

EXPLORING WORKING WOMEN'S EXPERIENCE WITH MENTORSHIP IN THE CONSTRUCTION TRADES: A QUALITATIVE ANALYSIS

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Abstract

The construction industry remains predominantly male-dominated, where women face numerous challenges in entering and advancing in their construction careers in the trades. The construction trades have not been known for its welcoming attitude towards women entering the construction trades, with women constituting only 4% of the construction craft workforce. Mentorship in the construction trades is a well-regarded tool used to help new construction trades apprentices learn their craft and guide their careers. While research on issues related to mentorship in construction is prevalent in existing literature, no research has directly examined the perspective of working women regarding their experiences with mentorship in the construction trades. The authors of this study organized focus groups comprising women employed in construction crafts to capture their insights and experiences within the field. Across 29 sessions, 176 women participated, with each group consisting of 5-8 women. They were specifically questioned about their encounters with mentorship within the construction crafts domain. These focus group participants are from both the United States and Canada and have worked in diverse construction settings, including industrial and commercial sites. The purpose of this paper is to understand the perspective of working female craft professionals in the construction trades regarding their experience with mentorship. The focus group interviews underwent recording and transcription, after which a qualitative thematic content analysis was conducted on the transcripts. Key findings of this study show that women were often well-trained and pushed to learn by their mentors. Moreover, women were given advice and support regarding their careers. Still, many women indicated that they only had male mentors, highlighting the need for more women to fill such roles to help and guide new women in the construction trades.

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Peer-review under responsibility of the scientific committee of the Creative Construction Conference 2024.

Keywords: women, construction trades, mentorship, focus groups, content analysis

1. Introduction & Background

The construction industry grapples with a significant shortage of skilled labor and craft workers [1]. Leading contractors in the AEC industry identify labor scarcity as their foremost challenge [2]. Additionally, the industry encounters obstacles in achieving workforce diversity, particularly concerning gender equality. Despite comprising 11% of the total construction workforce, women are predominantly concentrated in office-based roles such as engineering, medical, insurance, administrative, and legal positions rather than craft or trade roles. Less than 4% of women are employed in construction trades [3]. Nevertheless, statistical improvements in workforce performance have been observed with the recruitment of women into trades and their integration into construction crews [4]. Recruiting women into the construction industry presents a potential opportunity of an untapped labor pool that can fill the labor shortage gap [2].

Women in construction persistently face substantial hurdles. The notable gender gap, especially within skilled construction trades and crafts, stems from diverse factors such as unconscious gender bias, limited training prospects, and the prevalent stereotypes and biases encountered by women in the field [5]. Furthermore, construction trades have historically been perceived as less socially inclusive or

hospitable environments, particularly for women compared to other sectors [6]. This perception is exacerbated by the demanding nature of construction work, characterized by extended hours, job insecurity, conflicts, and difficulties in achieving work-life balance [6].

The construction trades are renowned for their "macho" culture, which significantly contributes to an elevated prevalence of demeaning encounters and sexual harassment, thereby compounding the challenges women encounter [7]. For instance, Research has demonstrated that women face discrimination and harassment within construction organizations, detrimentally impacting their careers [14]. For instance, a study involving over 2,750 construction workers revealed that women are statistically more likely than men to experience workplace disrespect, unprofessional treatment, and derogatory comments. Conversely, a similar analysis of the broader U.S. labor force does not indicate that women face a more adverse experience compared to men regarding these three factors. This implies that the negative experiences encountered by women in construction trades are distinct and notably more severe than those observed in the general nationwide workforce culture [8].

Mentoring is one of the oldest forms of influence and knowledge sharing, and a mentor is someone typically older and more experienced, who assists and guides another individual's development. This guidance is provided without the expectation of personal or monetary gain on the mentor's part. Mentoring primarily focuses on skill development and the transfer of specialized knowledge [9]. Mentoring has been associated with salary increases and promotions, higher job satisfaction and self-respect, and higher organizational commitment [10]. For an organization, mentorship can be beneficial in reducing turnover and recruiting costs by increasing worker retention. It assists in transferring knowledge from the retiring workforce to new workers, and helps employees learn skills and gain knowledge [11]. For women in the construction industry, mentorship challenges include poor communication/knowledge-sharing techniques, inadequate quota of women mentors, poor goal-setting techniques, poor motivation and work-family imbalance, third-party undue influence, lack of mentoring training, peer pressure, negative perception, poor image of construction industry/unfriendly working conditions, high workload/stress and poor mentoring experience [12].

