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Original Research

University–Industry Collaborations in Interior Architecture Education: A Critique of R&D and Design Center Policies in Türkiye

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Abstract: This article aims to evaluate the potential of university–industry collaboration within interior architecture education and to contribute to the national regulations governing R&D and Design Centers in Türkiye. It examines a case study conducted during the 2023–2024 Spring semester, involving partnership between a foundation university's Department of Interior Architecture and Environmental Design and a government-supported R&D and Design Center. Since interior architecture is a practice-based discipline, theoretical knowledge must be supported by practical experience during undergraduate education. Existing literature shows that such collaborations are primarily conducted in the areas of furniture design and production within the regular curricular activities. However, there is a clear need for studies that explore the integration of theoretical knowledge and holistic spatial design practice in interior architecture. Accordingly, an extracurricular workshop was developed through a university–Design Center collaboration, within the theory of "learning by doing." Fourteen students participated in the workshop. Using a mixed-methods approach, demographic information and participants' prior design experience were collected through a questionnaire. In addition, open-ended questions were administered both before and after the workshop to explore students' expectations and experiences, respectively. The open-ended responses were analyzed independently by three researchers using content analysis. Student expectations were classified under two main themes: "developing design knowledge" and "cooperation with the sector," whereas student experiences yielded three main themes: "understanding the end user," "temporal constraints and efficiency," and "conceptual diversity and topic suggestions." The study reveals the potential of an extracurricular workshop predicated on active, reciprocal roles among all participants. Furthermore, it outlines limitations and gaps in national policies, guides similar collaborations to increase such partnerships, and contributes to a more defined framework for institutional and government policies regarding R&D and Design Centers.

Keywords: *University–Industry Collaboration, R&D and Design Center, Interior Architecture Education, Design Workshops*

Introduction

In interior architecture education, the integration of theoretical learning and practical experience is essential. Therefore, incorporating extracurricular activities into the educational process through collaboration with industry professionals is vital. As Plunkett (2013) argues, defining the practical knowledge and foundational theories that encompass the profession is

crucial. Accordingly, interior architecture education should seek to equip students with practical skills, a distinct cultural background, and self-confidence to utilize these attributes effectively as graduates and professionals. Research demonstrates that collaborations with industry professionals can enhance student motivation within a course (Cassim and Dong 2007; Afacan 2013). Short-term workshops that incorporate rapid research, critical thinking, design, and practical application create an optimal environment for collaboration, allowing students to experience professional thinking firsthand.

Interior architecture education is built upon a curriculum that emphasizes experience, design, and application, integrating multiple disciplines at both national and international levels. It follows an educational model in which human experience, history and culture, psychology and physiology, spatial organization, lighting, color theory, acoustics, and ergonomics are addressed holistically and applied within a studio environment. This comprehensive and application-based approach is fundamental to the education and training of professional interior architects/designers (Coleman 2002; Spanjers 2013; Piotrowski 2014).

National and international professional organizations describe interior architecture as a multidisciplinary and versatile profession. They emphasize the importance of incorporating both theoretical and practical components into curricula to ensure graduates are adequately prepared for entry-level positions. According to the European Council of Interior Architects (ECIA) (2020), interior architecture education should equip students with the necessary professional competence in technical systems and requirements, as well as in health, safety, and ecological balance. Additionally, the curriculum should include practical training in interpreting various cultural, intellectual, historical, social, economic, and environmental contexts, while clearly conveying the roles and responsibilities designers hold in society. As stated in the 2011 declaration of the International Federation of Interior Architects/Interior Designers (IFI)—of which the Chamber of Interior Architects of Türkiye is also a member—designing spaces that focus on their inhabitants has an undeniable relationship with society, producing physical, social, cultural, and economic value. Accreditation institutions have structured the outputs related to these areas around the core concepts of "Collaboration" and "Professional Practice and Professionalism" (Council for Interior Design Accreditation [CIDA] 2024; Design and Planning Accrediting Association [TAPLAK] 2024).

Interior architecture requires a distinct and reciprocal university–industry collaboration model for the fact that it operates mainly within existing structural boundaries and focuses on the immediate, lived experience of the user with extensive research on human spatial behavior (Crane 2026). While architecture prioritizes the building envelope and the urban scale, and industrial design concentrates on mass production, interior architecture manages rapid lifecycle alterations, accustomed spatial psychology, and the integration of complex systems—such as specialized lighting, acoustics, ergonomics, and customized applications. Managing these complex layers requires an agile, integrated collaboration framework that

allows diverse stakeholders to work together on interiors that remain receptive to varying human behaviors.

