

Supervisor role as a supportive other in US Construction Internships

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Abstract: While interventions for university construction students have been studied, the perception of these students about their experiences have not. Previous studies have identified factors which may negatively or positively impact construction students. These include support from family, friends, and school counselors. However, negative experiences with faculty or on the jobsite may also occur. Interventions to promote retention in university construction programs and careers in construction are often identified as essential to increasing the construction workforce. One such intervention is a construction internship. This study surveyed students at multiple universities to understand their perception of support from their supervisor in an early work experience. Forty-seven students responded to the survey. Students are defined here as enrolled in a construction major. However, age, enrollment status, and years in university were not used in this study. Rather only the number of hours of work prior to the summer were identified. An IRB was secured at all universities participating in the study. Descriptive and inferential statistics were used to analyze the data. Most participants had a positive experience and worked regularly with their supervisor. Many students also identified mentor who provided regular support. Overall students reported feeling comfortable and supported by people in this role.

Keywords: Construction, Mentor, Internship, Support, Intervention

Introduction

Factors which may positively impact construction students like support from family, friends, and school counselors [1,2,3,4]. Negative factors include experiences with faculty or on the jobsite [1,2,3]. Construction Internships have been identified as a potential for a positive intervention [5]. Internships have previously been shown to improve sense of belonging [4]. Cooperative Education or Co-ops are frequently used in engineering education to support learning objectives [6]. Co-ops are similar to the experience of an internship or practicum, supporting growth and maturity [6] and relying upon a relationship between industry, the university, and students [7]. The concepts, while different, will be used interchangeably herein.

Similarly, mentors and role models have been correlated with self-efficacy, especially in male-dominated STEM fields [8]. Previous research also examined the relationship of construction students with outside influence or support based on the Influence of Others on Academic and Career Decisions Scale (IOACDS) [9,10]. Internships or actual real-world work experience should be considered as a potential intervention for future construction careers [11].

This research therefore seeks to determine if internships can be used as interventions by providing positive experiences with supervisors. More specifically, the research question posed asks if students have positive experiences with their supervisors as supportive persons on the construction jobsite? Further, does meeting regularity between the student and their supervisor affect perceptions of comfort and support?

Literature Review

Previous literature has identified that upper division students will typically have some sort of work experience or internship, however, they did not test internships as an intervention [12]. The next step in literature connects Sense of Belonging (SoB) with internships, finding that students who have completed work experience have an increased SoB [4]. This research focused on the internship as the intervention but did not identify interactions between student and supervisor as a contributing factor. Rather, it focused on interactions with instructors [4].

Mentoring through a role model, can influence academic decisions [10]. Mentoring, in the sense of a supervisor providing advice, can also be a career motivator [13]. It cannot be assumed however, that work experience alone affects motivation [6]. Self-efficacy and identity can also be supporting factors for motivation [14]. It is posited that interventions to support motivation and self-efficacy should include mentoring [15]. However, specific interventions have not been thoroughly researched.

Mentorships have been identified as one potential intervention for the construction industry [16]. “Hands-on” and “outside” work may indeed be welcome interventions for construction students [17]. Industry role models can provide influence for career decisions and academic decision-making [10,11].

Methodology

As internships, cooperative education, and practicum all put students in their future professional roles, in order to determine how early work experiences effect construction management students, the IOACDS [9] survey instrument was modified and expanded to determine the effect of supportive others in the workplace. A set of nine questions were developed on the concept of the work supervisor as a supportive other. The survey question set included a series of Likert scale questions and yes/no questions about the work experience supervisor and the student perceptions about their supervisor.

An Institutional Research Board at the multiple universities involved in the research reviewed and approved the proposed research project. Students who were enrolled or had current student status in Construction Management and Construction Engineering Technology programs over the summer of 2025 received invitations to participate in the survey during June and July, or during the time when students enroll in courses with credit for work. Over 100 students began the survey. However, a total of 45 students from two institutions provided complete, unique responses. Only the complete responses are included in the Results.

Descriptive statistics were used to determine construction student perceptions of their supervisor as a supportive person. Further to determine any relationship between variables, an F-Test was performed in Excel. Two research questions were identified.]

RQ1: Do students have positive experiences with their supervisors as supportive persons on the construction jobsite?

RQ2: Does meeting regularity between the student and their supervisor affect perceptions of comfort and support?

Results

The complete responses included gender self-identification with male (85.1%) and female (14.9%) respondents. This ratio should be compared to other studies, like Elliott and Lopez Del Puerto (2014) where female students account for 8% of enrolled CM majors and recent CM female graduation rates of 12.3% [18]. Students were asked whether they typically worked at the same location as their primary supervisor, with 82.2% indicating “yes.” The survey also queried as to the regularity of meetings between students and their supervisors (Figure 1).

