My co-op employer was impressed that I had the co-op experience prior to graduation</td>
<td>28.85</td>
<td>30</td>
</tr>
<tr>
<td>Other (please specify)</td>
<td>12.5</td>
<td>13</td>
</tr>
<tr>
<td>No Response</td>
<td>0.96</td>
<td>1</td>
</tr>
</tbody>
</table>

The respondents were asked to provide the job title of their current position. One hundred and thirty-seven of the 144 respondents provided their job title, while 4.86% of the respondents did not identify their job title. Table 20 summarizes the number of respondents who provided their job title. APPENDIX D summarizes the job titles by major.
Table 20

Percentage of Respondents who provided a Job Title

<table>
<thead>
<tr>
<th>Job Title</th>
<th>%</th>
<th>n = 144</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provided Job Title</td>
<td>95.14</td>
<td>137</td>
</tr>
<tr>
<td>Provided No Job Title</td>
<td>4.86</td>
<td>7</td>
</tr>
</tbody>
</table>

The respondents were asked to identify how they learned of their current position. Of the 135 respondents, 25.19% of them learned of their current position from the internet. About 51% of the graduates learned of their position from resources not listed on the survey, and 13.3% of the respondents learned of their current position from the College of Technology cooperative education experience. Table 21 summarizes how the respondents learned of their current job position. APPENDIX E elaborates on the other responses identified by the respondents.

Table 21

How Respondents Learned of Current Position

<table>
<thead>
<tr>
<th>Method of Learning of Current Position</th>
<th>%</th>
<th>n = 135</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internet</td>
<td>25.19</td>
<td>34</td>
</tr>
<tr>
<td>Newspaper</td>
<td>5.19</td>
<td>7</td>
</tr>
<tr>
<td>College of Technology Cooperative Education Experience</td>
<td>13.3</td>
<td>18</td>
</tr>
<tr>
<td>Bowling Green State University Career Center</td>
<td>2.96</td>
<td>4</td>
</tr>
<tr>
<td>Employment Agency</td>
<td>2.22</td>
<td>3</td>
</tr>
<tr>
<td>Other (please specify)</td>
<td>51.11</td>
<td>69</td>
</tr>
</tbody>
</table>

Behavioral Change and Attitudinal Assessment Results

A majority of the survey centered on the behavioral change and attitudinal assessment of the College of Technology graduates and their cooperative education experience. This section of the survey was developed based on the learning outcomes outlines by the College of Technology Cooperative Education Program, and it evaluates the behavioral change and attitudinal assessment results of the respondents. Table 22 summarizes the responses to each statement.
Section I: My co-op experiences increased my . . .

The first segment of this measure reviews how the co-op experience increased the students’ motivation, enthusiasm, ambition, self-esteem, self-confidence, problem-solving skills, interpersonal communication skills, and ability to take initiative. Table 21 summarizes the students’ responses with each category in this segment.

*My co-op experiences increased my motivation to learn.*

Eighty graduates agreed that their co-op experience increased their ability to learn, while two graduates chose not to reply to this statement. Therefore, 32.39% strongly agreed, 56.34% agreed, 8.45% disagreed, and 2.82% strongly disagreed with this category.

*My co-op experiences increased my enthusiasm for my field of study.*

Seventy-four out of the 142 respondents agreed that the co-op experience increased their enthusiasm for their field of study. Two graduates chose not to answer this statement. Therefore, 36.62% strongly agreed, 52.11% agreed, 8.45% disagreed, and 2.82% strongly disagreed with this statement.

*My co-op experiences increased my ambition toward my career.*

Sixty-one out of 142 respondents who strongly agreed that their co-op experience increased their ambition toward their career, while two respondents did not reply to this statement. Therefore, 42.96% strongly agreed, 42.25% agreed, 13.38 disagreed, 1.41% strongly disagreed with this statement.

*My co-op experiences increased my self-esteem.*

Seventy graduates agreed that their co-op experience increased their self-esteem. There were 141 respondents, while three students chose not to respond to this statement. Therefore,
36.17% strongly agreed, 49.65% agreed, 12.77% disagreed, and 1.42% strongly disagreed with this statement.

*My co-op experiences increased my self-confidence.*

Sixty-five graduates agreed that their co-op experience increased their self-confidence. Three respondents chose not to reply to this statement. Therefore, 44.68% strongly agreed, 46.10% agreed, 7.10% disagreed, and 2.13% strongly disagreed with this statement.

*My co-op experience increased my problem-solving skills.*

Sixty-eight graduates strongly agreed that their co-op experience increased their problem-solving skills. Four respondents chose not to answer this question, while 140 graduates responded. Therefore, 48.57% strongly agreed, 42.14% agreed, 7.86% disagreed, and 1.43% strongly disagreed with this statement.

*My co-op experiences increased my interpersonal communication skills.*

Sixty-seven out of 142 respondents who strongly agreed that their co-op experience increased their interpersonal skills. Two of the respondents chose not to reply to this question. Therefore, 47.18% strongly agreed, 42.86% agreed, 7.75 disagreed, and 2.11% disagreed with this statement.

*My co-op experiences increased my ability to take initiative.*

Sixty-five graduates strongly agreed that their co-op experience increased their ability to take initiative. Two respondents chose not to reply to this category. Therefore, 45.78% strongly agreed, 43.66% agreed, 7.75 disagreed, and 2.82 strongly disagreed with this statement.
Table 22

My Co-op Experiences Increased My- . . .

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>Motivation to learn</td>
<td>32.39</td>
<td>46</td>
<td>56.34</td>
<td>80</td>
</tr>
<tr>
<td>Enthusiasm for my field of study</td>
<td>36.62</td>
<td>52</td>
<td>52.11</td>
<td>74</td>
</tr>
<tr>
<td>Ambition towards my career</td>
<td>42.96</td>
<td>61</td>
<td>42.25</td>
<td>60</td>
</tr>
<tr>
<td>Self-esteem</td>
<td>36.17</td>
<td>51</td>
<td>49.65</td>
<td>70</td>
</tr>
<tr>
<td>Self-confidence</td>
<td>44.68</td>
<td>63</td>
<td>46.10</td>
<td>65</td>
</tr>
<tr>
<td>Problem-solving skills</td>
<td>48.57</td>
<td>68</td>
<td>42.14</td>
<td>59</td>
</tr>
<tr>
<td>Interpersonal communication skills</td>
<td>47.18</td>
<td>67</td>
<td>42.96</td>
<td>61</td>
</tr>
<tr>
<td>Ability to take initiative</td>
<td>45.78</td>
<td>65</td>
<td>43.66</td>
<td>62</td>
</tr>
</tbody>
</table>

Section II. My co-op experiences helped to develop my . . .

The second segment of this section reviews how co-op experiences cultivated identifiable characteristics of the student in the classroom, personal qualities, and career development. Table 23 summarizes the responses to each statement in this section.

My co-op experiences helped to develop my ability to apply classroom knowledge to the workplace.

Ninety-three respondents agreed that their co-op experience helped to develop their ability to apply classroom knowledge to the workplace. Four of the 144 respondents did not reply to this statement. Therefore, 23.57% strongly agreed, 66.43% agreed, 8.57% disagreed, and 1.43% strongly disagreed.
My co-op experiences helped to develop my relationship with men and women at work.

Eighty-seven graduates agreed that their co-op experience helped to develop their relationship with men and women at work. Six individuals out of 144 chose not to answer this question. Therefore, 23.57% strongly agreed, 43.04% agreed, 14.49% disagreed, and 1.45% strongly disagreed.

My co-op experiences helped to develop my understanding of theory that was taught in the classroom.

Eighty-two graduates agreed that their co-op experience helped to develop their understanding of theory that was taught in the classroom. Six individuals out of 144 chose not to answer this question. Therefore, 15.94% strongly agreed, 59.52% agreed, 21.74% disagreed, and 2.90% strongly disagreed.

My co-op experiences helped to develop my responsibility for my actions.

Eighty-five graduates agreed that their co-op experience helped to develop responsibility for their actions. Five individuals out of 144 chose not to answer this question. Therefore, 27.34% strongly agreed, 65.15% agreed, 19.79% disagreed, and 0.72% strongly disagreed.

My co-op experiences helped to develop my trust in my own judgments.

Eighty-five graduates agreed that their co-op experience helped to develop trust in their own judgments. Five individuals out of 144 chose not to answer this question. Therefore, 29.50% strongly agreed, 65.15% agreed, 7.19% disagreed, and 2.16% strongly disagreed.

My co-op experiences helped to develop my professional work habits.

Eighty respondents out of 144 agreed that their co-op experience helped to develop their professional work habits. Five individuals did not answer this statement. Therefore, 33.81% strongly agreed, 57.55% agreed, 7.91% disagreed, and 0.72% strongly disagreed.
My co-op experiences helped to develop my independence.

Seventy-six respondents out of 144 agreed that their co-op experience helped to develop their independence. Seven individuals did not answer this statement. Therefore, 31.39% strongly agreed, 55.47% agreed, 11.68% disagreed, and 1.46% strongly disagreed.

My co-op experiences helped to develop my understanding of other people.

Seventy-seven graduates agreed that their co-op experience helped to develop their understanding of other people. Five individuals out of 144 chose not to answer this question. Therefore, 32.37% strongly agreed, 55.40% agreed, 11.51% disagreed, and 0.72% strongly disagreed.

My co-op experiences helped to develop my sense of purpose in life.

Sixty-five graduates who agreed that their co-op experience helped to develop their sense of purpose in life. Seven individuals out of 144 chose not to answer this question. Therefore, 18.98% strongly agreed, 47.45% agreed, 29.93% disagreed, and 3.65% strongly disagreed.

My co-op experiences helped to develop my understanding of my field of study.

Eight-two respondents out of 139 agreed that their co-op experience helped to develop understanding of their field of study. Five individuals did not answer this statement. Therefore, 33.09% strongly agreed, 58.99% agreed, 7.19% disagreed, and 0.72% strongly disagreed.

My co-op experiences helped to develop my appreciation for the cooperation education process.

Sixty-nine respondents out of 139 agreed that their co-op experience helped to develop their appreciation for the cooperative education process. Five individuals did not answer this statement. Therefore, 35.25% strongly agreed, 49.64% agreed, 10.79% disagreed, and 4.32% strongly disagreed.
My co-op experiences helped to develop my understanding of diverse work roles.

Eighty-four graduates agreed that their co-op experience helped to develop their understanding of diverse work roles. Five individuals out of 144 chose not to answer this question. Therefore, 27.34% strongly agreed, 60.43% agreed, 11.51% disagreed, and 0.72% strongly disagreed.

My co-op experiences helped to develop my career assessment skills.

Ninety-one graduates agreed that their co-op experience helped to develop their career assessment skills. Six individuals out of 144 chose not to answer this question. Therefore, 23.19% strongly agreed, 65.94% agreed, 10.15% disagreed, and 0.72% strongly disagreed.

My co-op experiences helped to develop my technical skills necessary for my career.

Seventy-eight respondents out of 139 agreed that their co-op experience helped to develop technical skills necessary for their career. Five individuals did not answer this statement. Therefore, 38.85% strongly agreed, 56.12% agreed, 4.32% disagreed, and 0.72% strongly disagreed.

My co-op experiences helped to develop my career identity.

Seventy-seven respondents out of 138 agreed that their co-op experience helped to develop their career identity. Six individuals did not answer this statement. Therefore, 31.88% strongly agreed, 55.80% agreed, 11.59% disagreed, and 0.72% strongly disagreed.

My co-op experiences helped to develop my ability to make informed career decisions.

Eighty graduates agreed that their co-op experience helped to develop their ability to make informed career decisions. Six individuals out of 144 chose not to answer this question. Therefore, 31.16% strongly agreed, 57.97% agreed, 10.15% disagreed, and 0.72% strongly disagreed.
My co-op experiences helped to develop my oral and written communications skills.

