

# Improving Construction Education Integrity through Accreditation Processes

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## Abstract

Accreditation processes involve academic entities at various levels. These processes require considerable planning and coordination before, during, and after accreditation visits. Preparing for these visits requires significant effort, but also provides opportunities for program improvement. Accreditation processes integrate educational components, faculty capabilities, student learning, and administrative support to meet external standards. The American Council for Construction Education (ACCE), as the leading accreditation body for construction programs, provides numerous opportunities for faculty and administrative staff to enhance or update their knowledge about educational operations through learning and benchmarking events. This study aimed to explore the perceptions of ACCE event attendees regarding their motivation and expectations for participation. To achieve this, a survey was designed and distributed to participants of the initial team training, which represents the first level of engagement with ACCE. The findings reveal a knowledge gap in accreditation processes and the development of student learning objectives (SLOs). This gap could potentially be bridged by adopting a holistic approach within construction departments towards participation in ACCE events. These results can assist academic administrators in the construction field to understand the significance of participating in ACCE programs and encourage younger faculty members to become more involved in ACCE events.

## Keywords

ACCE, Accreditation, Construction, Education.

## 1. Introduction

The American Council for Construction Education (ACCE) is the predominant accrediting body for construction-related programs. The mission of ACCE is to be a leading global advocate of quality education, promoting, supporting, and accrediting quality construction education programs. ACCE has laid out a foundation for the accreditation of CME programs (ACCE, 2023). ACCE's nine accreditation standards are intended to ensure that programs deliver high-quality construction education. Meeting these international standards also signals alignment between CME programs worldwide and top construction programs in the U.S. The ACCE holds two conferences annually in which various educational activities and learning opportunities are provided to construction faculty and administrators. One of the main opportunities that ACCE offers is participation as an accreditation team visitor which requires relevant training. The training is provided through Initial Team Training, Advanced Team Training, Case Studies, and Team Chair Training. Initial Team Training provides participants with the basic skills and knowledge needed to serve as a Member in Training on an accreditation visiting team. This study examined the perceptions and expectations of participants in the ACCE Initial Team Training in July 2023. Training participants completed a survey to provide quantitative data. Data analysis was performed using statistical software. The results show the current status of familiarity with ACCE processes among construction faculty and industry professionals and underscored the undeveloped potential for higher inclusiveness of construction faculty with the accreditation processes and student learning objectives (SLOs) definitions, requirements, evaluations, and instruments.

## 2. Literature Review

In examining the different perspectives on accreditation in higher education, it becomes palpable that there are significant challenges as well as opportunities for improvement throughout the already existing accreditation processes. According to Hall (2012), accreditation reviews are typically private, emphasizing process over learning outcomes and cost efficiency. The demand is growing for accountability and transparency in higher education. Along with that, it is changing the global landscape which calls for a transformation in accreditation. Furthermore, Kelchen (2017) also found accrediting agencies face a dilemma, striving to enhance member institutions' educational quality while ensuring their eligibility for crucial operational funding. Alongside the findings, the study produced possible solutions such as accrediting bodies focusing on academic quality and enabling accreditors to concentrate on a select number of institutions capable of academic improvements. Lamar's overview (2019) brought to light the potential solutions as well. His findings concluded that suggesting reforms, promoting competition, and maintaining agency independence were all important parts of gaining quality. Ghoneim and Mohamed (2009) explored the diversity of accreditation globally, ranging from centralized control in Europe to decentralized quality assurance in the United States. Furthermore, Nguyen, Evers, and Marshall (2017) also concluded that in Vietnam's accreditation system, there is an urgent need for a comprehensive transformation in accreditation. So, acknowledging all the challenges while also finding solutions to enhance the quality is very important to the progression of higher education accreditation not only locally but globally.

