Classroom to Incubation: A Collaborative Industry-Academia Approach for Impetus to Social Design in the Indian Design Education

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Abstract

The dichotomy of design education in the current times is the perplexing task of creating designers who can cater to industry needs and design more products for society focused on consumption. As we enter the first quarter of the twenty-first century, we are reminded of the American designer and educator, Victor J. Papanek's vociferous call to pay attention to social and ethical dimensions of design that were unheeded by many. However, in the current context of social and ecological disruption, a socially responsible framework of sustainability can't be ignored anymore, and it's essential for a socially responsible framework of sustainability to be embedded in design learning. Design educators face a challenging task in the current context; there is an effort to weave sustainable design goals into the curriculum. Design for social needs was envisaged in tune with the National Institute of Fashion Technology's vision, which attributes value to building fashion and design education with an emphasis on "leadership in professional education with concern for social and human values." It seeks to provide real-life immersive experiences for future designers to inculcate and engage in social and sustainable aspects as they envision relevant products, services, or system input. As part of the Design and Society module, a collaborative partnership with the industry, Design Impact Movement (DIM), helmed by leading enterprise Titan and supported by TinkerLabs, a "behavior and innovation consulting firm," was brought into the classroom eco-system, wherein students from varied design and engineering colleges were provided a platform for incubation and funding for the innovative project. This article seeks to explore how the alternate learning and teaching pedagogy has been adopted, wherein a three-pronged approach has been utilized to inculcate sustainable mindsets in the future 'design practitioners' and the student's response to the concept of socially responsible design. The collaborative pedagogy through Industry-Academia-Expert workshops and interactions has provided the platform for a student team project chosen for enabling work and dignity among specially-abled individuals for the next

stage of incubation by industry mentors and experts bridging the gap from classroom to incubation.

Keywords: Design impact, incubation, social design, SDGs, collaborative design pedagogy, classroom project, industry-academia-expert inputs

Introduction

Design is generally envisioned as forward-thinking. It is a twentieth-century phenomenon in which design practice has traditionally dealt with anticipating and catering to consumer needs in the form of products and fashion. This has given impetus to a burgeoning industry that gratifies “wants” rather than “needs.” As consciousness regarding social inequities has evolved, design practitioners have advocated the need to relook at design pedagogy and the frameworks within which design education exists at present.

It is imperative to equip the design professionals of the future with the essential skills that would help them deal with real-world challenges. As the nature of design evolves, its application extends beyond tangible artifacts to include intangible networks and ecosystems that could potentially nurture them in the future. There is a need for ‘design with a purpose,’ and design schools have the overwhelming duty of educating the design community and students who will inherit the earth in the future. This article aims to explore the role of an innovative alternate learning and teaching pedagogy with an incubational approach and explore how it has been adopted, wherein a three-pronged approach has been utilized to inculcate sustainable mindsets in the future ‘design practitioners’ and the student’s response to the concept of socially responsible design.

Initially, design education envisioned designers to cater to the industry needs in the context of a burgeoning consumptive society; however, the paradigms for design education in the context of the current social and environmental scenarios need to be renegotiated. Design for Society is not a completely new concept; Tromp and Vial (2022, p.211) traced the term ‘social design’ back to Lazlo Moholy-Nagy (1947), who used it to emphasize the responsibility of designers in our society. One of the early proponents, Papanek (1976), argued that design should not only benefit the privileged but also benefit society and the “other 90 percent” of the world who may not have access to the benefits of a ‘good’ design. He went on to state that “designers... who are engaged in creating new fashion, accessories, and lifestyle products in a cyclical trend cater to the unsustainable wants of the people.” When he published his treatise ‘Design for the Real World’ in the late 1970s, he was scoffed at by many, but the reality of his words hit home

when the world was reeling with the inequity of resources, environmental waste, social and cultural divides, and climate anxiety. Margolin and Margolin (2002) advocated a middle path where they didn't view the "market model and the social model as binaries" but as "two poles of a continuum." They advocated for designing not for a specific class of consumers but rather for marginalized individuals and communities, such as the elderly, those with special needs, those with low incomes, and those without access to resources. Manzini, a proponent of sustainable and socially oriented design, advocates for a "co-design grounded approach" for social innovation, defining it as 'everything that expert design can do to activate, sustain, and orient processes of social change toward sustainability' (Manzini, 2015; Tromp and Vial, 2022).