Eighty-four graduates agreed that their co-op experience helped to develop their oral and written communication skills. Six individuals out of 144 chose not to answer this question. Therefore, 25.36% strongly agreed, 60.87% agreed, 12.32 % disagreed, and 1.45% strongly disagreed.
### Table 23

**My Co-op Experience Helped Me to Develop My . . .**

<table>
<thead>
<tr>
<th></th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ability to apply classroom knowledge to the workplace</td>
<td>23.57</td>
<td>33</td>
<td>66.43</td>
<td>8.57</td>
<td>140</td>
</tr>
<tr>
<td>Relationships with men and women at work</td>
<td>21.01</td>
<td>29</td>
<td>43.04</td>
<td>14.49</td>
<td>138</td>
</tr>
<tr>
<td>Understanding the theory that was taught in the classroom</td>
<td>15.94</td>
<td>22</td>
<td>59.52</td>
<td>21.74</td>
<td>138</td>
</tr>
<tr>
<td>Responsibility for my actions</td>
<td>27.34</td>
<td>38</td>
<td>65.15</td>
<td>19.79</td>
<td>139</td>
</tr>
<tr>
<td>Trust in my own judgment</td>
<td>29.50</td>
<td>41</td>
<td>65.15</td>
<td>7.19</td>
<td>139</td>
</tr>
<tr>
<td>Professional work habits</td>
<td>33.81</td>
<td>47</td>
<td>57.55</td>
<td>7.91</td>
<td>139</td>
</tr>
<tr>
<td>Independence</td>
<td>31.39</td>
<td>43</td>
<td>55.47</td>
<td>11.68</td>
<td>137</td>
</tr>
<tr>
<td>Understanding of other people</td>
<td>32.37</td>
<td>45</td>
<td>55.40</td>
<td>11.51</td>
<td>139</td>
</tr>
<tr>
<td>Sense of purpose in life</td>
<td>18.98</td>
<td>26</td>
<td>47.45</td>
<td>29.93</td>
<td>137</td>
</tr>
<tr>
<td>Understanding my field of study</td>
<td>33.09</td>
<td>46</td>
<td>58.99</td>
<td>7.19</td>
<td>139</td>
</tr>
<tr>
<td>Appreciation for the cooperative education process</td>
<td>35.25</td>
<td>49</td>
<td>49.64</td>
<td>10.79</td>
<td>139</td>
</tr>
<tr>
<td>Understanding of the diverse work rules</td>
<td>27.34</td>
<td>38</td>
<td>60.43</td>
<td>11.51</td>
<td>139</td>
</tr>
<tr>
<td>Career assessment skills</td>
<td>23.19</td>
<td>32</td>
<td>65.94</td>
<td>10.15</td>
<td>138</td>
</tr>
<tr>
<td>Technical skills necessary for my career</td>
<td>38.85</td>
<td>54</td>
<td>56.12</td>
<td>4.32</td>
<td>139</td>
</tr>
<tr>
<td>Career identity</td>
<td>31.88</td>
<td>44</td>
<td>55.80</td>
<td>11.59</td>
<td>138</td>
</tr>
<tr>
<td>Ability to make informed career decisions</td>
<td>31.16</td>
<td>43</td>
<td>57.97</td>
<td>10.15</td>
<td>138</td>
</tr>
<tr>
<td>Oral and written communication skills</td>
<td>25.36</td>
<td>35</td>
<td>60.87</td>
<td>12.32</td>
<td>138</td>
</tr>
</tbody>
</table>
Section III. My co-op experiences provided me with the opportunity to . . .

The third segment in this measure evaluates how co-op experiences provided the students the opportunity to mature personally and professionally, successfully transition to full-time employment, build a network in their industry, and explore a work experience beneficial to their career. Table 24 summarizes the respondents’ answers to the statements in this section.

My co-op experiences provided me with the opportunity to mature professionally.

Eighty of the 140 respondents agreed that their co-op experience provided them with the opportunity to mature professionally. Four of the 144 respondents did not reply to this statement. Therefore, 36.43% strongly agreed, 57.14% agreed, 5.00% disagreed, and 0.71% strongly disagreed with this statement.

My co-op experiences provided me with the opportunity to mature personally.

Eighty-one of the 139 respondents agreed that their co-op experience provided them with the opportunity to mature personally. Five of the 144 respondents did not reply to this statement. Therefore, 32.38% strongly agreed, 58.27% agreed, 8.63% disagreed, and 0.72% strongly disagreed with this statement.

My co-op experiences provided me with the opportunity to successfully transition to full-time employment.

Sixty-two (62) of the 139 respondents agreed that their co-op experience provided them with the opportunity to successfully transition to full-time employment. Five of the 144 respondents did not reply to this statement. Therefore, 38.85% strongly agreed, 44.60% agreed, 15.11% disagreed, and 1.44% strongly disagreed with this statement.
My co-op experiences provided me with the opportunity to build a network within my industry. Sixty-five individuals agreed that their co-op experience provided them with the opportunity to build a network within their industry. Five of the 144 respondents did not reply to this statement. Therefore, 34.53% strongly agreed, 46.76% agreed, 17.27% disagreed, and 1.44% strongly disagreed.

My co-op experiences provided me with the opportunity to explore a work experience that was beneficial to my career. Seventy-three individuals agreed that their co-op experience provided them with the opportunity to explore a work experience that was beneficial to their career. Five of the 144 respondents did not reply to this statement. Therefore, 38.85% strongly agreed, 52.52% agreed, 7.91% disagreed, and 0.72% strongly disagreed.

Table 24

My Co-op Experiences Provided Me With the Opportunity to . . .

<table>
<thead>
<tr>
<th></th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Mature professionally</td>
<td>36.43</td>
<td>51</td>
<td>57.14</td>
<td>80</td>
<td>5.00</td>
</tr>
<tr>
<td>Mature personally</td>
<td>32.38</td>
<td>45</td>
<td>58.27</td>
<td>81</td>
<td>8.63</td>
</tr>
<tr>
<td>Successfully transition to full-time employment</td>
<td>38.85</td>
<td>54</td>
<td>44.60</td>
<td>62</td>
<td>15.11</td>
</tr>
<tr>
<td>Build a network within my industry</td>
<td>34.53</td>
<td>48</td>
<td>46.76</td>
<td>65</td>
<td>17.27</td>
</tr>
<tr>
<td>Explore a work experience that was beneficial to my career</td>
<td>38.85</td>
<td>54</td>
<td>52.52</td>
<td>73</td>
<td>7.91</td>
</tr>
</tbody>
</table>

In review, it is evident by the behavioral change and attitudinal assessment measure that most respondents agree that the College of Technology Cooperative Education Program work
experiences had a affirmative influence on the students’ behavior and attitude from Bowling Green State University.

Results of Open-Ended Questions

Along with responding to demographic and employment-related questions and responding to the behavioral change and attitudinal assessment, the survey included five open-ended questions for the respondents to complete. These questions including asking the respondents why they felt strongly about any of their responses that they answered with ”strongly agree” or “strongly disagree” after each of the three sections of the behavioral change and attitudinal assessment, their most valuable experience while completing a co-op and what recommendations they would give to the students currently in the College of Technology.

The same question was asked for the first, second, and third open-ended question, but it was asked after each of the three sections of the behavioral change and attitudinal assessment. The statement read “If you marked ‘strongly agree’ or ‘strongly disagree’ in any of the above areas, please comment as to why you feel so strongly in each area.” For the first section of the behavioral change and attitudinal assessment, 76 of the 144 respondents, which is a 52.78% response rate, answered the first open-ended statement. For the second section of the behavioral change and attitudinal assessment, 54 of the 144 respondents, which has a response rate of 37.50%, replied to the statement. For the third section, 42 of the 144 respondents answered the statement, which is a 29.17% response rate. Appendices F, G, and H displays the respondents’ full statements to this question.

From the 144 respondents, 37 individuals, or 25.69%, replied to the fourth open-ended question: “Please describe the most valuable lesson you learned while completing your
cooperative education experience.” Of the 144 respondents, 107 individuals did not respond to this question. Appendix I displays the respondents’ full statements to this question.

From the 144 respondents, 32 graduates, or 22.22% replied to the fifth open-ended question: “What recommendations would you give to the current College of Technology students working toward completing their cooperative education experience.” Of the 144 respondents, 112 individuals did not reply to this question. Appendix J displays the alumni’s statements to this question.

Summary

This chapter detailed the analysis and results of the study conducted to identify the impact of cooperative education on the College of Technology graduates from Bowling Green State University. The findings were categorized into demographic data, employment-related data, behavioral change and attitudinal assessment measure, open-ended questions, and response rate.
CHAPTER V. SUMMARY, CONCLUSIONS, AND RECOMMENDATION

This chapter includes a summary of the study’s research objectives, conclusions, and recommendations for future studies.

Summary

The problem of this study was to identify the impact that the College of Technology’s cooperative education experience had on its Bachelor of Science graduates who participated in the mandatory cooperative education experiences. Research objectives were created to tackle the problem of this study.

Research Objective 1: To analyze the data of the behavioral and attitudinal assessment and compare it to the learning outcomes of the College of Technology co-op curriculum.

The survey (Appendices A and B) was sent to the College of Technology students who graduated from May 2005 through December 2009 either by postal mail or electronic mail. See Appendix K and L for the letters sent to the graduates by mail and e-mail, respectively. The list of graduates provided for the study by the Bowling Green State University Office of Alumni Affairs. The graduates who had an e-mail address on file with the Office of Alumni Affairs were sent the survey through their e-mail. Graduates who did not have an e-mail address on file were sent the survey through postal mail. A reminder was sent to the postal mail graduates with a postcard (Appendix M), which was sent ten days after the initial mail survey was sent to the graduates. A reminder was also sent to the e-mail graduates with an e-mail (Appendix N), a week after the initial e-mail survey was sent to the graduates. The e-mailed reminder was sent three days earlier than the postcard reminder to allow enough time by the U.S. Post Office to deliver the initial survey by mail. The reminder postcard and e-mail were sent in hopes of increasing the response rate. The total response rate to this survey was 12.46%. Analysis of this data was completed through SurveyMonkey and Microsoft Excel.
A number of observations were made throughout the study based on the data collected. To begin, the overall response rate for the electronic survey was higher when comparing the numbers of respondents from the mail survey to the electronic survey. The electronic survey yielded a 15.5% response rate, while the mail survey produced a 9.0% response rate. Even though the electronic survey produced a 6.5% difference in response rate from the mail survey, the response rates were similar enough that the two groups could be combined.

Regarding the demographic information collected from the survey, the following summary is provided on the respondents.

- The largest graduating class to respond to the survey was May 2008, which represented 13.19% of the respondents.
- Visual Communications Technology had the highest response rate of any of the major, which was 50% of the respondents.
- 34.97% of the respondents were females and 65.03% of them were males.
- 10.42% of the respondents have already received a degree beyond their Bachelor’s Degree, and 5.56% are currently pursuing a degree beyond their Bachelor’s Degree.
- Of the respondents, 16.20% had Associates Degrees before coming into the College of Technology.
- 96.48% of the respondents are employed; 3.52% are not.
- 87.77% of the respondents are working in a field related to their major.
- 15.33% of the respondents are earning $30,000-$34,999 annually, which is the same response rate for those graduates making $35,000-$39,999 a year.

Employment-related information was also collected. The following summary is provided for the employment-related information given by the respondents.

- 53.15% have had one job since graduation.
- 58.87% secured their first job before they graduated, while 14.18% took less than a
month to secure their first job after graduation.

- 64.18% interviewed with only one company before being offered their first position.
- The hourly rate of pay for the TECH 489 co-op is $10.21.
- 72.73% said the College of Technology cooperative education experience assisted them in finding their current or previous job position.
- 48.08% are or were employed by one of their co-op employers.

The behavioral changed and attitudinal assessment section was used to see if the learning outcomes of cooperative education were being met according to the graduates who completed the survey. There were 30 statements in this section, and the respondents were to specify on a four-point Likert scale to what level they agreed that each statement applied to them.

Research Objective 2: To compare data from previous study to identify differences or similarities in the responses.

Ms. Karen Bloomfield developed the initial behavioral change and attitudinal response evaluation in a 2004 study. The evaluation was revised based on the current learning outcomes of the College of Technology Cooperative Education program and a review of literature. The behavioral change and attitudinal assessment evaluation included a series of 30 statements that were classified into three sections to measure the impact the co-op program had on its alumni.

