Analyzing Internships in Construction Management Based on Student/Industry Interest and Experience

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The goal of this research paper is to analyze feedback from both student interns, and the industry on whether there is a disconnect between what each group feels makes an internship beneficial or not. Research was done evaluating current Construction Management students with internship experience at Cal Poly, while also evaluating companies that have internship programs. This paper will provide student interns with insight from industry members regarding internship programs, and it will provide companies with insight from students regarding their experiences within internship programs. Two surveys were sent out, one to all Construction Management Students at Cal Poly, and another to industry companies, all respondents were instructed to only complete the survey if they had internship experience or had internship programs. This paper analyzes what student interns believe made their internship most beneficial, and what elements companies find create the most beneficial internship programs.

Key Words: Construction Management, Internship Programs, Industry Companies, Surveys, Experience

Introduction

Over the years, there has been an increase in interest regarding internship programs for students in the Construction Management field due to how beneficial it can be to take part in internship programs before entering the workforce. While many industry companies offer internship opportunities, each comes with its own personalized program. Each company uses a similar structure for the program, but some use tactics deemed more useful than others. An article from Cornerstone states, “Hiring interns to do the work of an employee, or spend the day filing, making copies or getting coffee won’t benefit either party. Interns that are forced to do busy work burn out quickly, and don’t end up contributing to your company in the long run,” (Cornerstone 2018). I used this information when creating the survey questions catered toward interns, asking what responsibilities they deemed most/least beneficial. An article from Adrien Johansen states, “This is important for future construction managers, who need to have a thorough knowledge of various stages of building and maintenance to oversee and delegate work efficiently,” (Johansen 2020). I used this information to create my questions regarding whether it was more beneficial to intern with the same company multiple times, or different companies each time.

This paper addresses those elements of an internship that produces the most success in the eyes of the intern, and in the eyes of the employer. Getting both perspectives will provide useful information to both parties regarding the others’ opinion, which could potentially identify if a disconnect exists between opinions from interns and industry. This information will be beneficial in two ways: it will be useful for industry to better structure their internship programs based on what student interns are
looking for, and it will also be useful for student interns who are looking to find what elements of their internships they should be focusing on during the program to produce the most success based on the industry opinion. Some companies have had internship programs for many years and have learned how to optimize them for more success. While newer companies may have less experience doing so and could benefit significantly from both student intern feedback, and other industry company feedback. This is what inspired me to create two separate surveys. I wanted to investigate both opinions as I feel finding what both sides are looking for is a more proactive way for everyone involved to improve and create more opportunities for success.

In an interview with Gabe Zagorski, Project Engineer, he discussed the elements of internships he thought prove most vital to a future PE’s career. He stated, “The most beneficial internships are ones with tasks in the field that involve frequent if not daily check-in with any type of tradesmen”, this statement inspired me to ask respondents whether they thought it was more important for interns to spend time in the field, in the office, or an equal amount of both. In an interview with Jack Sampson, recent new-hire Project Engineer, he discussed how he had interned with a company for three summers, and recently received an offer of full-time employment. When asked if he was happy with his decision to sign with the company with no other internship experience outside of that company he stated, “I am happy with my decision, but a part of me wishes I had branched out and seen what other companies had to offer before I made such a big decision,” (Sampson 2021). This information led me to create questions in both surveys, seeing whether interns and industry companies found it more beneficial to intern with the same company multiple times, or branch out and intern with different companies each time. Signing a full-time offer of employment is a long-term decision, and one that should only be made with full confidence. This research will benefit interns greatly using the information provided from the industry regarding this topic.

**Literature Review**

Many factors affect whether an internship experience is deemed beneficial in both the eyes of the intern and the company. Although they can be mutually beneficial to both parties, there are various ways they can go wrong. Research has been formed on some of the biggest mistakes companies can make within their internship programs, and how to avoid them (Cornerstone 2018). One of the more evident mistakes a company can make is in not providing learning opportunities for interns. This leads interns to burn out quickly, and often consider other options when looking for full-time employment, which is a waste of time for both the intern and the company. This can be avoided by structuring the internship in a way that gives interns access to immersive learning experiences that will benefit them significantly in the long run. This can be achieved by giving them tangible goals, a series of tasks that enable them to learn about the industry while actively contributing to the company’s goals. The other mistake that can create negative internship experiences is when interns are isolated. Isolating interns from the rest of their team defeats the purpose of an internship program. This can be avoided by creating a strong program that exposes interns to many different parts of a company and encourages them to contribute and participate to the project in any way they can.

