Research Article GU J Sci, Part B, 11(1): 169-180 (2023)

Gazi University

Journal of Science

PART B: ART, HUMANITIES, DESIGN AND PLANNING

http://dergipark.gov.tr/gujsb

Embedding Inclusive Design Knowledge into the Learning Process in Architectural Education

İlkay DİNÇ UYAROĞLU[1,*]

[1] *0000-0002-1199-355X, Ostim Technical University, Faculty of Architecture and Design*

Article Info

Received: 16/03/2023
Accepted: 26/03/2023

Keywords

Architectural education, Inclusive Design, Learning method, Design thinking, Awareness

Abstract

Teaching Inclusive Design (ID) philosophy in architectural education is very important since architects have major roles in (re)shaping the physical environment towards a more inclusive one. Herein, how to teach the design process with the ID approach remains an important issue. Although ID is constantly emphasized in theory and codes, its rights-based approach is lacking in architectural practices. It is still not handled at the level and scope it deserves in architectural education. Increasing the level of knowledge and awareness of architecture students at the point of inclusivity by spatial design can turn into a process that leads to the creation of original ID solutions. In this framework, the study aims to evaluate the effectiveness of five learning methods- (1)film analysis, (2)critical discourse, (3)analysis of users' experiences, (4)case study analysis, (5)spatial analysis by comparison- in terms of the increase of ID knowledge and awareness for architecture students. The students' viewpoints about their efficiencies are analysed through qualitative and quantitative methods which are content analysis and questionnaires respectively. This analysis aims to address at which level the learning methods enhance the increase of knowledge, awareness, and thereby creativity of students in design thinking to create 'real' inclusive buildings and public spaces. In conclusion, strategies for embedding ID knowledge into the learning process in architectural education are proposed. The result of the study highlights that ID needs to be conceptualized based on a right-based and democratic approach and in this way, holistically integrated into the education curriculum in multiple and various ways.

1. INTRODUCTION

"The greatest enemy of knowledge is not ignorance. It is the illusion of knowledge."
Stephen Hawking

The creation of equitable, liveable, and sustainable living environments which contribute to the sustainable development of cities and community life is today's most important issue. The discipline of architecture has great responsibilities at this point. Heylighen, in her study in which she deals with the role and importance of knowledge in the design and construction of a sustainable and inclusive environment, emphasizes that both concepts are considered separately but they are intertwined in many ways [1]. Built environments that offer equal opportunities for all community members can be sustainable and vice versa. In addition to environmental values, social dimensions should also be successfully addressed [2]. In this holistic view, comprehending the nature of human activities and experiences in spaces is important to understand what a spatial environment should involve and integrate for full physical and social inclusion for every member of the community [3].

If the adoption of sustainability and inclusivity in architecture is to be improved, the real challenge seems to be the need to use available knowledge more effectively rather than the need to generate more knowledge

* Corresponding author: ilkay.dincuyaroglu@ostimteknik.edu.tr

(p. 531) [1]. This idea raises an important issue regarding 'design thinking' [2] while evaluating the architectural design process, current architectural practices, and monitoring and controlling spaces.

Providing equitable access for all community members is not a difficult task. There are no extra needs. An intellectual vision of inclusivity that will appeal to all segments of society in a simple way can answer this need. It should be based on a right-based design approach that celebrates diversity among people so that it can provide equal opportunities for every member of society [4]. This tends to be adopted as 'inclusivity' being integrated into the 'design thinking' process and social life on a larger scale, which the Inclusive Design (ID) philosophy is based on. Inclusive Design is a design concept that has mainly appeared in the UK from collaborations between researchers, designers, educators, and industry [2]. Clarkson et al. define ID as follows:

> "It constitutes a framework and growing body of practice within which business decision-makers and design practitioners can understand and respond to the needs of diverse users, with the ultimate aspiration of developing products and services that can meet the needs of the whole population within the context of a consumer society… The focus is not on age or disability, although these are very important issues, but on inclusivity at a social level, and achieving that through a range of products and services that together accommodate the whole population without stigma." (p. 10) [2]

According to this definition, ID is a concept that aims to meet the various needs of society with a democratic approach and requires a collaborative working environment including community participation during the design, implementation, utilization, and monitoring process [3, 4]. In architecture, this significantly requires the dominance of a contextual- site-specific- design approach in every aspect. More specifically, it is essential that the adaptation of the existing design standards to that place/space is considered at the optimum level within the design and application decisions. It is vitally important to focus on the effective and efficient maintenance and development of the monitoring system in architectural design and practice, which has been put forward within the framework of legal documents, especially technical design standards [5]. At this point, it is important to consider design codes as a guiding document that contributes to the design process [6].

