# The Impact of Student-Customer Concept on the Quality of Design Studio Courses in Interior Architecture Education: Academicians' Perspective

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**ABSTRACT**
Today, most of the universities in the world and in Turkiye are working to include quality management systems in their education programs. This study aims to investigate whether the student-customer paradigm has any effect on the quality of design studio courses in interior architecture education. Since the concept of student-customer is mostly adopted in foundation universities, the scope of the study is all lecturers who teach in design studios in interior architecture/interior architecture and environmental design departments of foundation universities in Turkiye. The research methodology is concerned with questionnaire design and measurement, as well as sampling and data collection methods. For the findings of this study, it has been discovered that the quality of interior architecture education in Turkiye is controlled by subjects such as TYYÇ/TQF and faculty guidelines, rather than being focused on student satisfaction and is dependent on these parameters. Furthermore, it is found that a significant number of instructors were claiming the indirect negative impact of the student-customer concept on the course quality by subjective student feedback within the quality system. In addition, the study draws attention to the declining student quality of interior architecture departments and the problem of the total quality system in design studios.
**Keywords:** Higher Education Quality, Interior Architecture Education, Interior Architecture Education Quality, Student-Customer Concept in Education

## 1.INTRODUCTION
In order to improve the quality of current education, the majority of universities today—including those in Turkiye—work to integrate various quality management systems into their operations. However, there are still gaps in research on how customer satisfaction-focused quality systems designed for commercial enterprises affect the standard of education for various disciplines as well as how they are tested and adopted over time in higher education. For instance, with clear outcomes, such a student satisfaction-focused approach might be a good fit for mathematics, physics, chemistry, or different engineering branches. It is obvious that sharing the answer key and the students' offered solutions with other students, as well as establishing rules about things like the difficulty level of the questions, will improve education. Nevertheless, there is no study in the literature that looks at and studies the positive or negative consequences of this kind of student-customer paradigm on the caliber of instruction in fields like design education where aesthetic values are more prevalent and subjective design decisions are made.

In interior architecture education, design studio courses are the foundational and most crucial courses that make up the curriculum. In contrast to many other disciplines, in the context of the design studio course, students practice multidimensional problems and their parametric solutions relating to the provided space rather than dealing with the definite answers of rigid problems. Additionally, because of their strong subjective nature and potential for being a matter of opinion that expresses the aesthetic preferences of the author, these solutions may lead students to continually doubt the instructors' judgment in making evaluation and scoring decisions.

This study aims to determine whether the student-customer paradigm has any beneficial or negative effects on the standard of design studio courses in interior architecture education. Therefore, in this study, a scale was developed to gather the associated opinions of the lecturers about the subject after a thorough examination of the studies in the literature and the concepts described within the study's scope and interviews with the necessary field and measurement-evaluation specialists.

## 2. THEORETICAL FRAMEWORK
### 2.1. Quality and Total Quality Management
The concept of quality is one of many institutions' top priorities. Also, the most significant difficulty any firm faces is certainly improving quality (Sallis, 2014). It is complex to define it and frequently challenging to assess quality because, despite its importance, many people see it as a nebulous and slippery notion (Pfeffer & Coote, 1991).

Considering the definitions made since the 1960s (Sahney et al., 2004), when the concept of quality was first used, The Cambridge Dictionary defines 'quality' as how bad or good something is. In other respects, Meriam Webster defines quality as the degree of excellence (Mukhopadhyay, 2020). Hoyle defines quality as having a 'degree of excellence', 'compliance with requirements', 'the sum of a good or service's features based on its ability to meet specified or potential needs', 'suitability for use', 'fitness for purpose', 'to be faultless and flawless', and 'to make the customer happy' (Hoyle, 2007). Quality, according to Ellen Earle Chaffee, is an action or verb rather than a noun. To put it another way, quality is a dynamic activity that involves ongoing improvement of procedures, products, or services (Sherr & Lozier, 1991).

The most used quality improvement methodologies in the industry are: Total Quality Management (TQM), Quality Function Deployment (QFD), Six Sigma, ISO 9001 and the Malcolm Baldrige National Quality Award. TQM has the most historical applications in higher education (Quinn et al. 2009). Total quality management (TQM) is a system of philosophy and guidelines that forms the basis of a constantly evolving organization. ISO 9000 is the common name for a set of international standards in quality assurance created by the International Standards Organization (ISO). The TQM approach and ISO 9000 standards are interrelated. An organization that implements ISO 9000 standards in basic procedures can implement the TQM philosophy in the next step (Waks & Frank, 1999). Dahlgaard et al. (1995) define quality as consistently satisfying customer expectations and total quality as delivering quality at a reasonable cost. The concept of 'value for money' is closely related to quality, and quality initiatives are driven by the goal to increase economic efficiency (Pfeffer & Coote, 1991). According to Dahlgaard et al. (1995), who also underlined the strong connection between quality and economy, the ideas of 'customer' and 'cost' are two of the main things that contribute to the vagueness, complexity, and confusion of the concept of quality.

### 2.2. Customer
The customer is defined as the final consumer of a business's goods or services by Akın Acuner (2003). One of the most significant individuals in the business is the 'customer', who has requirements and demands that must be satisfied. Since the 'product' as a service is not always something visible or tangible thing that can be held, examined, and checked for flaws, Michael et al. (1997) claim that quality is what the customer says regarding the variances in outputs. Because of this, evaluating the quality of a business where customers' subjective evaluations are important can be challenging. Quality in such an approach is determined by the customers' expectations and whether the establishment meets them.

Additionally, businesses that prioritize customer satisfaction also frequently use the adage 'the customer is always right' as the cornerstone of their quality service delivery. A detailed investigation of consumer behaviour, according to Berry and Seiders (2008), demonstrates that sometimes, customers are not only mistaken but also plainly unfair. By demanding

unjust benefits and recompense, these customers take advantage of their 'always right' position and harm businesses, sometimes even other customers and employees. It is important to be aware in this environment that people who are regarded as 'customers' are granted serious and unchecked authority.

## 2.3. The Role of the Student in Higher Education and the Student-Customer Concept

Today, some countries are shifting their economies from manufacturing to the service sector, and one of the pillars of these countries is education services. One of the most significant stakeholders in the quality of education is the student, as their contentment directly affects the satisfaction of other stakeholders, including parents, employers, and others (Ahmed et al. 2010). The majority of academic research in this context concentrates on students as 'clients' in higher education (Chen et al. 2006). Especially, in universities which students pay for the education they receive, students are described as 'customers' or 'stakeholders' whereas educational institutions and academics as 'service providers' (Sirvanci, 1996; Brennan & Bennington, 1998; Watjatrakul, 2014; Xiao & Wilkins, 2015; Atalay, 2018, Degtjarjova et al., 2018).