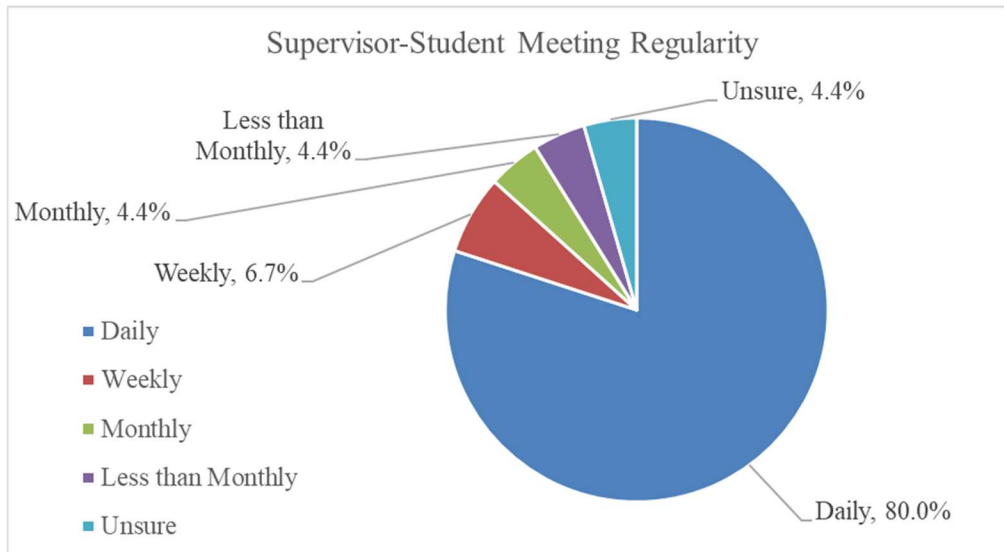


Figure 1. Supervisor-Student Meeting Regularity (n=45)

Students were asked “How would you rate your primary supervisor’s support for your professional development and learning?” Responses were provided in a Likert scale type distribution with options of Supportive, Somewhat supportive, Neither supportive or unsupportive, Somewhat unsupportive, and Unsupportive (Table 1). Of the respondents considering professional development and learning 80.0% indicated their supervisor was supportive, 6.7% indicated “Somewhat supportive,” 8.9% indicated “Neither supportive or unsupportive,” while the remaining 4.4% indicated a lack of support. Providing a value of 1 for “Unsupportive,” a value of 3 for “Neither supportive or unsupportive,” and a value of 5 for “Supportive,” the mean was 4.6/5.0 or between “Somewhat supportive” and “Supportive.” When compared with meeting regularity, no relationship was found.

Response	Percent of Responses (n=45)
Supportive supervisor	80%
Somewhat supportive	6.7%
Neither supportive or unsupportive	8.9%
Lack of supervisor support	4.4%

Table 1: Supervisor Support of Professional Development and Learning

Students were then asked how they would rate their primary supervisor's support for them as an individual (Table 2).” Respondents indicated their supervisor was “Supportive” (77.0%), “Somewhat supportive” (15.0%), “Neither supportive or unsupportive” (6.0%), while the

remaining 2.0% indicated a lack of support. Providing a value of 1 for “Unsupportive,” a value of 3 for “Neither supportive or unsupportive,” and a value of 5 for “Supportive,” the mean was 4.62/5.0 or between “Somewhat supportive” and “Supportive.” This question was then compared to meeting regularity to determine if there was any relationship. Using the Microsoft Excel “F-Test Two-Sample for Variances” a P-value=0.028 was found, indicating a statistically significant relationship between meeting regularity and supervisor support for students as an individual.

Response	Percent of Responses (n=45)
Supportive supervisor	77.0%
Somewhat supportive	15.0%
Neither supportive or unsupportive	6.0%
Lack of supervisor support	2.0%

Table 2: Supervisor Support of Student as an Individual

Next the survey queried the students as to how comfortable they were with requesting support or asking questions to their supervisor. Responses were provided in a Likert scale type distribution with options of Comfortable, Somewhat comfortable, Neither comfortable nor uncomfortable, Somewhat uncomfortable, and Uncomfortable. Respondents rated their comfort level as “Comfortable” (82.2%), “Somewhat comfortable” (8.9%), “Neither comfortable nor uncomfortable” (4.4%), with the remaining as “uncomfortable” (4.4%). Providing a value of 1 for “Uncomfortable,” a value of 3 for “Neither comfortable nor uncomfortable,” and a value of 5 for “Comfortable,” the mean was 4.67/5.0 or between “Somewhat comfortable” and “Comfortable.” Using an “F-Test,” a P-value=0.06 was found, indicating a relationship between meeting regularity and student comfort with their supervisor.

Response	Percent of Responses (n=45)
Comfortable	82.2%
Somewhat comfortable	8.9%
Neither comfortable nor uncomfortable	4.4%
Uncomfortable	4.4%

Table 3: Comfort level requesting support or asking questions of supervisor

In general students felt that their work experience provided a positive experience with their supervisor as a supportive person. There was a very small group who did not identify their supervisor as supportive or providing a comfortable environment. Meeting regularity and supervisor support for students as an individual were found to be related. This outcome builds on prior research by others [4,11,12] which identified internships as a potential intervention but did not make a connection between the internship as an intervention and the student-supervisor role model relationship. Further, this study adds that frequency of student-supervisor meetings has an impact on the internship as an intervention.

Conclusions

In general, the majority of the respondents felt their construction supervisor was supportive. The construction students met with their supervisor on a regularly basis and many (78.7%) met with their supervisor daily. Most of the students felt supported by their supervisor in both their

professional roles and as an individual. Similarly, the majority of the respondents indicated they felt comfortable with their supervisor.

Many studies identify work experience, internships, and role models as potential interventions. This research surveyed students about their work experience and their supervisors as a role model. In doing so, this study adds to the body of knowledge by providing the positive outcomes of supervisors as role models. Further, and more importantly, this study identifies a relationship between the positive role model and frequency or regularity of meetings. By doing so, this study provides that a structured mentorship relationship between the student and role model will be perceived as providing support and comfort.

This study included students from two universities, therefore the results are limited to those respondents. Future research in this area should include a larger group. Additional types of mentors and role models should also be included in future research.

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