Why are architects still far from adopting an ID approach in the design process? is still a critical question to create a welcoming public life for all community members. One of the main reasons for this is the lack of knowledge and awareness about ID and its importance [1]. Therefore, this study aims to answer the following questions: How can the boundaries be dissolved to integrate ID philosophy into the learning process in architectural education? Which learning tool(s) can contribute to this process?

At this point, it is important for the students to fully understand the wide spectrum of spatial experiences, internalize the knowledge and increase their awareness of the importance of the crucial necessities for equitable access to spaces [7, 8]. Intellectual perspective and the internalization of this necessity are of great importance in the creation of liveable environments for all. It could help to use ID knowledge in a holistic way in architectural design. This study touches on the importance of architectural education in terms of successful applications of the concept of *inclusivity* in architectural design. Thus, it discusses ways to increase the level of inclusive design knowledge and awareness within the architectural education curriculum. In this context, the learning methods covered within the scope of the "Inclusive Design in Architecture" course conducted by the author at the Department of Architecture at Atılım University in the Spring semester of 2020 will be evaluated. It is primarily aimed to increase knowledge and awareness of ID philosophy by using different methods and preparing the base for the (re)production of knowledge for different design problems. The method of the study is based on a mixed method strategy including qualitative and quantitative means. While the qualitative method is founded on the content analysis made by the utilization of the students' assessments and comments during in-class discussions, the quantitative one involves the survey- questionnaires- applied after they graduated.

2. INCLUSIVITY in/by DESIGN

Throughout history, architectural design has been handled over the "normal", "healthy", and "average" human body (p. 3) [2]. However, the physical, social, psychological, and emotional characteristics of each individual are different from each other; therefore, the implementation of architectural design with a universal body focus cannot create spaces that offer equal opportunities to everyone [9]. For this reason, as societies develop, it has been given importance how to meet individual differences in architecture with an inclusive design approach on the basis of human rights issues. It is, indeed, an ethical issue for the discipline of architecture. Especially the Civil Rights Movement, the foundations of which were laid in the 50s and 60s, and the Disability Rights Movement developed within this environment are the most common efforts for an equitable life [10]. In the 1980s, right-based approaches and movements that emphasized architectural requirements from a social point of view came to the fore. At this point, the Social Model forms the basis of today's disability understanding on the right-based emphasis [10]. Accordingly, it is highlighted that discriminative situations experienced by people with disabilities stem from social, behavioral, organizational, and architectural barriers beyond impairments of the human body. According to the International Classification of Functioning, Disability and Health (ICF) made by the World Health Organization (WHO) in 2002; disability is expressed as a part of being human [11]. The Inclusive Design approach, which is the subject of the study, sits on the same perspective as the Social Model and ICF.

While discussing the methods of handling the concept of *inclusivity* in architecture, the design should be holistically discussed in building-city interactions [12], building-close environment/ neighbourhood relationships [5], and architecture-landscape interactions [13]. All these relationships should be dwelled on for enhancing inclusive buildings, open public spaces, streets, and overall accessible cities for all. The inclusive design concept is at the centre of all these architecture and urban discussions.

There are comprehensive technical design standards and codes related to accessibility, studies on the ID philosophy and its architectural parameters, and good examples within both architectural design and practice. These are necessary sources to create more inclusive spaces, but it should be noted that considering local needs adequately and bringing local solutions to any discriminatory architectural situation is vital to ensure ‘real’ spatial inclusiveness. It is the duty of local governments to ensure equitable access to urban public spaces for everyone. At this point, stakeholders such as the users in the neighbourhood, residents of the neighbourhood, administrative units, neighbourhood associations, and non-governmental organizations should be able to direct the design, implementation, and control by taking part in this process [5]. From all these perspectives, it is emphasized that handling the concept of *inclusivity* in design education will support creativity in designing a spatial environment with a user-oriented perspective [14]. The Inclusive Design concept has the potential to help students and professionals understand user capabilities, demands, and requirements [3].