On a broader level, current economic, political, social, and technological changes compel all units involved in production to devise proactive strategies. This climate encourages not only design offices and furniture companies, but also raw material suppliers and governments, to take active steps to support industry–university collaborations. A World Bank report suggests that such joint studies should be prioritized, particularly within the development agendas of developing countries, to ensure graduates are equipped to create the competitive and innovative environments that companies require (Guimon 2013). Domestically, the National Twelfth Development Plan, published in 2024, underscores the importance of collaborations between universities and industry (Republic of Türkiye Strategy and Budget Presidency 2024). To this end, the plan aims to enhance governance-level cooperation among universities, the private sector, local governments, and non-governmental organizations (Article 682.2). It seeks input from these sectors to develop educational programs and practical training opportunities (Article 684.1), while establishing industrial cooperation and joint education models to improve students' vocational and technical knowledge and practical experience in areas where universities hold expertise (Article 684.4).

Within this framework, collaborations with companies allow students to navigate real production and market conditions, provide opportunities to experience the technological capabilities of the industry, and enhance the skill sets of future designers. Detailing this collaborative framework ensures that all stakeholders take an active role. Furthermore, structuring it so that its outputs contribute to the development of professional know-how will serve as a valuable benchmark, particularly for Design Centers operating within interior architecture.

This study examines the potential to develop interior architecture students' professional practice and experience through an extracurricular workshop conducted with a Design Center representative from the industry (Figure 1). Based on the experiential learning strategies posited by Dewey (1976), the methodology of the workshop stems from the active engagement of curious and eager-to-discover participants with real-life design problems, thereby generating knowledge through the transformation of experience (Kolb 2014). Current design educational practices further emphasize the acknowledgement and inclusion of the social, cultural, and political dynamics in the built environment (Salama and Patil 2025)—an approach that is also reflected in this case study. Addressing the void in the literature regarding the university–industry collaboration in interior architecture, this study evaluates an extracurricular workshop in which all participants took an active role. The expectations and the experiences of the students shed light on their level of engagement with the professionals, while providing a medium for the Design Center to share its own

expectations and professional practices. Ultimately, this collaboration can serve as a model to be included in future guidelines for Design Centers focusing on interior architecture.

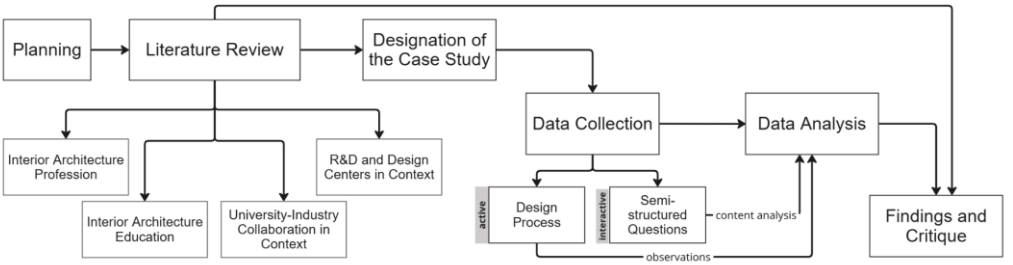

Figure 1: Research Flow

University–Industry Collaboration and Design Centers

University–industry collaboration is a partnership model consisting of a methodological and systematic combination of education, research and development, and service activities that bring together academia and the industry sector to carry out joint studies, develop projects, exchange ideas, and produce knowledge (Dura 1994). It can also be defined as the transformation of stakeholders' theoretical knowledge and application opportunities into scientific and technological developments to benefit both parties and society (Çetin 2019). On a global scale, countries implement diverse policies that encourage research and development activities in order to expand scientific output and technological capacity (Çelebi and Kahriman 2011).

As a reflection of this trend within the Turkish design field, the Ministry of Industry and Technology published Law No. 5746 on Support for Research, Development and Design Activities on February 28, 2008. This legislation aims to support and encourage innovative activities that enhance, develop, improve, and differentiate product functionality, thereby rendering the country's economy competitive at an international level through private sector design, while simultaneously increasing the employment of design personnel and a qualified labor force (Official Gazette of the Republic of Türkiye 2008). Design Centers were subsequently included in the scope of this support on March 1, 2016. This support is of great importance for reinforcing theoretical knowledge with practical applications in applied programs such as interior architecture. According to Article 5 of the CIDA (2024) Standards, interior architecture students are expected to gain an awareness that (a) multiple disciplines and stakeholders are involved in interior architecture/design; and (b) collaboration with individuals and communities affected by design is important for understanding needs and building trust. Design Center incentives offer institutions advantages such as income and corporate tax exemptions, VAT exemption, social security premium support, stamp duty exemptions, as well as priority benefits from TÜBİTAK (The Scientific and Technological

