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M M G A R O N

Article

## A cross-domain systematic review on guest speakers in higher education: Reconsidering the role of “outsiders” in architecture education

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### ABSTRACT

Guest speaker events, as a form of instructional strategy in higher education settings, has long been recognized as a valid pedagogical method, whereas the factors that either promote or hinder the efficacy of this strategy in architecture education has not been extensively investigated. Accordingly, this paper presents a cross-domain literature review on the topic. The findings of the review have led to a discussion on guest speakers in design studios as an effective manifestation of inquiry-based learning (IBL). By searching 8 databases using the PICO framework, a systematic literature review was conducted to an in-depth examination of 35 articles across 25 domains in higher education, followed by a thematic analysis considering Braun and Clarke’s approach. The interpretive analysis yielded six themes: (1) bridging academia and practice, (2) speaker selection, (3) event planning, (4) content and format, (5) interaction mode, and (6) students’ preferences. While incorporating guest speakers can enhance student engagement, critical thinking, and networking, successful implementation hinges on addressing several factors such as the role of instructors’ guidance and tailoring topics and guest speakers’ selection with students’ levels. Students’ engagement with guest speakers in exploring content, issues, real-world perspectives and questions aligns with experiential learning and IBL principles. The study underscores the need for additional research in architecture education to understand students’ and instructors’ perceptions, concerning the role of guest speakers particularly on issues like contributions to learning, influence on design approaches and the implications for developing collaborative pedagogical practices.

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### INTRODUCTION

Scholars emphasize the importance of connecting design studios with the professional world to provide architecture students with the best preparation and to create relevant and dynamic learning experiences (Utuberta

et al., 2012; Hejazi, 2020; Mamdouh et al., 2022). This involves transferring knowledge from academia to real-world practice and integrating practical insights into academic outcomes. There is a belief that graduates from architecture programs often lack practical experience and struggle to connect with real-life experiences (Mari

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et al., 2019). By immersing students in real-life projects, skills like teamwork, communication, and engagement can be enhanced. Therefore, educational institutions are encouraged to align their design studio teachings with industry standards to better prepare architecture students for their careers (Mari et al., 2019). The ongoing effort to link academia with practice calls for approaches to enrich students' educational journeys, such as fostering collaborative learning environments (Utaberta et al., 2012; Hejazi, 2020), establishing connections between faculties and industry firms (Hejazi, 2020), and involving clients and users in design studio activities (Utaberta et al., 2012).

In higher education, it is common for instructors to invite guest speakers from varied backgrounds, including experts, scholars, and practitioners, which has been extensively studied across various fields. For instance, Sage (2013) found that guest speakers effectively enhanced student learning outcomes within the domain of social work. According to Lee and Joung (2017), in the field of hospitality and tourism, guest speakers have the potential to enhance teaching methods, increase students' self-confidence, and add value to students' development. Design instructors often involve guest speakers, which, according to McLaughlan and Chatterjee (2020), not only gives students knowledge and real-world experiences but also provides them with theoretical insights that enhance their education. Featuring experts from different fields in design studios ensures the instructors' role and gives students a wide

range of resources and practical knowledge to build a "kit of parts" for their projects (McLaughlan & Chatterjee, 2020). While the use of guest speakers within design education is common, the literature lacks empirical investigations and extended descriptions of how "outsiders" contribute within the context of architecture schools. Through a systematic review of the literature, this study aims to examine the effectiveness of this pedagogical tool in higher education and to identify research routes in architecture design education by exploring how guest speakers can support inquiry-based learning in design studios.

## METHODS

By adopting the procedure of the Cochrane Handbook for Systematic Reviews of Interventions (Higgins & Green, 2008), a systematic literature review was undertaken to study the role of guest speakers in different domains in higher education settings, as shown in Figure 1.

### Search Strategy

The methodology and presentation of the findings adhered to the guidelines outlined in the PRISMA 2020 statement. An initial search was carried out in April 2023 on eight prominent databases, including Google Scholar, Elsevier, Emerald, Taylor & Francis (T&F), Wiley, SAGE, The Education Resources Information Center (ERIC), ProQuest, and JSTOR, to guarantee and optimize the retrieval of the most relevant research.