Design as activism has also emerged as a more forward-thinking approach. Fuad-Luke (2009) promotes design activism, which looks at design as a means to intervene, inform, and integrate design solutions for the world's 'wicked problems.' The design problems need to be articulated within the social context. Fuad-Luke (2009) opines, "It is design's ability to operate through 'things' and 'systems' that makes it particularly suitable for dealing with contemporary societal, economic, and environmental issues." The culture of consumption has been the main driving force since the twentieth century, prompting design to transform into activism for a more sustainable society. Design has the innate ability to critically approach social design issues through a critical lens and may be seen as a conscious effort to question those underlying practices. Design for social change employs design thinking to address social issues through co-design and participatory design. The criteria for "sensitizing design teams to the social domain are not enough; the designers also need to be envisioning futures of product use" and how they fit into people's lives (Postma, Lauche and Stappers, 2012, pp.30-32). Understanding the stakeholders with an empathetic approach—their motivations, needs, and aspirations within the scenario—gives the designers a holistic understanding of the social contexts they design for. The Central Saint Martins (UK) experimented with socially responsive design by creating products for public use, and Brown's (IDEO) evocative papers on Design for Social Impact paved the way for open platforms like ideo.org, which use design thinking to "improve the lives of poor and vulnerable communities around the world" (Tromp and Vial, 2022, p.212). The engagement with varied forms of social design has been pursued by design practitioners in India in various formats; however, the establishment of a formal platform to nurture the possibility of incubation of socially oriented design projects allows for a more formal approach in the education sphere. The United Nations formulated the Sustainable Design Goals, recognizing the potential of design as a potent tool for addressing real-world issues and ensuring a

more sustainable future. The UN engaged with schools by incorporating the SDGs (Sustainable Development Goals) into design thinking and STEM (Science, Technology, Engineering and Mathematics) modes, encouraging teachers and students to tackle social, economic, or environmental challenges. Balaram (2005, p.18) observes that "design educators consider the essential characteristics of a profession to be the practice as required by society," leaning towards a holistic approach to design issues. The relevance of social design in the Indian context is manifold, as it may be viewed as an enabler that can benefit a large part of the population with limited access to resources to resolve everyday problems. Sustainability as an agenda for designers has seeped seamlessly into the curriculum for fashion and design-oriented subject areas at design institutions like NID and NIFT. However, it needs to be addressed holistically, and future designers need to be apprised of the issues that affect the future ecosystem before they become practitioners in fashion and design.

Objectives

The primary research objectives were to explore the alternate teaching-learning pedagogy that was implemented through the three-pronged approach to the classroom project, leading to incubation. The aim is to comprehend the response of design students to the new format and their motivation to adopt a social design approach that incorporates the Sustainable Development Goals in the future. Armstrong and LeHew (2013) have explored the collaboration between the domains of social design and design education by incorporating the Education for Sustainable Development (ESD) framework. They envision a "new paradigm... a model of education is designed to transform the current industrial archetype and its consumptive demands, preparing learners to lead that transformation" towards socially responsive design.

Methodology

For this study, a qualitative research methodology with a case study approach was employed to get a deeper understanding of the design pedagogy followed and students' motivations through observation, interactions, a survey, and study of the research documentation provided by the students. The sample size was forty Indian design students aged 20–22 years at NIFT Delhi. The research was conducted through observation, interactions with students and DIM facilitators, discussions, and a survey through an online survey with closed-ended and open-ended questions to get uninhibited responses from the students. Given the researcher's dual role as a course faculty member, it was crucial to maintain reflexivity when conducting the research

within the student community. The inductive analysis of the data was also done from the standpoint of analyzing the responses and insights. The study of the main thematic aspects to assess the outcome of the projects from the students' perspectives revealed further insights; most of the students were enthusiastic and responsive about sharing their thoughts regarding the project.

Industry-Academia Classroom Project

The groundwork for the Design Impact Movement (hereby referred to as DIM) in India was laid in 2019 as a "grant program for product design that drives social impact in the country," pioneered by the Tata Group in India through TITAN-DIM. The forward-thinking incubation platform was visualized to create 'design practitioners for the future.' The program's objective was to "enable design students to conceptualize their ideas in the space of social impact by guiding them through the design process." This platform provided fertile young minds with the possibility of incubation, support, and funding at a student level, enabling them to grapple with issues of health, social equity, and agriculture under the framework of sustainable goals. Potential projects were recognized, and the winner received funding and incubation. It is significant to note that Titan (under the TATA Group) is one of the largest industries, with multiple brands under its umbrella that permeate the Indian market.