For the first section of the behavioral change and attitudinal assessment, the learning outcomes were kept consistent with Ms. Karen Bloomfield’s 2005 study. An open-ended question: “If you marked ‘strongly agree’ or ‘strongly disagree’ in any of the above areas, please comment as to why you feel so strongly in each area,” was added to this section. Table 25 summarizes the differences and comparisons in this section between the 2005 study and this study’s results. The total number of responses per category can be found in Appendix F. The results of the first open-ended question can be seen in Appendix G.
Table 25

Section 1 Differences and Comparisons Between 2005 and 2010 Studies

<table>
<thead>
<tr>
<th></th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2005 %</td>
<td>2010 %</td>
<td>2005 %</td>
<td>2010 %</td>
</tr>
<tr>
<td>Motivation to learn</td>
<td>29.41</td>
<td>32.39</td>
<td>56.86</td>
<td>56.34</td>
</tr>
<tr>
<td>Enthusiasm for my field of study</td>
<td>37.25</td>
<td>36.62</td>
<td>50.98</td>
<td>52.11</td>
</tr>
<tr>
<td>Ambition towards my career</td>
<td>37.50</td>
<td>42.96</td>
<td>52.63</td>
<td>42.25</td>
</tr>
<tr>
<td>Self-esteem</td>
<td>30.72</td>
<td>36.17</td>
<td>52.94</td>
<td>49.65</td>
</tr>
<tr>
<td>Self-confidence</td>
<td>36.60</td>
<td>44.68</td>
<td>51.63</td>
<td>46.10</td>
</tr>
<tr>
<td>Problem-solving skills</td>
<td>39.22</td>
<td>48.57</td>
<td>52.29</td>
<td>42.14</td>
</tr>
<tr>
<td>Interpersonal communication skills</td>
<td>41.83</td>
<td>47.18</td>
<td>49.02</td>
<td>42.96</td>
</tr>
<tr>
<td>Ability to take initiative</td>
<td>36.95</td>
<td>45.78</td>
<td>50.98</td>
<td>43.66</td>
</tr>
</tbody>
</table>

For the second section of the behavioral change and attitudinal assessment, the learning outcomes were kept consistent with Ms. Karen Bloomfield’s 2005 study. Along with the other learning outcomes, the learning outcome entitled “oral and written communication skills” was added to this section. An open-ended question: “If you marked ‘strongly agree’ or ‘strongly disagree’ in any of the above areas, please comment as to why you feel so strongly in each area,” was added at the end of this section. Table 26 summarizes the differences and comparisons in this section between the 2005 study and this study’s results. The total number of responses per category can be found in Appendix H. The results of the second open-ended question can be seen in Appendix I.
Table 26

Section 2 Differences and Comparisons between 2005 and 2010 Studies

<table>
<thead>
<tr>
<th></th>
<th>Strongly Agree 2005 %</th>
<th>2010 %</th>
<th>Agree 2005 %</th>
<th>2010 %</th>
<th>Disagree 2005 %</th>
<th>2010 %</th>
<th>Strongly Disagree 2005 %</th>
<th>2010 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ability to apply classroom knowledge to the workplace</td>
<td>28.86</td>
<td>23.57</td>
<td>49.66</td>
<td>66.43</td>
<td>15.44</td>
<td>8.57</td>
<td>6.04</td>
<td>1.43</td>
</tr>
<tr>
<td>Relationships with men and women at work</td>
<td>18.79</td>
<td>21.01</td>
<td>67.11</td>
<td>43.04</td>
<td>7.38</td>
<td>14.49</td>
<td>2.68</td>
<td>1.45</td>
</tr>
<tr>
<td>Understanding the theory that was taught in the classroom</td>
<td>19.59</td>
<td>15.94</td>
<td>55.41</td>
<td>59.52</td>
<td>17.57</td>
<td>21.74</td>
<td>7.43</td>
<td>2.90</td>
</tr>
<tr>
<td>Responsibility for my actions</td>
<td>24.83</td>
<td>27.34</td>
<td>62.42</td>
<td>65.15</td>
<td>9.40</td>
<td>19.79</td>
<td>3.36</td>
<td>0.72</td>
</tr>
<tr>
<td>Trust in my own judgments</td>
<td>24.83</td>
<td>29.50</td>
<td>63.09</td>
<td>65.15</td>
<td>9.40</td>
<td>7.19</td>
<td>2.68</td>
<td>2.16</td>
</tr>
<tr>
<td>Professional work habits</td>
<td>40.27</td>
<td>33.81</td>
<td>51.01</td>
<td>57.55</td>
<td>7.38</td>
<td>7.91</td>
<td>1.34</td>
<td>0.72</td>
</tr>
<tr>
<td>Independence</td>
<td>36.24</td>
<td>31.39</td>
<td>50.34</td>
<td>55.47</td>
<td>11.41</td>
<td>11.68</td>
<td>2.01</td>
<td>1.46</td>
</tr>
<tr>
<td>Understanding of other people</td>
<td>26.85</td>
<td>32.37</td>
<td>57.72</td>
<td>55.40</td>
<td>12.08</td>
<td>11.51</td>
<td>3.36</td>
<td>0.72</td>
</tr>
<tr>
<td>Sense of purpose in life</td>
<td>10.20</td>
<td>18.98</td>
<td>44.22</td>
<td>47.45</td>
<td>33.33</td>
<td>29.93</td>
<td>12.24</td>
<td>3.65</td>
</tr>
<tr>
<td>Understanding my field of study</td>
<td>37.58</td>
<td>33.09</td>
<td>43.62</td>
<td>58.99</td>
<td>14.09</td>
<td>7.19</td>
<td>4.70</td>
<td>0.72</td>
</tr>
<tr>
<td>Appreciation for the cooperative education process</td>
<td>34.23</td>
<td>35.25</td>
<td>44.97</td>
<td>49.64</td>
<td>10.07</td>
<td>10.79</td>
<td>10.74</td>
<td>4.32</td>
</tr>
<tr>
<td>Understanding of the diverse work rules</td>
<td>28.19</td>
<td>27.34</td>
<td>55.03</td>
<td>60.43</td>
<td>14.09</td>
<td>11.51</td>
<td>2.68</td>
<td>0.72</td>
</tr>
<tr>
<td>Career assessment skills</td>
<td>23.65</td>
<td>23.19</td>
<td>56.08</td>
<td>65.94</td>
<td>16.22</td>
<td>10.15</td>
<td>4.05</td>
<td>0.72</td>
</tr>
<tr>
<td>Technical skills necessary for my career</td>
<td>41.61</td>
<td>38.85</td>
<td>46.31</td>
<td>56.12</td>
<td>6.71</td>
<td>4.32</td>
<td>5.37</td>
<td>0.72</td>
</tr>
<tr>
<td>Career Identity</td>
<td>19.59</td>
<td>31.88</td>
<td>57.43</td>
<td>55.80</td>
<td>19.59</td>
<td>11.59</td>
<td>3.38</td>
<td>0.72</td>
</tr>
<tr>
<td>Ability to make informed career decisions</td>
<td>28.86</td>
<td>31.16</td>
<td>53.69</td>
<td>57.97</td>
<td>14.09</td>
<td>10.15</td>
<td>3.36</td>
<td>0.72</td>
</tr>
<tr>
<td>Oral and written communication skills</td>
<td>NA</td>
<td>25.36</td>
<td>NA</td>
<td>60.87</td>
<td>NA</td>
<td>12.32</td>
<td>NA</td>
<td>1.45</td>
</tr>
</tbody>
</table>
For the third section of the behavioral change and attitudinal assessment, the learning outcomes were again kept consistent with Ms. Karen Bloomfield’s 2005 study. An open-ended question: “If you marked ‘strongly agree’ or ‘strongly disagree’ in any of the above areas, please comment as to why you feel so strongly in each area,” was added to this section. Table 27 summarizes the differences in this section and comparisons between the 2005 study and this study’s results. The total number of responses per category can be found in Appendix J. The results of the third open-ended question can be seen in Appendix K.

Table 27

Section 3 Differences and Comparisons between 2005 and 2010 Studies

<table>
<thead>
<tr>
<th></th>
<th>Strongly Agree</th>
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<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2005 %</td>
<td>2010 %</td>
<td>2005 %</td>
<td>2010 %</td>
</tr>
<tr>
<td>Mature professionally</td>
<td>39.60</td>
<td>36.43</td>
<td>46.31</td>
<td>57.14</td>
</tr>
<tr>
<td>Mature personally</td>
<td>28.19</td>
<td>32.38</td>
<td>54.36</td>
<td>58.27</td>
</tr>
<tr>
<td>Successfully transition to full-time employment</td>
<td>39.04</td>
<td>38.85</td>
<td>35.62</td>
<td>44.60</td>
</tr>
<tr>
<td>Build a network within my industry</td>
<td>31.76</td>
<td>34.53</td>
<td>38.51</td>
<td>46.76</td>
</tr>
<tr>
<td>Explore a work experience that was beneficial to my career</td>
<td>44.59</td>
<td>38.85</td>
<td>39.86</td>
<td>52.52</td>
</tr>
</tbody>
</table>

The behavioral change and attitudinal assessment results showed that at least 66.43% and up to 93.5% of the respondents either strongly agreed or agreed with all of the statements. The data collected in this study indicated that the majority of the respondents felt that there was a positive relationship to the learning outcomes. It showed that there is a positive influence of cooperative education on the College of Technology graduates at Bowling Green State University who participated in a required cooperative education program. In addition, a large number of the respondents replied to the five open-ended questions. Although there was a small
number of negative comments regarding cooperative education, a majority of the responses reflected that the learning outcomes of the College of Technology are being attained. These comments can be found in Appendices I and J.

Recommendations for further study

Based on the results of this study, the following recommendations were identified:

- The Bowling Green State University College of Technology Cooperative Education program should review the existing learning outcomes to ensure they are current and satisfactory.
- This study should be carried out every five years to assess the impact of cooperative education on its students between 1 to 5 years after graduation.
- A follow-up, longitudinal study on those that participated in this study and the Bloomfield study could provide a more comprehensive review of the long-term effects of cooperative education.
- The demographic information of this study should be further evaluated every 5 to 10 years to collect information on the alumni participating in cooperative education.
- A study should be conducted to identify the employers’ perspectives about participating in the College of Technology’s cooperative education program at Bowling Green State University.
REFERENCES


http://writing.colostate.edu/guides/research/survey/com3a1.cfm.


Electronic Survey Questions
1. Default Section

1. Select the semester and year you graduated from Bowling Green State University.

   December 2009

Select the semester and year you graduated from Bowling Green State University.

2. Select your major.

Select your major.

3. Select your gender.

   Select your gender.  Male  Female

4. Under your major, how many cooperative education experiences were you required to complete before graduation?

Under your major, how many cooperative education experiences were you required to complete before graduation?

5. Did you transfer into the College of Technology with an Associate's Degree?

   Did you transfer into the College of Technology with an Associate's Degree?  Yes  No

6. What is your level of education beyond your Bachelors Degree? Please check all that apply.

   What is your level of education beyond your Bachelors Degree? Please check all that apply.  I have already received a degree beyond my Bachelors Degree.
   I am currently pursuing a degree beyond my Bachelors Degree.
   I am planning on pursuing a degree beyond my Bachelors Degree.
   I currently have no plans for pursuing a degree beyond my Bachelors Degree.

7. How many different job positions have you held since graduation?

How many different job positions have you held since graduation?

8. How long after graduation did it take you to secure your first position?

How long after graduation did it take you to secure your first position?

9. How many companies did you interview with before you accepted your first position?
How many companies did you interview with before you accepted your first position?

10. How many of the companies you interviewed with offered you a position?

How many of the companies you interviewed with offered you a position?

11. What was your hourly rate of pay for your TECH 489 co-op?

What was your hourly rate of pay for your TECH 489 co-op?

12. Did your co-op experiences in the College of Technology assist you in obtaining your current or previous position(s)?

☐ Did your co-op experiences in the College of Technology assist you in obtaining your current or previous position(s)?  ☐ No

13. Please specify how your co-op experience assisted you in obtaining your current position or previous position(s)?

Please specify how your co-op experience assisted you in obtaining your current position or previous position(s)?

14. Are you currently employed?

☐ Are you currently employed?  Yes  ☐ No

15. What is your job title?

What is your job title?

16. Please check the salary range of your current position.

Please check the salary range of your current position.

17. Are you working in a field related to your major?

☐ Are you working in a field related to your major?  Yes  ☐ No

18. Are you working full-time or part-time?

☐ Are you working full-time or part-time?  Part-time  ☐ Full-time

19. How did you learn about your current position?

How did you learn about your current position?

20. My co-op experiences increased my ...
<table>
<thead>
<tr>
<th>Area</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enthusiasm for my field of study</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ambition toward my career</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-esteem</td>
<td></td>
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</tr>
<tr>
<td>Self-confidence</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Problem-solving skills</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interpersonal communication skills</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ability to take initiative</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

21. If you checked on 'Strongly Agree' or 'Strongly Disagree' to any of the above areas, please comment as to why you feel so strongly in each area.

If you checked on 'Strongly Agree' or 'Strongly Disagree' to any of the above areas, please comment as to why you feel so strongly in each area.