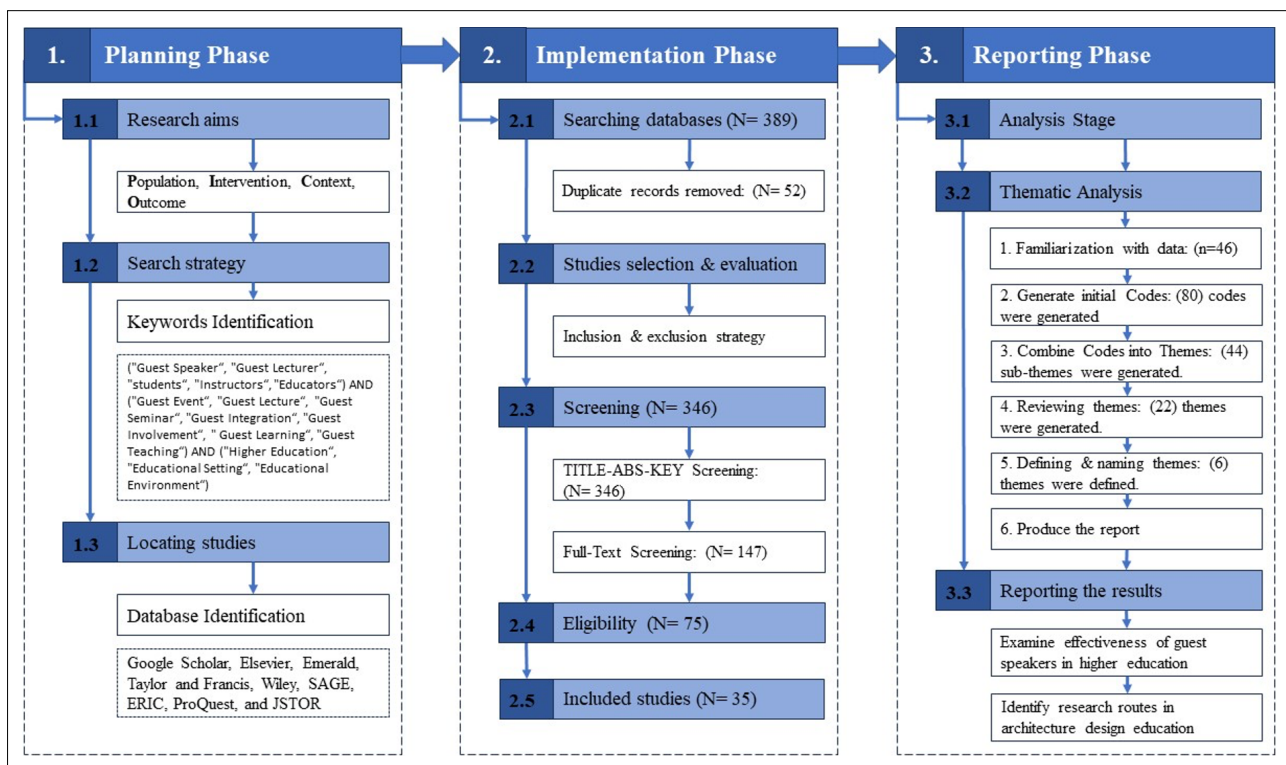


Figure 1. Study stages.

**Study Selection**

A commonly used strategy to determine the inclusion criteria is the PICO model (Population, Intervention, Control, and Outcomes) (Eriksen & Frandsen, 2018). The PICO model can be used as a tool for developing search terms deemed to be relevant (Considine et al., 2017). The search encompassed a variety of search phrases employed in various combinations and search strings, constructed from the combination of the keywords identified in Table 1 (see Appendix 1 for the detailed search strategy). The various combinations and search strings will manage to find similar terms in titles, abstracts, and keywords (TITLE-ABS-KEY) in relevant research.

The PICO and the eligibility criteria guided the review process to ensure the relevance and representativeness of the reviewed papers, as summarized in Table 2. The review focused on peer-reviewed articles in academic journals and international conference proceedings to ensure the reliability of the findings. Given the scarcity of literature on this subject, the review encompassed papers published from any year up to the present to ensure a comprehensive analysis.

**Description of Included Studies**

A total of 398 citations were first identified and collected in one folder. The study selection process is illustrated in the PRISMA flow diagram (see Figure 2). After duplicates were removed, the authors conducted initial manual checks on the titles and abstracts to eliminate duplicate research

papers and to ensure accuracy and completeness, with 199 articles excluded. Then, full-text records (147) were screened for all studies against the inclusion and exclusion criteria, with 72 studies excluded. A total of 75 articles were screened for eligibility, and 40 articles were excluded for the reasons shown in Figure 2. Conflicts and disagreements were solved by consensus through discussion with the second author. The key information from the 35 included studies was then represented in a table (see Appendix 2).

The study examined 35 papers in full-text, 16 of which were published before 2012 and 19 were published after 2012. The reviewed papers addressed a variety of topics related to guest speakers in higher education, with the majority of papers (34.3%) focusing on guest speakers in general. A significant number of papers (28.9%) focused on online guest speakers, guest speakers' roles in bridging theory and practice (25.7%), and students' perceptions (20%). Although these papers covered a wide range of topics, there is a significant gap in exploring the perspectives of instructors and guest speakers. The majority of emphasis on the topic is evident in the research originating from the United States, with a significant representation of 29 papers (82.9%), underscoring its notable focus and contribution to this area of study. The reviewed papers utilized a variety of methodological approaches, with a large number of studies formulated as qualitative (22.9%), experimental case studies (22.9%), and expert opinion methods (22.9%) (see Table

**Table 1.** PICO framework for guest speakers' integration in higher education

| Element          | Definition   | Search strings scenarios   |
|------------------|--|--|
| P (Population)   | Students, instructors, and guest speakers          | "Guest Speaker" OR "Guest Lecturer" OR "Undergraduate students" OR "students" OR "Instructors"   |
| I (Intervention) | Guest speakers' integration                        | "Guest Event" OR "Guest Lecture" OR "Guest Seminar" OR "Guest Involvement" OR "Guest Learning" OR "Guest Teaching" OR "Teaching" OR "Learning" |
| C (Control)      | Higher Education and Architecture Design Education | "Higher Education" OR "Educational Environment" OR "Design Studio" OR "Architecture Education" OR "Architecture pedagogy"                      |
| O (Outcome)      | Outcome identification                             | -  |

**Table 2.** PICO, inclusion and exclusion criteria

| Element          | Inclusion criteria  | Exclusion criteria  |
|------------------|---|---|
| P (Population)   | Students and instructors at higher education, guest speakers invited to higher education          | Articles with participants other than college students such as elementary schools, No study population  |
| I (Intervention) | Focus on the use of guest speakers in education   | No study intervention   |
| C (Control)      | Higher educational and vocational settings are included   |   |
| Study design     | Only looking at articles published in English, All geographic locations, All dates of publication | Hard-copy or electronic articles without full-text accessibility, Articles other than those published in English, Articles that are not peer-reviewed, Articles with missing citation information |