Inclusive design requires an approach beyond spatial governance. In other words, it is essential to evaluate, interpret, review, and apply technical design knowledge within the framework of the inclusive design idea, rather than an approach that focuses on solely knowing and applying technical standards. Ensuring *inclusiveness* in the built environment is possible by successfully addressing the ergonomic and anthropometric dimensions as well as creativity, originality, and aesthetic dimensions.

2.1. Inclusive Design Learning

There is a definite need for perceiving, scrutinizing, and constructing the culture of changing world in architectural design. This is also an ever-debated topic for architectural education since 'stakeholders', 'society', 'culture', 'space', and 'material'- the basic components of the design studio- change or transform with its new conceptualizations by the dynamics of the changing world [15]. All these contexts need holistic assessments and comprehension because each component affects other components like the links of a chain. Thus, inclusive design learning should be integrated into the overall design studio culture of the architecture

department. The ID learning goal integrated into the curriculum for one or more courses does not seem sufficient in this manner. The inclusive design philosophy taught in one course should permeate the knowledge contained in the content of all courses – especially design studios [7]. The lack of knowledge and awareness about inclusive design should be holistically addressed in the curriculum of architecture departments [8].

The subject in which studies in the literature focusing on teaching the ID approach in architectural education has been addressed by conducting the learning process with mixed, multiple, and holistic methods [16, 17]. Diverse ways of understanding the relationships between a person with diverse (dis)abilities and the built environment can open new directions for critical evaluations and thereby inclusive design solutions [18]. Through collective discussions with multiple uses of teaching/learning tools, students might become aware of unfamiliar unrecognized, and unpredictable spatial experiences and features [19, 20]. There are many studies on various learning methods in the literature. The methods are particularly built upon experimental works involving user participation [18], empathy [17] and multisensory [20] ways of learning experiences. Since this study was carried out during the COVID-19 pandemic period, it focuses on various learning methods discussed in the theoretical framework.

Looking at the contextualization of inclusive design thinking in architectural education to the extent it deserves can contribute to embedding inclusive design knowledge into the design in a more appropriate and creative way. Hitch expresses that it would be valuable for architecture students to carry out a follow-up or longitudinal study to examine the application and retention of inclusive design knowledge, as follows:

> "It would be valuable for future studies to include a qualitative aspect that would allow for greater in-depth understanding of architecture student attitudes to universal design in the longer term, particularly post-graduation and in the context of professional practice." [21]

2.2. Strategies for In-depth Learning

For the formation of inclusive architectural spaces, architects are expected to have knowledge of technical, social, environmental, ergonomic, cultural, and economic aspects in relation to the 'place' and to be able to apply this knowledge with a holistic and adaptive approach during the design and implementation process. Architectural education should prepare students for the creation of democratic spaces by gaining multidimensional knowledge and transferring this knowledge to architectural design and practice. Democratic spaces are inclusive places that offer equitable opportunities for everyone. It is important that the philosophy of Inclusive Design is handled with an integrated approach in architectural education [22]. It is extremely important to internalize the knowledge and increase the awareness of the subject beyond the approach based on the transfer of pure knowledge in the curriculum [20]. The most important parameters for founding inclusive built environments are based on the intellectual system and the 'design thinking' in dwelling on architectural design, practice, and control processes [5]. For Rowe, the nature of the problem-solving process in the architectural design itself forms the solution through wider dialogues about the nature of architecture [23]. He emphasizes that the organization and administration of professional activities, which are often not mentioned, have a crucial role in what the end product will be by greatly affecting the design process [23].

Still not being able to create accessible environments is due to very complex reasons. One of these reasons is, of course, architectural education. But tying this problem solely to architectural education is a type of disclaimer or lack of search for appropriate solutions to the problem [24]. For this reason, it is important to establish the necessary infrastructure for transferring and applying knowledge about ID philosophy, in all responsible bodies as the core base. The ground that will be formed for the (re)production of knowledge can reach a more qualified level with the increase of awareness and sensitivity to the issue.

Addressing the education process of architects is one of the key issues in the creation of inclusive streets, houses, buildings, parks, and all public spaces, services, and equipment. It is essential to develop the skills

of undergraduate students to create different design solutions using technical standard information and criteria in an equitable and aesthetic way. With its spatial dimension, aesthetics is a concept that defines spaces that respond to the needs of the environment, life culture, and society at the most optimum level [25]. There are laws, regulations, and standards, but it is necessary to carry out the process related to their implementation and supervision in the best way. As Heylighen states, what we need to do is to make the best use of the resources we have [1].

