A Framework to Review Design Education Programs; A Case Study

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Abstract:

Design Education Institutes across the world are today facing the critical challenge to keep pace with the fast-changing economies. The profile of the design graduates has undergone a sea change. And on the other end, the profile of the incoming students has changed considerably. In India also, the design has undergone major changes and rapid transformation over the last two decades. A gap is being felt between the industry and societal expectations and the skills and capabilities of the design graduates. To address this critical concern, the National Institute of Design, India's premier design institute, initiated a comprehensive exercise to review curriculum and pedagogical approaches of all its educational programs. The complex system of education at NID required the development of a customized, multi-pronged and systematic process to obtain a holistic perspective on the status of design and design education in India. The framework for the exercise was developed around some of the institute's already established best practices and involved all its stakeholders. Each element of the design pedagogy practiced at the institute was taken up and reviewed thoroughly. This comprehensive exercise culminated in the development of a Vision Document, Curriculum Framework, revised Flowcharts and Course Abstracts. It helped revise and improve each course in terms of its effective delivery, outcomes and connect with the overall objectives of the program. The exercise helped revise and realign the programs with contemporary demands and future expectations.

Introduction:

Change is constant in life. And the pace of change has increased substantially in the last few decades. These changes have influenced all spheres of life, be it culture, society, economy or environment. Design is the synonym of change. Design is now recognized as a central factor of cultural and economic exchange. As an indispensable part of any business, the design has today moved beyond just a service industry evolved from craft-based specializations to that of an integrating and

guiding intelligence within the innovation process.[1] The design has today moved into the center stage of success, be it individual or national. The designer's role has also changed from that of a creative artist to that of a strategic innovator.

In India too, the design has today assumed greater significance and recognition. For its diverse and heterogeneous society, its aspiring economy and its large but majority young population, design helps generate new entrepreneurial and employment opportunities thereby helps improve people's standard of living. The designer works here as a catalyst of change to bring in the much needed empathetic understanding, systematic process and holistic vision to connect and integrate various efforts towards a positive outcome.

The National Institute of Design, NID, Ahmedabad, India's premier institute of design, has developed its education programs to suit the Indian context. The institute has over these last six decades, worked extensively with the country's variegated industrial and social sectors. The institute and its faculty have thus gained valuable insights and experiences, resulting in developing sector-specific design intervention approaches. Institute's design pedagogy, initially influenced by the Bauhaus approach, has now evolved and matured over the years. Its graduates have made their marks as design professionals and design leaders in a variety of social and economic sectors in the country and outside. The institute is now recognized amongst the top design institutes in the world.

NID's unique education approach has helped the institute remain in constant touch with the realities outside. The curriculum of its various programs is thus constantly revised and improved to align with industry requirements. However, the increased pace of change at all levels - technological advancements, increased awareness, fast-changing aspirations of the society, they all have created a gap between the industry and societal expectations and the skills and capabilities of the design graduates. NID has also gone through a major transformation during these last two decades. From a single campus institute offering programs in eight disciplines in the year 2000, it has now moved to a multi-campus institute offering design programs in nineteen

disciplines from across its three campuses. Declared 'Institution of National Importance' by the Act of Parliament, by the virtue of the National Institute of Design Act, 2014, the institute now offers its programs at Bachelors (B.Des), Masters (M.Des) and Ph.D. levels. While 35 students graduated in the year 2000, the institute's 39th convocation in January 2019 had 371 students graduate the institute. And over 80 design institutes across the country now look up to the institute for guidance, direction, and vision for design education in the country.