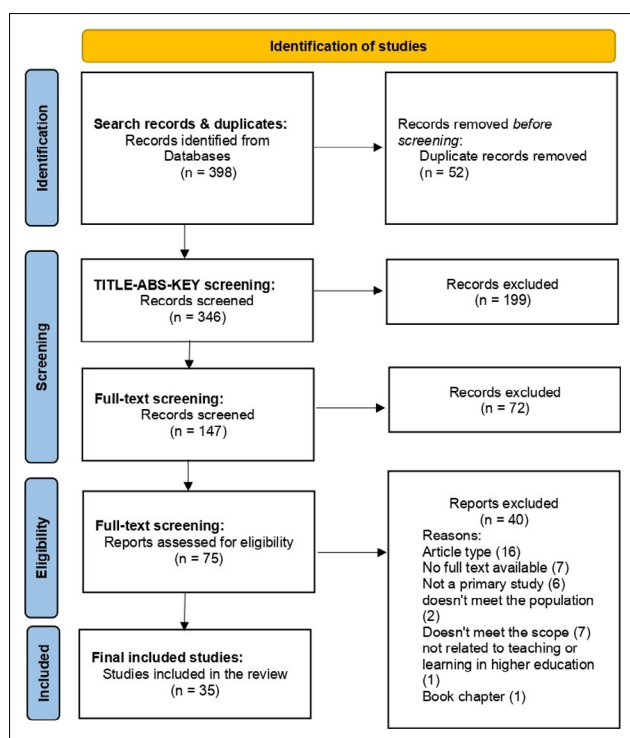


Figure 2. PRISMA flow diagram.

3). Although expert opinion studies offer flexibility and the ability to incorporate subjective knowledge, there is also a risk of potential bias and a lack of objectivity.

The research conducted in this study identified a total of 25 areas of investigation, which were categorized into 11 groups. These categories encompass fields such as computer science, hospitality and tourism, education, and marketing, among others. Refer to Table 4 for an overview. One specific paper examined the role of guest speakers in design studios within the spatial design domain (Vicentini & Camocini, 2021). Since there is a growing number of domains, the distinction implies that while some findings may directly apply to design-based education, further investigation and scholarly examination are required for others.

### Data Analysis

To explore the main themes regarding the included articles, the authors conducted a thematic analysis following Braun and Clarke's (2006) six-step approach, which is: collecting data, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and writing the report. Data analysis was carried out without imposing any pre-existing categories or theories, enabling the emergence of themes naturally. The first author conducted the first review process on the dataset to become familiar with it and then coded the entire dataset. The authors then revisited the dataset and initial codes to identify potentially missed information. Then, the authors searched, identified, defined, and named the themes. The results of this stage revealed

Table 3. Description of the included articles

| Characteristic  | Number of articles (n=35) |
|---|---------------------------|
| Publication year  |                           |
| Before 2012   | 16 (45.7%)                |
| After 2012  | 19 (54.3%)                |
| Distribution by database                                      |                           |
| Elsevier  | 1 (02.9%)                 |
| Emerald   | 3 (08.6%)                 |
| T&F   | 7 (20.0%)                 |
| Google Scholar  | 13 (37.1%)                |
| Sage  | 4 (11.4%)                 |
| Wiley   | 2 (05.7%)                 |
| JSTOR   | 2 (05.7%)                 |
| ERIC  | 3 (08.6%)                 |
| Topics  |                           |
| Guest speakers  | 12 (34.3%)                |
| Online (Virtual) Guest speakers                               | 10 (28.9%)                |
| Guest speaker and students' perception                        | 7 (20.0%)                 |
| Guest speaker to bridge the gap between practice and industry | 9 (25.7%)                 |
| Guest speaker and event preparation                           | 2 (05.7%)                 |
| Research methods approach                                     |                           |
| Quantitative Research   | 4 (11.4%)                 |
| Literature review   | 1 (02.9%)                 |
| Mixed approach research                                       | 3 (08.6%)                 |
| Qualitative Research  | 8 (22.9%)                 |
| Exploratory study   | 3 (08.6%)                 |
| Experimental study – case study approach                      | 8 (22.9%)                 |
| Expert opinion  | 8 (22.9%)                 |
| Distribution by the Country of the Corresponding Author       |                           |
| United States   | 29 (82.9%)                |
| Canada  | 1 (02.9%)                 |
| UAE   | 1 (02.9%)                 |
| Saudi Arabia  | 1 (02.9%)                 |
| Ireland   | 1 (02.9%)                 |
| Italy   | 1 (02.9%)                 |
| Qatar   | 1 (02.9%)                 |

six themes presented below that served as the foundation for the following discussion and helped acquire a deeper understanding of key concepts, trends, and patterns. (For details, check Appendix 3a and 3b).

**Table 4.** Disciplines of the included articles

| Domain                     | Article | Domain   | Article |
|----------------------------|---------|--|---------|
| Education (3)              |         | Business (5)                                   |         |
| Education                  | 2       | Business & Economics                           | 2       |
| Entrepreneurship Education | 1       | Supply-Chain Management                        | 1       |
| Health Sciences (3)        |         | Marketing                                      | 1       |
| Nursing                    | 1       | Accounting                                     | 1       |
| Pharmaceutical Sciences    | 1       | Communication (5)                              |         |
| Pharmacy                   | 1       | Strategic Communication                        | 1       |
| Social Sciences (5)        |         | Advertising                                    | 1       |
| Women's Studies            | 1       | Information & Communication Studies            | 1       |
| Sociology                  | 1       | Journalism                                     | 2       |
| Criminal Justice           | 1       | Science and Technology (5)                     |         |
| Social Science             | 1       | Science, Technology, Engineering & Math (STEM) | 1       |
| Social Work                | 1       | Technology/Telecommunication                   | 1       |
| Real Estate (1)            |         | Computer Science                               | 3       |
| Real Estate                | 1       | Tourism (4)                                    |         |
| Fashion (2)                |         | Hospitality & Tourism                          | 4       |
| Fashion Industry           | 2       | Design (1)                                     |         |
|                            |         | Interior & Spatial Design                      | 1       |
|                            |         | Interdisciplinary (1)                          |         |
|                            |         | Research                                       | 1       |

## EMERGING THEMES

### Theme 1. Bridging the Gap Between Academia and Practice

Students greatly appreciate the chance to learn from professionals, such as industry experts and alumni who bring real-world examples into the classroom (Craig et al., 2020). Having guest speakers helps students see how theoretical concepts can be put into practice (Craig et al., 2020; Metrejean et al., 2002; Payne et al., 2003; van Hoek et al., 2011; Vicentini & Camocini, 2021; Agha-Jaffar, 2000; Ostorga & Farruggio, 2013; Merle & Craig, 2017; Abdallah, 2016; Lee & Joung, 2017; Robert & Hanton, 2021) and is vital for their overall development (Butler & Wielligh, 2012; Kamoun & Selim, 2007; Abdallah, 2016). By presenting real-life cases, guest speakers make students feel that the course content is more relevant and comprehensive (Baki & Peeters, 2019; van Hoek et al., 2011; Ostorga & Farruggio, 2013). This also assists students in improving their skills and reaching their goals (Jablon-Roberts & McCracken, 2022; Merle & Craig, 2017; Robert & Hanton, 2021; Payne et al., 2003).