22. **My co-op experiences helped develop my ...**

<table>
<thead>
<tr>
<th>Area</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ability to apply classroom knowledge to the workplace</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>Agree</td>
<td>Disagree</td>
<td>Strongly Disagree</td>
<td></td>
</tr>
<tr>
<td>----------------</td>
<td>-------</td>
<td>----------</td>
<td>-------------------</td>
<td></td>
</tr>
<tr>
<td><strong>Relationships with men and women at work</strong></td>
<td>Relationships with men and women at work</td>
<td>Agree</td>
<td>Disagree</td>
<td>Strongly Disagree</td>
</tr>
<tr>
<td><strong>Understanding of theory that was taught in the classroom</strong></td>
<td>Understanding of theory that was taught in the classroom</td>
<td>Agree</td>
<td>Disagree</td>
<td>Strongly Disagree</td>
</tr>
<tr>
<td><strong>Responsibility for my actions</strong></td>
<td>Responsibility for my actions</td>
<td>Agree</td>
<td>Disagree</td>
<td>Strongly Disagree</td>
</tr>
<tr>
<td><strong>Trust in my own judgments</strong></td>
<td>Trust in my own judgments</td>
<td>Agree</td>
<td>Disagree</td>
<td>Strongly Disagree</td>
</tr>
<tr>
<td><strong>Professional work habits</strong></td>
<td>Professional work habits</td>
<td>Agree</td>
<td>Disagree</td>
<td>Strongly Disagree</td>
</tr>
<tr>
<td><strong>Independence</strong></td>
<td>Independence</td>
<td>Agree</td>
<td>Disagree</td>
<td>Strongly Disagree</td>
</tr>
<tr>
<td><strong>Understanding of other people</strong></td>
<td>Understanding of other people</td>
<td>Agree</td>
<td>Disagree</td>
<td>Strongly Disagree</td>
</tr>
<tr>
<td><strong>Sense of purpose in life</strong></td>
<td>Sense of purpose in life</td>
<td>Agree</td>
<td>Disagree</td>
<td>Strongly Disagree</td>
</tr>
<tr>
<td><strong>Understanding of my field of study</strong></td>
<td>Understanding of my field of study</td>
<td>Agree</td>
<td>Disagree</td>
<td>Strongly Disagree</td>
</tr>
<tr>
<td><strong>Appreciation for the cooperative education process</strong></td>
<td>Appreciation for the cooperative education process</td>
<td>Agree</td>
<td>Disagree</td>
<td>Strongly Disagree</td>
</tr>
<tr>
<td><strong>Understanding of diverse work roles</strong></td>
<td>Understanding of diverse work roles</td>
<td>Agree</td>
<td>Disagree</td>
<td>Strongly Disagree</td>
</tr>
<tr>
<td><strong>Career assessment</strong></td>
<td>Career</td>
<td>Agree</td>
<td>Disagree</td>
<td>Strongly Disagree</td>
</tr>
<tr>
<td>Area</td>
<td>Strongly Agree</td>
<td>Agree</td>
<td>Disagree</td>
<td>Strongly Disagree</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>-----------------------------------------</td>
<td>-------</td>
<td>----------</td>
<td>-------------------</td>
</tr>
<tr>
<td>assessment skills</td>
<td>Strongly Agree</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technical skills necessary for my career</td>
<td>Agree</td>
<td></td>
<td></td>
<td>Strongly Disagree</td>
</tr>
<tr>
<td>Career identity</td>
<td>Agree</td>
<td></td>
<td></td>
<td>Strongly Disagree</td>
</tr>
<tr>
<td>Ability to make informed career decisions</td>
<td>Agree</td>
<td></td>
<td></td>
<td>Strongly Disagree</td>
</tr>
<tr>
<td>Oral and written communication skills</td>
<td>Agree</td>
<td></td>
<td></td>
<td>Strongly Disagree</td>
</tr>
</tbody>
</table>

23. If you checked on 'Strongly Agree' or 'Strongly Disagree' to any of the above areas, please comment as to why you feel so strongly in each area.

24. My co-op experiences provided me with an opportunity to ...

<table>
<thead>
<tr>
<th>Area</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mature professionally provided me with an opportunity to</td>
<td>Agree</td>
<td></td>
<td></td>
<td>Strongly Disagree</td>
</tr>
<tr>
<td>Mature personally</td>
<td>Agree</td>
<td></td>
<td></td>
<td>Strongly Disagree</td>
</tr>
<tr>
<td>Successfully transition to full-time employment</td>
<td>Agree</td>
<td></td>
<td></td>
<td>Strongly Disagree</td>
</tr>
</tbody>
</table>
25. If you checked on 'Strongly Agree' or 'Strongly Disagree' to any of the above areas, please comment as to why you feel so strongly in each area.

If you checked on 'Strongly Agree' or 'Strongly Disagree' to any of the above areas, please comment as to why you feel so strongly in each area.

26. In the space provided, please describe the most valuable lesson you learned while completing your cooperative education experience.

In the space provided, please describe the most valuable lesson you learned while completing your cooperative education experience.

27. What recommendations would you give to the current College of Technology students working toward completing their cooperative education experience?

What recommendations would you give to the current College of Technology students working toward completing their cooperative education experience?
APPENDIX B

MAIL SURVEY QUESTIONS

Part 1 Instructions: Please place a check mark beside the appropriate response to the following:

1. Check the semester and year that you graduated from Bowling Green State University.
   _____   May   _____   August   _____   December

2. Check your major.
   _____   Architecture
   _____   Aviation Studies
   _____   Construction Management
   _____   Electromechanical Systems Technology
   _____   Electronic and Computer Technology
   _____   Engineering Technology
   _____   Visual Communication Technology
   _____   Manufacturing
   _____   Mechanical Design

3. Check your gender.
   _____   Male   _____   Female

4. Under your major, how many cooperative education experiences were you required to complete before graduation?
   _____   1   _____   2   _____   3

5. Did you transfer into the College of Technology with an Associate’s Degree?
   _____   Yes   _____   No

6. What is your level of education beyond your Bachelor’s Degree? Check all that apply.
   _____   I have already received a degree beyond my Bachelors Degree
   _____   I am currently pursuing a degree beyond my Bachelors Degree
   _____   I am planning on pursuing a degree beyond my Bachelors Degree
   _____   I currently have no plans for pursuing a degree beyond my Bachelors Degree

7. How many different jobs have you held since graduation?
   _____   None
   _____   1
   _____   2
8. How long after graduation did it take to secure your first position?
   _____ Secured job before graduation
   _____ Less than 1 month
   _____ 1-2 months
   _____ 2-3 months
   _____ 3-4 months
   _____ 4-5 months
   _____ 5-6 months
   _____ More than 6 months

9. How many companies did you interview with before you accepted your first position?
   _____ 1
   _____ 2
   _____ 3
   _____ 4
   _____ 5
   _____ More than 5

10. How many companies that you interviewed with offered you a position?
    _____ 1
    _____ 2
    _____ 3
    _____ 4
    _____ 5
    _____ More than 5

11. What was your hourly rate of pay for your TECH 489 co-op?  $___________

12. Did your co-op experiences in the College of Technology assist you in obtaining your current or previous position(s)? If your answer is yes, please answer and proceed to #13. If your answer is no, please skip to #14.
    _____ Yes
    _____ No

13. Please specify how your co-op experience assisted you in obtaining your current position or previous position(s).
14. Are you currently employed? If your answer is yes, please answer and proceed to #15. If your answer is no, please skip to #20.

_____ Yes  

_____ No

15. What is your job title?_______________________________________________________

16. Check the salary range of your current position?

_____ Under $25,000

_____ $25,000-$29,999

_____ $30,000-$34,999

_____ $35,000-$39,999

_____ $40,000-$44,000

_____ $45,000-$49,999

_____ $50,000-$54,999

_____ $55,000-$59,999

_____ Above $60,000

17. Are you working in a field related to your major?

_____ Yes  

_____ No

18. Are you working full-time or part-time?

_____ Full-time

_____ Part-time

19. How did you learn about your current position?

_____ Internet

_____ Newspaper

_____ College of Technology Cooperative Education Experience

_____ Bowling Green State University Career Center

_____ Employment Agency

_____ Other (please specify):____________________________________________________

Part 2 Instructions: Using the following scale, please take a few minutes to respond to the following statements by placing an “X” in the box that describes your opinion.

SA=Strongly Agree  A=Agree  D=Disagree  SD=Strongly Disagree
20. My co-op experiences increased my …

<table>
<thead>
<tr>
<th></th>
<th>SA</th>
<th>A</th>
<th>D</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motivation to learn</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enthusiasm for my field of study</td>
<td></td>
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<tbody>
<tr>
<td>Mature professionally</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mature personally</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Successfully transition to full-time employment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Build a network within my industry</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explore a work experience that was beneficial to my career</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

25. If you marked “Strongly Agree” or “Strongly Disagree” in any of the above areas, please comment as to why you feel so strongly in each area.
Part 3 Instructions: Please answer the following questions.

26. In the space provided below, please describe the most valuable lesson you learned while completing your cooperative education experience.

27. What recommendations would you give to the College of Technology students working toward completing their cooperative education experience?

Thank you for taking the time to complete this survey. Please send your completed survey back in the enclosed envelope. If you would like to see the results of this survey, please contact me at ddrewes@bgsu.edu.
APPENDIX C

HUMAN SUBJECTS REVIEW BOARD APPROVAL LETTER
June 7, 2010

TO: Darcy Drewes  
Technology

FROM: Hillary Harms, Ph.D.  
HSRB Administrator

RE: HSRB Project No.: H10T285GE7

TITLE: The Impact of Cooperative Education on the College of Technology  
2005-2009 Graduates from Bowling Green State University

You have met the conditions for approval for your project involving  
human subjects. As of June 4, 2010, your project has been granted final  
approval by the Human Subjects Review Board (HSRB). This approval  
expires on April 22, 2011. You may proceed with subject recruitment and  
data collection.

The final approved version of the consent document(s) is attached.  
Consistent with federal OHRP guidance to IRBs, the consent document(s)  
bearing the HSRB approval/expiration date stamp is the only valid version  
you must use copies of the date-stamped document(s) in obtaining  
consent from research subjects.

You are responsible to conduct the study as approved by the HSRB and to use  
only approved forms. If you seek to make any changes in your project  
activities or procedures (including increases in the number of participants),  
please send a request for modifications immediately to the HSRB via this  
office. Please notify me, in writing (fax: 372-6916 or email: hsrb@bgsu.edu)  
upon completion of your project.

Good luck with your work. Let me know if this office or the HSRB can be of  
assistance as your project proceeds.

Comments/Modifications:  
Stamped consent document is coming to you via campus mail.

c: Dr. Donna Trautman

Research Category: EXPEDITED #7
APPENDIX D

QUESTION 14: WHAT IS YOUR JOB TITLE?

Responses:

Note: Job titles with ( ) indicates the number of respondents who gave this response.

<table>
<thead>
<tr>
<th>ARCHITECTURE AND ENVIRONMENTAL DESIGN STUDIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Architect</td>
</tr>
<tr>
<td>Architectural Production Assistant</td>
</tr>
<tr>
<td>Project Coordinator</td>
</tr>
<tr>
<td>Architectural Rendering Specialist/Web Designer</td>
</tr>
<tr>
<td>Design Staff</td>
</tr>
<tr>
<td>Designer</td>
</tr>
<tr>
<td>Designer/CAD Draftsman</td>
</tr>
<tr>
<td>Graphic Designer</td>
</tr>
<tr>
<td>Instructor</td>
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<tr>
<td>Kitchen Designer</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AVIATION STUDIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solutions Specialist</td>
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<tr>
<td>U.S. Airforce Officer</td>
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<tr>
<td>Flight Instructor</td>
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<tr>
<td>Aviation Planner</td>
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<tr>
<td>Flight Follower</td>
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<tr>
<td>Pilot (3)</td>
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<tr>
<td>Operations Manager</td>
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<tr>
<td>Warehouse Manager</td>
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<tr>
<td>CONSTRUCTION MANAGEMENT TECHNOLOGY</td>
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<tr>
<td>-------------------------------------</td>
</tr>
<tr>
<td>Assistant Superintendent</td>
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<td>Construction Manager</td>
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<tr>
<td>Construction Scheduler/Coordinator</td>
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<td>Engineer/Estimator</td>
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<td>Estimator/Project Manager</td>
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<td>President/Owner</td>
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<td>Project Coordinator</td>
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<td>Project Director</td>
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<td>Project Engineer (10)</td>
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<td>Supervisor</td>
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<table>
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<td>Calibration Lab Technician</td>
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<td>Factory Manager</td>
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<tr>
<td>Industrial Technician</td>
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<tr>
<td>Staff Engineer</td>
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<tr>
<td>Systems Administrator</td>
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<td>Technology Consultant</td>
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<th>ENGINEERING TECHNOLOGY</th>
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<tr>
<td>CNC Programmer</td>
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<tr>
<td>Design Engineer</td>
</tr>
<tr>
<td>Electrical Supervisor</td>
</tr>
<tr>
<td>Global Quality Engineer</td>
</tr>
<tr>
<td>Millwright</td>
</tr>
<tr>
<td>Senior Materials Analyst</td>
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<table>
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<th>MANUFACTURING TECHNOLOGY</th>
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<td>Maintenance Manager</td>
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<tr>
<td>Environmentalist</td>
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<td>Army Officer</td>
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<td>Carpenter</td>
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<tr>
<td>Process Engineer</td>
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<td>VISUAL COMMUNICATION TECHNOLOGY</td>
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<tr>
<td>Account Service Representative</td>
</tr>
<tr>
<td>Advertising Manager</td>
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<tr>
<td>Art Director</td>
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<td>Associate Account Manager</td>
</tr>
<tr>
<td>Associate Producer</td>
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<tr>
<td>Creative Intern</td>
</tr>
<tr>
<td>Creative Services Director</td>
</tr>
<tr>
<td>Creative Support Artist</td>
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<td>Crewing Coordinator</td>
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<td>Daycare Provider</td>
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<tr>
<td>Design Director</td>
</tr>
<tr>
<td>Developer</td>
</tr>
<tr>
<td>Director</td>
</tr>
<tr>
<td>Director of Marketing</td>
</tr>
<tr>
<td>Director of Power Generation &amp; Alternative Energy College Program</td>
</tr>
<tr>
<td>Editor and Motions Graphics Artist</td>
</tr>
<tr>
<td>Enrollment Counselor</td>
</tr>
<tr>
<td>Final Printing and Production Coordinator</td>
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<tr>
<td>Graduate Assistant/Instructor</td>
</tr>
<tr>
<td>Graphic Designer (11)</td>
</tr>
<tr>
<td>Graphic Designer/CSR</td>
</tr>
<tr>
<td>Hairstylist</td>
</tr>
<tr>
<td>Inkjet Programmer/CAD Operator</td>
</tr>
<tr>
<td>Instructor, VCT Department, BGSU</td>
</tr>
<tr>
<td>Interactive Project Manager</td>
</tr>
<tr>
<td>IT Specialist</td>
</tr>
<tr>
<td>Lead Designer</td>
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<tr>
<td>Management Associate</td>
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<td>Marketing and Communications Specialist</td>
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<td>Marketing and Creative Director</td>
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<td>Marketing and Retail Director</td>
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<tr>
<td>Multi-media Producer</td>
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<tr>
<td>Operations Technician</td>
</tr>
<tr>
<td>Owner</td>
</tr>
<tr>
<td>Personal Trainer</td>
</tr>
<tr>
<td>Photographer/Owner</td>
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<tr>
<td>Photographer/Sales Manager</td>
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</tr>
<tr>
<td>Pre-press/ Graphic Artist</td>
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<td>Print Operator</td>
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<tr>
<td>Producer</td>
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<td>Producer/Video Editor</td>
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Professional Photographer
Programming Coordinator
Senior Marketing Specialist
Studio Operations Manager
Substitute Teacher
Training Specialist
Vice President of Sales
Videographer
Videographer/Editor
Visual Effects Artist
Web Designer
Web Developer
Web Development Specialist & Designer
APPENDIX E

QUESTION 19: HOW DID YOU LEARN ABOUT YOUR CURRENT POSITION?