Research Council of Türkiye), KOSGEB (Small and Medium-Sized Industries Development and Support Administration) and the Ministry of Industry. According to the statistical data from the Republic of Türkiye Ministry of Industry and Technology, General Directorate of R&D Incentives (2026), the number of active Design Centers stands at 345, with fifty-one operating in the Engineering/Architecture sector. Regarding the geographical distribution of these centers, thirty-seven are located in Istanbul.

Design Centers have certain annual obligations in order to continue benefiting from incentives. Among these obligations, education and development activities and partnerships with universities occupy a significant position. Collaborations with universities create productive and evolving environments for academic studies, while providing faculty members with the opportunity to follow current developments in the sector, closely observe the changing industry dynamics, and guide their students by transferring this contemporary, practical information.

In applied disciplines such as interior architecture, it is essential to support theoretical knowledge with practical applications; however, the opportunities that enable such experiences are quite limited. The program curriculum includes internships, which represent the most established experiential component of interior architecture education, providing a means to observe potential gaps between education and practice (Al-Ayash et al. 2025). The most common example of sectoral collaboration occurs when universities invite companies to give seminars on certain topics within certain courses, where they convey information to students. Although this is an important contribution, it is sometimes deemed insufficient because it is temporary and limited to certain topics, whereby the information presenter is a single person, and the audience remains passive. For this reason, it is observed that more diverse collaborations are increasingly being developed in different institutions by directly integrating companies into design courses. In a study conducted by Asojo (2013), a project focused on lighting fixture design was carried out by interior architecture students at the University of Minnesota in collaboration with the company Groovy Stuff. In Alaali's (2024) study, the Ahlia University Interior Architecture Department collaborated with IKEA within the scope of an interior architecture studio; students designed a two-story work unit at the same scale using exclusively the company's furniture line, while in a subsequent studio, they collaborated with a private hospital to redesign the process of the hospital's courtyard space. Students from Parsons School of Design and the Royal College of Art, on the other hand, collaborated with Tom Dixon and IKEA to develop designs for sustainable production practices (Aouf 2017). In another example, High Point University interior architecture students collaborated with local businesses to create design prototypes for guest rooms at the J. H. Adams Inn, resulting in the implementation of the winning team's project (Crawford 2022). There are also university–industry collaborations in more specific areas. For example, Chen et al. (2020) found that in the context of a collaboration between a university in China and a private sector company providing Building Information Modeling (BIM) solutions for

construction projects, university faculty members provided guidance to industry representatives to determine how to more effectively help students consolidate their BIM knowledge. Although these examples illustrate various possibilities for collaboration models within a design course, engaging students merely with specific brand inventories or localized commercial prototypes has the potential to limit the creative learning process; thus, these initiatives should be carefully crafted to achieve the learning outcomes of the course. Additionally, the long-term sustainability of such collaborations requires agile course structures within the curriculum, which might be difficult to implement internationally—such as within the rigid state department frameworks of Türkiye.

When examining national-scale publications on university–industry collaborations within interior architecture departments, studies conducted within furniture design courses are particularly prominent. Altın (2016) evaluated a semester-long partnership at Anadolu University between interior architecture students and an industrial organization specializing in wood lamination techniques. Similarly, in another study at Başkent University, Güner Aktaş (2019) focused on wood manufacturing processes through collaboration with a large-scale production center, addressing the gap between theoretical furniture design and the technical knowledge required for industrial application. Furthermore, Seçer Kariptaş et al. (2023) detailed a collaborative model between Haliç University and the Erginoğlu & Çalışlar Architecture Office, which focused on furniture solutions for office environments. Another sectoral collaboration within Kırıkkale University's Contemporary Furniture Design course, as Aktaş (2023) presented, utilized surveys to evaluate student work from the perspectives of faculty, industry representatives, and students. The results revealed a divergence in priorities: while academics valued innovation, industry representatives prioritized projects feasible for rapid production. These examples unfold the next challenge for university–industry collaboration on a national level: how can we exceed the boundaries of an industrial product and incorporate a spatial dimension with a holistic approach that fosters "the ongoing benefit and awareness of the profession" (International Federation of Interior Architects/Designers [IFI] 2011)?

