THE CENTRALITY OF DESIGN IN EDUCATIONAL CONTEXTS

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Abstract

In everyday life we set ourselves goals to be completed: we have ideas, thoughts, dreams, but it is only by putting them into practice that we can realize them. This is the design. Designing means creating a path, a path with various steps, so that we can achieve the set goal, to satisfy a need. This is especially true in the educational field: designing transforms the ideas of an educator, teacher, into reality, changing the future, improving it. It is in this perspective that we intend to deal with the question of design in educational contexts, with the reconstruction of the theoretical framework of reference, with the main observational, declarative, connective, methodological, relational, transformative and evaluative characteristics. With the analysis of the two main approaches to educational design, linear and circular, we want to highlight the importance of design competence, interpreted as the ability to transform the theoretical elaborations of problems and needs into practical actions that solve them.

Nella vita quotidiana ci poniamo degli obiettivi da portare a termine: abbiamo idee, pensieri, sogni, ma è solo mettendoli in pratica che possiamo realizzarli. Questo è il design. Progettare significa creare un percorso, un cammino con varie tappe, in modo da poter raggiungere l'obiettivo prefissato, per soddisfare un bisogno. Questo è particolarmente vero in campo educativo: progettare trasforma le idee di un educatore, di un insegnante, in realtà, cambiando il futuro, migliorandolo. È in questa prospettiva che intendiamo affrontare la questione della progettazione nei contesti educativi, con la ricostruzione del quadro teorico di riferimento, con le principali caratteristiche osservative, dichiarative, connettive, metodologiche, relazionali, trasformative e valutative. Con l'analisi dei due principali approcci alla progettazione educativa, lineare e circolare, vogliamo evidenziare l'importanza della competenza progettuale, interpretata come la capacità di trasformare le elaborazioni teoriche di problemi e bisogni in azioni pratiche che li risolvano.

Keywords

Design, planning, education, project cycle, design expertise

Design, progettazione, educazione, ciclo del progetto, esperienza nel design

1. Introduction

The Latin etymology of the word design, pro-iectum, allows you to visualize the action of throwing, iectum, something in front, the pro. The image is that of a process that includes all the actions necessary to transform an idea into an object, an event, a structure, or any other situation that concerns the creation of «*qualcosa*» of new or different. In every design action there is both the creative reflection of the designer, and the potential for transformation, change, on an aspect of reality that has not yet been experienced.

Design is an action that starts from an idea, goes through the phases of planning and implementation, to get to the creation of something innovative. It is like a core-competence of humanity, what has allowed the evolution, transformation of societies and understanding of

human and social relations. The same relationship between man and the environment is based on design expertise.

We can say that design is a process constantly linked to the flow of time and history that links innovative and imaginative thinking to past and present reality to transform it into something else. Each cultural, scientific, social result is the result of a conscious or unconscious design that has innovated objects, materials and symbols, but also ways of working, organizing, managing services and structures for the population (Paradiso, 2020, p. 5). It is designed to respond to an ethical need. We design to ex-ducere, to support, to integrate, to compensate, to help people. A project, especially if we are talking about a pedagogical or professional educational project, is a structure built to meet the needs of the person.

A pedagogical project must have, as its ultimate objective, the pursuit of the development and improvement of adaptation to the environmental context of the users, it must improve their lives. Our ultimate goal will always be the person. In this context, designing is an essential action which can't prescind from doing, it is a precious space-time, dedicated to the reflection on the other as a person who challenges us with specific needs and requests. Designing in the educational field is a conscious and constructed response. It is an articulated, specific, in-depth teamwork, which must take into account multiple complexities, must be capable of resources and strategies, of invention and innovation, of listening and presence, of concreteness and punctuality.

2. Progettuality and design

When we talk about design it is necessary to differentiate the planning, the design and the project, which represent phases and actions different from the process of elaborating an itinerary of educational and social work.