While research on issues related to women in construction is prevalent in existing literature, no research has directly examined working women's experiences with mentors in the construction trades. In this study, the authors conducted focus groups of women in construction crafts to gather their experiences with mentorship in the construction trades.

2. Methodology

This study aims to gain deeper insights into the experiences of women with mentorship in the construction trades. To accomplish this goal, the authors conducted focus group sessions involving 176 women employed in the trades in the construction industry.

2.1. Focus Groups

In preparing the questionnaire for the focus groups, the authors reviewed the existing literature on the impact of gender on women in the construction trades. They identified potential research gaps and sought guidance from industry experts. Initially, the authors formulated a comprehensive list comprising over 45 questions. However, after several rounds of review, this list was refined to a concise set of 12 specific questions. This selection aimed to ensure that the focus group discussions could effectively cover the pertinent topics within a 45-60-minute session. Throughout this iterative process, the questions underwent thorough evaluations by external experts, including female industry leaders and construction workers unaffiliated with the research team in order to validate their relevance and accuracy. This paper focuses solely on one of these twelve questions, pertinent to the research's scope. the remaining eleven questions are outside the scope of this paper.

During the participant recruitment phase for the focus groups, the authors contacted leading construction firms in both the United States and Canada. These companies were briefed on the research objectives and the importance of the subject matter. Subsequently, three companies expressed interest in

collaborating with the research team and assisted in identifying women interested in participating in the focus group discussions. Notably, two of these companies are based in the U.S., while the third operates in Canada. Furthermore, two of the collaborating firms specialize in industrial construction, while the third concentrates on the commercial construction sector.

A total of 29 in-person focus groups were conducted across the United States and Canada, engaging 176 women. These sessions were structured with five to eight participants each, averaging six women per focus group. Participants represented a diverse spectrum of experience levels in the trades, ranging from newcomers to individuals with over 30 years of expertise. They occupied various positions and ranks within the trades, including helpers, apprentices, journeymen, and a few foremen. The women in the focus groups encompassed both laborers and certified trade workers across different crafts. Additionally, four focus groups were exclusively comprised of Spanish speakers, necessitating the presence of a translator to facilitate communication during the discussions. Due to time constraints during interviews, the authors opted not to collect detailed demographic data such as age, ethnicity, position, or years of experience in the industry from the focus group participants. Instead, they prioritized gathering comprehensive insights into participants' perspectives rather than administering a survey questionnaire on their demographic backgrounds. Nonetheless, through observation, the authors confirmed the participants' diverse backgrounds and experiences, facilitating a representative analysis of women in the construction trades within the industry.

At the start of each focus group session, participants were briefed that audio recordings would be used solely for transcription purposes. They were assured of their anonymity and guaranteed that their statements would remain confidential, with no names or identifiable details disclosed outside the focus groups. Additionally, participants were informed that their participation was entirely voluntary, with the right to decline questions or leave the session at any time without consequences. Following this, they received a brief overview of the research's goals and objectives and were thanked for their cooperation. To foster a comfortable environment, particularly when discussing sensitive topics, all focus group interviews were led by a female facilitator, while the rest of the research team observed and listened to the discussions.

2.2. Thematic Content Analysis

After the conclusion of the focus group sessions, audio recordings underwent transcription using online platforms like "rev.com" and "temi.com". The accuracy of these transcriptions was verified by cross-referencing them with the original audio recordings, and any identifying information was then promptly removed from the transcripts..

The methodology utilized for analyzing focus group data employed qualitative thematic content analysis. Content analysis, as discussed in [13], is a systematic and objective research method used to draw reliable conclusions from verbal, visual, or written data, aiming to describe and quantify specific phenomena. This process involves delving into the meanings, intentions, consequences, and context of the data. Merely documenting occurrences of sentences, phrases, or words without considering their contextual framework is deemed insufficient and inappropriate. It is the contextual foundation that ensures the validity of findings in content analysis. This analytical approach facilitates the qualitative description of data by quantifying response frequencies within specific contexts. As a scientific method, content analysis relies on precise definition of the unit of analysis, establishment of coding categories, ensuring inter-coder reliability, and continual revision and evaluation of coding validity and categories [14].