Industry Collaborations of the Department

The university's Interior Architecture and Environmental Design Department (INAR) carries out various activities within the scope of university–industry collaborations due to the necessity of maintaining direct contact with the sector in interior architecture education. This approach directly overlaps with the learning outcomes of the program structured both within the scope of the Turkish Higher Education Qualifications Framework (TYYÇ) and the European Higher Education Area (EHEA).

As one of the most widespread collaboration models in the department, various seminars have been organized within the scope of different courses to convey professional practice to

interior architecture students. The seminars are helpful for understanding how professionals navigate the design process, the difficulties they encounter in different stages of the projects, and their experiences illustrated through sample projects. Although this collaboration is useful for students both in gaining information about sectoral experiences and developing future relations with a company in the sector, it is often limited in terms of time and application. In addition, there are collaborations where interior architecture and environmental design faculty members provide design consultancy for offices, stores, and similar interior design projects in various Design Centers within their areas of expertise. While this situation brings the sector and academics together, allowing the academic staff to follow sectoral innovations and exchange information, it does not necessarily provide the opportunity for students to interact with the sector and gain practical experience directly, as they could not be included in these types of collaborations.

University–industry collaborations on furniture design are comparatively more common in interior architecture education at the national level (Altın 2016; Güner Aktaş 2019; Aktaş 2023), putting emphasis on rapid, feasible industrial production. Similarly, in a student furniture competition organized in collaboration with a local furniture company within the scope of the Furniture Design course, program students (taking it as a compulsory course) and industrial design department students (taking it as an elective) had the opportunity to experience actual design problem definitions and competition specifications (Artıkoğlu et al. 2018).

Another example of collaboration takes place in interior architectural design studios at different levels. Exceeding the scale of an industrial product (Asojo 2013) or a single-function space (Alaali 2024), the integration of specific spatial design problems into the design studio provides the opportunity to exercise a holistic design approach with different spatial requirements in a complex spatial program. While these collaborations nourish student motivation and yield above-average results, students' feedback underlines an occasionally overwhelming workload that, in a real design scenario, would require group work.

When all these activities are examined in terms of content and scope, it is evident that although they are considered valuable and compelling collaborations, they require further development. For this reason, it is important to collaborate with Design Centers to create platforms that allow students to evolve their design processes. To this end, organizing workshops in addition to formal courses and curricula has been identified as a suitable method for supporting students and for creating diverse fields where Design Centers can share their experiences.

A Case Study: "Pet Space in Residential Interiors" Workshop

In interior architecture curricula, application-oriented education models are frequently employed. Workshop studies support applied learning in practical courses such as detail development, furniture design, and especially studio courses (Özoğuz Arbay 2015). It is

recommended that group-based workshops be encouraged, as they foster a mutual exchange of information by creating independent production environments where students can collaboratively develop new ideas (Azkur and Oral 2023). Furthermore, including extracurricular workshops in the education process is considered vital, as they facilitate a "free interaction environment" that extends beyond the boundaries of formal interior architecture education (Karslı and Özker 2014). Considering this, an extracurricular workshop was planned between INAR and an Istanbul-based Design Center during the 2023–2024 Spring semester. The Design Center suggested topics ranging from residential to retail spaces. Among them, the "Pet Space in Residential Interiors" workshop was selected and organized as an up-to-date and awareness-raising subject. This subject was also selected because it pertains to a three-dimensional, holistic engagement with spatial design—treating the interior as an integrated volumetric experience rather than focusing merely on furniture or industrial objects. The workshop aimed to enable students to explore ergonomics and functionality within familiar residential contexts, design animal-friendly living spaces, and develop spatial solutions that enhance human–animal interaction.

The workshop was scheduled over two consecutive weeks in half-day sessions (09:30–13:30). A one-week interval was established between sessions to encourage the strengthening of interpersonal bonds among group members and the representatives of the Design Center. Following an open call to 180 INAR students, twenty-three applied and formed five multigrade groups, each intentionally including at least one international student. To accommodate all participants, the workshop was conducted in English, the program's official language.

To gather preliminary data and conduct a participant analysis, the following questions were included in the intake form:

1. What is your gender?
2. What is your age?
3. Which academic year are you currently in?
4. Have you attended any design-related workshops before? (If yes, please specify the name, duration, topic, and location.)
5. Have you worked on any interior architecture design projects? (If yes, please provide details.)