It was therefore felt necessary to initiate a holistic review exercise of its education programs to address the growing concerns and revise and update its curriculums and approaches to align them with contemporary demands and future expectations. This systematic exercise initiated in the year 2016, involved all its stakeholders and culminated in the development of a vision document 'NID@2025'.
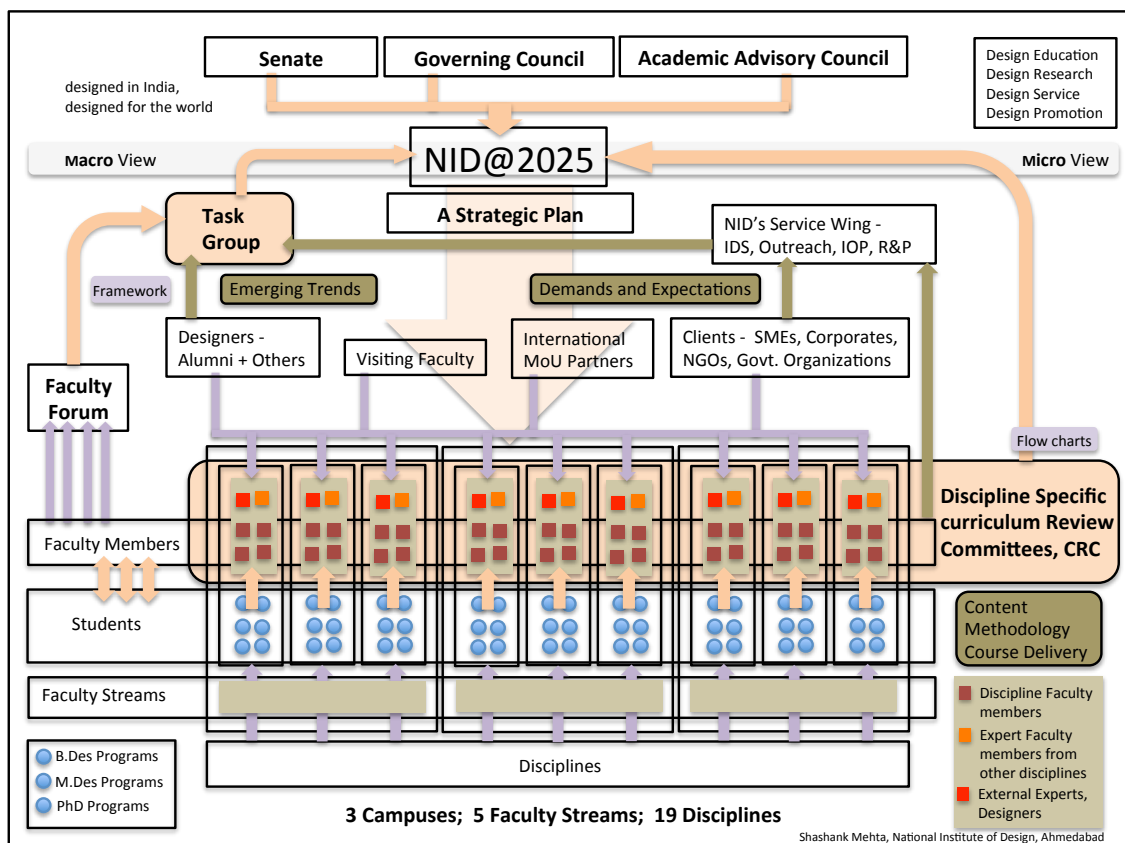
Framework for the Review Exercise of Design Education Programs at NID

Macro Concerns:

One of the unique practices developed over the years and followed at NID is its Faculty Forum. As an advisory body, the faculty forum comprises of all teaching faculty members of the institute. Organized twice a year, before starting the semesters, the Faculty Forum offers the faculty members to come together and share their experiences and learnings from the previous semester, deliberate on the issues and concerns at hand and plan for the next semester. The Faculty Forum would be of two days duration and the presentations and deliberations would focus around the common theme of the forum. Over the last two years, different facets of design education were taken up as the agenda of the forums to discuss and examine them thoroughly and develop further understanding and clarity among its members.