Accreditation has impacts on education quality. Many of the studies show different perspectives on education quality. Makhoul (2019) concluded that the Association to Advance Collegiate Schools of Business (AACSB) is the prominent guiding mechanism used to incorporate the criteria for learning quality and universities. Also, the researchers emphasize the necessity of incorporating more quantitative data, such as faculty retention and student attrition rates, into the adopted accrediting measures. The study performed by Acevedo-De-los-Ríos and Rondinel-Oviedo (2021) focused on qualitative and quantitative assessments and understanding the effects that come with accreditation in architecture education. Kumar and Passey (2021) found a genuine impact on higher education excellence. These impacts on higher education include providing valuable insights on advancing societal, economic, and cultural dimensions. Razalli (2023) studied Pakistani universities and collected data from 105 universities; and concluded that accreditation significantly influenced both motivation and higher education performance, with motivation also playing a substantial role in performance. Additionally, accreditation can affect performance just by motivation. Lastly, Iqbal, Bin Taib, and Razalli's unique approach (2023) revealed a factor of quality culture for both administrators and quality managers. Overall, these studies showed the impact that accreditation has on education quality.

International perspectives on accreditation can vary, but at the same time show the complexity and challenges that are being faced by higher education institutions. Andreani et al. (2019) examined the Italian university teaching accreditation system. It highlighted the existing limitations in the literature and contributed to the ongoing discourse surrounding accreditation systems' ability to accurately gauge the quality of university courses. Furthermore, Duarte and Vardasca (2023) discussed the accreditation procedures worldwide. They highlighted the intricate processes involved and emphasized the importance of collaboration between institutions and accrediting agencies. It is important that governments show transparency and competition among institutions to enhance quality assurance and satisfaction in the education system. Likewise, the U.S. Department of Education (2018) emphasized the need for consistent application of accreditation criteria, supporting accreditors when they impose justified sanctions. The main goal is to maintain fairness and flexibility. Motova and Navodnov (2020) discussed the accreditation for Russian higher education. They examined research papers, legal documents, and accreditations to provide a systematic overview of developments in quality assurance of accreditation. Schomaker (2014) reviewed Egypt's accreditation system, determined the challenges related to accrediting religious institutions, and discussed the importance of peer reviewers. These studies show similarities in the goal of enhancing education through accreditation, but also show the slight differences and challenges each place has.

Lastly, a noticeable topic discussed throughout accreditation literature is the specialized accreditation and the focus on teacher education. Karkouti and Romanowski (2022) delved into academic literature to analyze how accreditation processes, particularly standardization and assessments, impact the academic freedom of teaching staff. The focus was on understanding how these elements might dilute academic freedom in higher education. Hegji (2020) discussed the three accrediting agencies, included regional agencies that review specific regions, national agencies that assess various institutions including proprietary and religious ones, and programmatic agencies that evaluate individual programs. Hegji explained that accreditation is a common ground for acceptable quality from the school systems. Furthermore, Kumar (2023) found accreditation was empowering for individuals and acts as a potent quality

assurance tool, evaluating higher education systems. Ebekoziem and Aigbavboa (2022) examined the relevance and challenges faced by Nigeria's Built Environment Programmes Accreditation. The challenges included inadequate infrastructure, outdated curricula, limited funding, staffing issues, and unethical practices. Similarly, Muslim (2023) found that local acceptance by national governments and global recognition was an issue. The findings indicate an understanding among academics regarding the necessity for a specific international accreditation agency tailored to instructor education standards. Along with other studies, the report discussed there was a potential to improve teaching and learning processes. Overall, accreditation in higher education is considered a complex yet helpful process, and institutions need to use this mechanism to provide students with a valuable educational experience.