Ultimately, fourteen of the twenty-three applicants participated in the event. Of these fourteen participants, two were male, and twelve were female, a distribution that aligns with the gender ratio of the department. The cohort consisted of eight first-year students, one second-year student, three third-year students, and two fourth-year students. For the majority of participants, this workshop represented their first experience of this kind; only one student had previously attended a similar event, specifically a wet area design workshop conducted by a private company. Regarding professional experience (Question 5), it was determined

that two students had completed office internships where they contributed to design tasks. Consequently, the data indicates that most respondents lacked previous design experience outside of their formal education. In this context, the workshop served as a novel and introductory study for the participant group.

Following a series of meetings between the faculty of the Department of Interior Architecture and Environmental Design and the Design Center, the specific details of the workshop content were finalized and the workshop was conducted as follows.

Day 1 of the Workshop:

The first day of the workshop commenced with the introduction of the project objectives. Three designers from the Design Center collaborated with the fourteen participating students to contribute to the creative process, while three academics from the Department of Interior Architecture and Environmental Design participated to observe and steer the workshop process. This active participation constituted the distinct character of this workshop.

Subsequently, groups were formed to allow students to research and develop creative ideas (Figure 2). Before beginning the task, participants were asked to complete a preliminary evaluation survey to secure their conscious involvement in the workshop. Each group then initiated their project under the guidance of a Design Center member for an eighty-minute session. In the subsequent eighty-minute session, groups had the opportunity to discuss their initial sketches and draft models. As the first day of the workshop concluded, it was suggested that the groups continue developing their work until the next meeting.

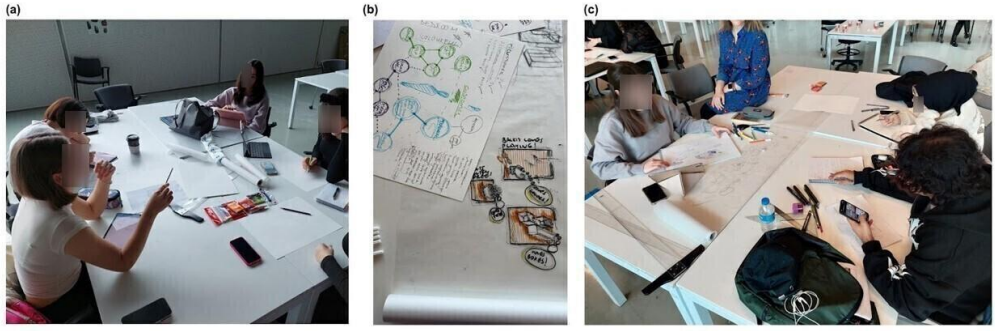

Figure 2: (a), (b), (c) Workshop Day 1

Day 2 of the Workshop:

Three of the students who attended the first day reported that they would not be able to attend on the second day, reducing the number of participants to eleven. However, since the work had reached a certain stage, it proceeded without altering the groups—a decision made both to accommodate time limitations in the weekly curriculum schedule and to allow groups to develop a more advanced design solution. It was observed that only one group used the interim

week productively; students in the other groups did not communicate with one another during the week. This failure to establish the expected communication between the group members, alongside the decrease in participants on the second day, is considered a limitation of the study. Addressing this issue is vital for the planning of future workshops. During the first hour of the second day, participants within their respective groups discussed their interim work and finalized their design decisions. Subsequently, they were allocated an additional hour to prepare final presentations, working collaboratively on posters and models. The workshop concluded with participants delivering their final projects, receiving feedback from the Design Center members, and collecting certificates of participation (Figure 3).

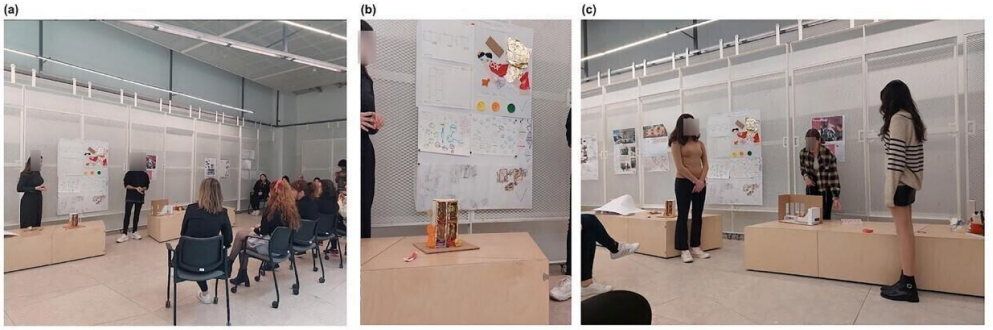

Figure 3: (a), (b), (c) Workshop Day 2

Evaluation of Students' Perspective

The data collection, processing, and analysis framework process is structured as shown in Figure 4. To understand the students' experiences, two-stage feedback forms were administered both before and after the workshop. The study employed investigator triangulation, with three researchers independently coding the qualitative data (Creswell 2013). The content analysis followed an inductive approach to identify emergent themes. Reliability was established through a peer-debriefing process, where thematic discrepancies were resolved via consensus. Finally, the findings were synthesized using thematic integration, mapping student-level experiential data against the structural requirements of the Republic of Türkiye's Ministry of Industry and Technology R&D regulations governing Design Centers. These results, combined with researcher observations, provide a holistic perspective on such interactions, offering a framework to guide the design of future university–industry collaborations.