Christopherson points out that there are three main teaching methods for responding to the need to infuse inclusive design knowledge into the curriculum:

- Theory: Critical discourse is an approved starting method for constructing a theoretical and pedagogical approach to inclusive design.
- User involvement: There are at least five diverse perspectives; a) participation of people with disabilities as lecturers in lessons like a narrator of needs, problems, and expectations of a space; b) involvement of users to test new designs of the students; c) studying user needs through interviews; d) studying the users' way of life by means of a mixture of interviews and observation; e) simulation exercises.
- Evaluation: Audits and evaluations are practically as important as user participation. [22]

In addition to the learning methods mentioned above, one of the most effective ways to teach the inclusive approach is to promote and motivate the students or professionals [22].

Considering all the ideas mentioned above, the issue should be at the center of *design thinking* by opening the critical arguments alongside the design problem in different ways, conducting a conceptual discussion in an interactive process, and in this way, the (re)production, (re)questioning, and awareness raising of *inclusivity* in/by design is provided.

3. METHODOLOGY

This study aims to evaluate the effects of the Inclusive Design (ID) learning strategies applied within the scope of the "Inclusive Design in Architecture" course conducted by the author at the Department of Architecture at the Faculty of Fine Arts and Design of Atılım University in the 2020 Spring semester. During the semester, five learning strategies were applied to support the ID learning process. They were (1) film analysis, (2) critical discourse, (3) analysis of user experiences, (4) case study analysis, and (5) spatial analysis by comparison. Qualitative and quantitative methods were used to evaluate the learning experiences of 11 students who participated in the course. In the context of qualitative analysis, thematic coding is applied to assess the data gathered through class discussions. Data obtained from the class discussions during the semester were evaluated with an interpretive approach. The quantitative method includes a questionnaire survey applied after the students' graduation[i]. 10 students (50% female, 50% male) who enrolled in the course answered the survey. The aim of the survey was to make crosscheck between the results and discover circumstances in which class discussions could not extend [20]. The other reason to apply survey forms is to see concrete and dependable results by asking questions in a specific way. Qualitative evaluations of the students on each phase of the course during the semester and their ratings in the questionnaire after graduation could successfully display the effectiveness of the experienced five learning tools.

The survey form includes six questions: the first four are closed-ended structured questions asked with a five-point scale (1 = poor, 2 = fair, 3 = neutral, 4 = good, 5 = excellent) and the last two are open-ended questions. The first four questions are based on the effectiveness of the in-class assignments regarding (re)producing knowledge and increasing awareness of the inclusive design concept. For instance, the first question is expressed as "please evaluate how effective the experienced research methods are in terms of *knowledge acquisition* in inclusive design". More specifically Question 3, is posed to recognize how

effective research methods in understanding 'users' spatial needs and preferences', 'social needs and preferences', and 'opportunities for equitable use' are tried to be understood. The last two questions focused on *knowledge acquisition* contributing to the design process and general comments on the learning process. The last one, to illustrate, is "please describe the course's contribution to your architectural design approaches and solutions". The results of the survey are presented with both descriptive and explanatory analyses.

4. CONDUCTING AN INCLUSIVE DESIGN TEACHING/LEARNING PROCESS

In the lectures and discussions within the context of the course, Inclusive Design (ID) approach is addressed in a way of assessing environmental, attitudinal, and organizational barriers as well as architectural barriers that persons with (dis)abilities confront when accessing and participating in everyday activities. During the semester, students were expected to carry out five main tasks that were based on (1) film analysis (2) critical discourse (3) analysis of users' spatial experiences (4) case study analysis (5) comparative critical analysis, which are as follows:

1. Watching a movie/ TV series/ documentary involving disability experiences within the scope of spatial and social equality; While doing this, considering representation of the place and an individual with a disability, the representation of the relationship between space and individual.
    a. In their evaluations, the readings, discussions, and evaluations made on spatial relationships are supported by mental, cognitive, and physical spatial experiences in the visual sources.
2. Discussing the philosophy and principles of Inclusive Design & Universal Design in a comprehensive way through architectural examples. While doing this, addressing the concepts of *quality of life, social equality, spatial equality, disability*, and *(a)normality* within the framework of the dialogue between people and the environment.
3. Analysing users' spatial needs from the social media (Instagram, Facebook, Twitter, etc.) posts[ii] with related hashtags, shared images, and user comments within the framework of accessibility and disability themes.
4. Conducting a case study analysis of selected areas by visiting and observing three parks in Ankara, the capital of Türkiye, (Gençlik [Youth] Park, Güven [Trust] Park, Kuğulu [Swan] Park) and compiling user comments and images about the park on social media focusing on (dis)advantageous conditions.
5. They were expected to research and analyse an example of a qualified public park around the world by using research articles, books, web searches, Google Street View, visual sources, and user comments on social media, and present suggestions of inclusive design solutions for the park examined at the stage of 4.