### 3. Methodology

The overarching research question was to what extent, participants at the ACCE conference, were familiar with accreditation and learning outcome assessment processes. To answer the question, the literature was reviewed to explore accreditation processes and learning objectives in other academic majors. Subsequently, a set of points were highlighted which were converted to various questions. A quantitative research approach was deemed suitable considering the time and availability of subjects. To simplify the process for participants, the Likert scale was used for responding to questions. The survey was distributed in the initial team training workshop at ACCE in July 2023 in which 20 acceptable responses were collected. The data were modeled in statistical software including Excel and SPSS, and descriptive analyses were performed. The test of reliability revealed an alpha Cronbach of .7 for the non-demographic section which indicated an acceptable level. The results of the descriptive analysis are provided in the next section.

### 4. Results

In the first section of the survey demographic data were gathered. Participants were 60% male and 40% female. In the next question, participants reported their age in five age groups “under 26”, “26-35”, “36-45”, “46-55”, and “56+” years, for which the percentages were 0, 0, 30, 35, and 35, respectively. In the next question, participants were asked to report their career rank/field. The percentage of each category is shown in Figure 1.

Participants’ administrative roles were Department head/chair (38%), Program coordinator (18%), Accreditation coordinator (6%), and Others (18) Participants’ academic work experience is shown in Figure 2

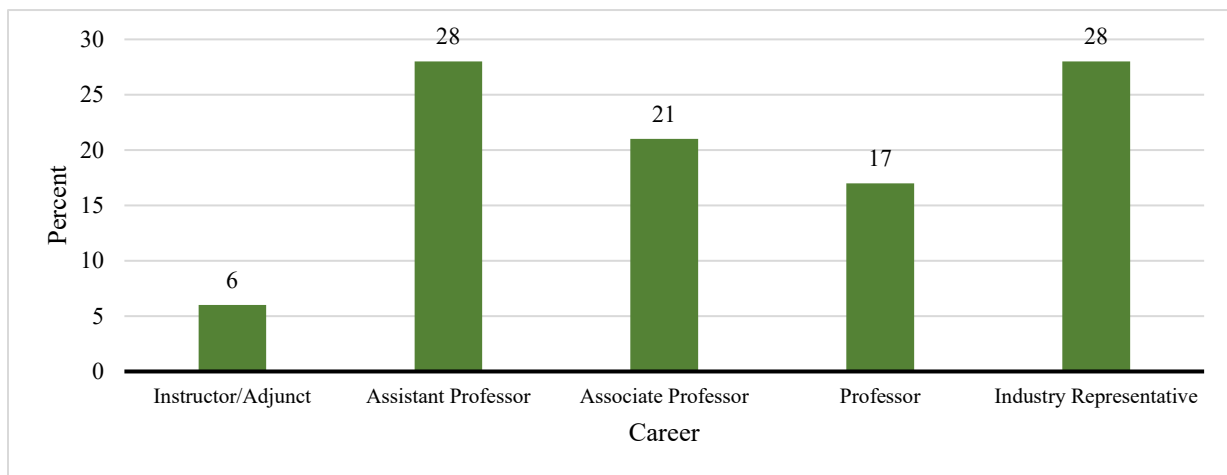
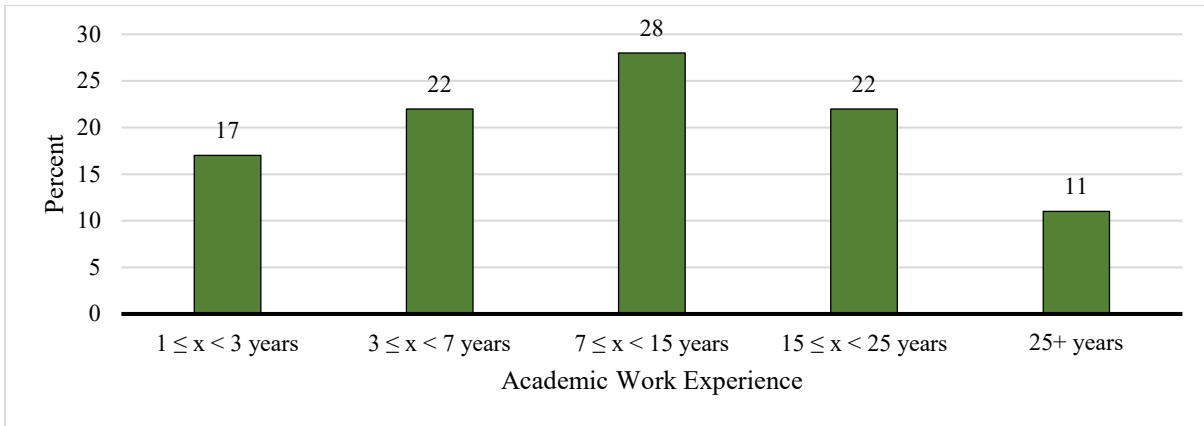
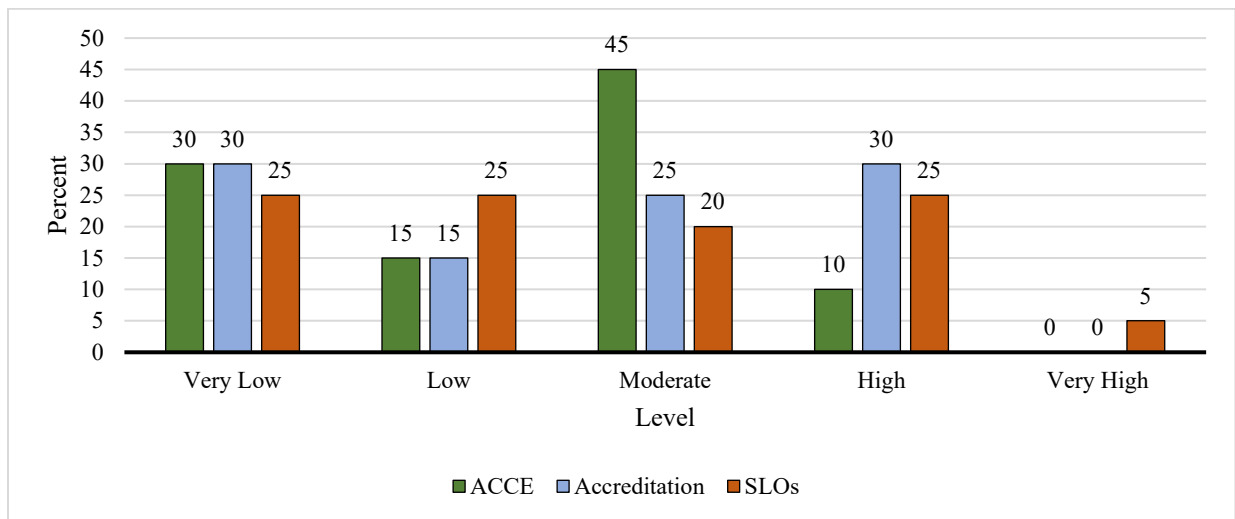


