



## **Perspectives from internships and co-ops with industry**

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## **Three perspectives of co-op and internship programs**

### **Abstract**

The practice of allowing students to enter the working world to gain experience is not new concept. However, due to accreditation and the desires of employers the number of internship and co-op opportunities has increased substantially. National Association of Colleges and Employers indicate that the number of internship and co-op opportunities has increased at an average rate of 8% annually, 7% for internship and 9% for co-op opportunities <sup>1</sup>. The purpose of this paper is to gain a better understanding of the outcomes and takeaways of co-op and internship experience by examining the perspectives from three points of view. The three perspectives represented in this paper come directly from students after having had a co-op or internship, from individuals within the organizations that sponsors co-op and internships, and faculty from the field of academics.

The National Association of Colleges and Employers indicated that the primary reason employees offer internship and co-op experiences are recruitment <sup>1</sup>. Interview with students indicate their primary reason for pursuing a co-op or internship is future employment. As part of this study student exit survey were assessed. These surveys indicate that 72% (31/43) of student are offered positions working for the company they had the co-op or internship with <sup>2</sup>. A brief review of literature regarding internships and co-ops reveals that academics embrace the learning opportunities <sup>3,4,5</sup>.

## **Introduction**

The purpose of this study was to better understand the perspectives on the co-op/internship experience from the vantage point of the students, organizations who sponsor co-ops and internships, and members of academia. Ten representatives from each perspective were asked to answer three questions; “what positives have or did you take away from the co-op/internship experience?”, “what negatives have you or did you experience with the co-op/internship experience?”, and “What additional comments would you like to make regarding co-op/internship experiences”. Data collected from the questionnaire was analyzed following the keyword frequency method. Additionally, forty three student exit surveys were assessed for the purpose of quantifying placement after graduation versus location of internship or co-op. Twenty three co-op and internship reports were analyzed primarily because they provide insight from the student perspective as well as the feedback from the student’s direct supervisors from their respective co-op or internship. Seven students, fifteen academics, and nine representatives from industry were individually interviewed; the questions used in first person interview were identical to those used in the survey. All survey data can be found in the Appendix.

## **Industrial**

Ten individuals from industry were provided with a questionnaire, their responses formulate the perspective of industry. The one common thread all respondents have is all respondents have hired or worked with interns or co-op students. Questionnaire results show that 33% of the respondents indicated that industry has a deeply vested interest in the success of college students they might someday employ. Most of the respondents from industry indicated that the primary reason they choose to participate in the co-op/internship experience is recruitment (60%).

Comments from the individuals who were personally interviewed only offers furtherer confirmation that industry offers co-ops and internship experiences primarily for recruitment purposes. One of the interviewees commented “We only want the best of the universities product. Providing an internship is the best way to see the potential of the student”<sup>6</sup>. Another interviewee remarked “Through work experience students begin to understand organizational living. For many interns this is their first job, first boss subordinate relationship, and their first experience with a time clock with real consequences”<sup>7</sup>. During the co-op/internship process students become immersed in the culture of an organization that is very different than the culture on campus. They learn how to act professionally and how to communicate with others. In fact survey respondents from industry indicate that interns lack professionalism (20%) and their communication skills are weak (30%).

Survey respondents from industry noted several weaknesses in co-op and internship students. The comments from industry that received highest frequency were timeliness (40%), and predictability (30%). Similar to the comments regarding professionalism and communication, the percentages are lower. This is partially the result of the coding method used with keyword frequency method; unique comments are treated individually despite similarities. Despite lower percentage in response, these comments have value in that each comment represents how an individual from industry perceives co-op student skills and abilities. These comments include the following: rough (10%), rookie mistakes (10%), organizational skill are weak (10%), attention to detail (10%), doesn't fit our organization (10%), coarse language (10%), and lack of focus (10%).

In the additional comments section of the survey given to representatives from industry are more telling in that fewer unique comments were given. Fifty percent of the respondents commented

that internship and co-op programs are working well. One respondent indicated that the Universities need to teach more problem solving skills. The remaining two comments aligned closely with comments made by individuals who personally were interviewed.

Twenty percent of the survey respondent and sixty percent of the interviewees indicated that the companies they represent are compelled to offer internship and co-op opportunities. One survey respondent commented “we hire the Universities product, it is our own best interest to make this contribution”<sup>8</sup>. One respondent commented that offering co-op and internships is the contribution is the contribution companies make to the community as a whole<sup>9</sup>. The students benefit from real world experiences, the organizations that sponsor internships and co-ops benefit by getting some work done and they get the chance to really evaluate the caliber of the students, and the industrial community benefits by having new recruits who have had some industrial experience.

Managing schedules and developing acceptable time management skills are key learning milestones for students. In the workplace students have the opportunity to take a pragmatic approach to engineering. They get to make the leap from theory to practice; they use what they have learned. Without exception the perspectives shared by respondents from industry were very positive.