According to Merle and Craig (2017), there are distinct roles for instructors and professionals in the classroom. Instructors focus on providing a theoretical understanding, while guest speakers bring an understanding concerning professional implications. However, finding a professional who also has the skills to properly deliver information to students is challenging (Kang et al., 2005). Robert and Hanton (2021) argued that students perceive feedback from guest speakers as more valuable than feedback from instructors. This is because industry experts provide insights into real-world applications that reflect the realities of the industry and highlight job opportunities. Therefore, instead of relying on academic feedback based on grading, incorporating input from industry guest speakers can greatly enrich targeted academic assignments, such as capstone projects and final presentations, and ultimately benefit students in their future careers (Robert & Hanton, 2021). Guest speakers come into play as role models who inspire students to acquire necessary skills (Nourse, 1995; Agha-Jaffar, 2000) and significantly boost students' confidence (Lee & Joung, 2017). Consequently, guest lectures enrich students' professional lives by providing insights from experts in the field (Alebaikan, 2016; Jablon-Roberts & McCracken, 2022; Jablon-Roberts & McCracken,

2023; Ji et al., 2021; Kang et al., 2005; Lee & Joung, 2017; Merle & Craig, 2017).

### **Theme 2. Guest Speaker Event Planning and Practices**

Proper preparation is important to maximize the benefits of having guest speakers (Zou et al., 2019; Craig et al., 2020). Without preparation, the shared content and information may lack relevance or designated impact (McCleary & Weaver, 2009). To ensure the guest speaker events' success, researchers recommend sending timely invitations (Cloud & Sweeney, 1987; Metrejean et al., 2002) and incorporating the guest speakers' background into the course material (Kamoun & Selim, 2007; Dalakas, 2016). It is also important to communicate expectations from guest speakers' engagement and discuss goals and tasks with students (Fulton, 2020; Kamoun & Selim, 2007; McCleary & Weaver, 2009; Dalakas, 2016; Payne et al., 2003).

To foster student engagement and participation, instructors can employ strategies such as inviting multiple speakers within the same session (Metrejean et al., 2002), facilitating question-and-answer sessions, incorporating post-speaker activities (Jablon-Roberts & McCracken, 2023), and organizing follow-up meetings to gather feedback and address key points (Kamoun & Selim, 2007). Moreover, encouraging students to conduct research and prepare questions beforehand can further enhance their engagement (Dalakas, 2016; Kamoun & Selim, 2007; McCleary & Weaver, 2009; Metrejean et al., 2002). For example, Dalakas (2016) suggests that sharing students' questions in advance with guest speakers can enhance student involvement and learning; however, this may require additional instructional effort. Researchers also discussed the importance of asking students to write their reflections on what the guest speakers have discussed and relate these discussions to the scope of the course to make these engagements more beneficial (Eveleth & Baker-Eveleth, 2009; Zorek et al., 2011).

In addition, active moderation during discussions can help maintain students' engagement and ensure that the content aligns with the learning objectives (Kamoun & Selim, 2007). By having a plan in place, instructors can maintain control and prevent off-topic discussions, harmonizing the learning objectives with the presentation. It's important to note that this does not imply instructors' control over guest speakers; rather, it aims to provide guidance and facilitate focused discussions while still allowing flexibility for guest speakers in how they deliver their presentations (Kamoun & Selim, 2007). A concrete example of incorporating industry guest speakers into design courses is Goldberg et al.'s (2014) capstone design course in engineering education. In this course, industry professionals, who delivered half of the lectures, were provided with comprehensive guidelines to ensure relevance and coherence in their presentations. These guidelines include a summary of their chosen topics and practical examples of their application.

### **Theme 3. Content and Format of the Presentation**

Guest speakers can introduce different topics, which may enhance student engagement in subjects that students may lack interest in and boost the effectiveness of guest speakers' integration in education (Butler & Wielligh, 2012; Hess, 2004; Robert & Hanton, 2021; van Hoek et al., 2011; Abdallah, 2016). Moreover, several studies have highlighted the insights shared by guest speakers regarding workplace guidance, job interview preparation, and internships and employment opportunities (McCleary & Weaver, 2009; Metrejean et al., 2002; Zorek et al., 2011). By exposing students to diverse career paths and helping them plan for their careers, guest speakers can effectively enhance career awareness (Baki & Peeters, 2019; Ji et al., 2021; Belser et al., 2018; Kang et al., 2005), which is preferred by students (Ji et al., 2021; Craig et al., 2020) and aligns with industry expectations (Belser et al., 2018).

Additionally, guest speakers may introduce their personal stories, which can validate the material and make the conversation more interesting (Agha-Jaffar, 2000). They may also address topics such as local practice issues, social and political tensions, and controversial subjects (Farruggio, 2011; McCleary & Weaver, 2009). To maximize the benefits of guest speaker events, it is necessary for guest speakers to acquire more information about the course material before the lecture (Payne et al., 2003). This is the reason why presentations facilitated by guest speakers that are structured around course objectives receive higher approval ratings (Agha-Jaffar, 2000; McCleary & Weaver, 2009; Payne et al., 2003).

