Pedagogical Experience Design
– A Pedagogical Framework for Higher Education

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Abstract

Pedagogical Experience Design (PED) does not only intend to stimulate practices in the context of higher education rather than afford a comprehensive role which cross several fundamental aspects to that helps on the improvement of a strong learning path.

Designing an integrated strategy where each year follows different learning layers, with distinguish interaction models that combine social and active skills, like: a) assembly a motivated mindset with empathy, curiosity, and critical thinking; b) in the beginning of each year outline modular topics in order to structure a mentality shift; c) open classrooms to diverse publics supported by a specific ecosystem Fábrica - School Agency, that brings together partners, social responsibility organizations, trendsetters, professionals to innovate; d) more interaction in immersive external environments; e) extra content/ knowledge stated by projects or integrated outcomes; f) guiding professors with other methodologies and active learning tools, oriented to their scientific topics, but also for an interdisciplinary mediation between cross courses around real problems, from present and future, where it is expected distinctive and common learning outcome.

Our main goal is to provide and implement a set of information's in which we believe that is not a recipe, but a structure to promote distinctive learning outcome for the students, fulfilling objectives and specificities of the scientific subject, taking advantage around what the university hosts, a diversity of courses. This strategy aims to transform entirely the continuing cycles of higher education. Here, the learning experience should leverage perpetual attitude of education in lifetime. Integrated vision between student empathy, context learning, methodologies, learning models, technics, digital tools, assessment, portfolio and evaluation metrics.

Keywords: Pedagogical Practices, Experience Design, Active Learning, Critical Thinking, Ecosyste

1. Introduction and scope

Transformation, evolution and innovation are mandatory key lines for human being progress, when focus on innovative approaches or strokes around the survival in the growth of species. Although it still a hopeful vision, and in some cases speculative, it is believed that technological immersion in space and body, can become the next step in transforming the teaching in higher education. For professors and researchers to fully work with education at this technological level, a transformation in use / experience is required, as well as, a digital literacy gather human being without dehumanization. [1]

As an outcome, professor's role will change, acting as a mediator between different boundaries, using educational tools which are facilitators in the development of knowledge; following the students path acting as a mentor; challenging the student in his experience, managing their expectations and acquisition of human qualities. [2]

The transformation referred above will be mainly centered on student, resized by contexts like, higher education, social impact, cultural environment, technological skills and in particular, generational changes.

This article presents the first approach of a strategic and systemic framework, with a view of the valuing pedagogical practices, focus on the creative field, which crosses scientific areas such as, design, marketing and advertising, communication sciences and computer sciences. This scenario is a challenge, and requires specific knowledge and a rigorous plan, which means that it should be an institutional strategic positioning. [3]

2. The implemented model

Pedagogical practices in certain scientific areas of higher education, work together with established programmatic contents, especially in the field of creativity, where some tools are also used as project

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instrument. Following Biesta (2007) strategies, and regarding the context of the study presented here, initially, it was necessary to identify, in each scientific area that we are working with, which were the contexts, professors and students, where it would make sense to test a pilot of the framework: [4]

After identify each curricular structure, what are the skills involved, and the goals defined, it was possible to conclude a diagnose about transforming the role of pedagogical practices in the institution:

- More flexible interaction between actors: between professors, professors and students, and among students. The goal is common. To improve the experiences, following the criteria of diversity, in students' community inside of classes, and in extra-curricular context, centered on the students changing process, towards an applied learning approach and the students self-paced learning pathway.