Other Responses:

Note: Reasons with a ( ) indicates the number of respondents who gave this response.

- Always wanted it from childhood.
- Army ROTC
- Chance meeting with studio owner
- Cold call
- College of Technology Job Fair
- E-mail from BGSU Instructor
- Family friend
- Former School of Art Professor at BGSU
- Friend
- Friend I met at previous job started his own production company
- Had a friend working for the company that told me they were hiring
- Head Hunter
- Hometown firm
- Knew someone in the company
- Local networking
- Monster.com
- Relatives
- Terra Community College
- Through a friend
- Through friends
- U & M
APPENDIX F

SECTION 1: DIFFERENCES AND COMPARISONS BETWEEN 2005 AND 2010 STUDIES

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QUESTION 21: IF YOU MARKED “STRONGLY AGREE” OR “STRONGLY DISAGREE” IN ANY OF THE ABOVE AREAS, PLEASE COMMENT AS TO WHY YOU FEEL SO STRONGLY IN EACH AREA.

- My self-confidence in architectural knowledge and skill has increased because I was able to learn and gain experience.
- My co-op opened my eyes to the daily workings of an office. Also the hardships and disappoint of the profession. During my time I saw many perspective jobs fall apart and saw how an office could rally to put it behind them and continue on. I am telling you this because when I was employed, it was the beginning of an awful time in the profession. Even though it was tough to see and be a part of. If I did not work before I graduated I would have be blindsided by the sad state of the architecture profession at that time.
- On the job training is crucial. It cannot be taught in the program. While I feel like I learned a lot in the classroom, I learned so much more on the job.
- The cooperative education experience really makes you think about your job or career it helped me to develop ideas and thoughts as to how to do my job better. It also helped me to evolve the position into areas that had not been considered previously and I feel my superiors see this as adding value to the position.
- My Co-Op experience provided a lot of opportunity for responsibility.
- Only because any work experience at all increases all of the above item's.
- With so little help from the co-op office, I was forced to either 'sink or swim' and that taught me a lot about the cut-throat nature of the job market. You can't expect help from anywhere and must provide for yourself.
- The co-op experience was the reason I have such a well established job as such a young age.
- The co-op program took me out of the "security" of the classroom and forced me to take action for my work. Yes the overall outcome was a grade, but the first reaction to how well a project was done was the reaction of a client and money loss.
- I strongly agree on the above for the co-op experience because if I didn't have them I don't think that BGSU VCT program would have taught me anything in the classroom. I felt the hands on experience would have been enough without all the extra fluff of photography classes where I learned just about nothing.
- The co op program helped me confirm my interest in the Construction Industry and to continue to pursue my degree in Construction Management.
- Co-ops gave me the opportunity to apply skills from the classroom in a real-world experience. My co-ops were extremely relevant and helped me learn what type of job and did and did not want after college.
- I think that co-ops are the best way to improve yourself both professionally and personally. It gets you out of the classroom and out into the field that you want to be in.
- Q: 19 - I was informed of the position by the Elec. Engineering Chair
- I was already working at the time. Not every student in your program is right out of high school. Seem like BGSU forgets that people who already have a life do not go to
school there.

- the real world is much different than school when it comes to architecture. Experience through co-ops is invaluable for confidence and communication skills.
- If it were not for my internships through BGSU my resume would be totally blank! The skills I obtained during that time period in my life proved to be valuable in many ways, and still gives me a lot to bring to the table today.
- I really enjoyed finding out what made the companies I was working for so successful.
- You are immediately put into real world situations that you will encounter in your line of work. If you don't take the opportunity to learn and make mistakes while you're an intern, then you may face consequences for making the same mistakes later in your career.
- Being in the field challenged me to work outside of my comfort zone and take the initiative to gain more skills.
- Problem solving skills are essential in any technology field. The combined class & CO-OP experiences helped me be more of a creative thinker to find solutions.
- My co-op experience was highly self-motivated and problem based.
- Overall my co-op experience was vital in obtaining my current position and it allowed me to hit the ground running with very little on the job training.
- In all areas that I choose strongly disagree these personal ways of thinking or self initiative should already exist before the end of your college days. These are areas of focus that should be developed as you grow. These are both important in obtaining the co-op. Granted they may be applied or grown during a job, but the foundation should already be there.
- The co-ops, in addition to the student competitions were the best activities that help grow my education. I learned more in anyone one co-op than in my four years of school.
- I don't know where I would be today without my co-op experiences. While the instructors at BGSU are wonderful, nothing can replace actual field experience.
- My co-op experience was very positive. I finally saw how my education was all coming together. I learned so much from so many people inside the company, and I realized that even though you need a college education, the willingness to keep learning and take initiative was just as important.
- My co-op experience was a great networking tool. I was lucky to be in the position I was in and meet the people i did, but would not have, if it weren't for that experience. I was able to learn the 'ins and outs' of my position and had many responsibilities that were solely mine. Great experience!
- Motivation to Learn: I gained a strong ability to learn new skills and abilities
- Enthusiasm for my field of study: I learned that I wanted to use my VTA skills to backup my MEd rather than focus my career in the VTA field
- Ambition toward my career: co-op experience guided me towards future in education
- Self-esteem: I became more confident in my work and skill
- Self-confidence: I became more confident in my work and skill
- Co-op's helped me see the working world results of my classroom training.
- In my co-op experience, I was given responsibility to specific operations. I had to be accountable for my actions and have the ability to communicate with a wide group of individuals ranging from craft to supervisors. The biggest road block was knowing when
to ask questions and how to ask the right question to get immediate results.

- I feel the co-op program is a must for all students coming out of school. In construction companies focus much less on grades and much more on social skills and field experience completed through coops.
- Experience = Confidence
- ON THE JOB EXPERIENCE IS THE BEST REAL EXPERIENCE AND YOU CAN'T ALWAYS OBTAIN IT IN SCHOOL
- Most of all, the co-op program got me working on my resume and job search skills early in life - which helped a lot when looking for my full-time position.
- I strongly agree with the co-op experiences because it gave me real life, hands on experiences that you just can't experience in the classroom. By being put in the "working world" it helped me in learning how to solve problems and communicate in the work setting. It also gave me the confidence to know that I was capable of doing the work and ready to be out in the world.
- In my second and third co-ops (at the same company) I was treated as an associate instead of an intern. I was given responsibilities that would be given to a salaried employee and was expected to uphold those responsibilities in the same manner. This had a strong impact in forming my professional performance.
- It definitely gave me a feel for working a full-time position in my career field and everything to expect that goes along with that responsibility.
- I learned I have a true passion for aviation.
- My co-op experiences were actually Military time. The college counted them as Co-ops. I found later that it would have helped me immensely if I would have spent the extra time and done a couple of real co-ops. I regret the decision now.
- I feel comfortable in my current job situation. I have confidence in my work and my knowledge. I can defend myself when I know I am correct about a topic (usually technical). I have learned the "politics" of working - how to communicate with others, how office "mind games" can sometimes occur, etc. I have learned what employers are looking for: desire to learn, desire to work hard, desire to seek work when not busy.
- Positive experiences in the work setting always help to build confidence in your ability to perform the tasks at hand.
- Overall, I feel I learned more skills and had more experiences that have been beneficial to my career during my co-ops than in class.
- Because I already had so much experience in office environments, I already knew how to be a team player when I started my first job
- Being able to accomplish tasks in a professional setting reinforces your self-worth. (Basically re-affirming that you can cut it)
- Co-op's are a huge aid in real-life experience.
- I thought that my co-ops allowed me to apply these skills that i learned in classes and apply these in a real world setting.
- The Co-op program allows you real life experience prior to graduation, which gives you more experience compared to someone else fresh out of college with no experience.
- Co-op helped fuel the ambition toward my career because you can see how well you are going to fit in and work hard to get to the top spot. It helped my interpersonal skills because you meet so many new people and learn to adapt your communications to the
behavior and the behavioral decorum of the company. Co-ops also help with the ability to take initiative, because upon returning from mine I felt like I had a handle on the field and I wanted to step up and take charge of my learning because I got a preview of how it would affect me in the field.

- Enthusiasm for my field of study, my co-ops didn't really help with this, it actually did the opposite.
- Communication skill are vital in the workplace especially for a newcomer and someone who is learning.
- I felt the co-op experiences were great experience and practice for job training.
- My confidence shot sky high when I began editing pieces for clients as an intern and my boss immediately offered me a job (which took me awhile to accept considering it required to Los Angeles).
- I feel that the co-op product is awesome and must for kids in college. Gives them great experience and provides awesome opportunities.
- Obviously it didn't give me any more ambition. That's why I went into the major … because I wanted to do it. I was always pretty good at IPC and initiative.
- Co-ops give you the hands on learning you can't get in a classroom. For me, I learn much easier when its hands on.
- Working professionally in architecture showed the real side of my field of study, which proved to be much less like my studies at BGSU.
- In most of my co-ops, I had a lot of control over what I did. I had a boss, but they were looking for me to go above and beyond.
- Self Confidence: Forced me to try new areas and fail, then learn from the failure. Ability to take initiative: Made me search for a position and once in that position the employees were watching to see if I would ask for work, go to sites, work nights, etc.
- Helped with experience that leads to other jobs.
- I had wonderful teachers for my co-ops. They all were with small companies and allowed for a lot of personal attention.
- My co-op dealt with a lot of one-on-one teaching, which made me feel good about myself by helping others.
- Ambition: Co-ops helped me find my career that I love. Once I found it, I was pushing myself harder to finish my degree. Other categories: The co-op experience gave me an overall better outlook on furthering my education and lining up a career I would be happy with.
- I learned more from my co-op work and coworkers and made more networking connections that I did in class.
- The co-op experience taught me real world skills and gave me the confidence and experience that I needed to secure my current position. Also, my first full-time job was my TECH 489 co-op.
- My last 2 co-op experiences went a long way in developing the skills and traits that I rely on in my current positions.
- Working in my co-op showed me that I don't want to do mechanical design full-time.
- The experiences were great, they did introduce me to aviation, but did not aid in any job opportunities after college.
- I did the co-op only because it was required of me. The position I held during my co-op
was a job that would have worked out without the co-op requirement.

- I worked at the PBS station. Because of this, I had to deal face to face with people.
- My co-ops at WBGU put me right in the heart of video. It changed my life and helped make me who I am today.
- My job made me focus on those key areas, as they are essential requirements to be a good photojournalist.
- Being put into different problem solving situations challenged my communication skills, which made for a great opportunity for growth.
- My current and only job dealing with my major of VCT actually inspired me to pursue it as a career choice. I've dealt with a lot of problem solving since beginning at my job.
- Helped me realize what the work force would be like.
- The program prepared me for the real world instead of just learning in the classroom.
### APPENDIX H

**SECTION 2: DIFFERENCES AND COMPARISONS BETWEEN 2005 AND 2010 STUDIES**

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APPENDIX I

QUESTION 23: IF YOU MARKED “STRONGLY AGREE” OR “STRONGLY DISAGREE” IN ANY OF THE ABOVE AREAS, PLEASE COMMENT AS TO WHY YOU FEEL SO STRONGLY IN EACH AREA.