In this study, the unit of analysis comprises each participant's complete response to the interviewer's question during the focus groups. Participants may offer multiple responses addressing various aspects related to the question. Consequently, each unit of analysis could be linked with one or more codes if participants raise multiple issues [15]. Furthermore, the authors devised a coding framework or codebook for each question, drawing from the responses gathered from focus group participants. NVivo software, developed by QSR International, was utilized to organize and oversee the qualitative coding of the data [16].

Initially, a single researcher conducted the entire content analysis process. After completing coding for half of the interviews, a second researcher independently coded three focus groups. Subsequently, both researchers collaborated to reconcile any discrepancies between the coding and revised the codebook accordingly. The primary researcher then re-coded all transcripts based on the updated codebook, followed by a second intercoder reliability check using three focus groups. This iterative process continued until the researchers reached a consensus, resulting in a final codebook, which was then used to update the coding for all focus groups. This rigorous procedure was undertaken to ensure inter-coder reliability and mitigate single-coder bias in the content analysis, as described in [14].

3. Results

The authors wanted to understand women’s experiences with mentors in the construction industry. For that purpose, women in construction focus groups were asked the following question: “*Have you had any mentors in the construction industry who helped guide your career? Please elaborate on what type of help they provided*”. The results of the analyzed focus groups are presented in Figs. 1 & 2. Overall, 94 responses were received for this question. **Hiba! A hivatkozási forrás nem található.** 1 shows the percentage of all responses each experience was mentioned. Fig. 2 shows the percentage of focus groups each response was discussed in.

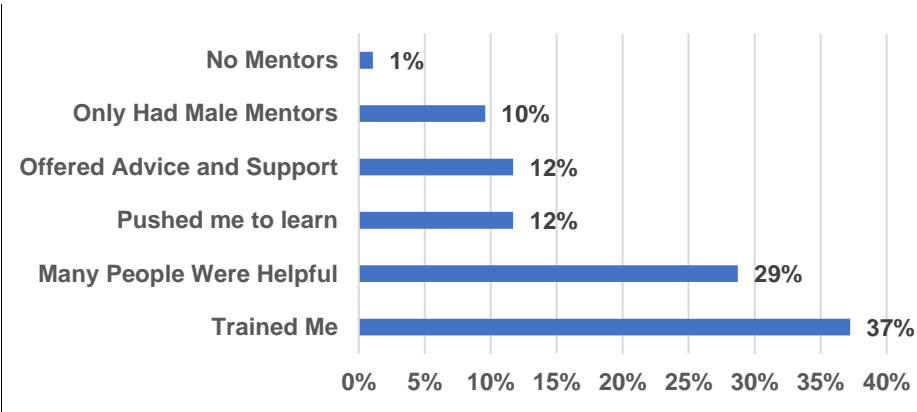


Fig. 1. Percent of total responses for women’s experiences with mentors in the construction industry

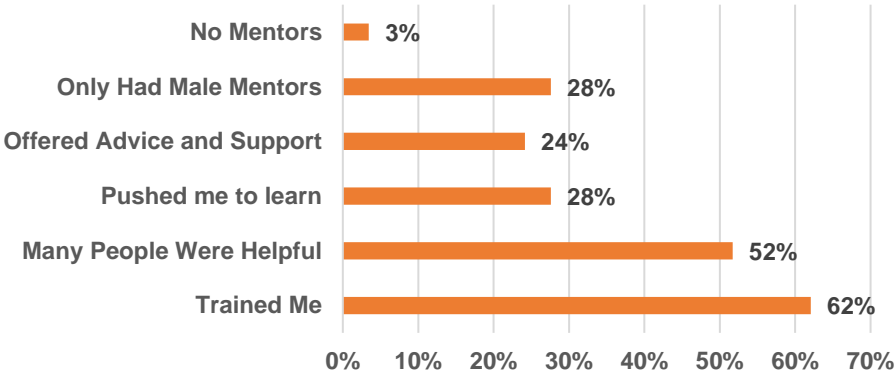


Fig. 2. Percent of total focus groups each experience for women with mentors in the construction industry is mentioned in