Moreover, the delivery method is essential for the success of a guest lecture (McCleary & Weaver, 2009; Payne et al., 2003). Instructors can guide the guest speakers' delivery method and preparation work by asking reflection questions to the guest speakers that may also stimulate their interactions with students (Zorek et al., 2011). While the lecture/presentation format is commonly used for guest speaker events (Zou et al., 2019), it was found that students prefer conversations and interactive question-and-answer sessions over slide-based lectures (Jablon-Roberts & McCracken, 2023; Merle & Craig, 2017). This can also be traced in the architectural education domain, where Aston et al. (2020) present a case involving "Feminisms conversations," in which students from different years discuss feminist agendas, architecture possibilities, and technologies within the guest speakers' involvement. As a result, these conversations allowed students to investigate and develop theoretical positions and facilitated peer-to-peer learning (Aston et al., 2020).

### **Theme 4. Selection of the Guest Speaker**

According to literature, many factors contribute to making guest speaker events and lectures more successful. These factors include considering guest speakers' credibility

(Kamoun & Selim, 2007), communication skills (Alebaikan, 2016; Fulton, 2020; Lee & Joung, 2017), and practical experience (Alebaikan, 2016; Cloud & Sweeney, 1987; Eveleth & Baker-Eveleth, 2009; Fulton, 2020; Lee & Joung, 2017). Regarding their experience and backgrounds, guest speakers can be categorized into diverse types, such as experts, faculty members, graduate students, and authors (Payne et al., 2003). The diversity of guest speakers' backgrounds can enhance students' critical thinking, spark new areas of interest, and promote active learning (Hess, 2004; Payne et al., 2003; Robert & Hanton, 2021). Also, this diversity can reduce gender bias, improve students' outcomes, and foster inclusivity and community (Sage, 2013). The literature emphasized the importance of using a guest speaker database, which helps save time and resources (Kamoun & Selim, 2007; Metrejean et al., 2002). Also, these databases help in tracking guest speakers' performance and feedback (Cloud & Sweeney, 1987) and foster a network of professionals who are willing to participate (Metrejean et al., 2002; Zou et al., 2019). Different stakeholders and individuals, with different motivations, like institutions, instructors, or students, can invite guest speakers (Metrejean et al., 2002; Nourse, 1995). While guest speakers are traditionally invited by the instructors or the department (Craig et al., 2020), engaging students in the selection process of guest speakers enhances learning, engagement, ownership, and accountability (Eveleth & Baker-Eveleth, 2009). It ensures varied perspectives and encourages inclusivity (Zorek et al., 2011).

#### **Theme 5: Face-to-face and Online Modes of Interaction**

Through distance learning, students have opportunities to connect with a wide range of guest speakers, enabling them to gain diverse perspectives (Vicenti & Camocini, 2021; Baki & Peeters, 2019; Flynn & Birrell, 2021; Ostorga & Farruggio, 2013). Utilizing online guest speakers promotes accessibility and inclusivity, as students from different programs and geographical locations can participate in discussions and contribute diverse perspectives. Considering these advantages, it becomes crucial to plan the integration of online guest speakers and allow enough time for reflection and discussions that can enhance student understanding and attitudes (Eveleth & Baker-Eveleth, 2009). The literature mentions tools used to facilitate engagement with online guest speakers, including video chats (Sage, 2013), live streaming on YouTube (Flynn & Birrell, 2021), discussion platforms (Eveleth & Baker-Eveleth, 2009; Hemphill & Hemphill, 2006), audio recordings (Schumann, 2019), and Eventbrite (Flynn & Birrell, 2021). These tools are employed both asynchronously and synchronously. Researchers suggest that utilizing asynchronous online discussion boards can be effective (Hemphill & Hemphill, 2006; Jablon-Roberts & McCracken, 2023). Additionally, to enhance interactivity

during these engagements, it is advised to combine these discussion platforms with elements like question-and-answer sessions or post-reading discussions (Hemphill & Hemphill, 2006). Schumann (2019) also found that when using recorded videos of guest speakers, students could connect with more role models and mentors compared to traditional learning methods. Students in the class were given access to a database of recordings featuring guest speakers' presentations. They were then asked to visualize these recordings as a way to understand and connect with the content. This exercise required them to listen to the recordings multiple times, which resulted in a deeper connection with the guest speakers compared to experiencing presentations (Schumann, 2019). Having guest speakers in class forums offers benefits, including promoting deep learning, encouraging active participation, expanding knowledge, and fostering critical thinking (Farruggio, 2011; Ostorga & Farruggio, 2013). Conversely, synchronous engagements with guest speakers allow for real-time interactions online and provide access to expertise (Sage, 2013), thereby enhancing student engagement and learning (Fulton, 2020; Tenenberg, 2009). Nevertheless, virtual events provide a platform for researchers, guest speakers, and archivists to share their work with an audience, although creating a sense of community within these spaces presents a challenge (Flynn & Birrell, 2021).

Researchers discussed the effectiveness of the two modes of guest speaker engagements, face-to-face or online. Merle and Craig (2017) reported that students generally prefer interacting with guest speakers in person. However, other researchers argue that virtual guest speakers have higher attendance rates compared to face-to-face engagements (Flynn & Birrell, 2021). Moreover, Hemphill & Hemphill, (2006) found that online guest speaker engagements led to increased real-time interactivity with students. This helps create a feeling of connection with the guest speaker by allowing them to inquire, express their ideas, and receive feedback. On the other hand, other researchers argued that both modes have benefits. In this vein, Alebaikan (2016) suggests that face-to-face guest speakers allow for physical interaction and effective discussion, while online guest speaker engagements offer flexibility and accessibility. This aligns with students' perceptions of viewing both face-to-face and online guest lectures as equally valuable for enriching their understanding and guiding their future careers (Jablon-Roberts & McCracken, 2023; Baki & Peeters, 2019).

