INCLUSIVE DESIGN IN BRAZIL: ITS TEACHING IN GRADUATION COURSES IN DESIGN

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1   Context

This article is part of a master research entitled: The applicability of Inclusive Design on Design Projects. The central problem found around this theme is the lack of inclusive products in the Brazilian market. Some of the results obtained from an online survey answered by professors/researchers, market professionals, professors/researchers and market professionals, and researchers and Design students in Brazil are in this article. Mistakes found in the teaching and comprehension of Inclusive Design will be exposed, besides of a brief elucidation of the real objective of this approach as one of the solutions for them. Inclusive Design, also known as 'Design for all' and 'Universal Design', intends to avoid the necessity of environments and products exclusively destined to people with functional differences, in order to ensure that anybody can unrestrictedly make use of environments and products. The proposal is to expand the project's public, considering characteristics, experiences and necessities not only of dominant groups but also of minorities, that is, benefiting a natural functional diversity and contributing to a higher quality of life for all. Although the objective of this approach seems clear, many professionals do not know it in fact. It was possible to notice that the greatest source of knowledge of Inclusive Design is the academic environment. Therefore, a question must be raised: how and what has been being taught by professors? Some of the results and conclusions of the explanatory research, which were the basis for the elaboration of the online questionnaire, and some of the survey results are in this article.

2   Method

In an exploratory research, four professors of the undergraduate course in Design of a University in Rio de Janeiro were interviewed through a semi-structured interview, intended to know: how the questions about Inclusive Design are approached in class, if it is mentioned by them and how it is done. The answers reinforce another possible factor: the professors' lack of knowledge about Inclusive Design.

With the Informed Consent Form signed, the interviews had the duration of about an hour. The professors were questioned about the teaching in the undergraduate course of Design. Initially, with general questions, like: in what class they teach, what project methodology they teach and what are the main phases of the project process taught by them. Intending to lead the interview to the main point, the interviewed were questioned if they approach persons with disabilities in the discipline taught, and how it's done, if the answer was positive. The professors who approach persons with disabilities in the class were also questioned if their students had already worked in projects considering this public, and how these were.

Next, approaching the main point of the inquiry, the interviewed were questioned if they had already made use of Inclusive Design in class, and how it was done. At that moment, it was possible to found out if the interviewed really knew the Inclusive Design and if they correctly taught it. Based on the professors' testimonies, it was possible to notice that the students were intended to project solutions destined to persons with functioning differences. However, the product category corresponded only to accessible products, exclusive for persons with special needs (or persons with disabilities), and not to inclusive products. For some of the professors this is a frequent demand, but, for others, thinking about accessibility is rare. None of the interviewed professors approached the concept and practice of Inclusive Design in class. Therefore, no example of project truly inclusive oriented by them was raised.

The interviews were the basis for the national questionnaire, which was intended, in a wider way, to ensure if the reality found in the exploratory research is common to other professors. An online questionnaire created on an Eval&Go platform was made available, through e-mail and Facebook. Three pilot tests were produced in order to make the process of the survey more practical and the questions clearer. 37 pages and 197 questions were included, so that it took at most 15 minutes for the interviewed to answer them. 24 different profiles of respondents were identified, therefore, each one received a specific range of questions. The profiles were divided into professors/researches, researches, professors/researches/market professionals, market professionals, and students. The survey started with general questions concerning the project process taught and/or approached, then reaching the main topic, which concerned the Inclusive Design, and finally, socio-demographic questions.

3   Results

The survey covered 477 respondents, however, only 61% of them answered it completely. As it was expected, there were respondents from different areas of design, so that each one answered questions concerning their field of work. 86% of them work in design field, 4% in architecture, 2% in engineering, 1% in publicity/propaganda and 7% in other areas. However, this research was delimited to answers of professionals of Design field. It was possible to notice that there is the knowledge and the teaching of Inclusive Design in the quantitative level obtained.

