Flipped Inclusion: An Anthropocentric Ergonomic Model

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Abstract

The experimental research of the Flipped Inclusion model, conducted by the University of Salerno, following the conceptual paradigm ergonomic anthropocentric, declines the concept of inclusion in a micro-meso-and macro systemic perspective, using cyclical modular paths of cooperative interdependence focusing on flipped and non-linear teaching actions aimed at solving the cultural tendencies connected to disoriented post-modern society. Starting from the needs and the involvement of the person, the Flipped Inclusion translates the international standard ISO through the immersion and framing of problematic conceptual issues, the development and implementation of solutions, following the four sequential-transformative design phases of the Flipped Inclusion (Exploring-Conceiving -Designing-Testing). The aim is to provide critical interpretation tools capable of promoting inclusive prosocial profiles, ergonomically redesigning the operating procedures and inclusive socio-relational contexts, in the optics of the promotion of anthropocentric co-constructed processes.

Keywords: *learning, inclusion, ergonomics, anthropocentrism.*

1. Introduction

The drying up of the concept of human community [1], as shared transcendence and intersubjective communion, typical of the mobile and disoriented post-modern society [2], is configured as the reflection of postmodern metaphysical individualism. The anthropology of the atomized individual [3], enveloped in logical aporias, operates in the principle of total and divine self-sufficiency.

The uncritical adherence to pre-established dogmas translates into the inability to refute widespread symbolizations and to produce divergent universes, to the point of inhibiting new transformative solutions and producing acquiescent forms of discernment [4]

The interhuman bond, which is embodied communicativeness, risks both depleting the dialogical value of a foundational alterity, and of inducing prejudicially nihilistic sense productions [5].

The unveiling of the axiological value of the person, individual substance of a relational nature [6], allows us to glimpse the epicenter of a neo-anthropology of the community, which heals and reconfigures the cultural presuppositions of global capitalism, starting from the dialogic re-humanization between universes values [7].

It unfolds, in this sense, the trajectory of humanist anthropocentrism, tendentially ethical, so-called noble [8], which promotes an effective renewal "aimed at reconfiguring pedagogical knowledge and educational practices" [9], in the context of a design ergonomic-inclusive existential.

2. The Flipped Inclusion model and educational research

The experimental descriptive-transformative research [10] of the Flipped Inclusion model carried out at the University of Salerno, in line with the ergonomic-anthropocentric conceptual paradigm, aims at the de-construction and re-construction of the person, the principle and outcome of each pedagogical reflection [9], in view of a generative and re-generative pro-social transformation of the quality of human relationships, of the connective tissue of the community.

With an anthropocentric ergonomic approach, Flipped Inclusion, as an exploratory study, design and experimentation of complex adaptive systems, aims at the trans-formative efficiency that is determined through the implementation of technological systems, applied in a prosocial perspective [11]. The model tested proposes a dynamic, circular, generative and maieutic work organization of relational communion, with computational logics [12]. One of the aims is to promote prosociality, investing in social nature and in media-educational peer-communication, through the promotion of an anthropomedial empowerment, which transcends individualisms [13].

The ergonomic-educational interventions of flipped inclusion presuppose the involvement of people in the planning and control of their own activities. With the aim of achieving the set objectives [14], each intervention develops in a systemic perspective, in that "*knowledge of a work system is inextricably linked to the study of the interactions between the parts that constitute it*" [11].

Retracing what the International Organization for Standardization [15] reiterated regarding the principles of ergonomics as basic guidelines for the design of work systems, flipped inclusion follows a cooperative approach throughout the process of exploration, conception, design and experimentation. It also invests in the didactic transposition [16] of the theory of operant conditioning and of Goffman's Frame analysis [17] through the identification of stimulation anchors of the selective processes, declined in steps of: 1)Key, 2)Frame, 3)Framing, 4)Framework [18]. In this sense, the educational value of simplexity teaching [18], rooted in levels of learning for decomposed problems [19], is reaffirmed. In flipped inclusion the work process, structurally ordered and organized in a deconstructivist perspective [20], follows a procedurality of the interaction, *"considered in its sequence (times and spaces) between man, equipment, materials and information present in a system, carefully thought out to give due importance to the human factor "*[21].

Flipped Inclusion combines the concept of inclusion in a micro-meso-eso-and macro-systemic perspective [16] and the value of the didactic-educational logic of the Flipped Classroom [22].

The Flipped Inclusion model is organized into 4 transformative macro-phases (*Exploring*; *Conceiving*; *Designing*; *Testing*) which follow the six design phases of the ISO [15] (Formulation of goals-requirement analysis; Design concept; Detailed design; Realization, implementation and validation-Analysis and allocation of functions and Evaluation).

1) The ergonomic phase of the Formulation of goals (requirement analysis) corresponds to Exploration phase (problem finding) [20]. Conceptual nodes (Key) are collected, interpreted and problematized, which reflect "misunderstood experiences, recessive feelings, new and unexpected thoughts, typical of the" private space of the self "[23].