#### **Theme 6: Students' Preferences of Learning Activities**

Guest speakers' success is affected by the students themselves, as the diversity of student profiles can be a challenge. Students have different levels of willingness, motivation, and interest in the subject matter (i.e.,

Hemphill & Hemphill, 2006; Metrejean et al., 2002; Mooney, 1998). Understanding the students' different learning styles is important to facilitate mutual comprehension among diverse student groups (Robert & Hanton, 2021). This will aid in avoiding students viewing such sessions as pure entertainment (Abdallah, 2016) or as downtime while waiting for the session to end, especially if the students are uninterested in the speaker's work or place of employment (Dalakas, 2016). Students' interest and learning outcomes can be improved by a well-done guest lecture (Mooney, 1998), effective communication, and active participation (Fulton, 2020). It is important to incorporate multiple teaching approaches and guest speakers who cater to various learning styles (McCarthy, 1996). In this regard, Karns (2005) categorized students into four learning groups: (1) sensate learners, (2) visual learners, (3) sequential learners, and (4) active learners. Earlier in the literature, McCarthy (1996) identified them as (1) innovative learners, (2) analytic learners, (3) common-sense learners, and (4) dynamic learners. Figure 3 below offers a detailed overview, bringing together the potential benefits of guest speakers discussed earlier in the literature and how they can align with students' preferred learning activities, as Karns (2005) and McCarthy (1996) discussed. This alignment has revealed the power of guest speakers to enhance the learning experience among students with different learning styles, fostering their motivation. For sensate learners and common-sense learners, practical strategies, valuable information, and industry contacts are beneficial. Visual and innovative learners benefit from new perspectives and stimulating presentations. Sequential and analytic learners appreciate clear explanations, specific facts, and effective application. Active and dynamic learners thrive with engaging

presentations and Q&A sessions to better understand current issues. In other words, guest speaker integration can benefit these diverse groups of learners.

The advantages of incorporating guest speakers into education extend to instructors (Tenenberg, 2009; Zou et al., 2019), guest speakers (Zou et al., 2019; van Hoek et al., 2011), and faculty (van Hoek et al., 2011). For instructors, Tenenberg (2009) found it valuable to have a colleague to discuss choices such as the order of topics, assigned readings, class assignments, and student practice sessions. Additionally, this interaction can enhance credibility within learning environments (Eveleth & Baker-Eveleth, 2009; McCleary & Weaver, 2009). It was also reported that guest speakers can help educational institutions meet the intended learning outcomes in an engaging way (van Hoek et al., 2011). Moreover, this integration can create opportunities for funding, internships, and job prospects for students (Metrejean et al., 2002; McCleary & Weaver, 2009; Zou et al., 2019). Baki and Peeters (2019) found that guest speakers can facilitate relationships with organizations and networking experiences for students. In addition, guest speakers themselves can benefit from delivering lectures in educational environments through the opportunity to mentor students and receive feedback on their presentations and work, which in turn can contribute to their growth (McCleary & Weaver, 2009). Moreover, this allows guest speakers to get in touch with the academic environment (Zou et al., 2019). Additionally, this collaboration with the university can positively impact employer branding and serve as a means to promote the company and its career opportunities (van Hoek et al., 2011; Zou et al., 2019).

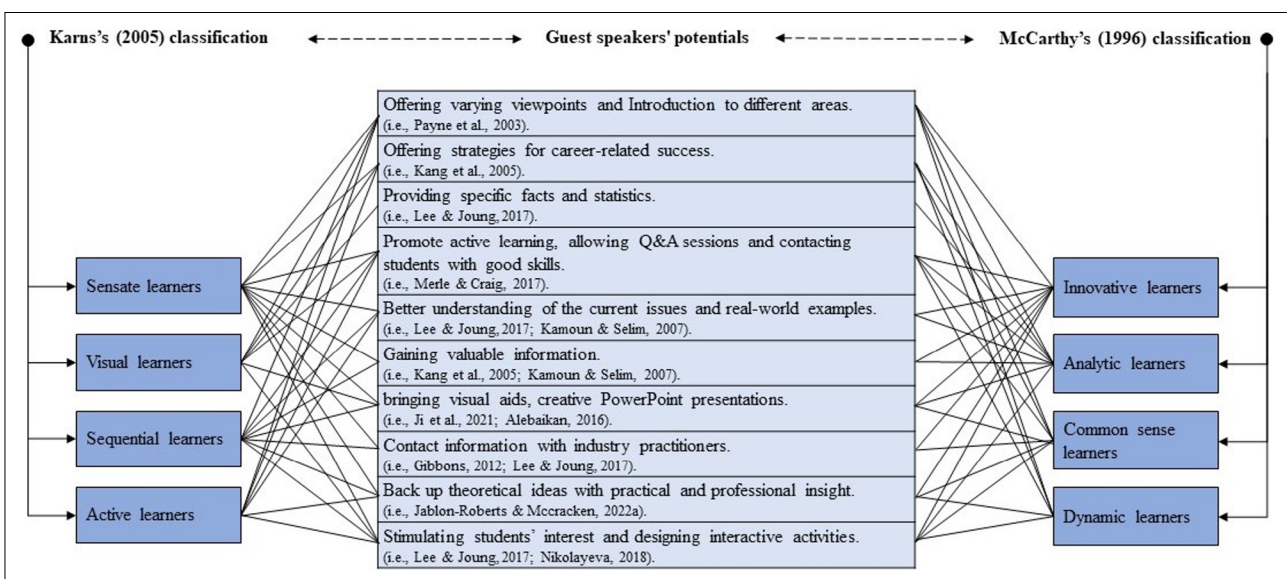


Figure 3. Guest speakers' potential and students' preferences.