The planning represents the intentionality of the designer: it is formed in a process of conception, elaboration, research and reflexivity on educational and socio-cultural contexts, to become a design idea that describes the desired change. In this sense, the planning, in addition to representing the designer's vision, structures the frame, the boundary within which the educational and social action develops (Blezza, 2020).

Design, on the other hand, is the process that translates the intentionality of the designer into a work plan that defines the transition from the ideal to the real: it is an ordered series of actions that puts in relation the elements, levels and design areas that determine the educational and social action, functional to the achievement of the desired changes. In particular, with the term design, we refer to the work process that results in the definition of a project, of social, educational, training, social and health and cultural intervention, in the development of communities. The design, in fact, is a set of actions aimed at co-building an itinerary of educational and social work: it is a process of research, discovery, classification and verification that arises from a "thought action" (Dewey, 1971), by an individual subject, the designer, or by a multiple team (Cavagna, 2020).

Finally, the project is the final result of the design cycle that is substantiated in the final document, representing the design path developed by the operator and the educational and social work itinerary. It is the instrument that directs the design action, which promotes the transformation of the experience of oneself, of groups and of the community according to a need or the solution of a problem.

The project is the documentary structure that describes the set of educational, social and training actions in relation to the analysis of various needs; while design is a dynamic, flexible

and articulated action that develops in a procedural dimension that alternates phases of study, evaluation and documentation starting from an ideation phase, where it defines the hypotheses of intervention, to another phase that studies the design action, to a documentation that traces the memory of the project to one of educational and social evaluation that observes the results achieved. It is important to add a further terminological distinction that distinguishes the project as a fundamental element of the design process, from the project cycle that represents the implementation phase of the design: the moment in which the educational and social work is carried out and concluded. This allows us to visualize two necessary aspects of the design work: the design cycle and the project cycle, which represents the implementation part, the realization of the educational intervention.

In its broadest and most shared meaning, designing means "conceiving something and studying in relation to the possibilities and ways of implementation" (Blezza, 2020). This definition recalls the specific elements of the activity itself, but constantly involved with each other: a moment of the present, of conception of the here and now; a future moment, in which the activity is started and its realization is evaluated within the limits of the possibility; a past moment, relative to the experience from which that particular and specific idea arises.

Starting from the analysis of the etymological term of design, it can be noted that it is close to the shared negotiation of the meaning of the term project. Both terms have, in fact, the same root and their distinction allows to acquire tools to decline the functional aspects of the educator's design action. According to a psychoanalytic approach, it can be argued that the activities of the symbolic are concretized in planning, and consider a question, which acts and aims to modify the world, in relationship and sharing, and in action with the Other; while the projection mobilizes the imaginary and becomes a desire intent on modifying the image of the Other and of one's relationship with the Other. The conception of planning oriented to the symbolic always considers the relationship with the Other and the dimensions of possibility that, in this relational interweaving, are recalled and constantly questioned. It is precisely this attention to the interweaving of the questions of the world, those of the subject and the actors present on the precise scene of life that makes design possible.

The possibility of designing is based, therefore, on the connections, constantly revisited, between constraints and desires. Reason for which it is possible to affirm that if there is no desire, there is no project (De Angelis, 2016, p. 23).

3. Theoretical design models

Educational planning is a dynamic process, open to reality, which explores the different possibilities of living in groups and in community and which supports the person in his becoming. At the same time, it participates in the creation of the common good (Donati, 1991).