Internships are extremely beneficial to future construction managers’ careers; research has been done on how internships impact future construction managers (Johansen 2020). Johansen concludes that regardless of the specifics, an ideal internship program should help an aspirant learn how to work in a team while simultaneously gaining as much personal knowledge of the craft as possible. The paper
discusses the benefits of an internship in construction management and the skills that can be acquired through strong internship programs. Essential skills such as analytical skills, decision-making skills, initiative, and communication skills can be absorbed by interns if given the proper guidance. Internships allow participants to develop confidence in their field of choice. The more structured the internship, the more beneficial the experience, and the more confidence that is built for the intern. The paper concludes that internships should offer a learning environment where interns are treated like employees without pressuring them to perform on their own, this produces the best outcome for both interns and their respective companies.

Methodology

The strategy used for this research paper was to compile data through surveying Cal Poly Construction Management students with internship experience, and Industry Companies with internship programs. This data helps to form conclusions on what both interns and the industry find makes internships most beneficial, and what each party should be putting their focus into regarding internships. The goals of this research paper are:

- To determine whether it is more beneficial in the long run to intern with the same company multiple times, or to intern with different companies each time
- To determine what elements of internship programs prove to be most beneficial for both interns, and industry companies
- To determine what responsibilities are necessary/unnecessary to prepare interns for full-time employment
- To determine what structure of internship (field, office, or both) best prepares interns for full-time employment

The procedure used was a seven question survey sent to industry companies through the Construction Management Department at Cal Poly, and an eleven question survey sent to all Cal Poly Construction Management Students.

The student survey initially only returned 13 responses. This number was underwhelming and did not produce sufficient information to form any useful conclusions. I reached out to some past professors and asked if they could share the survey with their immediate students. This was successful, as the survey received 40 responses. The questions were as follows:

1. Number of internships completed?
2. Number of internships completed with the same company?
3. Which do you feel is more beneficial?
   a. Interning with the same company multiple times
   b. Interning with different companies each time
4. Please explain your answer.
5. Did you feel that you were given enough responsibility?
6. Which of your responsibilities were the most beneficial?
7. Which of your responsibilities were the least beneficial?
8. Did your internship(s) promote a positive learning environment?
9. Briefly explain your answer.
10. Did you spend more time in the office or in the field during your internship(s)?
11. Do you feel that it is more important to spend time in the field, in the office, or an equal amount of both?

The industry survey received 47 responses; the questions were as follows:

1. What do you think is more beneficial for interns?
   a. Interning with the same company multiple times
   b. Interning with a different company each time
2. Please briefly explain your answer.
3. Which responsibilities do you feel are most beneficial to give interns?
4. Which responsibilities do you feel are least beneficial to give interns?
5. Does your company think it’s more important to spend time in the field, in the office, or an equal amount of both?
6. Please briefly explain your answer.
7. How does your company promote a positive learning environment?

Research Results

Student Survey

The following information showcases the results of the surveys that were sent to all current Construction Management students at Cal Poly.

The first question was asked to gauge how much experience the student respondents had with internship programs. Those with only 1 internship completed will have less useful information to provide than those with multiple internships completed. Figure 1 shows that 37.5% of respondents completed 1 internship, 42.5% of respondents completed 2 internships, 10% of respondents completed 3 internships, and 10% of respondents completed 4 or more internships. The results show that the majority of the respondents only completed 1 or 2 internships.

![Figure 1: Question 1 (Intern Survey)](image)

The second question asked how many of those internships were completed with the same company. Figure 2 shows that 70% of respondents completed only 1 internship with the same company, 25% of respondents completed 2 internships with the same company, 5% of respondents completed 3
internships with the same company, and 0% of respondents completed 4 or more internships with the same company.

2. Number of internships completed with the same company?

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Figure 2: Question 2 (Intern Survey)

The third question asked whether the respondents felt that it was more beneficial to intern with the same company multiple times, or to intern with different companies each time. Figure 3 shows that 25% of respondents felt it was more beneficial to intern with the same company multiple times, and 75% of respondents felt it was more beneficial to intern with different companies each time.

3. Which do you feel is more beneficial?

<table>
<thead>
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<tr>
<td>Interning with different comp...</td>
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Figure 3: Question 3 (Intern Survey)

The fourth question asked respondents to briefly explain their answer to the previous question, this was to get an understanding on why they felt one option was more beneficial than the other. For those who responded that interning with different companies each time is more beneficial, the common themes included; intern in different segments of construction in order to get a better grasp of which environment suits the individual best, this allows the individual to create more connections, experience different company cultures, and overall become better prepared when it comes time to sign full-time. For those who responded that interning with the same company multiple times is more beneficial common themes included; there is much less of a learning curve, more time to build connections, the company already knows your skillset and give more responsibilities based off that.