- Again, on the job training is crucial. It cannot be taught in the program. While I feel like I learned a lot in the classroom, I learned so much more on the job than I ever could have in a traditional classroom setting.
- Not only has my co-op experience helped in my professional life but my overall university experience has done the same thing in my professional and personal life. That is why I feel strongly about the answers above. Sure the co-op helped but I feel it is the overall experience that opens the mind and helps a student to think critically and objectively.
- Same as 21
- Co-op helped me learn not to always trust my judgment, but rather learned to find guidance and cooperation from others
- It was my experience in my co-ops that got me my positions.
- Same as above
- Same as in question 21. If I wasn't so far into my program and realization that I was learning next to nothing in the classroom as what I learned in a co-op I would have transferred.
- My purpose in life is not driven at all by my career. My career is simply a means to support myself in order to live my life.
- I believe that my co op experiences helped better prepare me for my career more than what was taught is school.
- The program reinforces what you want to do in life. You will find that you either love your field or you don't. It allows you to see if you are going after what you really want in a career.
- I state again I am a non-traditional student and get very tired of asking me question the do not apply to my life of education at BGSU.
- If it were not for my internships through BGSU my resume would be totally blank! The skills I obtained during that time period in my life proved to be valuable in many ways, and still gives me a lot to bring to the table today
- it helped give me the backbone and give me the confidence to go out and grab the career I wanted.
- By gaining experience in an actual construction company, you learn how people conduct business and how to act as a professional.
- The most vital aspect of my co-op experience was learning how to communicate with people to obtain the best result.
- N/A
- The co-op was the simply the best part of my education
- I truly believe I'm a better person and employee for having my co-op experiences. I made a conscious effort to have a diverse co-op portfolio, which allowed me to have many different experiences and have unanticipated career growth.
Again, my co-op experience was just so incredibly positive. It was wonderful to be able to find a position that utilized many of the concepts learned in school. When you are happy, it becomes very easy to excel.

Everything I did in my co-op position was applied from the classroom. I loved Aviation even more after doing my co-ops. Oral and written communications were heightened because I was doing alot of customer service and memo's or class assignments which were going to be utilized at my job.

Co-ops allowed me to use the knowledge I gained in the classroom at the job place. I got to work on real-world projects (not just homework) and do well. This increased my trust in my judgments. At most of my co-ops I had a lot of independence to complete projects. I worked with a wide variety of people. I feel that co-ops helped me in many ways and I feel that every major/college should require students to complete a co-op or similar experience. Co-ops furthered my technical expertise. I was able to define what I wanted to do for a career while on co-op.

Co-op's gave me the opportunity to see the main roles involved in my field. In school you often do everything during a project. But in the workplace I find more often than not, that you fill a role and every member of the team fills theirs. It doesn't happen like that in the classroom. Never does. Group assignments do nothing to train you properly for working in a team environment. Co-ops accomplish this.

Co-ops range in all different sectors of construction (commercial, industrial or residential). I felt that BGSU was more focused on commercial and residential rather than all three. I feel the industrial sector of the construction market is lacking at BGSU. I am able to apply the basic components from BGSU into my work; however, the majority of my learning is done in the field with the company's operating systems.

**WORKING WITH EXPERIENCED PROFESSIONALS HELPS YOU LEARN BEST AND WORST PRACTICES**

I don’t think I understood theories any more after my co-op then before.

For the same reasons listed above.

The co-ops just really prepared me all around.

Same response as question 22. In addition, I have learned that people make mistakes. Most importantly if you do something wrong you must admit what you did wrong, apologize and seek a way to fix your errors if possible. I have also learned which type of working environment I would like to be in. Since each co-op was in a different area of print, I have been able to take my broad experience and apply it to my current position.

NA

It was great to start out in the real world already having a year of experience. I knew I would like my job and what I was looking for.

I wouldn't be where I am now without my co-op experience.

The co-op program allows you to challenge yourself and gain knowledge from professionals, which will help you throughout your career.

Professional work habits are only learned from work experience related to your field of study. My co-op experiences although worthwhile made me hate the co-op department and how they go about things especially with my third co-op which I was
not able to secure a job, because of the lack of effort by the co-op department.

- I definitely developed real world skills and it put me ahead of others with the same education experience.
- Same as question 21.
- I've always been independent and don't think it taught me anything I wasn't already practicing. Like many VCT grads, we think 3 co-ops is ridiculous. And even more ridiculous is that we have to pay for them, especially when many are unpaid you are basically buying credits after the first one.
- Similar to my previous response. The field of arch is much different today as it was 20 years ago. The skills taught at BG do not seem to address skills used in modern firms. After professionally working, my passion for designing was lost.
- My co-op experiences definitely helped my overall knowledge on specific software. My classroom knowledge was extremely basic, but my co-ops gave more in-depth feelings towards specific job.
- Co-oping as a college student forces you to grow up and take you job seriously and help change your attitude for the better.
- It helped develop my skills and get a job. Beyond that, it wasn't useful because I didn't fully understand because I didn't understand my purpose until I was in the field full-time.
- Responsibility for my actions: Was listed as an estimator and forced to bid jobs as if they were my own. Appreciation for the co-op education process: The co-op process begins the steps necessary for the students to fully understand their major and what it requires. Oral and written communication skills: Due to position, was forced to talk with subs and write
- The mechanical design degree is a joke. It is hard to compete with people whose degree is in mechanical engineering.
- I was depended upon by not only my co-workers, but my clients as well.
- My co-op experiences helped me make an easier transition from college life to the working world while helping me narrow down positions I wanted to pursue as a career.
- I was given the opportunity to work independently and then report to my superiors. This forced me to do good work and learn when I didn't do my best work.
- The co-op experience gives you real working scenarios that you would never get in the classroom. You learn how to handle situations on your own or with little guidance and you get to see how your decisions and actions can affect many things.
- My co-op experiences helped me realize importance of taking accountability and responsibility for my own work. It also helped me develop the work habits and technical skills I use to secure the position I'm in today.
- I feel that co-ops are very important role in education and have allowed me to learn what I need in real life situations.
- Cooperative education put me in the aviation field, but not in the desired position. I was an FTO major yet I worked line services.
- I already had a strong sense of purpose in my life. The co-op program did not, nor would have provide that. To me, a co-op was just a job, not an experience. Will explain more in later question.
- My co-ops taught me things the classroom could not. Finding a job would have been so much harder than without these experiences.
- The VCT degree gave me a wide field of knowledge for me to apply to my co-op positions, and the nature of the job exposed me to many different walks of life.
- Being in a professional environment allowed me to establish good work habits.
- The experiences didn't happen in the classroom.
APPENDIX J

QUESTION 25: IF YOU MARKED “STRONGLY AGREE” OR “STRONGLY DISAGREE” IN ANY OF THE ABOVE AREAS, PLEASE COMMENT AS TO WHY YOU FEEL SO STRONGLY IN EACH AREA.

- I worked for television for my Co-Ops. I am now still in television.
- Same as 21.
- I believe the most important thing other than the knowledge I gained in the co-ops was the networking I am now able to do.
- I was already employed with my co-op before I used her as a co-op. After graduation I was able to continue working with her and building my skills.
- The networking contacts I built during my co-op experiences were the most valuable part of my co-ops.
- I truly believe that overall the co op program is a great benefit to both students and employers. I was able to learn a lot during my co ops and it only made me that much more prepared for when I graduated.
- I was able to start full-time with the company I did my last co-op with. Although I do not work for that company anymore, I probably would not have received the position without the experience I gained in the co-op program.
- I should not have had to pay for a co-op. I have been working in industry for a number of years. It was nothing by the college getting my money for no reason!!!!
- I made many connections through my co-op experience that propelled me to many other opportunities.
- If it were not for my internships through BGSU my resume would be totally blank! The skills I obtained during that time period in my life proved to be valuable in many ways, and still gives me a lot to bring to the table today
- With what I did, it helped give me idea’s to launch myself out into a niche field
- All the categories were definitely areas that I made improvements in over my 3 semesters of co-op experience.
- Finding jobs in a tough economy wasn’t easy. Finding the first full-time position after college was even harder. I strongly believe in networking. If I didn’t have connections through my CO-OPS, it would have been even harder to get in.
- I strongly agree that networking is important to the industry. I know everyone wants to think the best grades and talent will put you on top, however who you know may be just as important sometimes. Especially in the movie industry.
- My co-ops helped me grow and develop as a person and a professional. By the time my 3rd rolled around I felt ready to go out into the real world, which was clearly reflective on my employer since he hired me on upon graduation.
- Even though I was offered a position before graduation from the company in which I fulfilled my co-ops, I feel that I would have walked away feeling confident. In turn that would have helped me attain a job somewhere else.
- I met my current employer through my co-op position.
- Yes.
• Going into a new environment has developed all of these stages in my career.
• With any job, the more time you spend in it meeting people to more you are networking.
• DURING THE INTERVIEW PROCESS I COULD REFER TO MY PREVIOUS WORK EXPERIENCES AND LEARNING
• I do not work in my field
• I believe that the co-op did help me mature both professionally and personally. Especially after now being in the work force for a few years, I can see that the experiences I had while on co-op have helped me to succeed. It exposed me to a variety of real life work issues that not many co-workers my age have had.
• I got to work with experienced professionals in my career field and related fields and I knew what to expect in a post-college career.
• I have learned how to talk to people and also to mingle with people and keep a good conversation going ... aka building rapport.
• NA
• My last two co-op allowed me to continue to work for the Marketing Firm right after graduation. While the company went under due to previous financial reason I was able to take on many of the clients from the company and have been going strong for 4 months now and keep getting busier.
• I was able to start off with great contacts.
• The co-op made it easy to go out into the working world. Having the experience prior to graduation really made me feel confident and prepared.
• The co-ops required you get involved as soon as you can in your industry, so you have real world experience when you graduate.
APPENDIX K

SECTION 3: DIFFERENCES AND COMPARISONS BETWEEN 2005 AND 2010 STUDIES

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APPENDIX L

RESPONSES TO MOST VALUABLE LESSON LEARNED QUESTION

- Work experiences tops education experience any day.
- Learned so much more than in the classroom. I learn better being hands on!
- I completed two internships in a row, summer and fall semesters of 2006, in Salt Lake City, UT. The most valuable lesson I obtained was confidence in decision making. I felt led to take the position in SLC and I has changed my life. I learned professional work habits and developed professional relationships.
- Work experience is very important
- Keeping good records. You can never document something enough.
- Networking.
- Showed me exactly what all of my duties would be as a project manager.
- I gained a general understanding of how my industry works, which is impossible without immersion in that industry.
- It's not so much what you don't know, but what you're willing to learn.
- Knowledge is power and getting some sort of experience is huge in landing a job after college.
- Skills can get you far, and so can who you know. The right combo of both is what will get you where you need to go.
- That I learned nothing in the classroom besides the basics that anyone could have learned by picking up a camera and a simple manual. Besides having a degree the clasess weren't worth the debt I'm in.
- Transition from class to field.
- How very little companies value creatives and how little they understand what my degree is all about and what I am capable of doing for them.
- I learned that the most valuable experiences come in stepping outside your comfort zone. For example, I completed a co-op in Las Vegas for a summer and thought I would love it there, but I hated being away from my family. II was glad I discovered this before graduating and taking a full-time position with a company too far away.
- The best thing to know when working at your co op position is to not just look at it like a co op, but as if you were a full time employee. If someone goes in just there to fulfil a requirement they will not take it as seriously and the employer will not take them as seriously. You are there working to eventually get a full time job so you might as well start acting like one. I have seen co ops come and go for the past 2 years nows and I am yet to be impressed with a co op who has drive to learn and dedication to help out in any way they can.
- The overall experience was extremely valuable. Don't let the label of "intern" or "student" prohibit you from contributing to the organization.
- The best thing about a co-op is that it allows you to actually gain experience in the field that you plan to pursue. You are able to actually relate your classroom learning to the field.
- The cooperative education program helped me gain confidence in my abilities to multi-task and complete a larger project. It helped me learn planning and time management
skills.
- I have to pay money to a school that does not know its students. The school still is stuck in old out dated think. Or they just want money and do not care about non-traditional students.
- More than can be explained in this box. Learning how to think in the real world was valuable going into gradschool and getting me to think differently through my thesis work.
- My people skills were improved significantly during my co-op experiences. This has helped me to peruse a career as an Officer in the US Air Force.
- I learned more about what an actual graphic designer does at a job. I learned more about the computer programs and things you can do with them. I also learned how to put an order on the work I have to complete and communicate with co-workers on what is really important to them with each project.
- The biggest lesson I learned was that hard work pays off over time,,you can't expect to get the big bucks right away.
- if you're motivated and keep and open mind, you can learn valuable life skills from a co-op even if it's not entirely what you want to do for the rest of your life. You can still use idea's and skillsets into your future career.
- co-ops were done based on work experience. Therefore self reflection and career path establishment was the most important lesson. I knew where I was and where I wanted to go, and how to get there.
- That you may think you know a lot about the industry from the classroom, but real world experience is more valuable.
- How the real world works
- The most valuable lesson that I learned was working with older colleagues. It is often intimidating working with people outside of your demographics.
- I learned that time management is the most important aspect while working.
- It was a stepping stone, a foot in the door as some would put it.
- The most valuable lesson I learned was that the aviation field was a hard one to get into and you have to take what jobs you can get in order to get ahead.
- I learned how to work in a team and how to ask for help. I also learned how to help others delegate to me. It's not always easy to help a superior take something off their plate. But I truly believe I was able to make their lives easier, as opposed to a burden, as many interns do!
- I learned to always be humble and never flaunt my education. I actually did a co-op at the same time as another classmate. I felt pretty insecure and felt he was a bigger asset to the company than I. Well, it turned out that his over-confidence was not appreciated and I was offered a position and he was not.
- My advice would be to hold onto the relationships you build during your internships. Network, network, network! Take on as many special projects as you are able to! Do not worry if you get paid, it will be worth it in the long run, the experience will be the great pay off!
- Aviation is a small industry and everyone knows everyone. Although, i didn't realize to what extent this was true, at the time. I now know that I have come across the path of many professionals which I met while engaged in the co-op experience. Don't burn
bridges because you never know who may be your boss one day.