Through in-class discussions, the boundaries and potentials of interactions between people and spaces in their research were examined. During the discussions on the given assignments, students were expected to give their evaluations and reflections on their experiences, analysis, and research. They were encouraged to question the discourse during the lessons on the basis of their individual experiences, evaluations, approaches, and behaviours. In this sense, the learner-centred approach was appreciated in order to promote and motivate them while participating in the conversations. The discussions were widened according to the other cases they addressed by their statements like "I impressed…" and "I was unfamiliar with…". This actively supports capturing all students' perceptions and concerns during the learning process.

4.1. Evaluations on the Methods of Inclusive Design Learning

The analysed films were expected to include the stories of individuals with different disabilities. The relationship between body and space is discussed with the interpretation of inclusiveness from many aspects by the films. Since there were people having physical, visual, hearing, and mental impairments among the characters in the movies watched, there had been an opportunity to discuss various design problems.

One of the students selected "The Theory of Everything (2014)" which is about Stephen Hawking's life. The student chose this movie to learn about the levels of the spatial experiences of a healthy individual, step by step, until he becomes severely disabled. Observing the existing built environment creating different levels of disability for the same person has provided impressive instruction. Another analysed film namely "Başka Dilde Aşk (Love in Another Language) (2009)", focuses on the life experiences of a person with total hearing loss. By evaluating this film, an opportunity had been created to understand what the architectural necessities in the situation of deafness are. In this way, inclusive architectural solutions by means of using *vibration* and *light* are discussed (Figure 1).

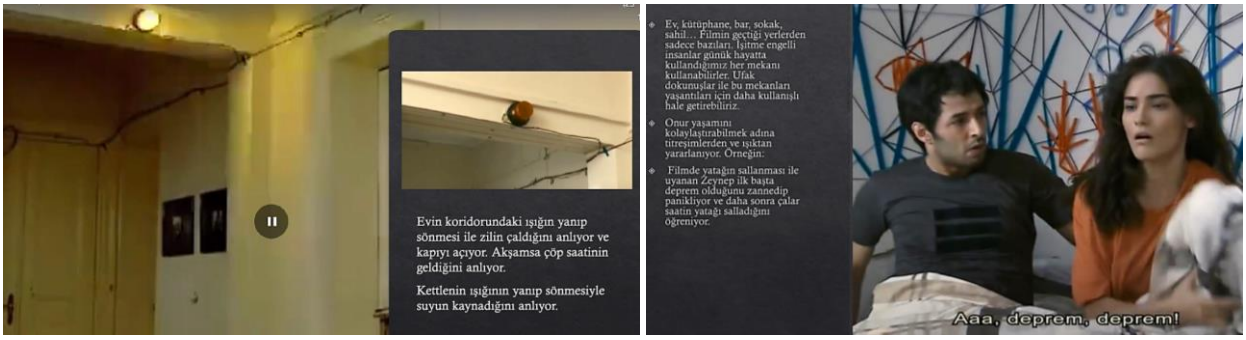

Figure 1. *The student's evaluations of the experiences of the individual with total hearing loss in the film Başka Dilde Aşk (Love in Another Language) (2009)*

The students believed that film analysis was the best way for gaining knowledge about inclusivity in design. For the context of awareness raising (Table 1), it was also selected as the best way like spatial analysis by comparing two architectural design examples through visual sources. Film analysis created enthusiasm for the context while allowing the discussion of the relationship between the human body and space at a very extreme point. Additionally, critical discourse and spatial analysis by comparing were the other two methods believed to be effective for gaining knowledge and raising awareness (Table 1). Herein, instructive guidance by asking questions is the key factor for a successful discoursing and analysing.