Fig. 1. Career rank/field of participants.



**Fig. 2.** Academic Work Experience

The next section of the survey covered the familiarity and experience of participants with ACCE processes. 90% of participants in the Initial Team Training attended their first ACCE event while the rest had prior ACCE experiences. In the next part, participants were asked to rate their familiarity with “ACCE”, “Accreditation”, and “SLOs” using a Likert scale. Figure 3 shows the percentage of each level for the three subjects. As shown, the familiarity of participants was considerably leaning toward the low in all three subjects.



**Fig. 3.** Familiarity level of participants with ACCE, Accreditation, and SLOs

In the next question, the main reason for participants’ attendance was explored in which four main motivations were identified. Participants selected the main driver for their attendance. Potential factors were “Having an accreditation visit in the next year in the department”, “knowing more about ACCE and the accreditation procedure”, “willing to get involved in ACCE voluntary activities”, and “developing academic and professional network”. The percentage of each motivation is shown in Figure 4.

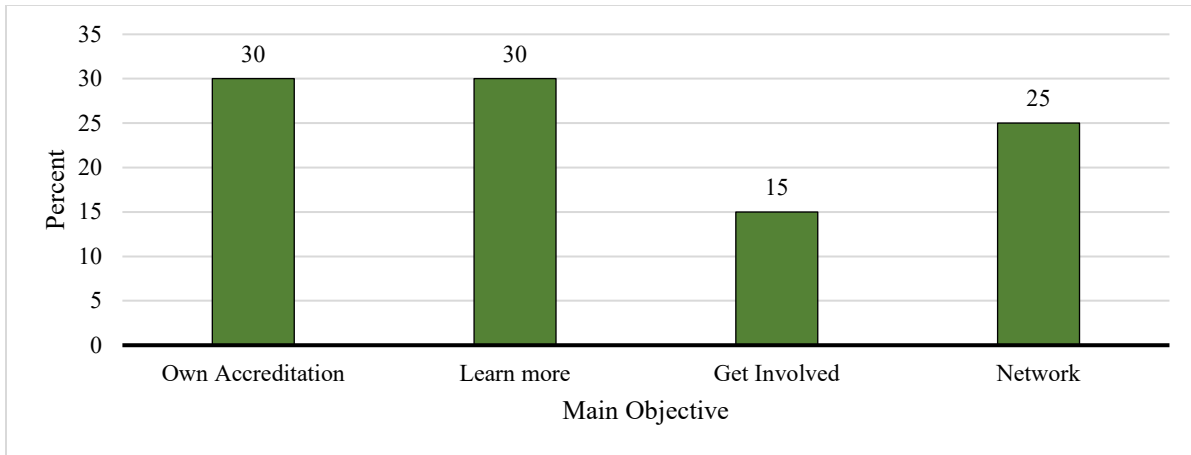


Fig. 4. ACCE event attendance motivation

In addition, participants were also asked to rate the familiarity and knowledge level of their corresponding department with the accreditation process and SLO development. A five-level Likert scale was provided to rate the familiarity level. The percentage of each level for accreditation and SLO processes is shown in Figure 5.