The fifth question asked respondents if they felt they were given enough responsibility during their internship(s). Figure 4 shows that 17.5% of respondents felt that they were not given enough responsibility, 75% of respondents felt that they were given just the right amount of responsibility, and 7.5% of respondents felt that they were given too much responsibility.
5. Did you feel that you were given enough responsibility?

![Pie chart showing the responses to Question 5:]

- No, not enough: 7
- Yes, just the right amount: 30
- No, too much: 3

Figure 4: Question 5 (Intern Survey)

The sixth question asked respondents which responsibilities they were given during their internship(s) that they felt were the most beneficial. The responses among respondents included tasks such as tracking RFI’s, submittals, punch lists, closeout, daily logs, meeting notes, seeing how things work in the field, coordinating with subcontractors, scheduling, budget tracking, and thorough plan reading. Some of the less common responses included SWPPP, bid work, project startup, QA and QC, and estimating.

The seventh question asked respondents which responsibilities they were given during their internship(s) they felt were the least beneficial. The responses among respondents included tasks such as filing paperwork, making coffee, running deliveries, labor, doing other employees busy work, cleaning up (sweeping, cleaning porta potty, leaf blowing etc.), and not being given enough work to do. Some of the less common responses included payroll, estimating, daily logs, putting up signage, and taking progress photos.

The eighth question asked respondents whether they thought their internship(s) promoted a positive learning environment. Figure 5 shows that 95% of respondents felt that their internship promoted a positive learning environment, and 5% of respondents felt that their internship did not promote a positive learning environment.

8. Did your internship(s) promote a positive learning environment?

![Pie chart showing the responses to Question 8:]

- Yes: 38
- No: 2

Figure 5: Question 8 (Intern Survey)

The ninth question asked respondents to briefly explain their answer to the previous question. The responses among respondents that felt that their internship(s) did promote a positive learning environment included encouraged questions, mentor figures, felt included in meetings and day to day activities, and co-workers were eager and willing to teach. The responses from the students that did
not feel that their internship(s) promoted a positive learning environment included hot-headed and rude co-workers, did not feel included, and did not respond well when the individuals shared their bad experiences within the company.

The tenth question asked respondents if they spent more time in the office, in the field, or an equal amount of both during their internship(s). Figure 6 shows that 22.5% of respondents spent more time in the office, 37.5% of respondents spent more time in the field, and 40% of respondents spent an equal amount of time in the office and in the field.

10. Did you spend more time in the office or in the field during your internship(s)?

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<td>16</td>
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</table>

Figure 6: Question 10 (Intern Survey)

The final question asked respondents if they felt it was more important to spend time in the field, in the office, or an equal amount of both. Figure 7 shows that 0% of respondents felt it was more important to spend time in the field, 32.5% of respondents felt it was more important to spend time in the field, and 67.5% of respondents felt it was more important to spend an equal amount of time in the office and the field.

11. Do you feel that it is more important to spend time in the field, in the office, or an equal amount of both?

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<td>27</td>
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</table>

Figure 7: Question 11 (Intern Survey)

*Industry Survey*

The following information showcases the results of the surveys that were sent out to industry companies.
The first question asked respondents whether they thought it was more beneficial to intern with the same company multiple times, or to intern with a different company each time. Figure 8 shows that 21.3% of respondents felt that it was more beneficial to intern with the same company multiple times, and 78.7% of respondents felt that it was more beneficial to intern with a different company each time.

1. Which do you think is more beneficial for interns?

Figure 8: Question 1 (Industry Survey)

The second question asked respondents to briefly explain their answer to the previous question. The responses from those who felt that it was more beneficial to intern with the same company multiple times included; proving loyalty, building stronger relationships, accelerated growth, better productivity, more exposure to the company culture, better experience on what the day-to-day entails, and better for securing a full-time job. For those that felt it was more beneficial to intern with different companies each time, the responses included; broader perspective on different fields of construction, better for networking, more exposure to different company cultures, and it allows interns to make a more educated decision on what type of company best suits them.

The third question asked respondents which responsibilities they feel are most beneficial to give to their interns. The responses included tracking RFI’s, submittals and change orders, QA and QC, subcontractor coordination, organizational and verbal communication practices, reading plans, field responsibilities, getting familiar with contract documents, scheduling, learning how to use the various programs that the industry uses, meeting minutes, and understanding the bidding process.

The fourth question asked respondents which responsibilities they feel are least beneficial to give their interns. The responses included busy work, running deliveries, coffee and donuts, clerical tasks, and overall, any task that does not apply to the actual construction project that are not allowing interns to learn as much as they should be.