According to this logic, we can say that the logic of design has different functions:

-       observational: it interprets the social reality (communities, groups, individuals) in the different states of life in the community (from situations of well-being and development, to those of crisis, to reparative ones), in the awareness of the theoretical models adopted;

-       declarative: makes the design intentionality explicit and public, allowing all the subjects involved, recipients and designers, to be clear on the field on which they are working and, consequently, the boundaries of their "being in that situation";

-       connective: involves the different systems of society that in social and educational work must be closely integrated with each other;

- augmentative: works on different levels of socio-educational-cultural need, promoting system actions that develop a sense of community and empowerment;

- methodological: it includes methodological assets able to collect information on the project development process during the intervention phase; in the conception, definition, implementation phases, it is always possible to monitor the progress and redesign the intervention;

- integrative: involves different professional profiles that also belong to different sectors and services, developing inter and intra-professional group work paths, in the design of group communities or on the person, avoiding fragmentation of interventions;

- transformative; transforms the results of the project into cultural heritage and a common good;

- participatory: acts on the relationship between designer and beneficiary of social and educational work to activate processes of sharing objectives, stimulating the processes of self-determination and self-development. It is a function that reinforces empowerment and a sense of community, reducing the experience of alienation and extraneousness that an institutional design could transfer;

- evaluative: allows to oversee the results of the design both in the individual phases and in the final results of the project. In particular, it is able to constantly oversee the direction of the project by detecting the unwanted or "perverse" effects (Boudon, 1981) that worsen the problem.

These functions, if pursued, guarantee the quality of the process itself: these allow, in fact, to assess whether the project group respects and observes reality; whether it promotes integration, assesses the needs of individuals and groups and adopts appropriate methodologies. All of these conditions allow an improving experience for the community (Paradiso, 2020, p. 30).

4. Linear and circular approaches to educational design

The design approaches that have been developed can be of several areas: on the one hand we have the logical-linear theoretical models, based on principles of absolute rationality, on the other we have circular models, able to integrate different perspectives, to create interdisciplinary bridges, to share different languages and interpretative models.

The perspective of rational logic, observes the elements and phases of the design within a model which is able to analyze the problems in an objective and relational mode; the circular one, on the other hand, visualizes the social and educational complexity by shifting attention to the description of problems, to the analysis of phenomena and to the processes that form them in the interaction of different systems (Bronfenbrenner, 1986, p.36), which determine a path of development and promotion of well-being, or that maintain and/or enhance discomfort and difficulty.

In the history of design, the dialectic between objectivity and subjectivity, linearity and circularity, has crossed concepts such as: absolute rationality, as a process of analysis of objective reality able to order, classify, decompose, analyze phenomena and data in defined, replicable and standardized actions; limited rationality, as an expression of critical thinking (Romei, 2000), which takes note of the cognitive limits of man in the processes of processing decision-making information; multiple rationality, as a result of a symbolic-constructionist

thought (Bruner, 1991), which considers the point of view of the subjects and their influence in any activity of analysis and design elaboration.

For each of these perspectives there have been design "myths": in the linear one we have the myth of analysis, control and the possibility of planning social processes and predetermining results effectively and rationally; in the circular one we have the myth of relativity, of the impossibility of controlling phenomena in relation to the perception of the difficulty of identifying and managing relationships, interdependencies and feedbacks.

Connected to this subject we find what are the tensions present in each model and always present in the design model:

- between the qualitative and quantitative dimensions in the definition of results; between the flexibility of the project and the definition of parameters that guide the intervention;
- between the global vision of the intervention and the particular look at the individual elements;
- between the need to define each area of design and the possibility of maintaining an open space that allows the observation of the unforeseen effects of projects;
- between rationality that requires convergent thinking and creativity that pushes towards divergent visions capable of finding new solutions to educational-training social problems.

 In particular, we find these issues in flexibility against definitiveness, as an attitude linked to the variability of the different elements of the project, to the possibility of changing point of view, to the global vision against that of the particular: as attention to the processes of framing the problem of needs, to the instances of development of new trajectories against attitudes of reiteration of past actions, of perfectionist choice on particular aspects.

To the opening against closure, as an orientation towards diversity, towards what has not been considered, and, therefore, analyzed, that changes the design framework and allows us to take other paths against the known, the delimitation/closure of spaces of knowledge and experience.

 Creativity versus rationality, as attention to a reality that acts in the project as a space of regulation between thrusts and centrifuges that broaden the gaze of complexity and centripetal thrusts, which limit the observation to a limited series of information, running the risk of fragmentation and parcelling.