## DISCUSSION: GUEST SPEAKERS IN ARCHITECTURE DESIGN EDUCATION

Building upon the identified themes and insights from the 25 domains, the discussion delves deeper into the implications of integrating guest speakers in architecture design education through the lens of inquiry-based learning (IBL). This instructional method, rooted in the 1960s, continues to characterize current interests in higher education (Ackoff, 1974; Salama, 2009). It was developed in response to the perceived failure of traditional forms of instruction, in which students were required simply to memorize and reproduce instructional materials (Salama, 2012). Our findings underscore the various benefits guest speakers bring to design studios, impacting students, instructors, curriculum developers, and the guest speakers themselves. This discussion, grounded in the results, reaffirms the value of guest speakers in advancing the goals of IBL and preparing students for the challenges of the architectural profession.

### Factors Associated with Guest Speakers in Design Studios

#### 1. The Guest Speaker as Self

Instructors in design studios commonly utilize guest speakers, site visits, and assigned readings to cater to the diverse needs and interests of students and provide diverse perspectives (McLaughlan & Chatterjee, 2020; Orhan, 2020; Erkin & Soygeniş, 2014). Effective guest speakers align their presentations with their expertise, the course content, and the hosts' particular needs. For instance, in a theoretical foundations course, speakers might focus on theory-driven design, while in a course emphasizing material and technical issues, speakers might highlight practical aspects of building construction. This alignment has the potential to ensure the speaker's enthusiasm and proper communication of expertise, making the sessions more engaging and impactful. This alignment may also enhance guest speakers' confidence and teaching skills as they engage with students and academic environments, fostering a connection to the academic community and keeping them abreast of current trends and student needs.

Guest speakers, chosen for their expertise or unique perspectives, employ varied delivery strategies such as anecdotes and case studies to frame experiences differently, capturing attention, eliciting emotions, and making communication memorable (Casper & Balgopal, 2020). In the context of IBL, students are empowered to connect real-world scenarios by asking questions, exploring, and conducting research (Mieg, 2019). This approach empowers students to define the design problem at hand and find appropriate solutions, which helps them gain an understanding of the complexities involved in architectural design. In a design studio, students develop knowledge through inquiry, action, reflection, and conversation,

provoking new thinking and refining old thinking (Kolko, 2012). Effective guest speakers provide real examples and can answer students' follow-up questions about applied theory (Casper & Balgopal, 2020). They stimulate intellectual curiosity, encourage exploration beyond the classroom, and challenge stereotypes and preconceptions, inspiring students to undertake interdisciplinary explorations and sparking self-directed inquiry that aligns with IBL principles.

The phrase "guest speaker as self" refers to the concept of guest speakers finding a deep, personal connection and identity within their role in the academic environment. Guest lecturing becomes an aspect of a speaker's identity and self-expression. By presenting with genuine passion and personal insights, guest speakers establish a unique connection with students, enhancing the learning environment and reflecting their true identity and passion. Engaging with students and sharing their expertise can be revitalizing, helping speakers reconnect with the academic environment. This interaction often leads to a sense of renewal, sparking new ideas and rejuvenating their enthusiasm. Additionally, guest speakers benefit from engaging in discussions with faculty and students, further enriching the overall educational experience. They bring excitement to the studio, inspiring and energizing students with dynamic explorations rather than mere knowledge transfers. Many guest speakers are active professionals whose real-world experience adds urgency and reality to their talks, making their contributions more impactful and credible. When guest speakers tailor their content to their strengths and align it with course objectives, they foster deeper engagement and a more fulfilling educational experience. Thus, "guest speaker as self" emphasizes personal authenticity and relevance in guest lectures, enhancing educational impact and encouraging a meaningful exchange of ideas.

#### 2. For Instructors

Understanding the differences between first-year and senior students in terms of design expertise (Cross et al., 1994) and the design process (Atman et al., 1999; Avsec & Jagiełło-Kowalczyk, 2021) is crucial for tailoring topics and guest speaker selection. The needs and expectations of first-year students, who are laying the foundation for their architectural understanding, differ significantly from those of senior students, who are preparing for practice life and its challenges. First-year learning lays the foundation for students' development and understanding of architecture. At this stage, students begin to observe, visualize, perceive, and represent in new ways (Sıkıçakar et al., 2006), shaping their understanding and concepts about architecture. First-year students need orientation, as they are unfamiliar with design tools and have not yet formed design habits (Orbey & Sarıoğlu, 2021). First-year students benefit from guest

speakers who can introduce them to basic design principles and motivate them to navigate their educational path with confidence. According to Dunlap (2011), most instructors tend to invite guest speakers in novice design studios who are in the same profession as their corresponding program, such as architects and interior architects. Senior students, on the other hand, are more capable of developing a greater number of alternative solutions and producing higher-quality designs due to their extensive experience and transitions between design steps, as highlighted by Atman et al. (1999). This advanced knowledge gives them more confidence to express their ideas and communicate effectively, shaping their readiness for the architectural profession. Thus, senior students, with their advanced knowledge, require industry professionals who can prepare them for practical challenges and align with their career development.

Instructors play a crucial role in selecting guest speakers who can effectively engage students at different levels, steering discussions, and coaching speakers on effective engagement strategies (Casper & Balgopal, 2020). Considering pedagogical objectives, the instructors have the responsibility to guide students through the integration of guest speakers in design studios. First-year students, lacking confidence and experience, may lean too heavily on guest speakers' ideas, but instructors can transform this into a valuable learning opportunity by providing careful guidance and structured assignments, fostering independence and creativity. Conversely, senior students, with more experience, may have preconceived notions about guest speakers, necessitating instructors to clarify the learning aims and ensure students approach these experiences with openness and readiness to extract insights. While first-year students may struggle to actively participate in choosing guest speakers or suggesting topics due to limited exposure, senior students, with their heightened awareness and experiences, are better positioned to contribute meaningfully.

### 3. For Curriculum Developers

The integration of industry professionals as guest speakers not only clarifies studio content and goals (Vicenti & Camocini, 2021), but also requires careful planning to align with course objectives. This coordination involves ensuring that the timing and content of guest speaker sessions complement the curriculum and cater to the specific needs and interests of students. Timing is crucial, influenced by the desired goals at different stages of the design studio. Integrating guest speakers throughout the semester enhances students' practical educational experience and contributes to a vibrant learning atmosphere. While some guest speakers may also serve as jurors, their primary focus is to provide various perspectives and inspire students through workshops, panel discussions, and online interactive sessions (Fleming, 2021).