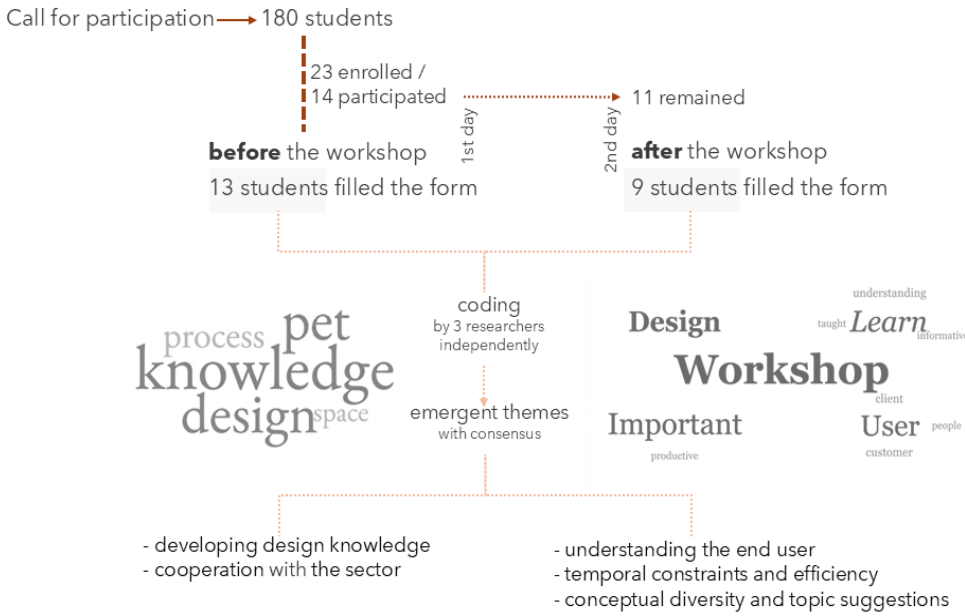

Figure 4: Data Processing and Analysis Diagram

Assessment of Feedback Expectations Prior to the Workshop

For the initial feedback study, before students met with the Design Center team, the research team asked: "What are your expectations from the workshop?" via a Google Form. Responses from thirteen out of fourteen participants were compiled and examined by the researchers independently. The fact that most of the participants were first-year students new to the design field, coupled with the reality that many had not experienced a workshop like this, suggested that they might find it difficult to articulate their expectations. Nevertheless, the analyzed texts demonstrated that student expectations fell under two main headings: "developing design knowledge" and "cooperation with the sector."

According to the analysis, most participating students viewed the workshop as a significant opportunity to advance their design knowledge and to gain practical experience by participating in such activities. While one student stated, "I am participating in the workshop to develop my design knowledge," another student commented that they expected to gain professional experience and learn the varying stages of the design process.

Another key expectation was industry collaboration, expressed as "meeting professionals," "communicating with practitioners," and "learning the visions of professionals." These data suggest that industry cooperation is a vital factor for students when seeking diverse experiences. Furthermore, students expected such cooperation to serve as an opportunity for internships and future employment within Design Centers.

Evaluation of the Feedback Received After the Workshop

At the end of the workshop, the researchers shared a second Google Form asking: "Can you explain your workshop experience?" Out of the eleven participants from the second day, nine students completed the form. Upon independent examination by the three researchers, followed by a peer consensus, three themes emerged: "understanding the end user," "temporal constraints and efficiency," and "conceptual diversity and topic suggestions."

While most students found the workshop productive, they realized the critical importance of understanding the user and incorporating their perspective into the design. Students frequently noted that the workshop radically transformed their view of the interior design process. One student emphasized this change, stating, "The workshop taught me how important it is to know the user," while another noted the profound impact of the process by affirming, "The workshop helped me understand the importance of understanding the user and how design shapes their emotional experiences." Another student remarked, "I saw their perspective on professional projects; I learned that some things we get hung up on in studios are not that important, that the most important thing is the user, and that I need to get to know and understand the user first."