The fifth question asked respondents whether they thought it was more important for their interns to spend time in the field, in the office, or an equal amount of both. Figure 9 shows that 2% of respondents felt that it was more important to spend time in the office, 17% of respondents felt that it was more important to spend time in the field, and 81% of respondents felt that it was more important to spend an equal amount of time in the field and in the office.
5. Does your company think its more important to spend time in the field, in the office, or an equal amount of both?

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<td>Field</td>
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</tr>
<tr>
<td>Equal amount of both</td>
<td>38</td>
</tr>
</tbody>
</table>

Figure 9: Question 5 (Industry Survey)

The sixth question asked respondents to briefly explain their answer to the previous question. Most respondents felt it was more important to spend time in both the field and in the office, their responses outlined that it is best for interns to learn both the construction and the admin side of the industry. Being exposed to both sides allows interns to determine which attracts them more. The most common response was that it is important for interns to spend an equal amount of time in both the field and the office so that they can best understand their role, and how things are done, and why they are done.

The final question asked respondents how their company promotes a positive learning environment for interns. Most responses involved the same practices, these included creating an environment where questions are encouraged, maintaining clear and consistent communication, only giving them tasks that are within their capability, creating an inclusive environment, networking events and field trips, provide trainings, weekly jobsite visits, and assigning mentors.

**Results Analysis**

The respondent feedback from both Construction Management students at Cal Poly and industry companies produced similar results, with some small variation in opinions. It was interesting to see which areas both parties agreed with, and which areas they did not. The survey reported 22.5% of student respondents spent more time in the office, while 0% of them felt that it was more important to spend time in the office. In addition, only 2% of industry respondents felt that it was more important to spend time in the office. Each company’s internship program varies, but there appears to be a disconnect between parties on this topic.

Both parties shared similar feelings on whether it is more beneficial to intern with the same company multiple times, or different companies each time. With the student respondents responding with 25% for the same company multiple times, and 75% for different companies each time, while the industry respondents responded with 21.3% for the same company multiple times, and 78.7% for different companies each time. They also shared similar opinions in their reasoning for both. It is important to note that there is no disconnect on this topic despite the industry respondents claim that it is often a hope of theirs that good interns will return as that makes it easier for them to hire individuals full-time later down the road.

It was interesting to see the differing opinions between student respondents and industry respondents on what responsibilities were most and least beneficial. The industry respondents all had similar responses including RFI’s, submittals, change orders, subcontractor and field coordination, and
reading plans. While some of these tasks such as tracking RFI’s and submittals were deemed non-beneficial to the student respondents as an anonymous respondent described, “I felt I didn’t learn anything significant from this and it was largely busywork.” This shows that there may even be a disconnect in what students are learning at Cal Poly pertaining to what tasks and skills are integral parts of the job.

The results also show that most of the student respondents felt that the company they interned for promoted a positive learning environment, except for 5% of respondents feeling that their company did not promote a positive learning environment. When both parties were asked to briefly explain their answer, both student respondents and industry respondents shared similar views on what was needed to create a positive learning environment to benefit interns. It is important to note that there is no disconnect between parties on this topic, if there was it could deem detrimental to the internship process.

**Future Research**

Future research on this topic could be done in order to find out more specific information on both student and industry experiences within internships. The questions that produced the most concrete results could be used to form new questions that would expand on the information that was concluded from the research that has already been done. The next survey could be directed at students who are graduating that have completed multiple internships. Questions could be asked regarding individual experiences with each internship to further the knowledge that was gained due to this research. Industry companies could get direct feedback from students who completed internships with their company and use it to structure their internship program to better fit the needs of their interns. In order to receive more specific feedback, questions could be structured in a way that targets individual experiences.

**Conclusion**

The information received from current Construction Management students and industry companies will be of benefit to both future students and companies that are looking to improve on their internship programs. The information discovered through this research paper serves as a way for both parties to learn about the other sides opinions to better gauge how they can improve individually and know what to expect in the future. There were several takeaways from the results of the two surveys. Research found it is more beneficial for interns to intern with different companies each time to get a better grasp of which environment suits the individual best, to create more connections, experience different company cultures, and to get an overall broader perspective on different fields of construction. RFI’s, submittals, change orders, plan reading, and subcontractor coordination were deemed the most beneficial responsibilities for interns from both student respondents and industry respondents. Interns should spend an amount of time in the office and in the field to better their knowledge on the how and the why of construction practices. Lastly, the best way for companies to promote a positive learning environment for interns is to encourage questions, be inclusive, and only provide tasks that are within intern’s capability.
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