The focus of one of the Faculty Forums was to deliberate on the core mandates of the institute, i.e, Education, Research, Services, and Promotion. All the faculty members in groups deliberated and brainstormed at length on specific topics to then develop recommendations and proposals. Some of the criteria considered during their deliberations included Institute's Culture, Practices, Credo; its Experiences and Strengths; Fast changing Academic, Economic & Social Context; Future Expectations & Aspirations, etc. Before this, another Faculty Forum focused on institute's UG & PG Programs deliberating in detail on Pedagogical Approaches; Teaching - Learning Methodology; Infrastructure & Resource requirements; Student Profile, etc. Around 600 course modules are offered across its three campuses in a year. These course modules would be from different categories and with their duration ranging from one week to ten weeks. Faculty members presented their unique pedagogical approaches developed over the years to engage, motivate and bring out the best outcomes from the students. And during another Faculty Forum, the deliberations focused on revisiting & reviewing the Objectives, Pedagogy, and Deliverables of the Course Categories, i.e Classroom Projects; Skill Courses; Studio Courses; Theory Courses & Graduation Projects.

Outcomes of each of these Faculty Forums were compiled in the form of minutes of the meetings, action points, and proposals. A Task Group comprising of senior

faculty members from across the campuses and disciplines were formed to take these outcomes forward. The group also reached out to the practicing designers and NID Alumni through a questionnaire study to obtain their views and understand the changing design scenario in the country. They also studied in detail the emerging international trends in design education. This exhaustive exercise culminated in comprehensive recommendations, the draft of which was presented to the institute's Academic Advisory Committee, the Senate and the Governing Council to obtain their views. The recommendations were then further revised and finalized in the form of an overarching framework to be then adopted by individual disciplines.

Some of the broad recommendations of the group include emphasizing a process-driven pedagogical approach. For this, it suggests the inclusion of systematic and detailed process documentation of projects as one of the deliverables from the students. Proposing further focus on conceptual clarity and contextual understanding, the group suggests increasing studio courses across disciplines; Flexible, elective based curriculum to promote cross-disciplinary learning, and strengthening institute's unique approach to craftsmanship and skill development are among other recommendations. The group suggests the development of a robust entry and exit process to induct and encourage students having a creative, explorative and experimental mind-set. Culture of display, discussions, presentations and healthy critique of work should be encouraged to set benchmarks for the quality of work. Students should be encouraged to reflect and express their learning through various media. While focusing on nurturing designer qualities in students, the curriculum should also emphasize research and creation of new knowledge.

Among the Task Group's other recommendations include developing ability in students to learn quickly and adapt faster, exposing students to team-work and strengthening professional skills- their communication skills and management skills. Towards developing an entrepreneurial mindset among these design students the group proposes to strengthen inputs on technology and business dimensions in design. The Task Group suggests setting up pop up studios, multi-campus virtual classrooms, technology-enabled labs, etc. to encourage and nurture the