In the open-ended responses, some students suggested holding the workshop within a single day or across two consecutive days to maintain their momentum and focus. However, others felt that the two-day format with a week-long break was effective because it allowed time for independent group work. Students also expressed their desire for future workshops on specific topics, such as stand design, store design, and public space interventions. One student noted that a design study that included the opportunity to see a project's physical implementation would be particularly exciting and productive.

When comparing the pre- and postworkshop evaluations, the initial feedback reveals that students primarily viewed the event as a career opportunity due to the direct involvement of professionals from the Design Center. The post-workshop evaluations show that while these professional expectations were met, the experience also had a deeper pedagogical impact. Specifically, it provided students with a new perspective on user needs, shaping their understanding of interior architecture in a more comprehensive way.

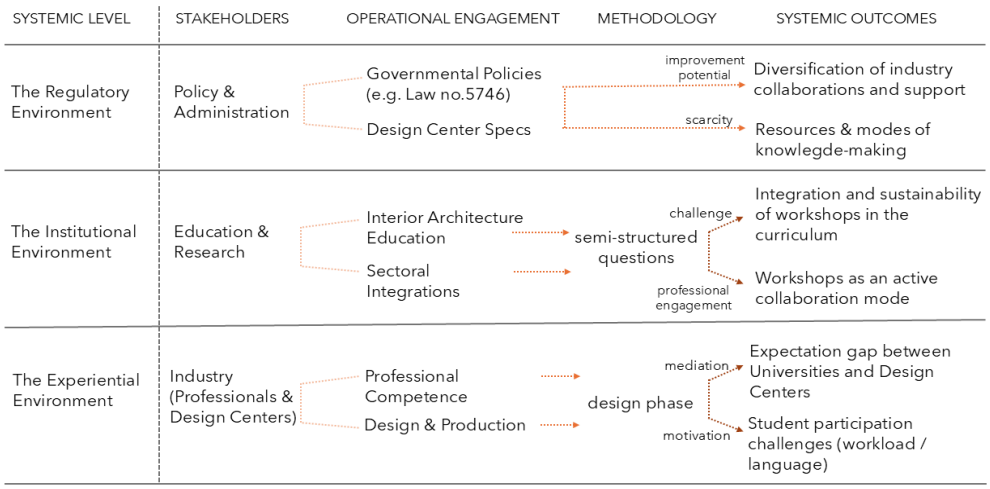

Figure 5: Interrelation Diagram

Conclusion and Recommendations

University–industry collaborations are established with the aim of allowing students to synthesize theory and practice while also contributing to a more comprehensive understanding of the professional world. Through such initiatives, students can become more closely acquainted with professional perspectives and learn directly from practitioners. Simultaneously, they can develop creative and innovative solutions to design problems within a collective environment through teamwork. Workshops conducted within the scope of university–industry collaborations can play a constructive role in undergraduate programs where practical application is prominent, such as interior architecture, by providing useful opportunities for hands-on experience. Accordingly, it is important to evaluate whether these collaborations meet the expectations of fostering students' active participation and engagement in the educational process. The interrelationship among stakeholders, their engagement levels, the use of the workshop as a case study to examine student interaction, and the subsequent systemic outcomes are visualized as a diagram in Figure 5.

One of the primary constraints in such collaborations is the language barrier. A significant portion of sectoral knowledge is conveyed in Turkish, as many professionals in the field have limited proficiency in English. Consequently, professional terminology within the industry is predominantly used in Turkish. A certain number of interior architecture programs in Türkiye are conducted in English, including ours, creating a gap between academic education and professional practice. Moreover, the increasing number of international students adds another layer of complexity to these collaborative processes, as language barriers constitute a significant constraint. This situation can lead to feelings of exclusion or concern among international students—a critical issue when aiming to meet

ECIA and CIDA standards for professional competence in an increasingly globalized design context. To overcome the language barrier, international students were strategically assigned to different teams to work alongside Turkish students, allowing the latter to facilitate communication with company representatives who were not proficient in English. While other strategies, including the use of professional interpreters or machine translation tools, could have minimized communication difficulties, they were intentionally not adopted. Instead, the workshop was designed to expose students to an authentic communication challenge that they are likely to encounter in professional settings. Experiencing and navigating such situations was considered an important learning opportunity, contributing not only to the development of communication skills but also to teamwork, adaptability, and intercultural competence.