Linearity and circularity intervene in the design and educational-social work alternating or overlapping as complementary looks in governing the complexity of the design system: an example is the definition of the relationship that requires a logical-linear and, at the same time, strongly situational approach, in the moment of the analysis of problems and in the translation of problems-needs or in the choice of actions that can produce an ecological transformation (Bronfenbrenner, 1986, p.39).

5. Design approaches

Design models can be of two types: on the one hand we have one that observes the level of participation of the actors involved and the processes of analysis and knowledge of the problem, in the distinction between synoptic-rational approach, concentrative-participatory approach, heuristic approach; on the other hand we have an approach that analyzes the design action according to the type of process identified as planning or problem solving or dialogical.

In the field of design, the three approaches have a decisive influence on design actions because they cross and connect the design cycle and the life cycle of the project.

Precisely: design as planning that meets the synoptic-rational model and works according to a principle of absolute rationality through which it is possible to identify the best solution to a problem and define the implementation of the project through actions defined and planned a priori.

Design as a dialogic process is linked to the concertative and participatory approach, which highlights the value of dialogue, relationship and participation in the design process; problem-solving design intersects with a heuristic approach of observation and exploration of problems in their determination.

The synoptic-relational approach adopts the principle of linear randomness as a model of interpretation of the intervention, of the phenomena and of the social and educational problems (Demetrio, 2009).

The basic idea of this approach rests on the possibility of identifying the absolute causes of a problem and, consequently, of carrying out a precise planning aimed at the desired social change. It fits within a positivistic and experimental perspective, which identifies the project as the planning of activities from a problematic situation, to the planning of actions to solve it. The principle that inspires it is that of absolute rationality that has emphasized, in the organizational sciences and the social and educational ones, the possibility of adopting a linear logic of the analysis of the solution of problems/needs. The reality, the object of the intervention, must be analyzed according to the principle of the decomposition of primary and secondary causes, tracing a direct cause-effect function, in the various educational phenomena.

6. Design competence

The design is carried out within systems of relationship, of cultural and scientific dispute, which prelude a dynamic and "infinite" process in the pedagogical sense of the continuous and incessant work of thinking about the other and thinking of oneself in continuous tension and transformation towards a sociable, better, supportive ideality (Traverso, 2021). In order to be able and knowing how to create a project, design expertise is undoubtedly necessary. It is possible to decline some basic elements from which to explain the skills that the educator, who is preparing to carry out a project in his educational field, should refer to:

- Inquiry: collection of the necessary data that designers can use to constantly verify that the intervention they are designing is appropriate for the target audience
- Development: Design factors to keep in mind when making decisions and resolving issues during the development process
- Team: Decision making is a team effort that includes all necessary areas of expertise
- Evaluation: evaluation at all levels of the process, including the continuous critical evaluation of the evaluation process itself.
- Brainstorming: gathering information from different stakeholders during the design process

In addition, the designer in the educational field should master the most common design tools such as:

- Stakeholder analysis: analysis of the characteristics of the "stakeholders" of reference, where "stakeholders" are interpreted in a very broad way as the individuals or institutions that can influence or be influenced by the project.
- SWOT analysis: at a more detailed and in-depth level, SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis highlights and allows to better evaluate priorities, problems and possible starting points in a project intervention.

- "Spider web" diagram: allows you to visually represent the most relevant dimensions in the analysis of a given context and its stakeholders. It can be particularly useful to make a comparison between different subjects articulated on different dimensions, or to highlight the differences between the current situation and the desired situation.
- Tree of problems: Organizes the problems that emerged from braistorming into a well-defined hierarchy.
- Tree of objectives: represents a simple "reformulation in positive" of the previous tree of problems, of which it shares the substantial structure.

Furthermore, design competence can be defined as multidimensional, as it requires skills in pedagogy, didactics, educational research, evaluation, social and cultural fields.

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