- Learning not only what you like, but also what you don't like, was the most valuable lesson for me.
- Hands on learning. Getting to actually see and do the work after studying it in college.
- The most valuable lesson I learned was that being self motivated and a problem solver gets you extremely far in the workplace. All my co-op employers were impressed by those traits and I think VCT helped build them.
- Listen with your eyes and ears, and keep your mouth shut!
- In construction most of what you deal with everyday cannot be taught in a classroom, this experience must be learned on the job. Coops help greatly with developing skills and furthuring education to well round students.
- Teamwork
- GET INVOLVED IN PROJECTS YOU LEARN SO MUCH IN A SMALL TIMEFRAME AND INTERACT WITH DIFFERENT PEOPLE PERHAPS IN OTHER DEPARTMENTS
- Since I was required to complete 3 co-ops, I had a chance to work in three different areas of my field. This experience helped me to make decisions about the future path in my career.
- It taught me that I really don't want to work in my field anymore
- The most valuable lesson I learned while on co-op was being accountable for my work and communicating effectively across the organization. Learning how to communicate with a variety of types of people have benefited me even in my short career. It also allowed me to be accountable for my actions and learned what is and is not professional.
- Personally caring and being passionate and mature about the career you have chosen can help you go far and get you noticed at work. Even a co-op position is important to the company initiatives and if you can be invaluable in that position, you can be invaluable in any position.
- That you have to jump through the college of technologies hoops in order to graduate.
- I learned how to admit I was wrong or that I screwed up. Also, when I wasn't sure on things, I learned to ask and over clarify topics if needed.
- Gave opportunities to find the right fit for both my personal and professional future.
- It was a great learning experience my boss pushed me to do things I wasn't fully comfortable doing but mastered at the end of my co-op.
- Not only did I learn what I wanted to do after graduation, I also learned what I DIDN'T want to do. This is just as valuable. I also found many concepts we learned in class so much easier to understand by applying it in my co-op experiences.
- How to work in the office environment
- That companies/co-op supervisors see the intern's roles differently. Some see it as an opportunity to groom a potential new employee, others just see it as cheap labor.
- Learning to think independently and trusting your own decisions.
- Networking is key, but not as important as focusing on skills and communication.
- Networking
- travel travel travel. My experience interning abroad was priceless and one of the best times of my life, so far.
• knowing what kind of job I wanted by figuring testing different position. Learned management skills by working with different types of managers and using that knowledge to create my own management style.
• The most valuable lesson is networking. Networking is a big part of our society today. You never know when you may need someone you have worked or met in the past during you co-op experience.
• The most valuable lesson I learned was learning how to communicate well with people. That's always going to be a required skill at any job and I learned more ways of communicating effectively during co-op experiences.
• That you can't rely on others to help you secure a job.
• Networking is essential in obtaining a job.
• Build your resume and portfolio as strong as you can. And then try to get the biggest, best internship you can to boost your career. Also, network any way you can (aka make a lot of friends in your field).
• Build your portfolio; Collect a variety of work product.
• Work at a few locations gives you more experience.
• Probably technical skills. VCT didn't really teach me how to use software, but just gave me assignments and expected me to learn it myself. The co-ops had people there to tutor me in the software.
• Search for something that will help you land a decent job after graduation. Don't settle for something just because it's easy.
• Never settle and challenge yourself.
• Ask questions on a daily basis. This will help your overall knowledge on a production and networking level. Find
• You learn much faster when working in the real world because there are real deadlines and real clients.
• Learn to work with others, communications skills, learned about construction in general and as a business
• I work at the same place I did my co-op and ran into discrimination. Very tough situation. My experience made me more determined to move on. My job at the co-op was to mainly sweep the floor and shut-up.
• I learned the construction industry and how it works.
• I learned that everything I completed in the classroom I must continue to do on my own if I want to be good at it.
• The most valuable lesson was that company overhead and profit make or break an estimate.
• Confidence to apply my skills in a real work environment.
• Learn how companies/groups function. Learn professional skills, such as e-mailing, dealing with vendors or customers, etc.
• As a co-op. you are in a very basic low position, but you have a good opportunity to talk with people in other positions. It can help you figure out if you even like what you are studying.
• To work independently and be reliable.
• Even though almost all students learn from the same text, those same students will have a different boss who operates his business differently.
No matter how much learn at school, you learn ten times more applying that knowledge to real life work experiences.

Real life experience is not taught in a textbook.

How to do good work quickly and efficiently while producing the results the client expects.

I honestly learned how to survive in the real world. No one is going to hold your hand and there are no make-ups or re-dos. I learned a lot but am still learning.

My co-op experiences have me a better understanding of how to apply the skills I learned in my classes and enhance my knowledge of the software needed to do my job more than I could have expected.

Most valuable skill is working with others. Without real world experience than I would have never had such a great resume and luck with finding a job after college.

Communication skills and understanding the service side of the industry.

My co-op taught me to become a professional, and to gain marketable skills beyond the foundations I learned at BGSU.

The value on teamwork and roles within an identified work group. I acquired the basic philosophy of managing people that employees need expectations and have to be held accountable for them, both positive and negative.

The most valuable lesson I learned was the importance of deadlines. My shoots were scheduled for a certain time and I had to be there.

The most valuable lesson I learned during TECH 289, my first co-op, was that the co-op program is a joke. The aviation industry is so small that competition for the very few internships was cut throat and extremely difficult. Unless the student has the ability to move elsewhere to complete. And to most this is unrealistic, having to pay rent outside of Bowling Green where most students already have an apartment. Also to go outside BG requires they would miss a semester of class which drags the process on even longer.

Trust yourself. More often that not I knew the answer. Also Equipment operation.

You only have one chance to make a good first impression. Make it count!

Most employers appreciate hard work, along with a desire to make the organization stronger.

I have a lot to learn.

I learned to take eveyr job seriously and professionally because how you act now carries with you for the rest of your career.

Learning how to actual field works. Getting the experience in the industry.

Most valuable lesson I learned what that I wanted nothing to do with my major.

Hard work pays off. By treating my co-op like a real job, I was able to gain a full-time position.
APPENDIX M

RESPONSES OF RECOMMENDATIONS FOR CURRENT CO-OP STUDENTS QUESTION

- My situations may have been different because I came from Firelands BGSU, and EHOVE IMT program before that. I learned A LOT of what was already being taught in VCT in high school so I was a bit above the "learning curve." The "projects" we had in the VCT program at Firelands just seemed very simple and the student really had to take the initiative upon themselves to really do anything spectacular and industry/portfolio worthy. So many people did half the work I did, and still got the same grade as me.
- Please keep in contact with company's after someone Interned.
- I would recommend traveling to somewhere unfamiliar to do co-ops if at all possible.
- Try to find a job that is in the field you are studying
- In life and in architecture it is very important to understand the phrase "It's not about what you know, it's about who you know". So make the time in these co-ops to learn as much as you can about the profession and make your presence known in the workplace
- Just do it. Sooner or later you are going to have to do it. So just do it.
- Take Risks.
- You can NOT be afraid to ask questions of your superiors. They understand that you are there to learn and you can't be afraid to make the comment that you would like to sit in with them on different meetings or job site visits. ASK QUESTIONS!
- Choose co-op employers wisely, go out of your comfort zone in seeking opportunities, get as many interviews as possible, and use the interviews to interview potential co-op employers in addition to them interviewing you.
- Find your own co-ops. It will help you get used to following up and interviewing on your own without anyone holding your hand. It is your responsibility to secure a co-op, not the college's. Use all resources available, but do not expect to just be handed a co-op.
- Keep pushing and don't take co-ops for granted because the day will come when you have to find a profession and you will need the work experience in order to find a good one.
- More challenging job hunts, take 489s that will have a greater than 75% chance of landing a job.
- Continue with the co-op program. It's the only place you will get the hands on experience that you need and deserve for the amount of money you are paying.
- When I was in the program, the College of Technology did nothing to help obtain a position, yet required 3 before graduating. I would say a database of people who will accept summer interns would be beneficial if it is not already in place.
- Work your butt off to get a good one because that may be your only link in today's economy to a real job that you may like after graduation. It is extremely tough out here and if you aren't in love with what you are doing, get out now.
- Work hard and take the opportunity to co-op at a position outside the university. While completing a co-op experience in Bowling Green is convenient, it does not provide you
the networking contacts and the experiences that completing a co-op elsewhere does.

- I think that if a student is going into Construction Management they should be required to fulfil a co-op in a management position. I think that some of the co-ops positions that are accepted are not always preparing a student for their future. Example: operating equipment for a summer.
- Search for meaningful and applicable co-ops that will allow you to learn and gain experience, not just fill a requirement. Learn from each experience and challenge yourself.
- Don't take it lightly. Pursue a co-op like you would a professional career. Many co-op's can lead into a full time position if you prove that you are capable. Be diverse, don't focus on just one area of the industry. You have three co-ops, try to work in three different areas of your chosen field. This will enable you to see what area fits you best.
- Use the opportunity to learn as much as you can about the area you are training for. The "hands-on" experience and documentation will provide a great benefit to you in performing at any job in the future.
- How old are you? Are you working already? If you are a non traditional student like I was just pay the money and get the paper work to turn in.
- The experience not only gives you confidence going into the work force, but also puts experience on the resume which is almost necessary for a good job after graduation.
- Apply for Co-ops that are of increasing responsibility throughout your time at BGSU.
- I would tell them to learn enough to create their own website with their work displayed. Employers are going to expect a technology or a design student to have a website, so make it professional looking. Mine can be found at www.simplysarahorn.com
- I would say, Make sure you perform as best you can in an intern position! It could lead to part-time work during school for extra cash, and more importantly extra experience!
- Maintain positive attitude. Learn all aspects of organization, not just your specific field.
- Sometimes it may seem like you will never get through the whole process. Keep working hard and good things will happen. The college of technology at BGSU is well respected and the hard work pays off.
- to look for co-ops that are specifying in your area, not just taking one because it is needed.
- I would say not to settle for your hometown or a bowling green area internship. Move out of state, take an unpaid co-op! Those are sometimes the best ones.
- The more effort and interest you put into your CO-OP (and coursework), the more you get out of it. Show the employer that you are interested, they will respect your eagerness and help you grow in your career.
- Focus on the co-op es a learning experience just as you would a class. You will gain valuable skills both in your field and in being a professional.
- I would tell them not to view it as a requirement or nuisance to obtain a degree but an opportunity to become a valuable employee upon graduation. The co-op experience is by far the most important aspect of the Construction Management program.
- We spend almost 25% of our weekly hours doing our jobs and some of us more than that. So try to decide which path you want your degree to take you, and use these co-op's to see if that is what you really want to do with your life. Being happy with your work is key.
Do more than three co-ops, they gave me a better network to build on.
Do not expect a mind broadening revelation of the work force. Concentrate on using the education for a base of OJT learning.
Don't take the first job that comes along to you because it's easy. Take the time and energy to look for something that will be fun and once in a lifetime. Meet as many people as you can while you are doing them as well.
Make sure you diversify your co-ops and grow your knowledges and capabilities with each one. I started off in a print shop, then moved to a corporate setting in design publishing and ended up in smaller marketing firm. Each co-op allowed me to see different aspects of the industry and felt I knew where the best place was for me upon graduation!
Be quiet and diligent when working. Even if employees of the company are very sociable and appear to screw around. Most of them have earned that right and they actually do a lot more than meets the eye. Be willing to do whatever is told and you'll gain their respect in the end.
It is important to try to get co-ops in a variety of industries and types of positions so that we understand which areas are our strengths and where you feel like you can make a career upon graduation.
This is a GREAT experience. You get the opportunity to try out different area's in your field, before you actually have to make a definite choice on what you do in life. It may be difficult to find a co-op position, but it's better to struggle with that and find out what you really want to do, than to figure it out too late. Enjoy the experiences and the networking. You are bound to see familiar faces in the future!
Make sure you pay attention to all of the aspects of your co-ops that you like and don't like. Trust in those feelings to guide your next co-op(s), class selection, continued education and career choice.
Listen and learn from the people that have been in the field the longest. You may not always agree but there is a good chance that it is the right way to do things.
Find good co-ops. Don't take the easy way out and work in your hometown. Find positions that you want to explore. People give you opportunities when you are in college that you will never receive as easily the rest of your life. Take advantage of it.
Be willing to take responsibility, provide results and be accountable for your actions.
Try to attain coop positions that you feel best suit you. Change them up to give yourself better understanding of what position in your industry you want to pursue. Most importantly you should attain a coop where you get to travel, companies are impressed by this.
KEEP IN TOUCH with your employers...you'll be needing references :) 
CONTINUE TO REQUIRE 3 CO-OP EXPERIENCES, JOBS ARE COMPETITIVE TODAY THAN YEARS AGO AND THE PERSON GROWING THEIR JOB EXPERIENCE WILL MORE LIKELY GET A JOB FASTER THAN A PERSON WHO HAS NOT. CO-OP IS AN OPPORTUNITY TO LEARN, GROW, MAKE MISTAKES, NETWORK, ETC.
To explore different areas of the chosen field to be able to choose the best suited career path
Take it seriously and don't do the coops because you have to. Find one that you actually
do something in