The evolution of roles that design and social innovation can meld themselves into has been discussed by Thackara (2013, p.25), who observes that "design and social innovation are discovering new roles too, in the creation of local living economies from ground up... understand and meet social needs, that their job is to design tools and platforms than finished artifacts as such."

TATA-DIM has demonstrated foresight by collaborating with design education institutes to cultivate an ecosystem for ethical and socially sustainable incubation, and to instill these values in emerging designers. It indicates the coming of age of the industry, wherein they have begun to acknowledge the need for sustainability by envisaging a program for design and incubation, which is a positive affirmation of corporate social responsibility that could pave the way for more collaborative ventures of similar dimensions.

Results

Collaborative teaching pedagogy

The three-pronged pedagogical approach (Figure 1) was envisaged as a collaborative approach to design pedagogy to provide holistic insights to the design students through

a connection between academia, the design industry, and design experts who provided added real-time grounded inputs through workshops and interactions. The Design and Society Module was visualized as a 3-credit course for seventh-semester students for 14 weeks inclusive of evaluation and assessments. The industry connect provided the platform and funding for the program, the knowledge partner provided specialized inputs through 2-3 workshops focused on design thinking and design research, and the in-house faculty introduced the tenets of the curriculum and provided continuous feedback and support to the design research process throughout the module.

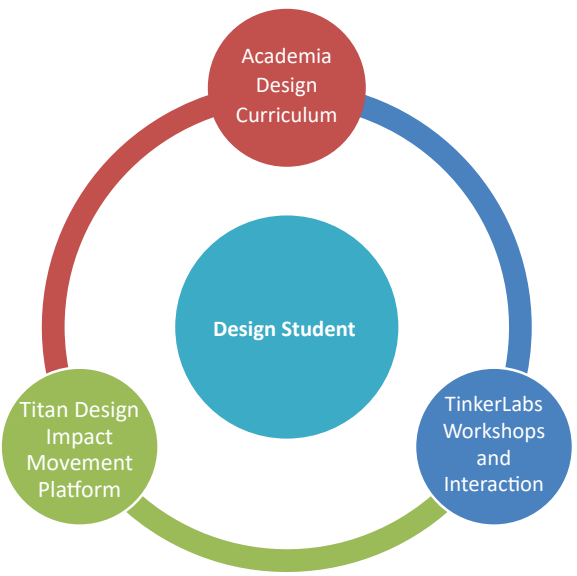

Figure 1: The three-pronged pedagogical approach

The intent of the curriculum was to introduce the students to real-life problems and the UN SDGs as the thematic framework, and immersive design research was one of the underlying strengths of the module. The collaborative model involved planning and detailed discussions between the stakeholders during pre-planning, project duration, and post-workshop to ensure focused delivery of the curriculum enhanced with real-life insights and engagements.

"Curriculum, pedagogy, and assessment are interlinked like the warp and the weave (weft). Curriculum needs to be broad and balanced. In order to transact a rich curriculum, the pedagogy becomes critical… and a variety of learning experiences can be given… to the learners" (Shankar, 2010). The framework provided by Shankar (2010) was adopted to understand the delivery, application, and implications of collaborative teaching pedagogy during a classroom project format for the student community (Figure 2). The

introduction of design process strictly aligned to the SDGs for Indian design students who have majorly worked in the context of fashion and product design.

The intended curriculum

The academic 'Design and Society' curriculum was envisaged to make design education more relevant to social needs and to inculcate an ethical, sustainable, and empathetic approach to design with regards to the UN Sustainable Design Goals to cater to marginalized communities. It strengthens the ESD framework by "broadening the dialogue, critical reflection, and active collaboration. This reinforcement of communication, teamwork, and student involvement allows for the development of skills, such as self-learning, problem-solving, and critical-creative thinking" in higher learning institutions. (Perello-Marin, Ribes-Gines and Diaz, 2018, p.3).