In this way, each year from the three related to the undergraduate courses was structured according to the following issues: goals established, project typology, methodologies applied, induction sections and student shift mind-set. Figure 1 shows the strategy in detail:
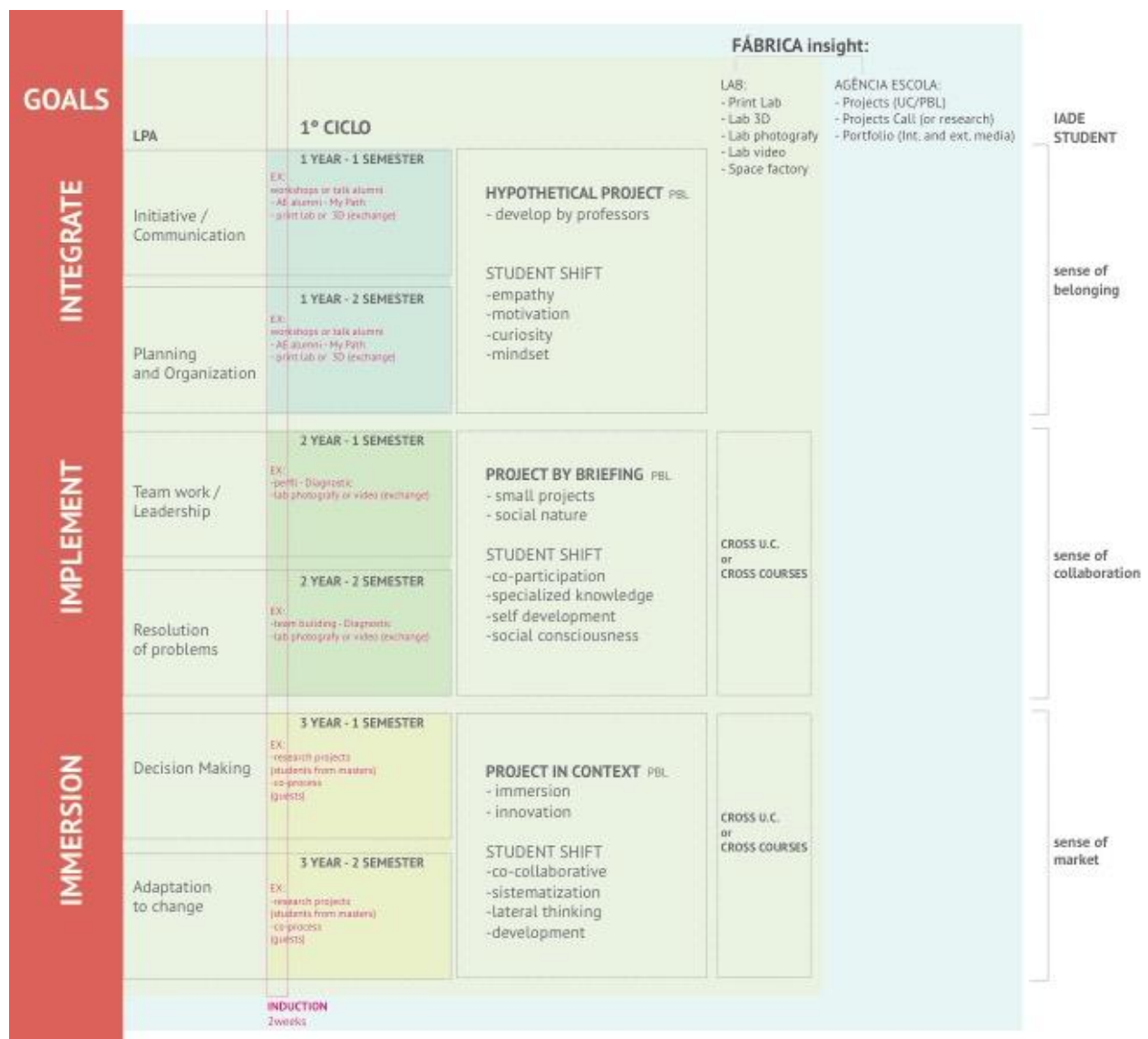

Figure 1-PEDAGOGICAL PRACTICES _ Strategy and Manual, Source: all authors (2017)

In each year, while the students are improving their skills, it happens an engagement with the development of the project: multilevel knowledge – developing comprehension, technical, and critical thinking.

In presented framework, the subjects related directly with a project are naturally oriented to the competencies that present a "specific knowledge" typology, while the others should be more oriented

towards the acquisition of technical and contextual comprehension. The model argues that the latter should incorporate a percentage of their program content into the curricular units of the project, as these units should function by agglutination, which articulate and guarantee focused learning and interdisciplinarity between curricular units of the same semester.

As figure 1 presents, the model defines that the institution's goal should create an ecosystem to allow:
a)   In the first year, student's incorporation in the correct mindset;
b)   In the second year, enable them to implement their own ideas; and
c)   In the third year, with transdisciplinary expertise work in immersive environments enhanced by market partners.

Each year, the student is challenged to work different typologies of projects:
a)   Hypothetical Project: aims to exercise the contents of the 1st year regardless the type of deliverable;
b)   Project by briefing: sight to involve ethical areas like social responsibility, with projects in the 2nd year where the partners provide relevant information;
c)   In-context project: the perspective here, in the third year, is to work projects focused on experimentalism and innovation, where the partners play a more active role, bringing to the context of a classroom, stakeholders to complement the knowledge and availability for immersions in their contexts;
d)   Extension of Typologies a) and b) where total interdisciplinarity is desired between units of the same semester, within the same course / program,
e)   Extension of Typologies a) and b) where total transdisciplinarity is desired between curricular units of different courses / programs. Cross-curricular projects are called, where multidisciplinary interaction is added through the transfer of knowledge between peers (students and professors) from different scientific areas.

The projects that match with both requirements identified above and scientific outcomes of the subjects, are highlighted by the institutional structure that states different complementary areas which support the work developed and the objectives of the Pedagogical Practices.

The Fábrica-School Agency, has the privileged of connecting academy with the market, selecting the partners which profile corresponds to the scientific topics, also triggers specific extracurricular projects, in partnership, with several research and technical labs to complement or make grow students' experiences.