Table 1. *The effect of learning methods on gaining knowledge and raising awareness*

	Learning methods	Knowledge acquisition	Awareness raising
1	Film analysis	4,73	4,27
2	Critical discourse	4,55	4,36
3	Analysis of user experiences	4,09	4,09
4	Case study analysis	4,36	4,18
5	Spatial analysis by comparing	4,64	4,27

Examples from the students' works of social media analysis for assessing user experiences mainly include When assessing qualified inclusive spatial solutions with extreme spatial examples at the point of social inclusion/exclusion, a common discussion and evaluation atmosphere in which they were inspired had been created. For this reason, inclusive space examples were evaluated together with in-class questions and

answers in the phase of critical discourse, which contributed significantly to the ID learning process, as expressed by the student: "*Interpreting spaces was one of the most difficult but rewarding assignments for me*."

Examples from the students' works of social media analysis for assessing user experiences mainly include social reactions to discriminatory situations in architecture; creative inclusive architectural and product design samples; positive and negative thoughts of people with disabilities about their architectural experiences in the physical environment; spatial and social problems as well as inclusive approaches faced by people with disabilities in public life. This research was a process they enjoyed working with but did not result in in-depth knowledge gain and awareness raising compared to the other four methods (Table 1). Table 2 shows that user experience analysis in this stage has no role in determining the social needs of individuals with different needs. This may be due to the boundaries of social media research for deeply understanding users' needs. It only presents an abstract of a situation with only mentioning some keywords. Since distance education was started in the middle of the semester due to COVID-19 Pandemic, the students cannot contact any users with (dis)abilities. One of the students' expression- "*It might be better to experience it by traveling*."- well elucidate the situation.

In addition, it was seen that the comparative analyses made by the students themselves had a positive effect on learning. Herein, it is aimed to provide a productive discussion environment with the quality, originality, integrity of the inclusive design approach, and the social dimensions of the studied architectural solutions. For example, in comparison of a park in Ankara with one with a high degree of inclusiveness, if there is scale and functional suitability, more focused and clear design suggestions are made for the former. At these points, the instructor of the course should contribute to the process. In Table 1, it is stated that comparative analysis is the most effective method for gaining knowledge. It is also viewed as one of the methods with the highest efficiency in raising awareness. Table 2 also shows that it is the best way to understand opportunities for equal access of users with different needs.

Table 2. *The efficiency of Learning Types for Understanding the User Needs and Demands for the Students*

	Film analysis	**Critical discourse**	**Analysis of user experiences**	**Case study analysis**	**Spatial analysis by comparison**
Understanding the spatial needs of users with diverse (dis)abilities	4,30	4,44	4,11	4,22	4,60
Understanding spatial expectations of users with different (dis)abilities	4,30	4,44	4,20	4,60	4,63
Understanding the social needs of users with different (dis)abilities	4,40	4,00	4,10	4,33	4,70
Understanding social expectations of users with different (dis)abilities	4,30	4,30	4,30	4,22	4,50
Understanding opportunities for equal access of users with different needs	4,40	4,70	3,89	4,80	4,89

One of the students stated that "*the content of the course is not considerably mentioned in the design studio courses*." It is not enough to have only one relevant course related to inclusive design in the curriculum. One of the comments of the students also displays its significance: they hesitate to make proposals in architectural design courses based on the concept of inclusive design since the design brief given in the studio course does not indicate it. There can be no compulsory status of inclusive design philosophy in design classes. Sometimes it's not even mentioned. These circumstances can hinder using and thereby

reproduction of knowledge through practicing design during the education process. Furthermore, the elaboration of inclusive design philosophy in design courses can be problematic. Taking an approach that is reduced to the use of only standards can exclude questioning the concept of inclusivity throughout the design process. It will be much more useful to transfer what the students have learned through an architectural project. That's when truly inclusive architectural solutions can emerge creatively and in an original way [16, 17, 20].

In general, assignments within the scope of the course were carried out by interpretation and criticism through students' observation and research in a field. Students were satisfied with this free-thinking environment. One of the students expressed this view as "*Adding our own comments to all of our assignments was more enjoyable and instructive than putting ready-made information*." Herein, the most critical point is that the instructor of the course can provide sufficient guidance on the transformation and development of students' ideas and beliefs.

Each student's interests, learning styles, past knowledge and experiences, and habits differ. Therefore, the implementation of blended learning methods shaped by the participation of the student has turned into an interesting and intriguing experience for all students. This experience fostered an efficient in-class discussion environment, enabling a discussion of architecture not only in terms of physical access but also in its social, cultural, economic, and environmental dimensions.