environment for project-based experimentation and explorative learning. With emerging newer technologies, the institute should explore collaborations for state of the art facilities. The group recommends the introduction of new course modules that addresses current concerns and future trends, such as inclusive design, experience design, etc., and also the modules with a specific focus on emerging technologies such as Artificial Intelligence, AI, Internet of Things, IoT, Big Data, etc.
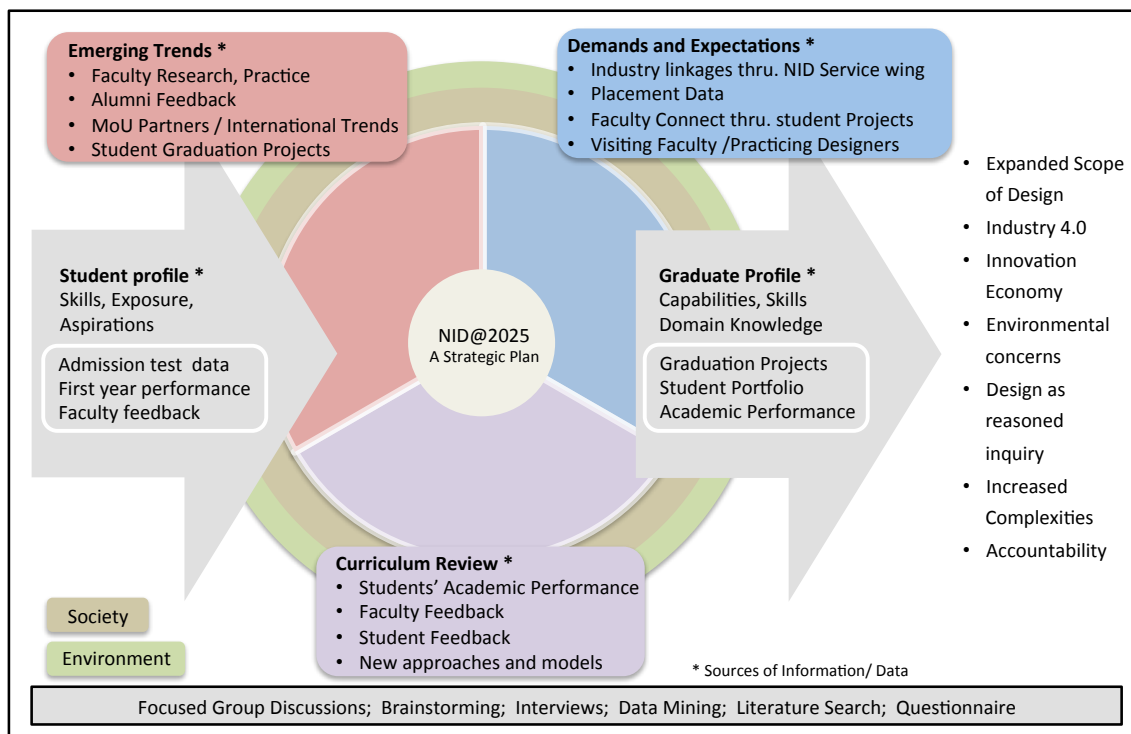
Design Practice at NID creates the much-needed bridge between education and industry practices. The group felt the need to further strengthen the connection between education and other domains/verticals in the institute. The group proposes a proactive approach with a focus on developing new design intervention opportunities. Towards this, it suggests campus wise Faculty-Led Projects & Research Labs, Studios & Incubation Centers, etc. to be set up. With its rich experience of developing design courses now for over 50 years, the faculty members should strive to conduct basic research to form contextual theories in core courses.

Micro Assessments:

NID has a complex organizational structure having Research, Service, and Promotion as its active verticals besides Education. And its academic programs are offered at all the three levels, and from across its three campuses. The holistic review thus required adopting a multi-pronged strategy for systematic and quick assessment of different perspectives and parameters affecting design and design education. Curriculum review exercises were simultaneously initiated across all disciplines. The faculty members of every discipline are closely involved with the performance and progress of the students at every level. Along with their teaching commitments, the faculty members are also connected to their respective industry sectors through the service wings of the institute. Also, the visiting faculty members – domain experts, professional designers; international exposures through exchange programs; industry-sponsored projects; they all bring new perspectives and outside realities to the institute. Discipline Leads (Department Heads) were thus requested to initiate the curriculum review exercise within their respective disciplines. Discipline specific Curriculum Review Committees, CRC, were formed for the purpose. The Committees

were headed by the respective Discipline Leads and included discipline faculty members, faculty members from other disciplines but involved in taking courses in the respective discipline, external domain experts and practicing designers.