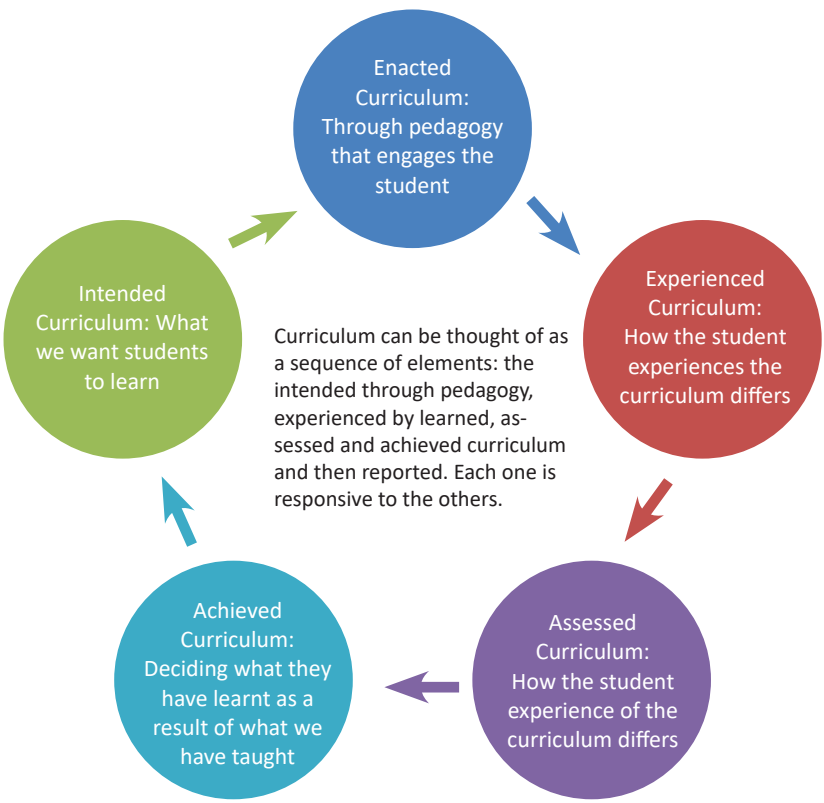

Figure 2: Curriculum, pedagogy and assessment: creating learning spaces
Source: Shankar, 2010

The enacted curriculum

The industry-academia collaborative module was integrated with the Design Impact Movement (DIM) platform. Through the discussions and case studies, design research for specific SDGs paved the way for deeper engagement with the social design domain. The knowledge partner TinkerLabs also contributed to the reframing of the learning outcome as per the guidelines with real-life scenarios that mark a "shift from teacher-centred training and instruction to learner-centred learning and capacity-building" (Perello-Marin, Ribes-Gines, and Diaz, 2018, p.3).

The co-teaching pedagogy enabled the learner to gain enriching insights. It was implemented through expert lectures, in-depth user research, workshops, and outcomes, along with immersive workshops and insights by the behavioral and design thinking firm with continuous interaction, feedback, and monitoring by the in-house faculty.

The TinkerLabs team introduced the DIM initiative, a classroom project that would culminate into a social design entry for the DIM competition at the national level and could be part of a mentored incubation model. To encourage a structured approach to critical thinking, a workbook-format social design initiative along the lines of the IDEO workbook and Frog Design's CAT (Collective Action Kit) was provided to the students. This helped to maintain and provide regular feedback regarding the application of the varied design research tools it encompassed, as explained through the three-stage social design process (Figure 3).

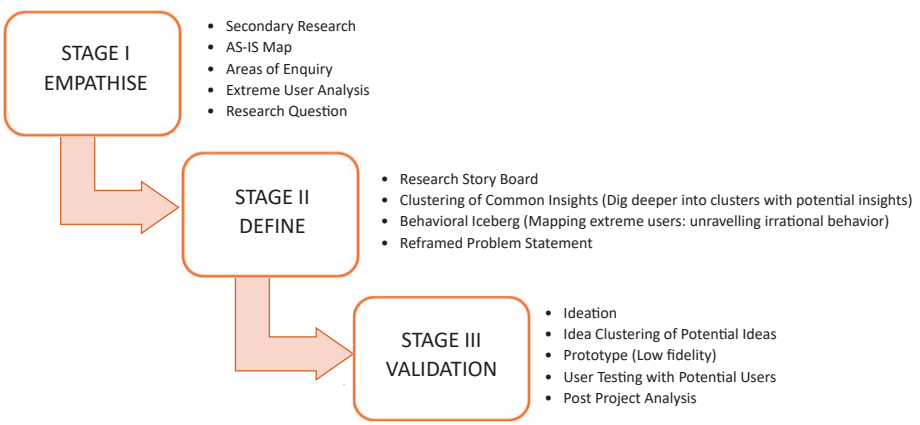

Figure 3: Design for social impact: social design framework for design impact movement (DIM)
Source: TinkerLabs