Therefore, the reality faced by many professors is different from the one shown by the exploratory research. 86% of the interviewed professors assert that they know the Inclusive Design and only 14% affirm that they do not. 51% of those who affirm that know the Inclusive Design say they teach or have already taught the Inclusive Design in the Design Graduation Course. Therefore, once a little more than the half teach this approach, it is possible to consider that the teaching is factual.

According to the professors' answers, some of them have been teaching Inclusive Design for about 20 years, but for many, this is a very recent approach in their classes for about 5 years. The qualification of the graduation course in which Inclusive Design is taught more commonly is Product Project, and at the top of most mentioned subjects by the respondents are: Ergonomics, Product Project, Final Project/Course Conclusion Paper and Project. Besides the most applied teaching methodologies by the professors who affirm they teach or have already taught Inclusive Design are: Baxter Methodology (1998), mentioned by 35% of them; Gui Bonsiepe Methodology (1984), mentioned by 26%; Löbach Method (1981), mentioned by 23%; and Bruno Monari Method (1981), mentioned by 16%. According to the results, apparently there is a teaching mistake: the subject called Ergonomics is mentioned by most of the professors who affirm to teach Inclusive Design. Once most of the methodologies are destined to 'Project' subjects and not to the Ergonomics practice, a new question must be raised: how the practice of Inclusive Design has been taught in Ergonomics? Supposedly, it is possible that it happens because of a merely superficial teaching of Inclusive Design, or because only its concept has been taught in this subject.

The sample selected to analyze the knowledge and practice of Inclusive Design in the professional market is composed of professionals in Design who work in this field. Although there are professionals who also work in a research and academic field, the professionals in evidence are necessarily graduated in Design. 109 respondents were interviewed, and among them, 40% work in the professional market and 60% in the academic/research field. It was possible to notice that the knowledge of Inclusive Design is factual among designers who answered the questionnaire, although the greatest part of them asserted that they applied it to their projects. It means that among the 71% of designers who affirmed that knew Inclusive Design, 29% of them asserted that, in fact, applied it. This shows us that however there are those professionals who do not know the Inclusive Design, the number of those, in the market, who had already had contact with this project approach is considerable, although it leads us to conclude that knowing it is not enough for applying it.

Through qualitative answers, it was possible to notice that there are many professionals who, in fact, comprehend the philosophy of Inclusive Design, but others have contestable visions, which demonstrate the misconception of those who affirm knowing the Inclusive Design. In general, it is clear that the university is the greatest source of knowledge concerning Inclusive Design for designers respondents. Therefore, a question must be raised: was the source of information about this approach clear or were the mistakes result of particular opinions?

Therefore, clarifying the real objective of this approach rises as a solution for beginning a change. The challenge is to highlight the abilities and not the limitations. The purpose is to begin from users' permanent or momentary difficulties in order to explore abilities not affected. Inclusive Design begins from the peculiarities and limiting characteristics of specific groups in order to contribute to diversity; it recognizes specific ways of use, which permits multiple ways of utilizing an object; it presents specific solutions for specific groups of users and wider solutions for a larger number of them. Inclusive design intends to benefit the life of individuals who have some kind of peculiar limitations, as well as to cause a good impact concerning the use of products by larger number of users, increasing the practicality. This impact affects society positively as long as promotes autonomy and increases the number of proactive people.

4   Conclusions

In sum, although there are professors who teach Inclusive Design indeed, there are also those who, however believe they know it, don't really comprehend its philosophy. The lack of a subject which integrally approaches the theory and practice of Inclusive Design, once it's only mentioned in specific moments, or even taught in a superficial basis, causes its knowledge to be acquired the same way, superficially, which allows mistaken interpretations. It is believed that it is important to separate it from the concept of deficiency, focusing on the barriers that products can cause to any kind of users, and the difficulties these can face while managing them in certain contexts. It's also possible to notice that the teaching of Inclusive Design must be isolated from any other subject related to Accessibility and Assistive Technology, and integrated to Project Discipline. Believing in the professors' capacity on qualifying conscious and prepared professionals, this concept is conceived. Once one of the main objectives of universities is to prepare their students for the success in the market, nothing could be more fitting than the Inclusive Design approach beginning there.

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