Overwhelmingly, women in the focus groups stated that their mentors played a pivotal role in "training them" about their profession and guiding them in job tasks. This experience constituted 37% of all feedback received and was cited in 62% of the focus groups. Illustratively, participants in the focus groups expressed sentiments such as:

- “He definitely guided me, taught me the ropes. He was the first journeyman that I worked with, I was going through a program. So definitely a lot of positivity. He didn’t underestimate or judge. He’s like,

"Come on, learn." And he's like, "I'm going to teach you the road." He's like, "Well I know, I'm going to teach you and just go from there."

- "I had the past five years in the company, I had one mentor and he had taught me the ropes and how to run jobs, how to do paperwork, how to run through how to do everything."
- "With the bolt bin, she taught me everything I needed to know about the bolts, how to put them together, how to keep track of them all. She was very helpful."
- "He taught me a lot after a couple of turnarounds I had him."

Moreover, a significant number of women noted that there have been numerous individuals who have served as mentors throughout their career journey. This experience accounted for 29% of all feedback collected and was referenced in 52% of the focus groups. For instance, participants in the focus groups shared sentiments like:

- "I jumped around to quite a few mentors, like being on this night, cuz they're always like working with different people. That's good. And all like the majority of the guys that I've worked with have been awesome. They take the time to show me."
- "But as a mentor, I honestly, I can't say that I've had, because almost everybody teach me a couple of things, you know? Right."
- "The men helped me out with what I needed to know. They were there to ask, and when I needed to ask questions, they answered my questions."

Additionally, women expressed that their mentors consistently "pushed them to learn" throughout their careers. This experience constituted 12% of all feedback received and was highlighted in 28% of the focus groups. For instance, participants in the focus groups articulated sentiments similar to:

- "I never thought I would ever be welding. That blew my mind. I totally lost my mind. But they pushed me. I said, "Hey, I want to try this." And they were like, "Yeah, I'll teach you. Let's do this. Let's do that."
- "He was providing them with some inspiration, some motivation and encouraging them to take advantage of training opportunities. Sounds like is how you provide them guidance and help is."

Furthermore, some women indicated that their mentors "offered advice and support" throughout their professional journey. This experience comprised 12% of all feedback gathered and was referenced in 24% of the focus groups. For instance, participants in the focus groups shared statements like:

- "He was great for building up my confidence. He'd tell me, you know, if any of your ideas are good, you just gotta say them a little louder. And he would always encourage me in our group meetings and stuff to speak up, to share my thoughts."
- "He just he was just always supportive and kind of like, oh, you should go for this."
- "What I appreciate about him was he made me feel like that I was doing a good job because he was the one that got me hired on here."

Lastly, a few women noted that they exclusively had male mentors, constituting 10% of the responses and being brought up in 28% of focus groups. Merely 1% of the responses indicated that they lacked mentors throughout their career.

4. Conclusion

Despite the consistent labor shortage in construction trades, women continue to be significantly underrepresented, comprising only 4% of the construction craft workforce. This underscores a sizable reservoir of untapped labor potential. In this study, 29 focus groups were conducted involving 176 women employed in construction crafts, aiming to glean firsthand insights into their experience with mentorship in construction trades. The study findings indicate that women have had mentors who trained them, pushed them to learn, and offered advice and support. In some cases, many women had several

people who served as their mentors, some highlighted that they have only had male mentors, and few indicated that they never had any mentors through their career.

Expanding on this research, future studies will delve deeper into women's perspectives within construction trades. They will investigate their initial perceptions of the trades before entering, the unique attributes they bring that the industry may overlook, their sense of acknowledgment for their contributions, perspectives on career advancement opportunities, and interactions with female supervisors at construction sites.

Acknowledgements

The authors gratefully acknowledge the National Center for Construction Research and Education (NCCER) for their valuable support and help in conducting this research, and the College of Engineering at the University of Kentucky for continuous support. The authors would also like to thank all the focus group participants, without whom this research would not be possible. Any opinions, findings, conclusions, and recommendations expressed by the authors in this paper do not necessarily reflect the views of the University of Kentucky or (NCCER).

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