Experienced curriculum

The experienced curriculum refers to the transaction of the curriculum and knowledge gained during the design process. The time frame of a design project may be tight, but immersive interaction with the user was encouraged. The students' design thinking developed with the help of experts through orientation, and the faculty supported the achievement of the curriculum's goals with the SDGs through user testing on the field. TinkerLabs, a design consultancy firm specializing in behavioral analysis, conducted 2-3 workshops. The insights gained from mapping their immediate environment during the workshops demonstrated the application of methods such as observation, shadowing, and field research. A deeper understanding of extreme user behavior and analysis gave impetus to the empathetic user research and mapping done by the students; detailed analysis of scenarios, brainstorming, and creative stimuli were some of the methods that helped the students articulate the concerns linked to social design issues. The workshops, which set apart from the in-house faculty interactions, introduced students to the behavior iceberg. This iceberg highlighted extreme users and their irrational behavior, prompting further analysis or diagnosis to understand the underlying causes of their actions. The collation of data and analysis was done in detail through storyboards, thematic visual mapping, clustering of respondents' answers, and analysis to get to the root of the problems. The immersive design research, which involved in-depth user study, was one of the most significant parts of the project, supported by online tutorials, DIM Masterclass, and case studies available for students to peruse beyond the constraints of time. The students also engaged in understanding the user's worldview through observation, shadowing, and role play. For one of the projects, the students studying delivery agents used role play to experience the challenges they faced while carrying heavy bags and navigating busy streets on two-wheelers, a process they documented for the module. They also documented their journey, including studying vehicles and their dimensions to understand ergonomics and user experience (Figure 4).

Figure 4: Primary research by students
Source: Student documentation

The students worked within the framework of social design with an empathetic approach; one of the projects employed 'SDG 3: to ensure healthy lives and promote well-being' among all. The project revolved around specially-abled research participants, where one of the projects examined the problems faced by them and the effort to improve the quality of life during their day-to-day living. "Our design product (Figure 5) is to create lunch boxes for people with motor issues. We aim to make these people self-reliant and have the maximum control over their lives without requiring external assistance," was the motivating factor highlighted by the students.

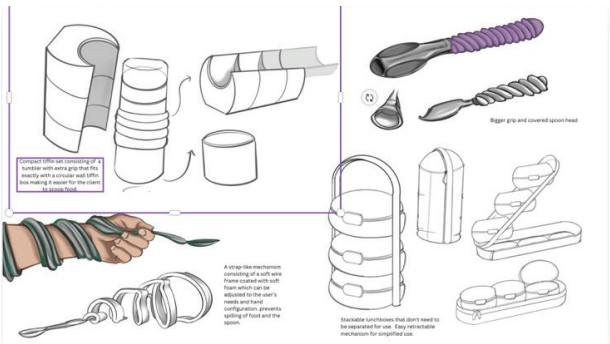

Figure 5: Conceptualization based on the special needs of the user
Source: Student project

The students were advised to look at simple everyday activities around them to empathetically identify design opportunities, trying to find connections with larger global problems and their manifestation at the local level, which would account for deeper, incisive research in these areas.

The student group envisioned the dignity of labor for users with impaired motor skills, who created products for Diwali sales through block printing. They worked on an ergonomic concept to facilitate the usability of block printing for users with special needs (Figure 6). Empathetic research of users with mobility and impaired motor skills helped them create an ergonomic concept that could be effectively managed to work out varied printing options according to the dignity of labor and a sense of achievement to the special user. This project was selected for the next phase of incubation and research.