In making use of the intrinsic motivational momentum, deriving from the process of active involvement, Flipped Inclusion positively predisposes to learning, with a view to an authentic anthropocentric enhancement of resources, potential and differences. The ergonomic pedagogical-inductive methodology used in this phase is Inquiry Learning [24], a process "based on the investigation of problems, critical group discussion and the search for new solutions in a constructivist perspective" [25]. By stimulating the acquisition of knowledge through investigation, participatory action and the formulation of questions in a phenomenological perspective, the trajectory of a disseminated and embodied community of pluralities unfolds.

2) The Idea phase of Flipped Inclusion, follows the Design concept of the ISO norm [15] and is based on the conceptual circumscription of the macro-problematic areas previously identified and inspected [16]. This is the phase of the problem setting and analysis, in which "the key word becomes a concept, with sequential chaining and reinforcements" [10]. Through the ergonomic Discovery Learning methodology, the student discovers the conceptual relationships of a given domain of knowledge, "enhances the retention of information by virtue of its autonomous organization and transformation" [26].

3) The Detailed design of the International Organization for Standardization [15] is reiterated in the Design phase of Flipped Inclusion "which represents the set of the key word which has become the concept (Frame), to which is added the challenge problem on to which the resolving research is intended (Framing)" [2]. By specifying the interrelationships of the meanings investigated, the aim is to plan the actions necessary for the creative resolution of the problems analyzed (problem solving and creative thinking). In order to pursue inclusive equity, in the perspective of enhance the potential of contemporary anthrophos, ergonomic-anthropocentric mastery learning is adopted [27], through an individualized and diversified preparatory path of objectives ordered by increasing complexity.

4) The Realization, implementation and validation ISO [15] is present in the decision taking phase of the Experiment of Flipped Inclusion (step that allows the shared, re-defined and progressive resolution of explored, circumscribed and problematized conceptual nodes (Framework).

Using the methodology of Experimental Learning, the systematic reflection of the lived experience unfolds in a recursive cyclicity, in which knowledge is configured as the product of a previous experience of which it is the result [28]. In a continuous transaction of anthropocentric cognitive, ethical and emotional insights, the acquired experience becomes cognitive heritage, in a dynamic process of identifying the purpose with the objective, no longer originated by a simple instinct, for the personal lived experience.

The ergonomic-anthropocentric phases of the Analysis and allocation of functions and of the ISO Evaluation [15], in the perspective of the Flipped Inclusion model, are configured as transversal to the process phases. To structure and consolidate the interactive circuit of co-responsible human actions, related to the development of community moral action, Flipped Inclusion invests in a democratic management of knowledge, centered on the role rotation system, with a view to taking forms, unpublished faculties and possibilities. In order to manage the complexity of the intervening variables in progress and to rebalance the processes through systematic and non-extemporaneous feedback, Flipped Inclusion makes a constant evaluation and self-evaluation check in the pre (monitoring) - post (processing) carrying out of the micro-meso-eso and contextualized macro designs inclusive, with ergonomic evaluation form organized according to standard evaluation rubrics by role, objective (communicative/cognitive and cognitive/social and prosocial skills and knowledge/competences) and phases [16] with ergonomic standard evaluation rubrics organized by role, objective (communicative/cognitive skills and knowledge/competences and cognitive/social and prosocial goals) and phases [16].
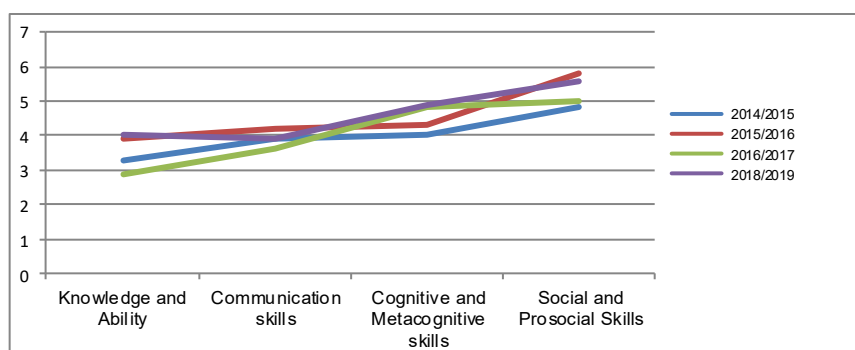

Fig. 1 - Research trend 2014/2019.

3. Conclusion

The significant prevalence of a positive trend of the data collected on 2260 learners in the 2014/2019 research years, the result of the tabulation of qualitative and quantitative analyzes organized with a view to promoting ergonomically co-constructed anthropocentric processes, through an evaluation and self-assessment, of the knowledge and skills, of communicative, cognitive and metacognitive, social and prosocial skills.

The processes activated in research on the flipped inclusion model, in tracing the postmodern logic in an anthropological-paradigmatic key, confirm the importance of an inclusive transformative didactic action. In fact, Flipped Inclusion, focusing on proactive anthrophos, as the protagonist of the co-built training event, aims at an educational re-construction. The flipped inclusion therefore promotes a capitalization of the communitas, as places of reality with increased spaces and times, in which being is completed in con-being in the making. Investment in the person, as an ontological synthesis of the ergonomic project in the hermeneutics of being, is the key element that must be educated to experiment with systemic inclusiveness, in a joint, exclusive, fusional and inclusive union.

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