There are several viewpoints on the student-customer idea in the literature that accept students as customers because they receive a service (Guolla, 1999; Tasie, 2010) and place emphasis on how student happiness improves education by addressing students' needs (Elliott & Shin, 2002). The concept of the customer, however, is not the right one for education (Albanese, 1999), as it produces a paradigm shift in university instruction and has a negative impact on the culture's traditional values (Baldwin, 1994). There are also different opinions such as 'beneficiary' (Scrabec Jr, 2000) or collaborative partner concept (Bay & Daniel, 2001). The student is assessed as a collaborative partner for long-term impact (Bay & Daniel, 2001), and students contribute to their perceptions of satisfaction, quality, and value by actively engaging in the learning activity (Kotzé & Du Plessis, 2003), among other studies offering alternatives to the concept of the customer and satisfaction.

The student-customer paradigm, which Albanese (1999) claims is ineffective, misleads students about what is best for them, raises the bar for grades, and puts pressure on academics and teachers to perform well. In his survey study involving students, Sharrock (2000) asserts that a student can be a client who needs advice from a professional, a citizen with certain rights, or a subject with specific responsibilities. Because of this, it is insufficient to categorize the student as only a customer. Watjatrakul (2014) concluded that in institutions where students are treated as customers, they believe that the quality of education will decline because the teaching staff is neglected, the lecturer-student relationship is deteriorating, and course success is facilitated. According to these views, the place and function of the student and higher education will be determined by the choice of whether education is a consumption good or an investment good (Brennan & Bennington, 1998). Furthermore, the goal of educational programs should be to provide students with knowledge and skills that will benefit them in both their professional and personal life (Browne et al., 1998).

Despite the fact that numerous studies have been done regarding the claim that 'If there is a concept of customers in higher education, these people are not only students', but the majority of studies also typically evaluate students' satisfaction and dissatisfaction levels while ignoring academics' job satisfaction. Even though there have been several studies on employee happiness, very few focus on academics (Chen et al. 2006).

## 2.4. Total Quality Management and Student Satisfaction in Higher Education

The concepts of 'student satisfaction' and 'total quality management' in higher education are interrelated (Browne et al., 1998). Regarding their educational and developmental processes, physical and social conditions, and other factors, students have varying

demands and expectations from the institution where they are enrolled. The level of student satisfaction depends on whether these expectations are met. On the other hand, total quality management aims to enhance organizational performance by assessing the relationship between an organization's mission, values, vision, policies, and procedures, and the clients it serves (Tasie, 2010). In higher education, where students pay tuition, the concept of student satisfaction has grown in importance. Students increasingly view themselves as customers, and quality assurance organizations and those who create rankings and league tables frequently use contentment as a quality metric (Xiao & Wilkins, 2015).

According to Guolla (1999), teaching methods, teachers, and the physical setting in which instruction is provided can all have an impact on students' learning, which in turn affects their level of satisfaction. Therefore, most educational institutions use student evaluation/satisfaction questionnaires to assess the quality of instruction (Aldridge & Rowley, 1998). Most of these surveys focus on the university's departments, staff, and academic staff performance in the classroom and outside of it, as well as the overall quality of education. Students' feedback is crucial information for the development of educational processes in student-centered or student-oriented educational systems (McCuddy et al., 2008). Although it is an indicator of the quality of education, the student satisfaction that these research attempted to measure is insufficient (Scrabec Jr, 2000). What students can do, how well they can do this, and the quality of their work should also be considered when evaluating the efficacy and quality processes of faculties in all areas (Emery et al., 2001). Higher education institutions have integrated into a student and market-oriented process because of the reduction in public funding for higher education, and the rise in citizen education needs (Tezsürücü & Aybarç Bursalıoğlu, 2013). However, the opportunity to access sufficient knowledge, skills, and talents is the primary goal of education. While evaluating student satisfaction, a culture of innovation and development that aspires to improve educational quality and productivity should be established (Albanese, 1999).

In his research with academics in 6 state universities and 11 foundation universities in Turkey, Atalay (2018) concluded that in establishments where students are treated as customers, academics experience greater pressure than students, particularly in foundation universities. Furthermore, the lecturers lose control over the learning process, and the course materials have become uniform. Limiting academicians' authority and decision-making in educational processes undermines the academic hierarchy and balance since it forces them to compromise their personal autonomy, professional obligations, and standards for academic excellence and education in order to satisfy students (Tasie, 2010; Watjatrakul, 2010). On the other hand, Xiao and Wilkins (2015) found that student happiness is positively impacted by faculty members' attention to students' academic performance and social integration in their study of academics and students in a Chinese educational institution. The evaluation of students as collaborators whose needs will be met (Wallace, 1999; Bay & Daniel, 2001) and the use of a collaborative proactive approach in place of a passive or reactive approach (Bowden, 2011) will help the development of teaching processes. In this context, considering the intellectual and social development objectives anticipated of students as a result of university education, it is necessary to reevaluate the responsibilities and roles of academics, administrative university units, and students. Unlike other industries, the service quality in universities should not only be driven by customer pleasure but also by long-term, carefully thought-out sustainable processes (Yılmaz, 2019).

## 2.5. Student Satisfaction Orientation and Realities in the Concept of Higher Education Quality in the World and in Turkey

In terms of quality in higher education, many institutions determine different evaluation criteria and rank universities in the world. The most prominent of these are listed below.
- Times Higher Education (THE)
- Center for World University Rankings (CWUR)

- Academic Ranking of World Universities (ARWU)
- RUR

Apart from the ones mentioned in this list, there are also different university quality rankings such as LEIDEN, Webometrics, US News & World Report. Evaluation criteria in such international university rankings are shared with the public in a clear and understandable manner. When a general examination is made based on criteria, it is seen that many different types of ranking organizations make quality assessments according to similar criteria. Therefore, looking at the four rankings mentioned above and the criterion for establishing these rankings gives a general idea (Table 1). When the evaluation criteria of these rankings are examined, it is seen that subjects such as education quality, research, academic staff, international diversity, and financial competence come to the fore.