Before organizing the CRC meetings, Discipline Leads along with the respective discipline faculty members carried out systematic research to collate the required data and information. Research focused around the following broad areas - Areas of concerns that need to be addressed in the present curriculum structure; Changing social and economic context viz-a-vie the discipline; Future aspirations and expectations from the discipline graduates and the discipline; New teaching-learning approaches/ models if have emerged outside; and the Profile of the future graduates of the discipline. Discipline meetings were organized within the faculty groups, and with the discipline students to discuss and understand various issues and concerns.

Emerging Trends *
- Faculty Research, Practice
- Alumni Feedback
- MoU Partners / International Trends
- Student Graduation Projects

Demands and Expectations *
- Industry linkages thru. NID Service wing
- Placement Data
- Faculty Connect thru. student Projects
- Visiting Faculty /Practicing Designers

Student profile *
Skills, Exposure, Aspirations

Admission test data
First year performance
Faculty feedback

Graduate Profile *
Capabilities, Skills
Domain Knowledge

Graduation Projects
Student Portfolio
Academic Performance

NID@2025
A Strategic Plan

- Expanded Scope of Design
- Industry 4.0
- Innovation Economy
- Environmental concerns
- Design as reasoned inquiry
- Increased Complexities
- Accountability

Society

Environment

Curriculum Review *
- Students' Academic Performance
- Faculty Feedback
- Student Feedback
- New approaches and models

* Sources of Information/ Data

Focused Group Discussions; Brainstorming; Interviews; Data Mining; Literature Search; Questionnaire

Design Institute – a Repository of Information and Knowledge

Some of the wider concerns and recommendations that emerged from this background research exercises included encouraging co-creation and participatory design approaches in the classes. Collaborative work is now becoming a norm outside and the students need to be prepared for the same.   The curriculum at

present, it was felt, is not-so flexible. Students should be able to work across domains and disciplines. And the curriculum should foster integrated learning experiences. Towards these, the present discipline centric approach should be shifted towards challenge centric/ theme based project approach. Students should be encouraged to base their projects on the Indian context. Project timings should be standardized across disciplines. More optional/elective based course offerings should be part of the curriculum structure. The use of digital tools for visualization and for the execution of projects should be integrated into the methodology. Emphasis should be on nurturing ideas/content generation, writing, and articulation. Encouraging group teaching/ co-teaching; alumni mentorship for students; remote collaboration (universities/industries); and online lectures from industry experts, professionals, and designers, etc. were among the other recommendations that emerged from these discipline specific background research exercises.

Equipped with the required information and the overarching framework provided by the Task Group, the disciplines then organized their first CRC meetings. CRCs discussed in detail the present status of the programs and various difficulties and challenges faced today. CRCs then brainstormed on the ways of addressing these issues and concerns. The key focus of these meetings was on reviewing each course modules offered in the discipline. The courses were reviewed with the view to improve their effectiveness in terms of their content, teaching methodologies adopted, learning outcomes and their applications in projects. Suitability of every course in terms of its category, schedule, duration, its appropriateness in the present context, etc. were reviewed. Course objectives, its assignments, prerequisites if any in terms of skills and tools required by the students to complete the assignments, medium and form of delivery, references, benchmarks used for the course, its evaluation criteria, were all discussed in detail. Every course was thus revisited and reviewed by the committee. Examples of the last few years' course outcomes were taken out and presented to the committee. In most cases, course faculty members were part of the committee and that helped understand the context and issues faced in course delivery. The courses were thus revised, updated and realigned with the contemporary context and overall program objectives.

Based on the discussions of the CRC meetings and the inputs thus received, revised flowcharts were developed by each discipline. For the courses that were revised, their respective course faculty members developed course abstracts and detailed course documents. Revisiting the courses provided the faculty members with a holistic understanding of the objectives of the courses as well as the program offered. Exposure to a variety of teaching and learning methodologies helped the members, many of them young teachers, to improve their pedagogical approaches. Strengths and limitations of the incoming students were understood and better appreciated, as well as also the changing graduate profiles. Every course offered at the institute were thus further revised and fine-tuned to improve their effectiveness and alignments with the contemporary contexts. From this year the academic programs at the institute are offered as per these revised flowcharts.