### **Academics**

The survey respondents from the academic perspective consist of ten individuals who have worked with student during or after completing a co-op or internship. On common thread shared by nearly respondents was that the students return with new found maturity (60%). They are more responsible for their actions (30%). They are more driven because they see what they can

actually do (20%). They take ownership of their education (20%). One interview respondent commented, “When students come back from internship they own their education”<sup>10</sup>. Another respondent mentioned, “They see the world in color for the first time, they want it to stay that way. They are proud of their work and of their person and they don’t want to regress from that”<sup>11</sup>. The maturity development aspect is rewarding to the students as well as faculty. One interviewee commented, “It’s amazing to see what happens when student take on co-ops and internships, even students who struggle in the classroom can pave a path for themselves and succeed”<sup>12</sup>.

There were some critical responses from the respondents in the academic pool, although only forty percent actually responded to the survey question. Some of respondents (30%) noted the dangers of students being subdued by money. One interviewee supported this view and mentioned, “Some students come back to school having made a little money and they no longer appreciate the importance of being a good student”. This perspective can be a real danger as some students begin engaging in co-ops and internships as freshmen. Despite this bit of criticism, the academics who either participated in the survey or agreed to be interviewed were very positive about the internship and co-op programs.

One interviewee mentioned, “Students returning from industry are a delight, they make me feel like I’ve done some good here as they were indeed prepared to work out there”<sup>11</sup>. Forty percent of the survey respondents indicated feeling proud of the students when they return. Twenty percent indicated that it provides proof that the University has adequately prepared the students for work life.

## Students

Ten students who had recently completed a co-op or internship, their collective response comprise the student perspective. These students all attend Michigan Technological University and are enrolled in or have recently graduated from the Mechanical Engineering Technology program. Comments from the students focus on the “real world” (90%). One student who agreed to be interviewed mentioned, “Everything in industry is real. Theory is gone, this is real”<sup>13</sup>. Another interviewee stated, “Finally using the concepts learned in class” and further mentioned “Practical use of theoretical understanding”<sup>14</sup>.

From the students perspective, recruitment plays is the driving force behind co-ops and internships. A recent survey of Michigan Technological University graduates showed that 72% of co-op and interns returned as full time employees once students finished their education<sup>2</sup>. Forty percent of the student respondents mentioned the experience being good resume material. In the competitive job market place students view co-op and internship experiences as an opportunity to separate themselves from the mass of the graduating class. One interview respondent commented, “Each year thousands students graduate, we all want great jobs. I need to do as much as I can to not be judged by grade point alone”<sup>15</sup>. Another mentioned, “During an interview, I want to be able to talk about what I have done, not just what I have learned. This is college, we all have learned here”<sup>16</sup>.

None of the student individually interviewed had criticism of their co-op or internship experience. However, several of the survey respondents mentioned challenges they faced. Forty percent mentioned having nothing to do after work was an issue. Thirty percent noted limited responsibility as a criticism of their experiences. Twenty percent mentioned they did not

like early mornings, few college students do. Another twenty percent indicated they were bored during their respective co-op or internship. The reality is interns and co-op students are term employees and that could potentially limit their responsibilities which could lead to boredom.

## **Summary**

These three perspectives were chosen because these are the primary stakeholders in the education of our students. The indication of this study is that all stakeholders are satisfied overall with the performance of these programs. Industry needs our product and they only want the best. Internships and co-ops programs provide organizations with the opportunity to select the best match between company and student. The students learn from seasoned professionals who they know could potentially hire them. Academics do their best to ensure student have the appropriate skill set to make a positive contribution to the world. This can be unnerving at times. Having students leave the class and have an experience can be rewarding for the students. Most times it is equally rewarding to the teachers as well.

The findings from this piece of research were very positive from all three perspectives. It is rewarding to get the affirmation and even more so because it serves as proof that the process is at least working. Industry is getting a chance to see the true potential of University graduates. They understand and accept the risks associated with offering co-op and internship opportunities. Representatives from industry indicated that students need to improve on communication skills, professionalism, and problem solving skills. It is the responsibility of the academics to respond.



## Bibliography

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APPENDIX

	Industry (%)	Academic (%)	Student (%)
What positives have you or did you have with the internship experience	Excellent recruiting opportunity (60) Economically viable (20) Fresh ideas (20) Learn remarkably fast (10) Very enthusiastic (10)	Maturity (6) Understand why we teach them what we teach them (2) Communication skills improve (3) Confidence (2) Take ownership of their education (1)	“Real World” (9) Employment opportunities (7) Work experience (5) No homework (4)
What negatives have you or did you have with the internship co-op experience	Time management (4) Communication skills (3) Lack professionalism (2) Unpredictable (3) Rough at first (1) Rookie mistakes (1) Organizational skills week (1) Attention to detail (1) Corse language (1) Lack of focus (1)	Money vs focus on school (3) Undesirable ego boost (1)	Early mornings (2) Boring (2) Limited responsibilities (3) Nothing to do after work (2)
What additional comments would you like to make regarding the internship/co-op experience	programs are working well (5) We hire the Universities product; it is in our own best interest to provide this opportunity (1) This is simply a contribution to the future of engineering (1) Universities need to teach more problems solving (1)	Pride (4) University has done a good job preparing student (2) Even students who under achieve in the classroom can pave a path for themselves and succeed (1) Through this process the University gets to find out at what level we actually deliver (1)	Great experience (9) We get to try out the company (3) Helps us understand what exactly we want to do (1)