Table 1- The Rankings of University Quality Evaluation Criteria (Times Higher Education, 2022; Round University Ranking)
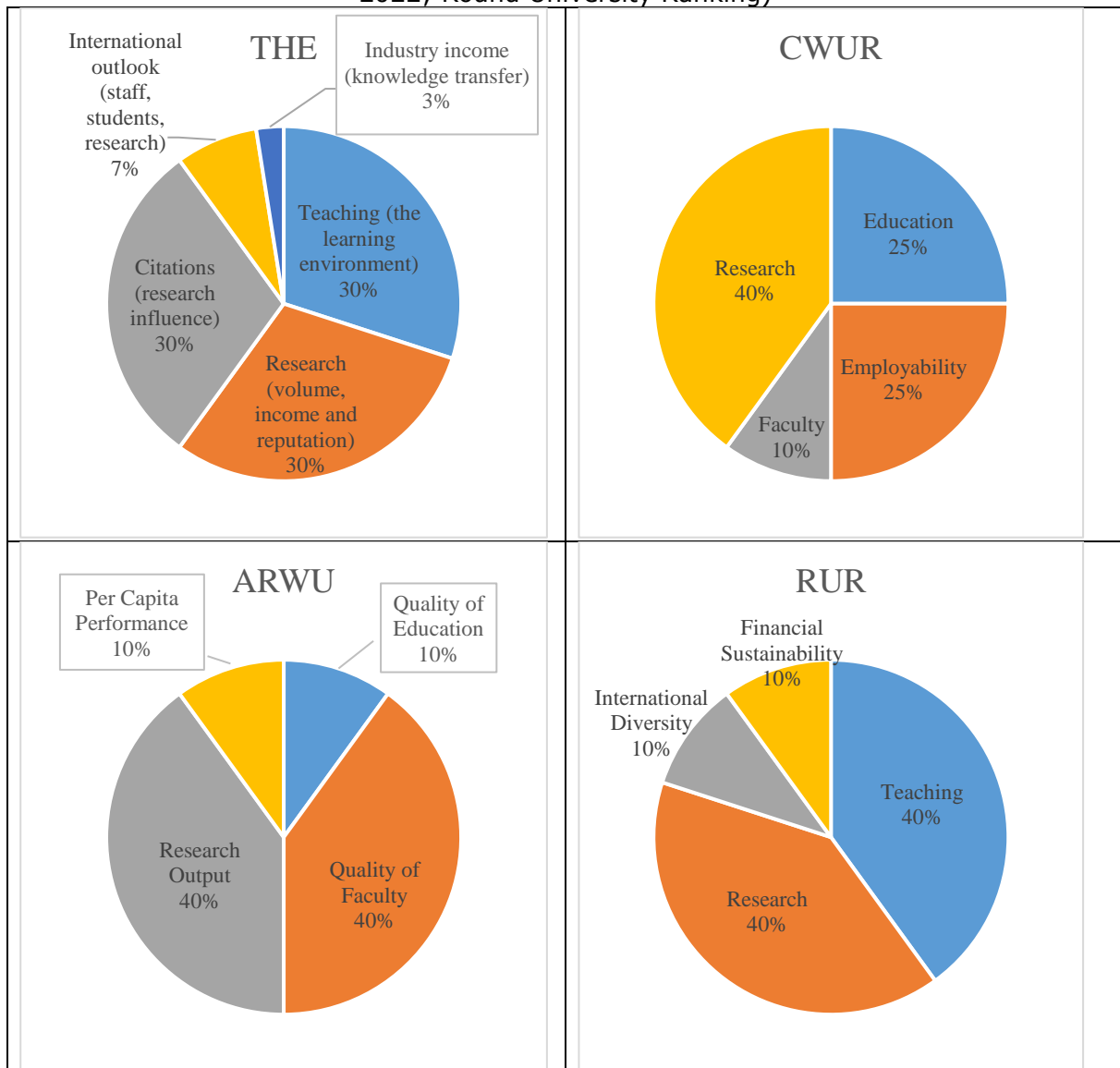


According to the results of the satisfaction survey conducted on higher education students in Turkey, the universities that students are most satisfied with are listed as in Table 2. In addition, the Top Turkish universities in the world rankings and their positions in the student satisfaction survey ranking are also shown in the same table (Table 2). In this context, while Çankaya University is the only and best university in Turkey to be in the top

500 in the world rankings according to THE Ranking's 2022 data, when we examine it in terms of student satisfaction, it is seen that it is one of the universities with the lowest student satisfaction by getting the 'FF' grade. Moreover, some of the top Turkish universities according to the student satisfaction ranking cannot even enter the world rankings whereas the top ten Turkish universities that have taken their place in the world ranking according to THE Ranking 2022 have low student satisfaction degrees such as B, C, D, FF in terms of student satisfaction. Also, there are universities such as Bilkent University, Koç University and Sabancı University that are both high in the student satisfaction survey and have their place in the world rankings. All three of these universities are foundation universities. When the top 11 are listed for both rankings, the number of these universities is limited to only three which corresponds to a rate of 27%. The remaining 73% of the universities that the students are satisfied with and the successful/quality universities in the world rankings do not match.

Table 2- Student Satisfaction Survey of Higher Education Students in Turkey University Ranking vs. THE Ranking Top Turkish Universities in University Rankings (Karadağ & Yücel, 2022; Times Higher Education, 2022)

| TUMA | Student Satisfaction Rankings of Universities in Turkey (TUMA-2022) | THE | THE | World University Rankings– Turkish Universities (THE (Times Higher Education-2022) | TUMA |
|---|---|---|---|---|---|
| 1 (A+) | Abdullah Gül University | Reporter | **401-500** | Çankaya University | 129 (FF) |
| 2(A+) | Bilkent University | 601-800 | **501-600** | Koç University | 11 (A) |
| 3(A+) | Izmir Institute of Technology | +1201 | **501-600** | Sabancı University | 3 (A+) |
| 4(A+) | Yıldız Technical University | 1001-1200 | **601-800** | Bilkent University | 2(A+) |
| 5(A+) | Sabancı University | 501-600 | **601-800** | Hacettepe University | 24(B) |
| 6(A+) | Özyeğin University | 1001-1200 | **601-800** | Istanbul Technical University | 31(B) |
| 7(A+) | MEF University | - | **601-800** | Middle East Technical University | 27(B) |
| 8(A+) | Piri Reis University | - | **801-1000** | Bahçeşehir University | 89(D) |
| 9(A) | Bezmialem Vakif University | 1001-1200 | **801-1000** | Boğaziçi University | 75(C) |
| 10(A) | Acıbadem Mehmet Ali Aydınlar University | - | **801-1000** | Istanbul University-Cerrahpaşa | 55(C) |
| 11(A) | Koç University | 501-600 | **801-1000** | Istanbul Medeniyet University | 82(D) |

Considering that, only a single world ranking may be insufficient to make a comment on the subject, the universities with the highest student satisfaction in Turkey were compared with the 2022 data of CWUR, ARWU, RUR, LEIDEN, Webometrics and US News & World Report, apart from THE Ranking. We see that Abdullah Gül University, which ranked first in the student satisfaction ranking, could not enter the rankings in THE, CWUR, ARWU, LEIDEN and US News & World Report, and ranked 720th in RUR and 3239th in Webometrics. No Turkish university, which is in the top 11 in the student satisfaction survey, could not enter the ARWU Ranking 2022.