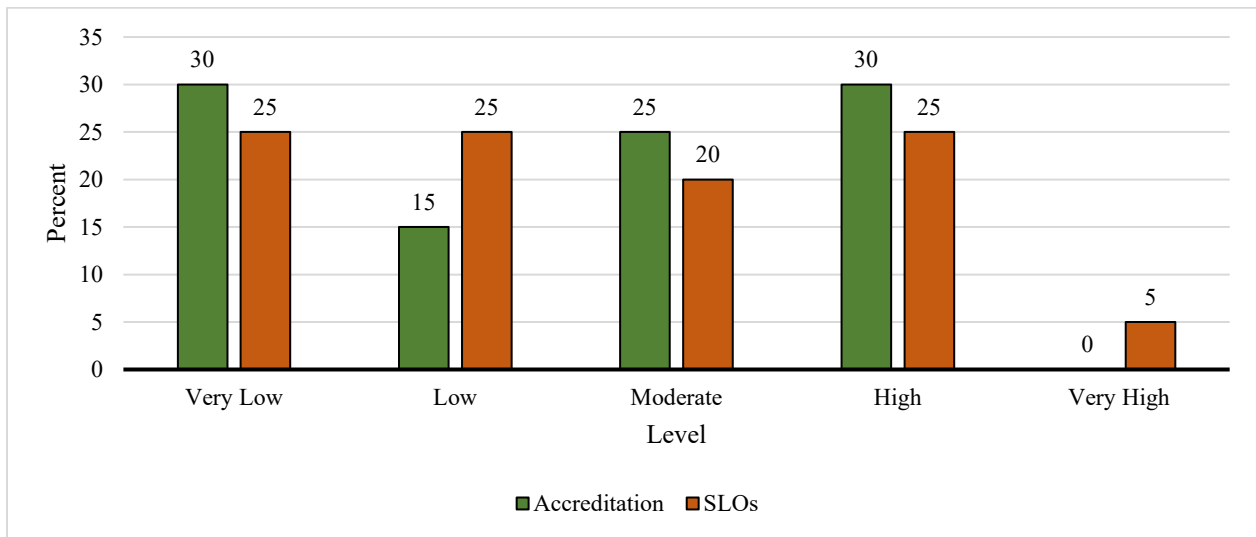


Fig. 5. Familiarity level of departments with accreditation and SLOs

Finally, participants were also asked the extent to which they recommend their colleagues to attend ACCE events. Also, they were asked to specify the likelihood of their attendance at the next ACCE event. A five-level Likert scale was provided for both questions to rate the levels. The percentages of responses to both questions are shown in Figure 6.

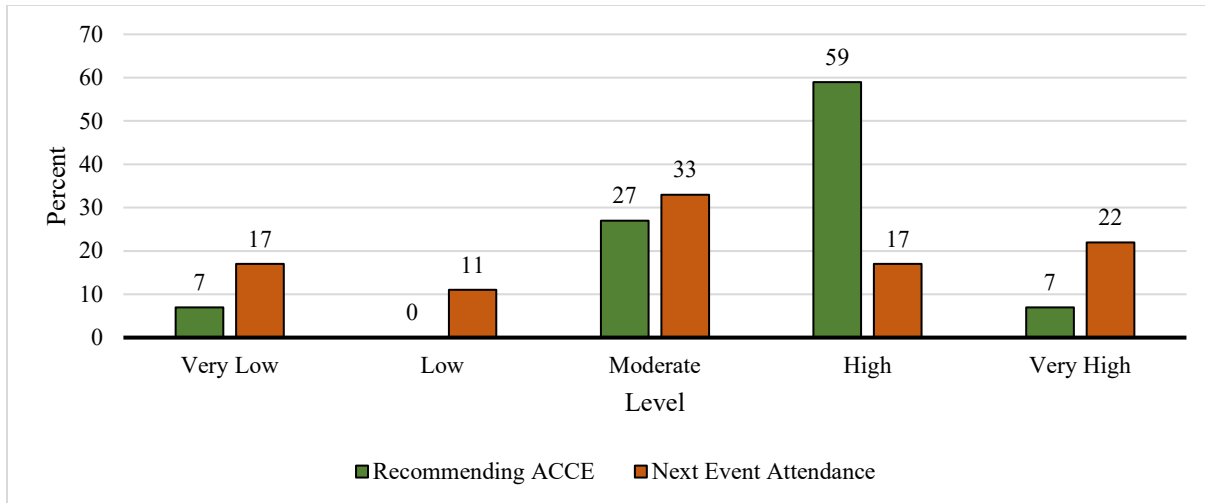


Fig. 6. Recommending ACCE and next time attendance

## 5. Discussion

Accreditation processes are integral to maintaining and enhancing the quality of education and professional standards, requiring the involvement of a diverse range of individuals from various sectors. This collective effort, typically undertaken voluntarily, encompasses participants from academic institutions, professional organizations, and the industry. These processes are dynamic, with protocols and standards continuously evolving to meet the ever-changing demands of the industry. Such evolution underscores the necessity for new perspectives, familiarity with current trends, and an influx of volunteers to sustain and enrich the accreditation activities.

A thorough review of data from initial team training sessions unveils significant insights for further exploration. Notably, the participation of new faculty members in the activities and events organized by the Accreditation Council for Construction Education (ACCE) emerges as a crucial aspect. Data reveals that all participants are above 35 years of age, with a significant proportion holding assistant professor positions. This demographic distribution indicates a substantial opportunity for newer faculty to engage more actively in ACCE events. Such participation is not only beneficial for their personal and professional development but also crucial for infusing fresh perspectives into the accreditation process. Engaging newer faculty members can provide them with valuable resources for more effective teaching and a deeper understanding of the accreditation requirements and expectations. This, in turn, aids in streamlining documentation procedures within their respective academic departments. ACCE events, including conferences and accreditation visits, serve as vital platforms for expanding professional networks and fostering collaborative educational endeavors. However, the participation of industry professionals in these activities is relatively low, despite their significant contributions to industry advisory boards and ACCE committees. Enhancing industry involvement through targeted outreach initiatives is essential for incorporating new professional expertise into ACCE while maintaining the engagement of current members.