All challenges referred have a purpose, since they confront the student:
a)   Arrange their schedule for internal and extracurricular projects,
b)   Share knowledge learned,
c)   Use soft interaction with groups,
d)   Acquiring new knowledge through different professors, stakeholders and mentors.

Whether in the curricular or extracurricular context, professors have the fundamental role of mediation, supported by pedagogical tools, already tested in the context of active reading and with the potential to train students without physical and disciplinary boundaries, empowering them critical thinking through cross disciplinary / or interdisciplinary / or multidisciplinary / or transdisciplinary. This scenario will prepare them to immerge in the market, and for diverse global contexts as entrepreneurship.

The Induction initiative (see figure 1), that takes place in the first two weeks of the classes, aims to present the vision referred above, exposing the student to different experiences organized according to the academic year and the goals to be reached during the same year and organized according to with the guidance of the counsellors. [6]

In short, this model intends:
•   Structure a learning path to keep the students motivated;
•   Keep them focused on goals;
•   Empower their vision for self-driven;
•   Provide a sense of belonging through fulfillment, empathy, joy and relatedness;
•   Stimulate the collaboration through pride, self-development, commitment and admiration
•   Give practical perspective of the market focused on collaboration, self-expression, pride and jealousy.

2.1. Pedagogical instruments for practising and strengthening

In order to orientate the professors in how to apply this model, it was organized, with the support of the coordinators of the different courses, an electronic manual with all information, a timetable was established involving the coordinators, regents, Fábrica-School Agency, partners and monitors, in different meetings, where they were presented to:

a) Strategic manual with pedagogical practices - 62 pages' document that identifies the strategy, outlines the model of active learning, models, techniques and digital tools. This guide talks about empathy students, context learning, flipped classroom, active learning, bloom's taxonomy, 14 learning models, 55 technics, and presents several digital tools and teaching portfolios.
b) UCs & cross briefing – A template that allows professor to plan all classes, define contents, objectives, identify practices, outcomes, evaluation and student experience;
c) Plan UCs & cross – A template that gives opportunity to the professor to plan all classes;
d) PP self-evaluation template, which allows professor to conduct an evaluation of his practice in the middle of the semester;
e) Flow of evaluation that all the work developed and delivered by the professor;
f) Survey, to be answered by the students, for evaluating the practices, focused mainly on the student's learning experience.

3. Discussion

This article presents a model focused on its design phase, and since the pilot is in the beginning of the implementation process, in the current school year, we cannot provide yet real evidences such us, quantitative or qualitative results, about the application. Currently, 16 classes are being monetarized in curricular subject projects and 16 cross-courses transdisciplinary projects.

However, it is possible to underline previous outcomes that we are expecting:

a) Student with a solid mindset, motivation, empathy, curiosity, critical thinking;
b) Enable the student to have a vision of the path and goals to achieve in the future;
c) Building a student-centered experience, challenging greater empathy between professors, students and society;
d) Resize the professor in his practices around the academic context;
e) Activist behavior in the attendance of curricular and extra-curricular projects;
f) Proximity to partners of social responsibility, partners to develop experiences and innovation, active professionals who introduce specificities, experiences and trends of the market;
g) Assembly partners that gives to students different dimensions and spaces;
h) And fundamentally, to build the role of the student in our days, the professional of tomorrow and the human being of always;
i) Engage professors to improve their knowledge about digital platforms enabling data sharing, group work and mid-term assessments;
j) Rooms and equipment more flexible and adjusted to new practices;
k) The institution, as an open and decentralized learning space, with internal and external public, with challenges and focused on experimentation and innovation;
l) integration of the content and knowledge of the fundamental areas into real experimental, innovation or speculative projects;

4. Conclusion and future work

Empowering our students with the approach referred below, mindset changing. We will adapt the desired results to a master's level, where a holistic context will be guided for scientific content, designing potential proposals of dissertations with insusceptible research progress to PhD level. The methodological dimension of pedagogical practices in master context present immersive practices with support of research methodologies, making pupils aware of an in-depth and more aware approach to potential projects developed with conceptual and / or with external partners purposes.

It is expected obstacles, even reinforcing our perspective in the state-of-the-art reviewed. E.g., the lack of an inclusive vision around the long-term learning objectives is in itself a warning to achieve goals. [7]

The learning experience should leverage perpetual attitude of education in lifetime, an integrated vision between student empathy, and the learning context, methodologies, technics, digital tools, assessment, evaluation and portfolio metrics.

For future, we aim to improve the diversity of the cycles of study, implementing a transformational vision, transition from the 1st to the 2nd cycle, stimulating the evolution of learned knowledge,

identifying with that which degree students are already able to: understand and articulate concepts; apply and complement; analyze and deduce; evaluate and argue; and create and build.

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