The second finding reveals the time-consuming and demanding character of interior architecture education, which revolves around an intensive and practical curriculum. Although students are aware of how extracurricular studies contribute to their education during this demanding process, many refrain from dedicating time to such workshops due to the intensive design studio workload. This situation can cause students to miss opportunities to contribute to their professional development. For example, some students who registered for the workshop did not participate in the study due to timing conflicts with their design studio. In addition, some students who participated in the study stated that conducting such workshops as full-day sessions rather than spreading them across multiple days would make participation easier. Therefore, it is possible to infer that implementing such studies outside academic term dates, whenever possible, may increase participation; alternatively, it would be more efficient to integrate them directly into course content when conducting them during the term is deemed more effective. For this purpose, instead of short-term workshops, more comprehensive projects to be designed by students within specific courses could be proposed in coordination with Design Centers. Structuring these studies in a format that covers the entire term will also increase motivation for the course.

With the increased presence and visibility of such studies, it is possible to integrate them into the departmental curriculum and ensure their continuity. Defining workshops for course credit can make them more attractive to students. This approach is consistent with CIDA's framework that emphasizes the intertwining of education, industry collaboration, and practice-based learning. Another option could be to include these studies in the curriculum as a graduation requirement, similar to internships. Rather than reducing the practice-based industry engagement to a single format, institutions should recognize the invaluable role that diverse pedagogical approaches play in student development.

Another important issue is the divergence in expectations between the curricula of interior architecture departments and the activities carried out by Design Centers within the scope of university cooperation. Among the research and development activities implemented by the Ministry of Industry and Technology to augment scientific activity and

technological capacity, Design Centers hold significant value and stand out as a meaningful step forward. Although the essential purpose of the partnership is positive, various difficulties can arise in the collaborative processes because Design Centers primarily operate according to their specific job descriptions. When the criteria in the R&D and Design Centers Inspection Guide of the Ministry of Industry and Technology's Guidance and Inspection Directorate are examined, it is noted that important benchmarks include whether the enterprises produce scientific and technological publications, articles, and presentations; whether personnel participate in national and international symposiums, congresses, and seminars; and whether they cooperate with universities on design activities. However, another item to be verified is whether there are planned training programs for Design Center personnel and whether their professional skill and competence development are compatible with the company's sector (Official Gazette of the Republic of Türkiye 2008). Especially in developing countries like Türkiye, there is a clear need for economic and market-oriented stabilization. Since the primary driver in this context is to minimize economic uncertainties and secure the process, university–industry collaborations conducted by Design Centers often proceed with a "compliance-based" logic, as highlighted in Aktaş's (2023) study, or a "homework" logic. This limits the realization of the proactive strategies and industrial cooperation models expected in the National Twelfth Development Plan (Republic of Türkiye Strategy and Budget Presidency 2024). Training Design Center personnel within the university to enhance their professional skills and competencies can be suggested as one of the constructive cooperation methods.

University–industry collaborations are often established with well-known and reputable companies, as such partnerships are generally perceived by students as valuable opportunities for professional development. One of the primary reasons for this preference is that large companies are better equipped to cover the financial and organizational costs associated with collaborative projects. Furthermore, from the perspectives of both universities and students, collaborating with recognized companies enhances the attractiveness and perceived value of these initiatives. However, establishing and maintaining such partnerships is often challenging due to organizational and administrative constraints. In this context, Design Centers can play a significant role in addressing this gap by acting as facilitators between academia and industry. They can foster stronger collaborations between universities and local companies, thereby expanding opportunities for students while simultaneously contributing to regional innovation ecosystems. The industry network is not limited to Design Centers; fostering partnerships and promoting awareness initiatives between universities and pertinent organizations, such as the Ministry of Industry and Technology and the Chamber of Interior Architects, is crucial. The efficiency of university–industry collaborations should be examined comprehensively through international benchmarks, and diverse practices should be made more effective by supporting them through participatory design processes. International applications of such collaborations can also follow a similar strategy by defining

the operational engagements of stakeholders across diverse regional contexts, as the suggested implementation strategically bridges international professional and educational standards.

The main limitation of this study is the small sample size. Although the workshop was open to all students in the department, only fourteen participated. As participation in extracurricular workshops is voluntary, the sample may not be representative of the entire student population, thereby limiting the generalizability of the findings. Future studies could replicate the workshop with larger samples in partnership with different Design Centers to further evaluate these findings.

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Informed Consent

The authors have obtained informed consent from all participants. This study was approved by the Özyeğin University Ethics Committee.

Conflict of Interest

The authors declare that there is no conflict of interest.

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