Conclusions:

The design has always been at the forefront of change. However, over the last few decades, the pace of change has increased substantially. Design Education Institutes across the world are today facing this critical challenge to keep pace with these fast-changing economies and societies. The emerging 4th Industrial revolution has expanded the scope of design. Design now has to address complex issues covering larger humanitarian, societal, ecological and environmental concerns of the world. It now deals with both, the tangible as well as intangible expectations. Design is recognized as a critical component of the process of innovation. And design thinking is the core of any business strategy. From a systematic problem-solving methodology, design now encompasses systematic problem defining methodology. And from a rough, ambiguous territory, the design has now moved into a reasoned inquiry.

The responsibilities and accountabilities of the designers have increased manifolds. All these have resulted in a complete change in the profile of the design graduates over the last few years. The designer is now expected to possess a wide range of practical, creative and problem-solving skills. She should have a sound knowledge of

design purpose, content, process, details and methods. She should be capable enough to respond to any intellectual and technical challenges. Data visualization and complex mapping of the data are among her critical skills to deal with increased complexities. With deep empathy towards socio-cultural and environmental issues, she should be able to develop a holistic view integrating both the micro as well as macro concerns. The designer now needs to work across disciplines and domains. With her ability to quickly adapt to new situations, she requires to be a good team worker and a leader.

And on the other end, the profile of the incoming students has also changed considerably. Today's students are less exposed and have limited experiences. Their exposure to the outside world is mostly through the Internet. They will thus be aware of the global scene but are less aware of the local context. The Internet would be their first destination and they look for readily available information. The majority of these students come with limited representation skills. They are not exposed to learning through experimentation and exploration. And with lower tolerance to ambiguity, they would look for clearly defined and framed instructions.

The education programs at NID, India's premier design institute are regularly updated to maintain its relevance to the changing Indian context and its expectations. However, over the last two decades, design in India has undergone major changes and rapid transformation. With global exposure, rising awareness, changing socio-economic profile, majority young population, the societal aspirations and demands of the country's rapidly developing economy have increased manifolds. During this period, the institute also went through the phase of rapid growth and expansion. NID now offers nineteen different programs from its three campuses. And from the year 2014, as an 'Institute of National Importance', NID confers degrees to its students. The institute with its over sixty years of active involvement in design education, design practice, design research and design promotion in the country, is looked at as a benchmark in design education.

A comprehensive exercise to review the institute's education programs, their curriculum, and pedagogical approaches, was initiated in the year 2016. NID today offers a range of design programs across different levels. And its education wing is among one of the four verticals of the institute. NID thus follows a complex organizational structure. A customized, multi-pronged and systematic process was developed to obtain a holistic perspective, covering both the micro issues as well as macro concerns. Adopting a participatory approach, all its stakeholders were involved at every stage of the process. Sessions of focused group discussions, brainstorming, workshops, and interviews were planned at different stages of the exercise. For each of these sessions, a broad framework and guidelines were planned and provided to the groups in advance. The entire process was developed around some of the institute's already established best practices, such as its Faculty Forum, Discipline Meetings, etc. With its vast outreach through its different verticals, NID as an institute is a repository of knowledge and information. Required data and information were pulled out from all its different departments and sources, and were systematically analyzed and their inferences were presented and used during the review process. Each element of the design pedagogy practiced at the institute was taken up and was reviewed thoroughly. Various committees and task groups comprising of faculty members and external experts were formed during different stages of the review process.