5. CONCLUSION

Creating fully accessible cities can only be possible by adopting a local, site-specific perspective, starting from the smallest local scale, with the participation of all relevant stakeholders. In particular, it should be possible for the user to take part in the process. Integration of the concept of Inclusive Design (ID) into the design courses, and thereby design professionals is an important key issue for sustaining ethical responsibilities towards communities and the environment.

Architectural attributes that are fragmentary, inappropriate, far from a democratic approach, and causing accidents have still continued to be appeared and experienced in the built environment, which reveals the importance of the architect's approach to the concept of *inclusivity*. It is an ethical concern for the architecture discipline; thus, from the first year of the undergraduate education in architecture, the concept of ID should be addressed in the curriculum. It should be permeated and embodied in the curriculum of architectural education for the formation of equitable, accessible public spaces and cities with high quality of life for all. However, how this concept should be handled in the education curriculum is an important question. At this point, the *primary* issue is to consider the contextualization of disability, accessibility, and inclusive design contexts. It is essential to address ID philosophy from a democratic perspective with its social, cultural, economic, and architectural dimensions, rather than the approach that is reduced only to individuals' impairments and their anthropometric sources. The lack of this approach might result in insensitivity and indifference toward integrating an inclusive design approach in the architectural design process. Moreover, the fact that the conceptual perspective is not handled on the basis of the rights-based perspective causes a serious lack of information and pollution.

The achievements of architecture students in design thinking and process can foster the emergence of original inclusive solutions in professional practice in the long term. As emphasized in both the national (MIAK-Architecture Accreditation Agency) and the International (NAAB-National Architectural Accrediting Board) arena, the inclusion of the right-based design approach in the curriculum of architectural education is expressed as a necessity. In Turkey, this approach paved the way for the integration of related courses into the curriculum. From these perspectives, the *second* important issue is that both the content of the regarding courses and the way they are handled in the overall curriculum are critical issues that need to be dwelled on. This study explored and assessed the learning experiences of the students to increase inclusive design knowledge and awareness in architectural education. Since each student's learning style,

interests, and experiences are different, the course content and method supported by mixed methods provided an efficient learning experience. In particular, the spatial dimensions of the stories and scenarios, which they were never familiar with, became the focus of attention and motivation and provided a good basis for collective discussion. It should be noted here that since the course is a theoretical course conducted in the online learning period due to the Pandemic, the experiential learning process is the limit of the study. In the learning process, where the students decide and the instructor of the course is the guide at the right time, the ideas are freely revealed. Through contextual discussions, known wrongs could be discussed transparently. Knowledge acquisition is already the main goal of a course but reaching the desired level of awareness and thereby raising motivation of the students for the use of ID concept in design has been the most critical acquisition.

Stephen Hawking's expression highlighted at the beginning of this article- "*The greatest enemy of knowledge is not ignorance. It is the illusion of knowledge*"- presents that not knowing anything about the design of accessible spaces might ignore the issue, which can give a signal that no attitude or approach will be taken on this issue. However, there is no obstacle to having knowledge about the subject. There may be a potential for good ideas to emerge from a seemingly negative situation. But the illusion of knowledge opens the door to sheer misapplications. It is difficult to improve both the idea and the implementation. It can be inferred from Hawking's statements that the issue of disability and accessibility should be internalized and given the necessary meaning and value, and it should be realized with a truly holistic and rights-based perspective. Otherwise, the practices will continue to damage societies socially, physically, and economically, even if they are done with good intentions.

ACKNOWLEDGEMENTS

This article has been prepared in the context of the "MMR 241 Inclusive Design in Architecture" course conducted by the author in the Spring semester of the 2019-2020 academic year at Atılım University Department of Architecture. I would like to thank my students who contributed greatly to the realization of the study and three anonymous reviewers for their support and constructive comments.

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[i] The suitability of the research in terms of scientific ethics was unanimously decided by the Social and Human Sciences Ethics Committee of Ostim Technical University on February 24, 2023.

[ii] Because of the transition of education toward distance education due to the COVID-19 pandemic in March 2020 in Türkiye, the students could not connect with users with diverse needs face to face. Instead, it has been tried to understand the ideas, complaints, and demands of disabled people through social media and literature review.