Whether student satisfaction is an important criterion for the quality of higher education will be examined by examining the change in the world rankings of Turkish universities over the years, without relying only on 2022 data. For this ranking, THE Ranking data will be used again. For this review, the change in the number of universities in Turkey over the years, the change in the number of universities that entered the top 500-1000 and the change in the rankings of Turkish universities, which are at the top of the rankings will be examined at the first place. While there were 2 universities in the top 500 in Turkey in 2011, the number of universities in the top 500 gradually increased until 2015, reaching up to 6 universities. It decreased to 1 in 2020-2021 and as of 2022, there are no Turkish universities in the top 500 anymore. On the other hand, while there were 177 universities in Turkey in 2011, this number increased to 208 as of 2022. In other words, while there is a qualitative decrease, there is a quantitative increase. This issue cannot be explained only by the increasing number of foundation universities in Turkey and the spread of the student-customer concept. There are other criteria that also contribute to this situation such as budget allocated to research, academic freedom, number of academicians, allocation of academicians based on merit, etc. Other criteria also contribute to this situation. However, whether the student-customer concept increases the quality of education in higher education in Turkey remains a question mark.

## 2.6. Grade Inflation Problem within the Scope of Student Satisfaction

It is possible to evaluate the probable effects of the student satisfaction-oriented higher education model in 4 different situations (Table 3).

Table 3- Possible Effects of Student Satisfaction Surveys in 4 Different Situations

| | Student | Instructor | Status | Course Quality Impact | TQM- Student Satisfaction Questionnaire Impact on the Course |
|---|---|---|---|---|---|
| 1 | Successful (+) | Idealist (+) | Instructor who **has prepared** the content of the course within the framework of international / national qualifications and who **uses** teaching and evaluation methods in accordance with the faculty's instructions versus **successful student** | Neutral-Positive | Satisfied lecturer. Satisfied student. Constructive feedbacks in a way that will enable the course to improve. |
| 2 | Unsuccessful (-) | Idealist (+) | Instructors who **has prepared** the course content within the framework of international/national qualifications and who **uses** teaching and evaluation methods in accordance with the faculty's instructions versus **unsuccessful student** | Negative | Sanctions on the instructor. The instructor needs to develop action to mitigate the course content or assessment criteria. Reduction in the achievement of successful students from the course in case the course content is lightened |
| 3 | Successful (+) | Unqualified (-) | Instructor who **has not prepared** the content of the course within the framework of international / national qualifications and **does not use** coursework and assessment methods in accordance with the instructions of the faculty versus **successful student** | Positive | Sanctions on the instructor. Action development for the improvement of course content. Increase in the achievement of the successful students |
| 4 | Unsuccessful (-) | Unqualified (-) | Instructor who **has not prepared** the content of the course within the framework of international / national qualifications and **does not use** coursework and assessment methods in accordance with the instructions of the faculty versus **unsuccessful student** | Neutral-Negative | Satisfied student, satisfied customer. Undeveloped course content or even lightened |

Student Satisfaction Questionnaires applied within the scope of Total Quality Management within the student-customer concept may have a neutral-positive effect in the first case in terms of education quality, while in the third case, it will most likely have a positive effect in terms of the instructor's correction of the course content and course quality. In the fourth case, student-customer satisfaction will be achieved in the case of an instructor with a lighter course content and an unsuccessful student who already expects light course content to be presented, but a poor result will emerge in terms of course quality and outcomes. While Total Quality Management ensures customer satisfaction which is its primary goal, it will experience a negative situation such as poor-quality graduates in terms of long-term corporate success which is its secondary goal.

In the second combination of table 3, where a highly motivated, idealistic lecturer coincides with the student who is unsuccessful and wants to benefit from the subjective interpretation of the student-customer concept, the feedback system of the TQM directly points out low customer satisfaction. The system involves risk through an existing vulnerability that allows students to remain anonymous while giving low scores and negative comments in the Student Satisfaction Surveys leads to pressure on the lecturer while aiming a student-customer satisfaction.

In this context, after the adoption of the student customer concept, obligating the quality of education to student satisfaction with the logic of company management has led to a remarkable increase in the grade point average (GPA) of the students over the years. For this reason, the subject that will satisfy the students the most is to pass the course and

even pass with a higher grade. Therefore, the instructor does not want to be exposed to the negative evaluations of the dissatisfied customer (student) at the end of the semester, as we have expressed in the 4th situation in table 3. Accordingly, student satisfaction (Figure 1), which can be achieved by revising the grading criteria instead of improving the course content, will cause the university to receive higher scores in all quality inspections made within the scope of student satisfaction. However, it would not be correct to talk about improving the quality of education here.
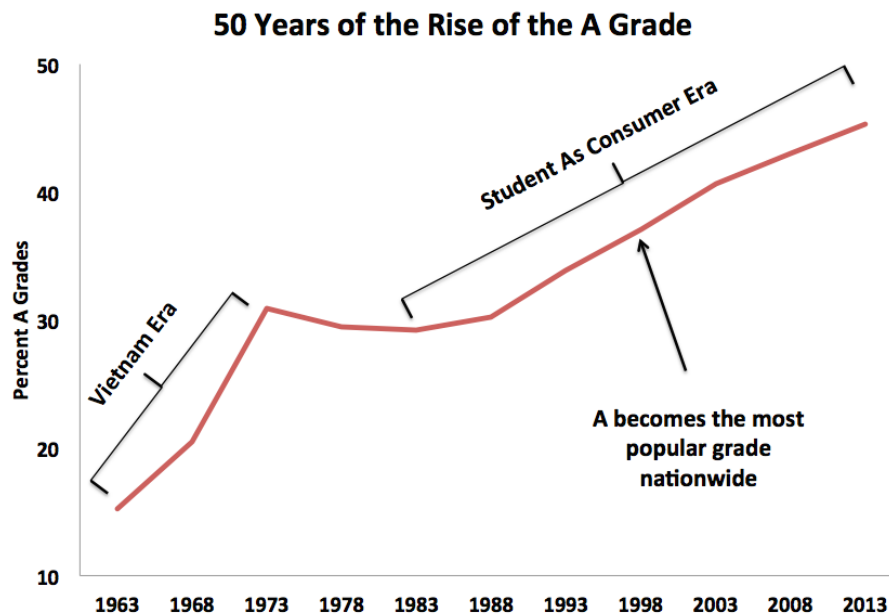


Figure 1- Grade Inflation in US Universities After the Student-Customer Concept (Grade Inflation)

## 2.7. Developed International Criteria for a Quality Interior Architecture Education

International organizations established specifically for the discipline of interior architecture have developed various criteria regarding the conditions under which interior architecture undergraduate education can meet certain minimum requirements. Among these, the criteria of ECIA (European Council of Interior Architects), CIDA (Council of Interior Design Accreditation) and IFI (International Federation of Interior Architects/Designers) were included in this study.