The recommendations developed by the Task Group and its resulting overarching framework was flexible enough to be customized and adopted by each discipline. Detailed course reviews carried out by respective discipline specific Curriculum Review Committees helped revise and improve each course in terms of their effective delivery, outcomes and connect with the overall objectives of the program.
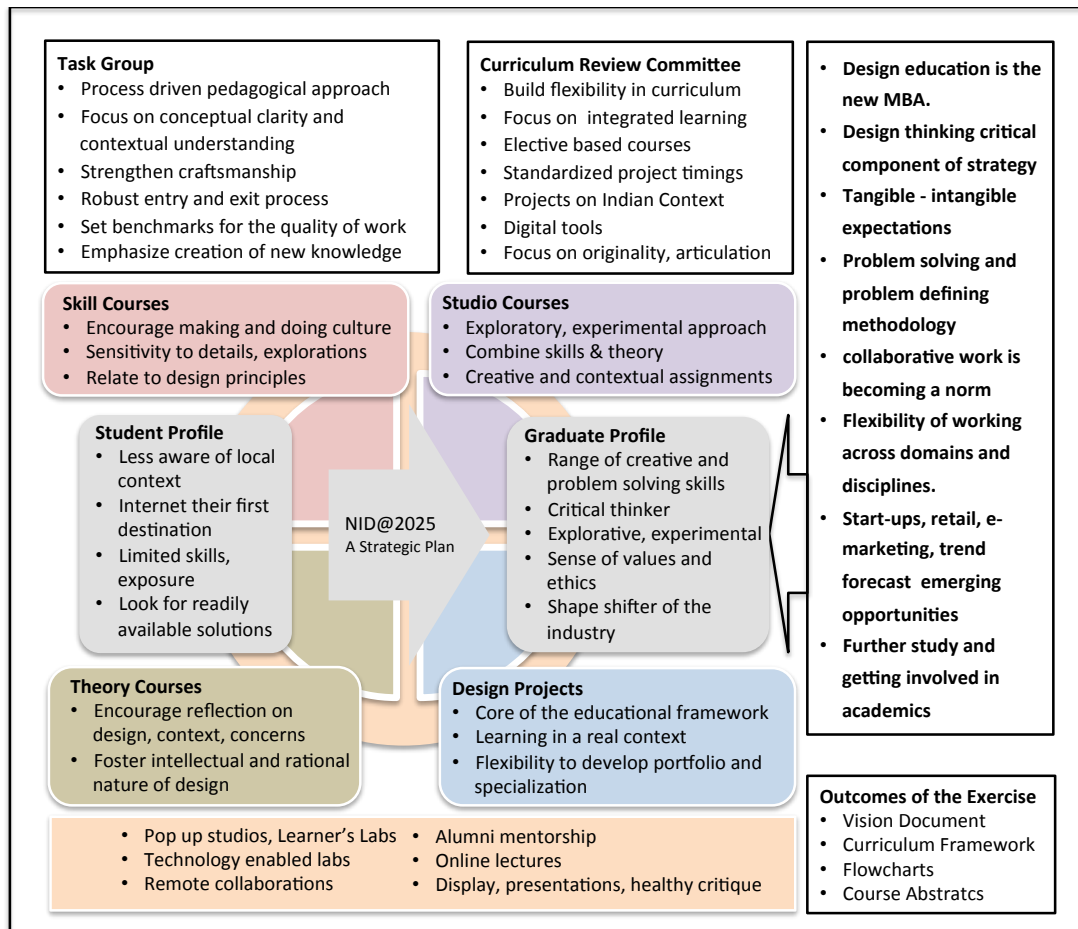
Proposed Pedagogical Approach and Curriculum Structure of Education Programs at NID

This comprehensive exercise helped faculty members revisit and reconnect with the objectives and pedagogical approaches of their respective programs. The exercise has helped revise and realign the institute's programs with the contemporary context. Priority areas have been identified and strategic plan for the next seven years has been worked out. The new vision and direction thus developed, is sure to help the institute move up in the value chain and create new benchmarks for others to follow.

References:
1. Mehta, Shashank; 2018; Design at the Doorsteps: Design Approaches for MSMEs; ISBN 978-81-86199-90-9