

LIFE-PROFESSIONAL SKILLS AND “SLOW THINKING-PORTFOLIO” IN MEDICAL EDUCATION

COMPETENZE BIO-PROFESSIONALI E “SLOW THINKING PORTFOLIO” NELLA FORMAZIONE DEI PROFESSIONISTI DELLA CURA

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ABSTRACT

Moving from interdisciplinary research about “digital dementia”, the essay presents study and experience of medical education characterized by promotion of *high order thinking skills* in University pedagogical studies. The pedagogical training of care professionals, rooted in the scientific literature relating to transformative learning and *reflection practices*, is correlated to the studies about *Slow Thinking* by identifying a training device - a Portfolio composed of Critical-Creative Writing Tasks - in which the evaluation academic is experienced as procedural and transformative.

Muovendo da ricerche interdisciplinari in tema di “demenza digitale”, il saggio presenta una esperienza di medical education caratterizzata dalla promozione di *high order thinking skills* nella formazione pedagogica universitaria. La formazione pedagogica dei professionisti della cura, radicata nella letteratura scientifica relativa all’apprendimento trasformativo ed alle *reflective practice*, viene correlata agli studi relativi allo *Slow Thinking* identificando un dispositivo formativo – un Portfolio composto da Task di scrittura critico-creativa - nel quale la valutazione accademica viene sperimentata come processuale e trasformativa.

KEYWORDS

High order thinking skills, Medical education, Reflective practices, Narrative Medicine, Soft skills in care professional, Slow thinking

Competenze di pensiero superiore, Formazione nel contesto medico e sanitario, Pratiche riflessive, Medicina Narrativa, Competenze trasversali nelle professioni di cura, Slow thinking

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INTRODUCTION: THE RISK THAT "COPY AND PASTE" ALSO BECOMES A *FORMA MENTIS*

Digital innovation generates not only the enhancement but also the loss of skills: the information overload generated by hyperconnection, together with the habit of using *apps* as substitute devices for actions and thoughts, is closely related to the increase of functional illiteracy as well as the phenomena of "digital dementia" (Spitzer, 2012).

The evidence of the so called "augmented brain" therefore coexists with those of the "diminished man" (Benasayag, 2022) who, in addition to rarefying attention and memory, is characterized by the loss of critical thinking (Han, 2022, 2023) not only in presence of news received without verification of sources but also in the face of all kinds of stimuli that are processed in an unreflected way, so-called *fast thinking* (Kahneman, 2000).

In University studies, students seem to specialize in executive tasks that require *low thinking skills*, not exercising *high thinking skills* (Striano, 2000): when involved in reflective settings and participatory methods, they show difficulties by declaring that they prefer mnemonic study and closed-answer tests rather than lessons and exams in which to argue and critically discuss the learned contents.

One could metaphorically state that the "copy and paste" modality risks becoming a *forma mentis* too, by observing the growing uncritical modus with which both words and images are processed in the position of the passive user/receptor: during a lesson about necessity of discerning the sources, not only in scientific research, a female student with disarming candor said a few years ago "*Professor, I get tired of thinking. For me it's easier to believe that what I read is always true and then, only if there is a problem, I ask myself questions*". Unfortunately this position seems not to be isolated but even paradigmatic.

MATERIALS AND METHODS: THE SLOW THINKING PORTFOLIO, EVALUATION AS TRAINING

In order to counter the effects of functional illiteracy related to *fast modalities* - characterized by a way of thinking and acting that proceed by *default* rather than by intentionality and awareness -, it is ongoing - from the 2020/2021 academic year at the Faculty of Medicine of the University of Bari Aldo Moro, within the teachings of *General Pedagogy* and *Adult Education* - an exam evaluation experience that takes place on an ongoing basis, not only *ex post facto*, in the form of *Portfolios* which are composed of reflective tasks (Samy Kaohsiung, 2008; Sandars, 2009), aimed at promoting critical and creative thinking by activating metacognitive processes related to medical education (Bolton, 2005; Cowen et al., 2016; De Mennato, Orefice, Branchi, 2011; Fook, Gardner, 2007; Gooding et al., 2016; Mann et al. 2009; Moon, 2004; Peipei, Tang, 2017; Shapiro et al., 2006; Song, Stewart, 2012; Thacker

et al. 2021; Thomson, Dwight, Cave, Clandinin, 2013; Wald et al., 2009; Wald HS, Shmuel PR (2010); Wear et al, 2012; Wear , Zarconi, 2012; Zannini, 2008).

The *Slow Thinking Portfolio* consists of eight Tasks; three of them make up the "Bio-Curriculum" (Scardicchio, 2019; 2023), a metacognitive writing exercise aimed at the self-assessment of one's soft skills but above all at the transformative pedagogical work on one's Self-as-Task (Mezirow, 2000; Riva , 2003 , 2004; Mortari, 2004; Musaio , 2018): it is a training tool which, in the wake of the methodologies of Narrative Medicine (Bert, 2007; Charon , 2017; Milota et al., 2019), moving from the study of one's life experiences and care – as carers and as cared for – to promote awareness and self-planning about own *life-professional* training path.

SECTION A: BIO-CURRICULUM

- Task I requires to identify own mentors – from formal and informal contexts – and for each of them to recognize the learning received in terms of transversal skills;
- Task II concerns the reworking of successful and unsuccessful experiences by rereading them in terms of soft skills acquired through them;
- Task III, starting from one's own "care histories" and from the reflective study of self-case studies, requires the construction of a map of own soft skills related to caring professions;
- Task IV is a self-planning task about the development of the soft skills that are improving or acquiring.