While there are many similarities between the criteria of these three institutions, there is no student satisfaction among the criteria of all. Instead, essentials such as understanding the design process, mastering the international content, mastering the knowledge of light and color, learning structure and materials, furniture, human-centered design, history, design elements and principles are listed with criteria like raising qualified graduates, learning the general need from professionals who provide professional interior architecture services in the market during the determination of the curriculum, including professional interior architects in both the education and curriculum process, the qualification of the graduates to find a job, etc. In fact, the criteria determined by these organizations are the criteria prepared for a quality interior architecture education. In this context, it is necessary to examine the quality in interior architecture departments based on these principles. However, interior architecture education is given in universities where many other disciplines are also taught. Therefore, when universities adopt a general quality policy, all departments within that university adhere to it with no exception.

The 8th Standard, which is Design Process, one of the educational standards determined by CIDA Professional Standards 2022 is the main subject of this study. This standard, which is one of the 13 items in the second part of the standards consisting of 2 parts, related to

the curriculum and course content, is one of the standards expected to learn at the application level, which is the highest level of student learning expectation. One of the most important courses of interior architecture education, Design Studio courses are the most prominent representatives of this standard in the curriculum. Therefore, the quality of the design studio courses for interior architecture education is a very important issue and research needs to be done on it.

## 3.METHOD
Foundation universities established by foundations are implemented by the law to be enacted by the Grand National Assembly of Turkiye. According to Berkman et al. (2009), the legal basis of foundation universities that entered Turkish higher education in 1984 is contained in Article 130 of the Constitution. According to this, 'Higher education institutions subject to state supervision and control can be established by foundations, provided that they are not for the purpose of earning.' The academic organs of foundation universities should be organized and fulfill the same duties as in state higher education institutions, and the qualifications of the teaching staff should be the same as those of the teaching staff in state higher education institutions. This study aims to investigate whether the student-customer paradigm has any effect on the quality of design studio courses in interior architecture education of foundation universities in Turkiye. Accordingly, the research methodology is concerned with questionnaire design and measurement, as well as sampling and data collection methods.

### 3.1. Development of Research Hypotheses and Research Model
Three main hypotheses were developed for this study. The issue of whether these hypotheses were confirmed according to the different characteristics and structures of the participants was also examined in detail in the sub-hypotheses. The main hypotheses are as below:

H1: According to the instructors who teach in interior architecture departments, the student-customer concept affects the quality of the design studio course in Turkiye.
H2: Student satisfaction surveys in design studio courses are effective on instructors in Turkiye.
H3: Student-customer concept in design studio courses affects the design studio course quality due to the impact of student satisfaction surveys on instructors in Turkiye.
Research model of this research is as Figure 2.
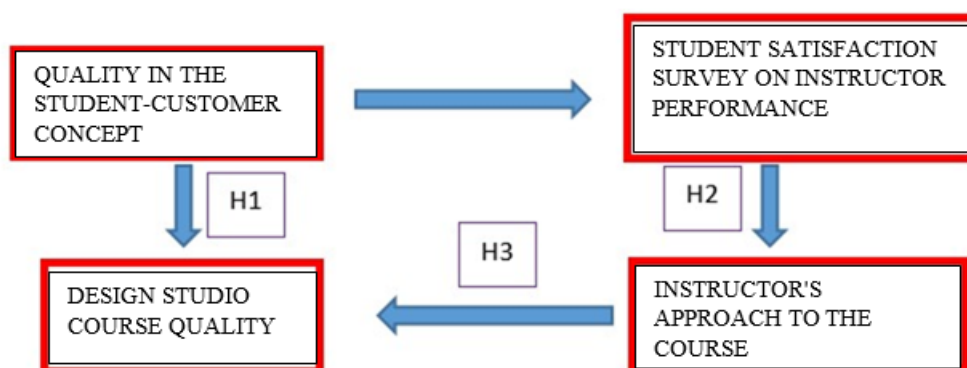


Figure 2- Research Model

### 3.2. Universe of the Study
For this study, all the lecturers who teach design studios in the interior architecture/ interior architecture and environmental design departments of foundation universities in Turkiye are considered as the targeted population. In this context, the universe of the study is 502 academicians for the date of October 2022.

## 3.3. The Study Group

In scale development studies, when the literature is examined, it is seen that the sample size should be at least 4-10 times the number of items in the developed scale (Nunnally, 1978; Harren et al., 1979; Şencan 2005). In this direction, the sample of the research consists of 100 people in order to apply the exploratory factor analysis (EFA) during the development phase of the scale consisting of 21 items. The KMO-Bartlett test was used to determine the adequacy of the sample size in the study. According to the results of the KMO-Bartlett test ($p<0.05$), the sample size was found to be sufficient for factor analysis. Then, 81 people were formed to apply the confirmatory factor analysis (CFA) of the study. As a result, the data of a total of 181 people, 100 for EFA and 81 for CFA, of the Scale for Measuring the Effect of the Student-Customer Concept on the Quality of Design Studio Courses in Interior Architecture Education were used. The distribution of 181 people in the study group according to demographic information is given in Table 4.

Table 4- Distribution of the Study Group by Demographic Information

| Factor | Category | EFA GROUP | | CFA GROUP | |
|---|---|---|---|---|---|
| | | f | % | f | % |
| Gender | Male | 25 | 25,0 | 23 | 28,4 |
| | Female | 75 | 75,0 | 58 | 71,6 |
| | Total | 100 | 100,0 | 81 | 100,0 |
| Academic Title | Assoc.Prof. | 6 | 6,0 | 6 | 7,4 |
| | Asst.Prof. | 42 | 42,0 | 31 | 38,3 |
| | Part time Lecturer | 19 | 19,0 | 19 | 23,5 |
| | Lecturer | 25 | 25,0 | 17 | 21,0 |
| | Prof. | 8 | 8,0 | 8 | 9,9 |
| | Total | 100 | 100,0 | 81 | 100,0 |
| Undergraduate Department | Int.Architecture&Env. Design | 46 | 46,0 | 36 | 44,4 |
| | Architecture | 50 | 50,0 | 41 | 50,6 |
| | Architecture + Int.Architecture (Double M.) | 1 | 1,0 | 1 | 1,2 |
| | Landscape Architecture | 3 | 3,0 | 3 | 3,7 |
| | Total | 100 | 100,0 | 81 | 100,0 |
| Studio Lecturing (Years) | 0-2 years | 26 | 26,0 | 20 | 24,7 |
| | 3-6 years | 28 | 28,0 | 20 | 24,7 |
| | 7-10 years | 21 | 21,0 | 21 | 25,9 |
| | 11 years or more | 25 | 25,0 | 20 | 24,7 |
| | Total | 100 | 100,0 | 81 | 100,0 |

## 3.4. Questionnaire Design and Measures

For this research, a previously produced suitable scale could not be found. For this reason, it has been developed and used the Scale for Measuring the Effect of Student-Customer Concept on the Quality of Design Studio Courses in Interior Architecture Education. The developed scale was created in a 5-point Likert type format. The degree of agreement of the individuals was determined as Strongly Disagree (1), Disagree (2), Moderately Agree (3), Agree (4), Strongly Agree (5).