- Investigate your co-ops to determine which ones will challenge you the most and give you the most experiences. Also, take co-ops with different jobs so you can see what you like and dislike, as you really don't know what you like and don't like until you have experience it in the working world.
- Start looking early. Don't settle for the first opportunity that comes by. Take your position seriously and try to learn as much as possible from your superiors.
- Treat it as if it is your career after graduation. Do your best and you will get as much out of it as you put into it. Especially in today's economy, it is crucial to have good references or even a place that wants to hire you full-time after graduation.
- Work nearby so you can take classes while working because it is all about getting the degree and moving on.
- What you put in is what you get out of your experiences. People are taking you in and giving you a chance - try your best so you learn a lot, build networking, and also give co-ops a good reputation. I have gotten multiple calls for freelance help from co-ops I have had. They remembered me because I tried really hard. Open your mind - your attitude towards a job is what makes or breaks it.
- Step outside your safety zone weather it is distance from home, culture, what ever it is try different types of co-ops to see what will work the best for you.
- Make sure they understand the benefit of a co-op and that trying to find ways around them isn't always the best answer for there future.
- Get as many "solid" experiences as you can, in the type of job you think you want to have after graduation. The example given to VCT students was always, "Don't get a co-op at Kinko's if you really want to work at a commercial printer." Be sure to take advantage of your "student" status and get tours, expanded explanations, free stuff, even... most people are very willing to help you more than usual because you're a student and all of these things will only benefit you after graduation. Send out lots of resumes, follow-up, and use any connections you have to secure a co-op. They truly will be the most beneficial part of your college experience if you find the right internships.
- Challenge yourself! I did one of my co-ops abroad and it was an invaluable experience. Take advantage of the fact that the College of Technology gives us the flexibility to explore new opportunities!
- Don't just accept anything just to get the co-op credit. Defeats the purpose of doing co-ops if you not working with a company that similar goals to yourself.
- Co-op's and anything that can be a resume booster will push you so much further towards landing a solid job once you graduate.
- Don't be afraid of it! It is very valuable in giving you experience on your resume, even if it doesn't directly relate to what you want to do as a career. Experience and a variety of skills counts! Consider doing an unpaid co-op for a non-profit organization. Approach them and they are usually willing to take you on. You will have more flexibility and impact in this environment.
- Network with as many people as possible in your field of study. Keep a close relationship with any teachers/advisers who could potentially help you in the future.
- more help post graduation. I received no help post grad and found all my positions on my own. I guess i feel going to college doesn't end at graduation, its a support system
and should be available at any time, especially if it takes 10 years to pay off all the debt
(little humor)
- Try actually helping people, you can't require 3 co-ops and then do absolutely nothing
to assist ANYONE in getting them when the economy is this bad. I was thoroughly
disgusted by the entire experience and would never suggest anyone go to BGSU for
ENGT in its current state.
- take co-ops seriously and pursue the best possible experience because it can be so
influential in your future.
- Don't give up. It may take awhile before someone offers you a job but don't be
discouraged by this.
- Work hard to branch out and find a good co-op. Don't try to just settle for one that
counts by working part-time on campus. Really get out there and don't be afraid!
- Don't expect any help from the co-op office no matter how bad the economic condition
or your situation is. Apply to jobs early and don't lock yourself into one area.
- Don't get a co-op just so you can graduate, get one in a position that you could really
see yourself obtaining after graduate and you just might reach that goal!
- Find one thing you're good at or love to do. College gives you a broad general
understanding in several different fields, but most career opportunities involve
excelling in one area. More specifically, VCT gives you background education in
photography, video, web design, and print. Jobs aren't looking for this. They want
Masters of their work in specifically one field.
- Start co-oping as early as you can so you can find the best co-op to fit your own interest
rather than waiting and taking what is available.
- Sieze the opportunity, it will benefit your career. Provide you with the on the job skills
that can be applied after graduation.
- Find the area where you want to work and try your hardest to excel.
- Try many different areas in your field in different locations if possible.
- Take it serious and learn as much as you can. Ask as many questions as possible.
Don't be afraid of failure at that point in time a potential employer will look at a person
trying and dailing different than if they didn't try at all. Learning from failure is the
key.
- To work with small companies so you get a lot of personal attention.
- Find a good company. Try to learn, not to show hwo much you know. Take the time
to mentor someone you work with or for.
- Take a co-op with someone who will ge tyou out of the state. The co-ops are a great
opportunity to go somewhere and live for free and get paid to work. Take advantage of
those kinds of opportunities.
- Don't work too hard.
- Don't turn down an internship you want just because it doesn not pay. It just may end
up being your dream job.
- Apply for positions that you would be proud to put on your resume, and apply for co-
ops you think you would enjoy and would help you towards your future career goals.
- A degree by itself is not good enough anymore, employers seek job candidates with
experience so learn all you can through your co-op. And never be afraid to ask for
more responsibility during your co-op. The more experience you get helps you
understand your likes and dislikes within your career of choice. Don't be discouraged if your co-op delays your graduation. It is worth it in the end as you will have a more impressive resume. Don't rush your co-op experience and take full advantage of it. Never be afraid to ask your co-op employer for more job responsibilities if you feel you are capable of taking on more.

- Don't just do a co-op to get the credit. Find one that will get you experience, even if it means doing in the semester you planned not to.
- Don't be afraid to ask questions. Network, network, network. Treat everything like it's your first project, your first day as an intern.
- Although co-op opportunities are hard to get ahold of, do not take a co-op that is not in the line with your interest just to meet your requirements to meet your degree. If you do, you could potentially pigeonhole yourself in a field that you do not wish to pursue.
- Please take this very seriously, it could determine future outcome of job opportunities.
- Be involved with the school's program, they offer a more focused job structure towards the major.
- Keep an open mind when interviewing for positions. A job that you might normally never consider could end up being something that you love doing.
- Start looking for internships right away. I had a hard time finding 3.
- The course is set up to be more of a task than an experience, 3 co-ops delays graduation. One quality co-op would be more beneficial than spending a year and a half working. Co-op is perceived as another way for the college to make money and at least in my time was rarely taken seriously. The advisor and staff of the department were not as willing to assist as they should and often make the process more difficult than it needed to be. My entire educational experience at BGSU was great. The co-op was the least rewarding and the biggest hassle to complete. I hope my comments help. Good luck with your thesis.
- Don't limit yourself to BG. Look outside the state if possible. This is your chance to set out and do some exploring.
- I would recommend that students find the first job available and hurry through the co-op program as quickly as they could. If possible, do a part-time co-op to continue with course work.
- Don't put it off and don't pick anything. Take it serious.
- Network, build relationships, pick the brains of those whose job you would like, turn off the ipod and talk to your co-workers, act professionally.
- Don't think aviation studies should be required to complete 3 co-ops. Very expensive major, and most students can't afford the no pay or low pay with the co-ops.
- Use the co-op experiences to learn what it is you want to get out of a job. What do you like? What do you dislike? Learn as much about yourself as you can.
- Co-op experience is more beneficial than anything. You can learn in a classroom.
- Take a co-op that involves directly with what you want to do. Don't just take any because it's convenient.
- Helping find co-ops for students more efficiently.
- Get them done ASAP or you won't graduate on time. I suggest getting a major outside technology, that way you don't have to give up your summer vacation.
- Take it seriously. There is a big advantage to having work experience at graduation.
Dear College of Technology Alumnus:
This letter serves as an invitation to participate in a research study regarding the impact of cooperative education on the College of Technology alumni from 2005 through 2009. This research is part of my thesis study for my Masters degree in the field of Learning Design. The purpose of this study is to measure the influence that the required cooperative education curriculum had on its College of Technology graduates at Bowling Green State University. The results of this study will be compared to the results from a similar study conducted in 2005. The data will also be analyzed and compared to the learning outcomes and objectives of the College of Technology cooperative education curriculum, and will be used as an indicator of program relevance to industry needs. Furthermore, the results of this survey will be utilized in the application for accreditation with the Accreditation Council of Cooperative Education for the College of Technology Cooperative Education Program.
This study involves completing the enclosed survey and returning it to the College of Technology utilizing the envelope included. The survey should take about 15 minutes to complete. Your response is appreciated by June 24, 2010.
The information you provide will remain confidential and you can be assured that your identity will be kept anonymous. A number will be assigned to each participant to track who has completed the survey. If a survey has not been returned by June 24, 2010, then you will receive a follow-up letter. Only group data will be used in this survey. Your participation in this study is completely voluntary, and you have the option to refrain from any or all questions. There are no consequences if you choose not to partake in this study. By completing the survey, you are giving your consent to participate in this study. You may obtain a copy of the results by contacting me at any time.
If you have any questions or comments about this survey or study, you can contact me at ddrewes@bgsu.edu or by calling me at 419-575-7808. You may also contact my advisor Dr. Donna Trautman at dktraut@bgsu.edu or 419-372-7613. If you have any questions about the conduct of the study or rights as a research participant, please contact the Chair of the Human Subjects Review Board at hsrb@bgsu.edu or 419-372-7716.
Sincerely,
Darcy Drewes
Graduate Student, Learning Design
College of Technology
Bowling Green State University
E-mail: ddrewes@bgsu.edu
Phone: 419-575-7808
Dear [FIRST NAME]:

This letter serves as an invitation to participate in a research study regarding the impact of cooperative education on the College of Technology alumni from 2005 through 2009. This research is part of my thesis study for my Masters degree in the field of Learning Design. The purpose of this study is to measure the influence that the required cooperative education curriculum had on its College of Technology graduates at Bowling Green State University. The results of this study will be compared to the results from a similar study conducted in 2005. The data will also be analyzed and compared to the learning outcomes and objectives of the College of Technology cooperative education curriculum, and will be used as an indicator of program relevance to industry needs. Furthermore, the results of this survey will be utilized in the application for accreditation with the Accreditation Council of Cooperative Education for the College of Technology Cooperative Education Program.

This study involves completing an online survey at [SURVEY LINK]. The survey should take about 15 minutes to complete, and your response is appreciated by June 24, 2010. The information you provide will remain confidential and you can be assured that your identity will be kept anonymous. A number will be assigned to each participant to track who has completed the survey. If a survey has not been returned by June 24, 2010, then you will receive a follow-up e-mail. Only group data will be used in this survey. Your participation in this study is completely voluntary, and you have the option to refrain from any or all questions. There are no consequences if you choose not to partake in this study. By completing the survey, you are giving your consent to participate in this study. You may obtain a copy of the results by contacting me at any time.

If you have any questions or comments about this survey or study, you can contact me at ddrewes@bgsu.edu or by calling me at 419-575-7808. You may also contact my advisor Dr. Donna Trautman at dktraut@bgsu.edu or 419-372-7613. If you have any questions about the conduct of the study or rights as a research participant, please contact the Chair of the Human Subjects Review Board at hsrb@bgsu.edu or 419-372-7716.

Sincerely,

Darcy Drewes
Graduate Student, Learning Design
College of Technology
Bowling Green State University
E-mail: ddrewes@bgsu.edu
Phone: 419-575-7808
APPENDIX P

FOLLOW-UP POSTCARD

Dear College of Technology Alumnus:

You should have received a survey in the mail regarding the impact of cooperative education on the College of Technology alumni between 2005-2009. This is a friendly reminder to complete the survey by July 5, 2010, which is located online at http://www.surveymonkey.com/s/W82CZBV. This research is part of my thesis study for my Masters degree in the field of Learning Design. Your assistance by completing the survey will help us measure the influence that the required cooperative education curriculum had on its College of Technology graduates at Bowling Green State University. The information you provide will remain private and you can be assured that your identity will be kept confidential, and there are no risks involved in participating in this survey.

If you have any questions or comments, please contact me at ddrewes@bgsu.edu or at (419) 575-7808. Thank you for your participation.

Darcy Drewes
Graduate Student Learning Design-College of Technology
Bowling Green State University
Dear College of Technology Alumnus:

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If you have any questions or comments, please contact me at ddrewes@bgsu.edu or at (419) 575-7808. Thank you for your participation.

Darcy Drewes
Graduate Student Learning Design-College of Technology
Bowling Green State University