Another critical aspect highlighted in the data is the general familiarity with ACCE, the accreditation process, and the development of Student Learning Outcomes (SLO). The close alignment in familiarity levels across these categories suggests a direct correlation between knowledge of the accreditation process, SLO development, and active participation in ACCE activities. Given the routine requirement for construction programs to engage in these activities, it is imperative for ACCE and program leaders to create effective programs that enhance faculty understanding of these processes. These programs could be innovatively delivered through online or on-demand channels, making them more accessible and effective. The data also points to a relatively low level of voluntary involvement in ACCE activities. Given the reliance of the ACCE on voluntary contributions, it is essential for construction administrators to motivate their faculty towards greater involvement. Increased participation not only aids in the growth and expansion

of ACCE's capabilities but also benefits faculty members by enhancing their professional networks and practical knowledge of educational activities.

However, to realize a higher level of participation, especially among new attendees, a shift in the organizational culture and system is required. ACCE must be recognized and embraced as a prominent service activity within the academic community. Additionally, the disparity between the recommendation of ACCE events to colleagues and actual attendance in subsequent events highlights a lack of structured engagement among participants. While financial constraints are often cited as a primary barrier, the absence of proactive planning and routine involvement in such activities can also significantly impact participation levels.

In summary, the accreditation process is a complex and ever-evolving landscape that benefits greatly from the diverse and voluntary involvement of individuals across various sectors. The engagement of new faculty, increased participation from industry professionals, and the development of comprehensive educational programs to enhance understanding of accreditation processes and SLOs are vital for the sustained success and relevance of accreditation activities like those conducted by ACCE. Addressing the challenges of voluntary involvement and creating an organizational culture that values and promotes active participation in these processes are essential steps towards ensuring the efficacy and impact of accreditation in the academic and professional realms.

## 6. Conclusion

This paper presented the initial phase of a study aimed at examining the intricacies of the accreditation body and its processes within the realm of construction education. The primary research question delves into the interactions between the accreditation process and its various stakeholders in the construction sector. In this phase, the focus was on the perceptions of attendees at the Accreditation Council for Construction Education (ACCE) conference, particularly those who participated in the initial team training, marking the first step towards voluntary involvement with ACCE. To gather relevant insights, a survey was designed and administered to participants during the ACCE conference held in July 2023. The findings from this study revealed a notably low participation rate among the younger generation of faculty in ACCE events and activities. Moreover, the results pointed to a general lack of familiarity with the accreditation process and the development of Student Learning Outcomes (SLOs). These findings, along with other points discussed in the Discussion section of this paper, underscore the need for a more inclusive and collaborative system that engages a wider range of participants from both academia and industry. However, it is important to note that the generalization of these results is not warranted. The data was derived from a relatively small sample size, which limits the breadth of its applicability and the reliability of the findings. Therefore, extending the study to include a larger and more diverse group of participants would enhance the robustness of the conclusions. Additionally, examining the experiences and perceptions of individuals with multiple or continuous attendances at ACCE events could provide valuable comparative insights. The next stage of the research will expand its scope to include those individuals whose involvement with ACCE extends beyond initial participation to team visits. This will allow for a deeper exploration of the opportunities and challenges associated with fully voluntary engagement in ACCE's events and activities. By broadening the research parameters, the study aims to provide a more comprehensive understanding of the dynamics at play in the accreditation process in construction education, thereby contributing valuable knowledge to the field.

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