Using the data obtained from an in-depth literature review, an item pool consisting of 22 items was created. We ensured that the questions in the created item pool were clear and understandable by the study group. Then, to get the opinions about the study, the researchers have reach 2 professors via MS. Teams both specialized in interior architecture education, one from a state and one from a foundation university in Turkiye whom are also in administrative and teaching positions such as the dean of fine arts and architecture faculty and the head of interior architecture department. Moreover, face to face meetings were held with a doctoral faculty member whose area of expertise is the quality management at foundation universities. As a result of these interviews, an item pool of 22 statements was created and these items were conveyed to 8 field experts and 3 assessment-evaluation experts. Experts were asked to choose one of the 'necessary', 'inadequate' and 'unnecessary' options for each of the items and to write comments if necessary. In order to provide evidence for the content validity of the scale, which was developed in line with expert opinions, the Content Validity Rate (CVR) was calculated for

all individual items and for the overall scale. Information about the calculations made is given in Table 5.

Table 5- Content Validity Rate

| Item Number | Necessary | Inadequate | Unnecessary | CVR | Item Number | Necessary | Inadequate | Unnecessary | CVR |
|---|---|---|---|---|---|---|---|---|---|
| I-1 | 12 | 0 | 0 | 1 | I-12 | 12 | 0 | 0 | 1 |
| I-2 | 11 | 1 | 0 | 0,917 | I-13 | 12 | 0 | 0 | 1 |
| I-3 | 11 | 1 | 0 | 0,917 | I-14 | 12 | 0 | 0 | 1 |
| I-4 | 11 | 1 | 0 | 0,917 | I-15 | 11 | 0 | 1 | 0,917 |
| I-5 | 11 | 1 | 0 | 0,917 | I-16 | 11 | 1 | 0 | 0,917 |
| I-6 | 10 | 1 | 1 | 0,833 | I-17 | 11 | 1 | 0 | 0,917 |
| I-7 | 11 | 1 | 0 | 0,917 | I-18 | 12 | 0 | 0 | 1 |
| I-8 | 10 | 2 | 0 | 0,833 | I-19 | 12 | 0 | 0 | 1 |
| I-9 | 12 | 0 | 0 | 1 | I-20 | 11 | 1 | 0 | 0,917 |
| I-10 | 10 | 1 | 1 | 0,833 | I-21 | 11 | 0 | 1 | 0,917 |
| I-11 | 9 | 3 | 0 | 0,75 | I-22 | 11 | 0 | 1 | 0,917 |
| Overall CVR= 0,924 | | | | | | | | | |

When the content validity rates calculated in line with the opinions of the experts in Table 5 are examined, it is seen that the general content validity rates of all items and the scale are above 0.70. These values are proof of the content validity of the scale (Lawshe, 1975; McGartland et al., 2003). Although the content validity rates of the items were high in line with expert opinions, it was decided to remove 1 item from the scale because of the joint recommendation of all experts, and the other procedures were continued on 21 items.

### 3.5. Ethical Approval
Before applying the survey study, which is the study method, with the decision of Antalya Bilim University Social and Human Sciences Scientific Research and Publication Ethics Committee dated 07.12.2022 and numbered 2022/57, the responsibility for the method and scale of the study in terms of intellectual, law and copyright belongs to the applicant was decided unanimity as ethically appropriate to apply during the study.

### 3.6. Data Collection
This study is based on the results of a Google Forms questionnaire survey sent to instructors. E-mail with a link to Google Forms was sent to the instructors.

### 3.7. Analysis of Data
Data entries were provided to the SPSS 24 package program by giving the subject number of the scales applied by the researchers. There was no data that was marked as incorrect or missing. It is seen that there are no extreme values in the data collected for EFA.

Exploratory factor analysis was used to reveal the factor structure of the scale and confirmatory factor analyzes were used to determine the accuracy of the factor structure. Exploratory factor analysis and difference analyzes were performed using the SPSS 24 program and confirmatory factor analysis was performed using the AMOS GRAPHICS 21 program. The reliability, validity, EFA and CFA studies of the scale were also applied. Content validity and construct validity were used to test the validity of the scale. Content validity was provided by including expert opinions and calculating the content validity ratio, and construct validity was achieved by applying factor analysis and KMO and Bartlett tests. In order to confirm the factor structure of the scale, data were collected from a second group and Confirmatory Factor Analysis was performed. For the reliability of the scale, Cronbach Alpha was calculated and interpreted. In order to examine whether the scores obtained from the scale and its sub-dimensions differ in terms of demographic variables, first of all, normality tests were examined on the basis of both general and subgroup scores, and it was seen that the data did not show a normal distribution. It was decided to use the Mann Whitney U test for difference analyzes consisting of two subgroups and the Kruskal Wallis H test for difference analyzes consisting of more than two subgroups.

## 4.FINDINGS AND DISCUSSIONS

### 4.1. Exploratory Factor Analysis Results of the Scale for Measuring the Effect of the Developed Student-Customer Concept on the Quality of Design Studio Courses in Interior Architecture Education

Before applying the exploratory factor analysis to determine the factor structure of the developed scale, Kaiser-Meyer-Olkin (KMO) and Bartlett's Sphericity Test were conducted to test the suitability of the sample size for factorization. Kaiser-Meyer-Olkin (KMO) and Bartlett's Sphericity Test results are presented in Table 6.