The varied projects were based on SDGs related to food waste, woodworking solutions for carpenters, alleviating the pain points of delivery workers, issues faced by hearing-impaired youth in the retail experience, issues faced by ragpickers, shelter for the

homeless, unsustainable packaging waste due to online shopping, and re-organizing and planning the vegetable vendor cart were some of the areas of intervention envisaged by the students. As one student articulated, “We looked at how food waste is a huge problem in today’s society. We looked at various types of food waste, and from a consumer perspective, we identified how many people end up throwing out their food because they might not own a refrigerator.” Their insight prompted them to look at students and young professionals living alone on limited budgets and frequent shifting. They decided to harness the concept of terracotta storage units for overnight food storage.

Figure 6: Field work and deep dive user research based on the special needs of the user
Source: Student documentation

The students experimented and even did initial testing to see whether the food could be preserved in the proposed way before conceptualizing the final outcome (Figure 7). Similarly, all the other student groups also conducted in-depth product and user research, which was enriched with inputs from the design experts and deep-dive workshops with TinkerLabs.

Figure 7: Exploration and testing of low fidelity mockups
Source: Student project

Assessed curriculum

An effort was made to understand how the students experienced the collaborative curriculum and the learning outcome and to assess how it would affect the real-world application. The faculty conducted continuous assessments and detailed presentations at various stages, consulting with the TinkerLabs team based on their depth of research, performance, and conceptualization. In addition to NIFT's mid-module, end-module, and external jury assessments, industry partners evaluated the design projects at the national level, selecting one for the second phase of incubation and mentoring. There was post-module retrospection with faculty, TinkerLabs, and the TITAN-DIM team.

Student reflections

The design community is increasingly advocating for young designers to integrate social, ethical, and sustainable elements into their design practice. Design, as an activity, has traditionally catered to the privileged sections of society, using the innate ability of design thinking to apply itself in varied contexts where 'design for the other 90%' (Papanek, 1976) and 'design for the majority world' are important.

The researcher conducted discussions and administered an online survey to assess the students' learning experiences. The SDGs and their applications were discussed with the design students, which opened up new perspectives for design interventions in scenarios that had not been evinced earlier. Students expressed that this was their first experience working on a project specifically aligned with the SDGs. Some of the students felt that "design and society is the first subject that most realistically incorporated all the sustainable and social criteria." Figure 8 shows that nearly half of the class (47.4 percent) felt that the inclusion of SDGs in the design process helped them greatly. The awareness regarding the SDGs helped frame the conceptual framework for the design project to be ensconced in the concepts of inclusive design, social equity, and sustainability.

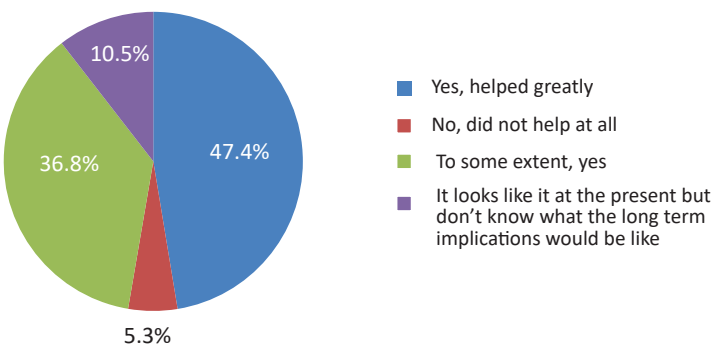

Figure 8: Students' response to incorporation of SDGs in the design process

The respondents added that the inclusion of SDGs helped them understand "the importance of user-centric design models, and as these problems are sensitive to communities, we learned that the designs should be culturally sensitive, respecting people's customs, values, and beliefs to ensure that the solutions are well received within the community." The students' ruminations highlighted the empathetic aspects of understanding the user's context and their needs.

Interestingly, in terms of the 'experienced' curriculum, the students experienced most of the critical learning outside the four walls of the classroom, which guided them through the long-term applications of their classroom knowledge. The students spent time beyond the classroom hours interacting and eating lunch with differently abled respondents to understand the challenges they face in independently navigating work and play. They also shadowed ragpickers during their daily sojourn. They observed, shadowed, and even role-played to understand the problems faced by delivery executives daily or the issues faced by homeless street dwellers. The students undertook challenges such as examining household waste from online shopping, food waste, water mobility, elder care, and hearing impaired people navigating retail spaces to gain a deeper understanding of their users. The students' meaningful interactions with the users helped define the projects, endorsing deep dive-guided research by "interacting with the users personally and understanding the root cause of a specific problem."