### 4. For Students

The IBL approach suggests an environment where students work independently or in groups on tasks, projects, and fieldwork aimed at exploring different issues. Paszkowski and Gołębiewski (2020) assert that integrating design workshops into studios helps students understand spatial, aesthetic, functional, and policy issues. Guest speakers from different disciplines, like urban planning, art, structural design, and landscape architecture, have the potential to enrich the learning experience and foster a sense of community among students. Feedback from guest speakers during these workshops brings diversity into the studio environment, breaking the monotony, facilitating international connections, and enhancing language proficiency (Paszkowski & Gołębiewski, 2020). Organizing expert-led site visits can further enhance students' skills, motivation, and engagement levels (Erktin & Soygeniş, 2014; McLaughlan & Chatterjee, 2020). Through workshops and field trips, guest speakers share their experiences, prompting students to learn and critically analyze how architectural concepts are applied in real-world scenarios. This approach goes beyond memorization-based teaching methods by encouraging students to apply their knowledge to real-world situations, aligning with the experiential learning aspect of IBL.

Experiential learning opportunities, such as field trips and guest lectures, enhance students' learning experiences by connecting theoretical knowledge with practical applications (Park et al., 2024). Guest speakers play a vital role in linking theoretical knowledge to practical applications, scaffolding students to understand the intricacies of architectural design and preparing them for the challenges they will face in professional practice (Vicenti & Camocini, 2021). To bridge the gap between theory and industry application, researchers advocate for the inclusion of industry-related case studies, practical projects, and guest speakers (Desouki & Awad, 2023). Drawing on their personal experiences and professional journeys, guest speakers provide valuable context and relatability, humanizing the profession by offering tangible examples of career paths, obstacles, and achievements, which can be highly motivating for students. This approach not only deepens students' comprehension of the importance of considering needs and well-being in design solutions but also provides them with real-world perspectives and practical insights (Vicenti & Camocini, 2021), contributing to the inquiry-based learning (IBL) goal of active exploration within the discipline. This enables students to connect theory with real-world use, cultivating qualities such as curiosity, resilience, and self-confidence. This aligns with the learning methods inherent in architectural design studios, rooted in experiential learning or learning by doing (Utaberta et al., 2012), which is further promoted with IBL (Salama, 2012). While problem-based learning involves solving real-life design problems as a means of

learning, experiential learning immerses learners directly in touch with the realities being studied (Keeton & Tate, 1978). In this context, students' progress is evaluated based on their development of critical thinking skills and analytical abilities, rather than merely acquiring knowledge (Salama, 2012). By incorporating guest speakers, architectural design education enriches the learning experience with real-world insights, supporting IBL and experiential learning, and fostering critical thinking and problem-solving skills.

By examining factors associated with guest speakers in design studios and the roles they play for different stakeholders, the discussion elucidates the intricate dynamics involved in optimizing the use of guest speakers to enrich the educational experience.

## CONCLUSION AND RECOMMENDATIONS

The body of literature reviewed in this paper evidently suggests that the integration of guest speakers in higher education provides exposure to real-world challenges and experiences, connects students with industry professionals, keeps faculty in pace with industry trends, and enhances students' skills and motivation. Online guest speaker sessions have expanded opportunities for interaction with more professionals regardless of location. The discussion in the previous section highlights guest speakers' key role in enriching the learning experience for students in architecture design education. Accordingly, the discussion and results also emphasized particular benefits for instructors in higher education settings.

The review reveals several key dimensions to be considered to enrich the learning experience while implementing guest speakers as a pedagogical tool, including instructors' pivotal role in maximizing benefits concerning topics within and beyond curricula. The instructors need to carefully select speakers whose expertise aligns with course objectives and student needs. Introducing guest speakers to the course goals and student learning preferences is crucial for a successful integration. Additionally, guest speaker events have the potential to contribute to the content within existing curricula by providing diverse perspectives and industry insights. This requires careful planning to ensure that guest speaker sessions are well-timed and complement the course content. Integrating guest speakers throughout the semester can enhance the overall educational experience.

By connecting theoretical concepts with practical applications, guest speakers encourage students to explore, inquire, and think critically. This promotes active learning and engagement. Guest speakers provide insights into current trends and issues in design, leading to a more detailed and focused approach to their projects and preparing students for their future professions. Typically, students perceive guest speakers as experts who can

connect them with real-world scenarios, which aligns with the experiential learning approach, fostering a deeper understanding of architectural practice. For guest speakers, engaging with students and faculty provides an opportunity to reconnect with the academic environment, stay updated with current trends, and contribute to the development of future professionals. This interaction often leads to a sense of renewal and inspiration for the speakers themselves.

These outcomes yield shared benefits which align with various domains in higher education. When applied wisely, the integration of guest speakers in architecture education complements the goals of inquiry-based learning (IBL). Through engagement with guest speakers, students can develop critical thinking, analytical skills, and a deeper understanding of the complexities of architectural practice beyond theoretical concepts.

This study provides a foundation for further research and underscores the importance of optimizing guest speaker integration to maximize its educational impact. Despite the valuable insights gained from this study, certain constraints, including the limited research on guest speakers in architectural design education, are acknowledged. To fill the existing research gap, it is recommended to study the best practices for selecting and integrating guest speakers into architecture design education in general, and into design studios in particular, considering factors like student levels, interests, and course objectives. Future research should also examine the long-term impact of guest speakers on student engagement, career development, and professional growth, as well as explore the effects of soliciting student feedback on guest speaker sessions and how it influences future invitations and event planning. Additionally, investigating the benefits of involving students in the selection process of guest speakers to ensure that their interests and learning needs are addressed is crucial.

**Appendices:** <https://tinyurl.com/4np3f2dw>

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