Table 6- KMO and Bartlett's Test Results

| KMO and Bartlett's Tests | | |
|---|---|---|
| Kaiser-Meyer-Olkin | | ,735 |
| Bartlett's Test of Sphericity | Chi-Square | 1017,243 |
| | Degrees of Freedom | 210 |
| | p | ,000 |

When Table 6 is examined, it is seen that the KMO value of the 100-person study group was found to be 0,735 and this value was 'sufficient' (Şencan, 2005). It is seen that the sample size suggested by Kline (2015) which should be 4-10 times the number of items, the scale we have provides that with 100 people. In line with these findings, it is seen that the data structure is suitable for factorization in terms of sample size. In addition, when the results of Bartlett's Sphericity Test were examined, it was seen that the obtained chi-square value was significant ($\chi^2=1017.243$; $p<0,05$). In this context, it is accepted that the available data come from a multivariate normal distribution. The significant calculation of the Bartlett test shows that there are high correlations between the variables. Principal component analysis was used as factorization method and varimax (maximum variability) method was used as rotation method to reveal the factor pattern of the scale. While deciding on the number of factors, the contributions of each component to the total variance were evaluated. In the exploratory factor analysis, which was performed to reveal the factor pattern of the scale, the acceptance level for factor loading values was determined as 0,40 (Tabachnick & Fidell, 2001).

At the first stage, when the items with a 4-factor structure are evaluated in terms of whether the overlap and factor load values meet the acceptance level, 4 items (items 2, 7, 15 and 16) and 6 items (6, 9, 10, 11, 14 and 21) are evaluated. It was found to have a factor load below the acceptance value of 0,40. Since the remaining items were collected under 2 factors, the analysis was repeated with 11 items with 2 factors.

When the eigenvalues and the total variance explained after the rotation according to the values are examined, it is seen that the eigenvalue of the first factor is 4,182, the contribution of the factor to the total variance is 38.015%, the eigenvalue of the second factor is 2,814, and the contribution of the factor to the total variance is 25.585%. This scale, which has a two-factor structure, explains 63.60% of the variance related to the structure in question. In multifactorial designs, it is considered sufficient that the explained variance is between 40% and 60% (Büyüköztürk, 2007; Tavşancıl, 2005). It is seen that the contribution of a factor defined in this framework to the total variance is sufficient. The values related to the factor pattern and factor load values of the scale are given in Table 7.

Table 7- Rotated Factor Pattern of the Scale

| Items | 1st Factor | 2nd Factor |
|---|---|---|
| I-17 Student satisfaction surveys applied for design studio courses in my institution create stress and pressure on me during jury grade evaluation. | ,871 | - |
| I-19 In my institution, the general complaints of the students for the design studio courses create stress and pressure on me during the jury grade evaluation. | ,855 | -,108 |
| I-18 In my institution, the grade objections made by the students for the design studio courses create stress and pressure on me during the jury grade evaluation. | ,839 | - |
| I-13 In my institution, I can reduce the passing criteria in order to ensure student satisfaction in design studio courses. | ,756 | - |

| | | |
|---|---|---|
| I-12 In my institution, I lighten the course content in order to ensure student satisfaction in design studio courses. | ,704 | - |
| I-8 In my institution, the relationship between the student and the educator in the design studio course has turned into a customer-staff relationship. | ,672 | -,124 |
| I-20 In the design studio courses, I was expected to develop an action for the "negative evaluations" in the student satisfaction surveys by the institution I worked for. | ,637 | - |
| I-4 The quality of the design studio course in the institution I work for is measured by the compliance of the course method with the design studio course instruction prepared by the faculty/department. | - | ,928 |
| I-5 The quality of the design studio course in my institution is measured by the compliance of the jury grade evaluation process with the design studio course instructions prepared by the faculty/department. | - | ,894 |
| I-3 The quality of the design studio course in the institution I work for is measured by the compliance of the subject and scope of the design studio courses with the design studio course instructions prepared by the faculty/department. | - | ,889 |
| I-1 The quality of the design studio course in the institution I work for is measured by whether the students have reached the level of 'knowledge, skill and competence' specified in the Turkish Qualifications Framework (TYYÇ/TQF). | -,245 | ,560 |

When Table 7 is examined, it is said that the factor load values of the 11-item scale with a two-factor structure vary between 0,560-0,928 and these values will be interpreted as perfect. When the factor loading values are analyzed separately for each factor, it is seen that it varies between 0,637 and 0,871 for the 1st factor and between 0,560 and 0,928 for the 2nd factor. When factor loading values are analyzed in terms of magnitude, it is possible to characterize the load values from 'good' to 'very good' (Comrey & Lee, 1992).

Since only 11 of the 22 items determined in accordance with the literature review and expert opinions have validity and reliability as a result of factor analysis, we have continued the study with the final version of the 11-item scale.
1st Hypotheses: I-1, I-3, I-4, I,5
2nd Hypotheses: I-8, I-17, I-18, I-19
3rd Hypotheses: I-12, I-13, I-20

## 4.2. Reliability Results of the Developed Scale
The Cronbach alpha internal consistency coefficients calculated to determine the reliability of the scores obtained from the groups collected for the exploratory and confirmatory factor analysis of the developed scale are given in Table 8.

Table 8- Cronbach Alpha Internal Consistency Coefficients

| | EFA Group | | | CFA Group | | |
|---|---|---|---|---|---|---|
| | Total Scale | 1st Factor | 2nd Factor | Total Scale | 1st Factor | 2nd Factor |
| Cronbach Alfa coefficient | 0,770 | 0,880 | 0,841 | 0,760 | 0,876 | 0,824 |
| Number of Items | 11 | 7 | 4 | 11 | 7 | 4 |

## 4.3. Discussion
In this section, the results of the questionnaire applied to the faculty members in order to understand the effects of the student-customer concept on the quality of design studio courses in interior architecture education in Turkiye are included. Each item evaluated in the questionnaire was explained one by one.

*I-1*: The responses of the instructors participating in the study to the scale items were examined one by one. The analysis started with the four items in Factor 1. 33 (51.7%) of the female instructors, 7 (30.4%) of the male instructors, and 40 (49.3%) of the participants in general, evaluated the quality of the design studio course in the institution they work for, stated that the quality was measured by whether the students have reached the level of 'knowledge, skill and competence' according to Turkish Qualifications Framework (TYYÇ/TQF). 8 of the female instructors (13.7%), 6 of the male instructors (26%) and 14 of the participants in general (17.2%) evaluated the quality of the design studio course in the institution they work for, stated that the quality was not measured by whether the students have reached the level of 'knowledge, skill and competence' according to Turkish Qualifications Framework (TYYÇ/TQF). Turkish Qualifications Framework (TYYÇ/TQF) is quite important. In this case, the fact that half of the participating instructors state that these criteria are also important in the institution they

work. It is positive for the quality of interior architecture education, and it is thought that increasing these rates in the coming years will significantly increase the quality of education.

***I-3:*** 45 (77.5%) of female lecturers, 18 (78.2%) of male lecturers and 63 (77.7%) of respondent's overall stated that the quality of the design studio courses in the institution where they work, the subject and scope of the design studio courses are measured by the compliance with the design studio course instruction prepared by the faculty/department. 5 (8.6%) of the female lecturers, 3 (13%) of the male lecturers and 8 (9.8%) of the participants in general stated that the quality of the design studio courses in the institution they work, the subject and scope of the design studio courses are not measured by the compliance with the design studio course directive prepared by the faculty/department.