The 'assessed' curriculum takes into account the differences in the student experience and the methods of observation and assessment. The respondents felt that "embarking on projects like these transcends the scope of traditional assignments by cultivating critical thinking, real-world application, collaborative skills, creativity, a sense of ownership, and a commitment to lifelong learning." The DIM team also assessed the projects at the national level and selected potential projects for the next phase of the project. The team emphasized that applicable solutions and impact assessment could be eligible for recognition or incubation under the program, which greatly motivated the students. Some respondents opined: "Design thinking is like a teamwork approach to solving problems creatively. When we use it for Sustainable Development Goals (SDGs), it means bringing people with different skills together to find smart solutions for global challenges."

The 'achieved' curriculum entails what the students have learned based on collaborative input. According to the post-module experience, "The most rewarding aspects of the social project and subject include the opportunity for real-world impact, interdisciplinary collaboration with socially oriented design professionals, a heightened sensitivity to

SDGs, emphasis on user-centric design, practical application of knowledge, and the promotion of a global perspective, addressing challenges beyond local boundaries." An overwhelming majority, 57.9 percent of the students, felt that the SDGs would have long-term applicability as design practitioners in the future (Figure 9).

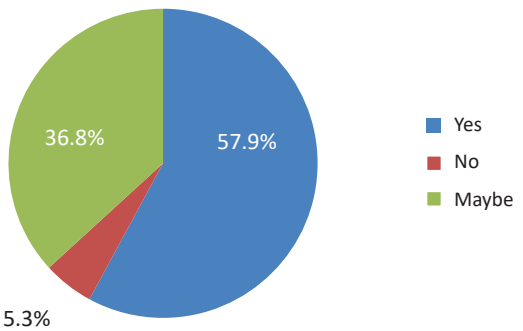

Figure 9: Students' response to long-term applicability of SDGs by students

The objective of the module was to sensitize the students to incorporate an empathetic approach within the social design domain. The respondents were of the view that "the collaborative nature of design thinking and SDGs makes them powerful tools for achieving positive change. By working together, designers, policymakers, and communities can develop and implement solutions that are both effective and sustainable." This gives an insight into how the socially relevant projects provide a holistic viewpoint to the students to enable them to tackle issues at a systems level.

Finally, the respondents were asked to reflect on how their work direction had changed and what new insights they had gained from solving the problem in their particular project. They felt that they understood how to deal with sensitive topics while designing, taking interviews, and discussing them. "In the future, if I must do something like this again, I wouldn't be going in blind." A big majority of students, 78.9 percent, confirmed the long-term application of an empathetic design process (Figure 10). They indicated their learning within the project had equipped them with skills to take on more sensitive projects in the future with equanimity, and the learning acquired during the module would find application in the future. As one of the students stated, "Through the SDG model, I will always try to embed sustainability principles in any of the design projects that I will undertake in the future. This includes considering the environmental impact throughout the product life cycle, from raw material sourcing to end-of-life disposal

and striving for eco-friendly solutions. I will also try to prioritize social inclusivity in design, ensuring that designs are accessible to diverse user groups, regardless of abilities, cultural backgrounds, or socioeconomic status." This was one of the major achievements during the collaborative module, as students found value and felt that they would apply the learning in their future design practice.

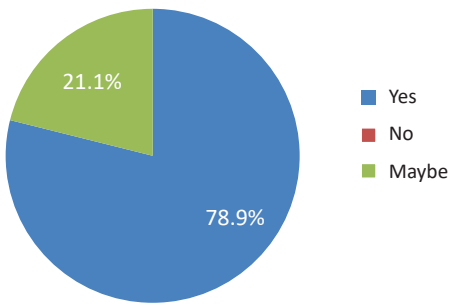

Figure 10: Students' response to long-term application of empathetic design process

Limitations

While pedagogic intervention and collaboration with professional platforms in a competitive mode are beneficial for design education, merging objectives and varied timelines may be problematic during execution. Some of the respondents felt strongly about the paucity of time for ideation after the extensive research and advocated the need for dedicated timelines for real-life projects. For better outcomes, one may consider spreading the project across two or three semesters with continuous evaluation. The relevance of the subject and its real-world implications were emphasized: "Problem-solving projects like these need a very extensive and dedicated time interval, which, if mixed up with the rest of the academic projects, might result in chaos, or the results might not be as thorough and full realization as extensively rehearsed and tested for their practical implementation."