***I-4:*** 46 (79.3%) of the female faculty members, 18 (78.2%) of the male faculty members and 64 (79%) of the participants in general stated that the quality of the design studio courses in the institution they work for is measured by the compliance of the course method with the design studio course instruction prepared by the faculty/department. 4 (6.8%) of the female lecturers, 4 (17.3%) of the male lecturers and 8 (9.8%) of the participants in general stated that the quality of the design studio course in the institution they work for is not measured by the compliance of the course method with the design studio course instruction prepared by the faculty/department.

***I-5:*** 47 (81%) of female lecturers, 15 (65.2%) of male lecturers and 62 (76.5%) of the participants in general stated that the quality of the design studio course in the institution they work for is measured by the compliance of the jury grade evaluation process with the design studio course instruction prepared by the faculty/department. 5 (8.6%) of the female lecturers, 4 (17.3%) of the male lecturers and 9 (11.1%) of the participants in general stated that the quality of the design studio courses in the institution they work for, is not measured by the compliance of the jury grade evaluation process with the design studio course instruction prepared by the faculty/department.

***I-8:*** The examination continued with the seven items in the 2nd Factor. 9 (15.5%) of the female faculty members, 5 (21.7%) of the male faculty members and 14 (17.2%) of the overall participants stated that the relationship between the student and the educator in the design studio course in the institution they work for has turned into a customer-staff relationship. 41 (70.6%) of the female lecturers, 14 (60.8%) of the male lecturers and 55 (67.9%) of the participants in general stated that the relationship between the student and the educator in the design studio course in the institution they work for did not turn into a customer-staff relationship.

***I-12:*** 7 (12%) of the female lecturers, 1 (4.3%) of the male lecturers and 8 (9.8%) of the participants in general stated that they lightened the course content to ensure student satisfaction in the design studio courses in the institution they work for. 46 (79.3%) of the female faculty members, 18 (78.2%) of the male faculty members and 64 (79%) of the participants in general stated that they did not lighten the course content to ensure student satisfaction in the design studio courses in the institution they work for.

***I-13:*** 8 of the female faculty members (13.7%), 4 of the male faculty members (17.3%) and 12 of the participants in general (14.8%) stated that they reduced the passing criteria to ensure student satisfaction in the design studio courses in the institution they work for. 44 (75.8%) of female lecturers, 15 (65.2%) of male lecturers and overall 59 (72.8%) of the participants stated that they did not reduce the passing criteria to ensure student satisfaction in the design studio courses in the institution they work for.

***I-17:*** 14 of the female lecturers (24.1%), 2 (8.6%) of the male lecturers and 16 (19.7%) of the participants in general stated that the student satisfaction surveys applied for the

design studio courses in the institution they work for created stress and pressure on them during the jury grade evaluation. 37 (63.7%) of the female faculty members, 19 (82.6%) of the male faculty members and 56 (69.1%) of the participants in general stated that the student satisfaction surveys applied for the design studio courses in the institution they work did not create stress and pressure on them during the jury grade evaluation.

***I-18:*** 23 (39.6%) of the female lecturers, 4 (17.3%) of the male lecturers and 27 (33.3%) of the participants in general stated that the grade objections made by the students for the design studio courses in the institution they work for created stress and pressure on them during the jury grade evaluation. Thirty (51.7%) of the female faculty members, 14 (60.8%) of the male faculty members and 44 (54.3%) of the participants in general stated that the grade objections made by the students for the design studio courses in the institution they work did not create stress and pressure on them during the jury grade evaluation.

***I-19:*** 23 (39.6%) of the female faculty members, 5 (21.7%) of the male faculty members and 28 (34.5%) of the participants in general stated that the general complaints of the students for the design studio courses in the institution they work for create stress and pressure on them during the jury grade evaluation. 33 (56.8%) of female lecturers, 14 (60.8%) of male lecturers and 47 (58%) of the participants in general stated that the general complaints of the students for the design studio courses in the institution they work for did not create stress and pressure on them during the jury grade evaluation.

***I-20:*** 13 (22.4%) of female lecturers, 3 (13%) of male lecturers, and 16 (19.7%) of all participants stated that they were expected to develop actions for "negative evaluations" in student satisfaction surveys by the institution for which they work in design studio courses. In the design studio courses, 38 (65.5%) of the female lecturers, 14 (60.8%) of the male lecturers, and 52 (64.1%) of the participants in general stated that they were never expected to develop actions for the "negative evaluations" in the student satisfaction surveys by the institution for which they work.

## 5. CONCLUSION
As a result of the study, it has been discovered that the quality of interior architecture education in Turkiye is controlled by subjects such as TYYÇ/TQF and faculty guidelines, rather than being focused on student satisfaction, and is dependent on these parameters. This situation is also reflected in interior design education in Turkiye. In this context, all three main hypotheses developed for this study were rejected. On the other hand, a sizable number of instructors, though not the majority, believe that the student-customer concept degrades the quality of the design studio course. They also stated that the course quality suffered because of this concept affecting them.

To be placed into undergraduate programs in Turkiye, students must reach a certain level of success in the 'student placement tests' which are conducted under the responsibility of the governmental institution 'YÖK/CoHE'. Students in interior architecture departments are mostly required to answer math and science questions while students in interior architecture and environmental design departments are mostly required to answer math and Turkish questions. However, a substantial number of students is unable to correctly answer any of these questions. Accordingly, it can be said that the quality of students being placed in interior architecture departments has been declining. In addition, since there is no score threshold or an aptitude examination for interior architecture departments, any student can be placed in the departments regardless of interest, relevance and skill. In order to protect the future of the profession in Turkiye, the instructors should be able to achieve a certain education quality in the courses even this may be found irritating by students who are academically unsuccessful.

The decrease in the success of the students being placed in these departments, particularly in the last 1-2 years, may have increased the number of lecturers who believe that the student-customer concept has a negative impact on the quality of the course. Besides, because the exams in design and application-oriented departments, such as interior architecture, are based on a jury system and there are no definite results, such departments are more vulnerable to negative effects from the student-customer concept. Therefore, if no precautions are taken, this concept may have a negative impact on the interior architecture culture, particularly in Turkiye. This study must be repeated in the coming years to track the changes in Turkiye's interior architecture education culture. The research is limited to the effect of the student-customer concept on interior architecture education of foundation universities in Turkey. For future studies, it is recommended to apply the developed scale in different fields of education and in different countries.

**CONFLICT OF INTEREST**
No potential conflict of interest was reported by the author(s).

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