Aligning the academic and DIM project timelines proved to be a challenge, as the academic calendar curtailed the timelines due to end-semester juries and final graduation projects, while the DIM project timelines were longer, resulting in a mismatch. The results were announced half a year later; the students had already graduated and engaged in different endeavors. Even though the majority of the students appreciated the planned and articulated design process, observations exhorted the need for more freedom during the design process.

Discussion

The dichotomy of teaching creative minds how to design more products but how to be responsible for the ecosystem that they create has always been a dilemma for a design educator. This module presented a unique opportunity to undertake projects with real-life applicability, and harnessing the enthusiasm of the student community towards the module pointed to the potential for socially oriented design with sustainable guidelines. As UAL articulates in their Responsible Design Framework (RDF) treatise, educators have the "responsibility of creating responsible designers." As design schools have realized the importance of these issues, design education in India has begun to work towards exploring varied typologies of social design intervention. This collaborative platform fostered students' sensitization to the tenets of socially responsible design, aligning with the educator's goals to make future generations of socially responsible designers who would meld SDGs into their design practice. The opportunity to engage in deep user-based research aided by behavioral and user design experts' deeply insightful empathetic research was appreciated. Responses from the students highlighted their views; one student eloquently stated, "Taking on a project with a focus on SDGs goes beyond merely completing an assignment. It contributes to a broader societal impact by addressing global challenges, promoting sustainable solutions, and fostering a sense of social responsibility. The results can have lasting effects beyond academic achievements, making a meaningful difference in real-world contexts."

The projection of the critical impact of their designed products in future scenarios was also a part of the reflective exercise and its implications for future use. A module like DIM with design mentors from the industry created a journey map for the students to reach their research journey and helped them navigate their way by providing case studies and insights in a collaborative manner.

Conclusion

The purpose of this research has been to gain a deeper understanding of the collaborative design education pedagogy and the students' understanding and response to the collaborative project. The insights provided by the students indicate a definite need and space for implementing modules along the lines of collaborative design pedagogy to create responsible, receptive, and empathetic designers for the future. There is a need for the industry and academia to re-examine design pedagogy and its alignment with industry needs and, through introspection, elucidate more areas for social design research and collaboration. The industry-academia collaborative platforms, supported through corporate social responsibility and funded incubation models, could drive

conceptual projects into the domain of real-life applications to create a positive ecosystem of growth and a mindset geared towards a more sustainable world for the future.

The collaborative pedagogy through industry-academia-expert workshops and interactions paved the way for one of the student team projects to reach the incubation stage, enabling work and dignity among specially-abled individuals for the next phase of funding and mentorship. The success of the student team selected for working on block print tools was chosen as one of the potential product outcomes amongst 3000 projects across India that progressed to the second phase for mentoring for funded research.

Professional design education greatly benefits from the real-time insights provided by practicing professionals. Design educators constantly strive to bolster classroom teaching with enriching insights and real-life applications of learning. The in-depth extreme user study and understanding of the psycho-social behavioral iceberg, which delves deeper to ascertain insights based on the three-stage approach, have the potential to be adapted into classroom teaching pedagogies. It provides the framework for a new praxis from inception to reality for projects grounded in real-life scenarios at the classroom level that have the potential for funding and incubation. The collaborative pedagogy that envisaged industry and academia working in tandem could be beneficial to society if real-world problems are resolved for communities that don't have access to such interventions.

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About the author

Preetha Hussain holds the position of Professor of Design at NIFT, New Delhi. Her areas of teaching and research encompass fashion, body and adornment, design thinking, design strategy, experimental design and spaces, lifestyle trends and forecasts, transdisciplinary aspects of cultural studies, design education, as well as curriculum development and teaching for undergraduate and postgraduate programs. She has been invited as a faculty researcher for a specialized program for Master's in Strategic Design (DIMI) at Politecnico di Milano, Italy. Preetha believes that transdisciplinary learning is crucial and integrates her interest in socio-cultural perspectives with the fields of fashion and design. She has contributed as a key design expert in the realm of color forecasting for Asian Paints color trends workshops, and she has presented papers on varied platforms. She has also been invited by DC (Handicrafts) as a jury member for the empanelment of designers and handicraft awards. As the Chairperson of the Foundation program, she has engaged in curriculum and pedagogic development.

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