SECTION B: SCIENCE AND HUMANITIES

Other Portfolio Tasks are:

- A meta-reflexive study of one or more movies whose themes are relevant to the medical education;
- an exercise in the promotion of abductive thinking through disciplinary crossing, by identifying the correlations between the key concepts of the course and analogous constructs in other disciplines and in the languages of arts;
- a critical review of the national and international scientific literature on reflective practices in medical-health training contexts.
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SECTION C: CREATIVE AND CRITICAL LEARNING

- the Final Task will be made at the end of the course, it consists in the creation of a power point or video presentation in which each student elaborates and returns the contents of the course in a critical and creative way.

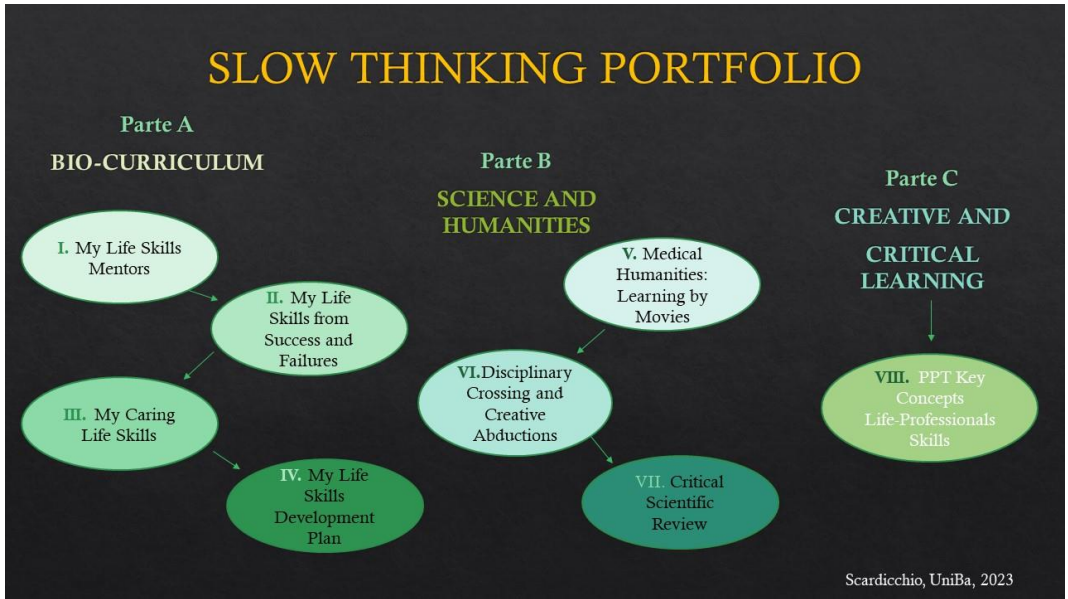


Figura 1: *Slow Thinking Portfolio's* Tasks

COLLECTION AND STUDY OF DATA: STUDY AS A CRITICAL AND CREATIVE PARTICIPATION

The experience is initially welcomed by the students with enthusiasm, at the news that they will not be examined in the classic form, by written or oral exam.

Subsequently, half of the students experience difficulties, linked in part to writing but more significantly to the type of reflective activity required.

The survey by focus groups during the last three years. - relating to eight degree courses in which the Slow Thinking Portfolio method was tested ¹- has allowed,

¹Degree courses in: Psychiatric Rehabilitation Technician I year; Professional Health Educator II year; Professional Health Educator III year; Audiometric Technician II year; Audioprosthesis Technician II year; Health Care II year; Medicine and Complexity. Master degree courses in: Rehabilitation Sciences II year.

From aa. 2022/2023 in degree course in Speech therapy and in master degree course in, Diagnostic Sciences too.

through hermeneutical analysis, to identify and cluster three recurring and pedagogically relevant critical nodes:

- *Strangeness* linked to "*themes we had never thought about*" (in reference, in particular, to two steps: the *re-reading* of failure experiences and the possibility that soft skills are linked to continuous learning processes and not to immutable character dispositions);
- *Crowding out* linked to an exam for which "*there is no single answer, as in a closed-ended test*";
- *Bewilderment* linked to a non-mnemonic study in which one is "*forced to think*".

(The expressions in quotation marks correspond to textual quotations of students' statements and which have been labeled as paradigmatic in the content analysis).

Despite the resistances – sometimes manifested not only in Section I, relating to the reflexive questions of the Bio-Curriculum, but also in simpler Tasks, such as the one relating to the movie on which to question oneself about the choices of the protagonists and the references to professional reality - all the Portfolios submitted to date (about 400 students in total) have presented works in which the students have demonstrated that they have developed critical thinking and creative thinking skills, by realizing Tasks with reflexive arguments with an average grade of 28/30.

The evaluation indicators were disclosed ex ante: part I of the Portfolio is evaluated in relation to the process and not to the product (in respect of the biographical writings); parts II and III contribute to the definition of the final grade, together with the participation in the presence, in relation to the ability to integrate the contents of the course (relating to the lessons, seminars, laboratories and texts in the studio) at critical and creative re-elaboration.

There is no quantitative measurement by a pre-test and a post-test that investigate the evolution of reflective capacity with standardized measures; there is a qualitative study of each individual Portfolio by comparison between the first Tasks and the last ones (prior to the official writings, the students experiment with reflective writings that are delivered).

To transform didactic experience into pedagogical research, it was decided rather to carry out an *evaluation of the evaluation*, that is to say to investigate the impact of the Slow Thinking Portfolio through qualitative survey, carried out on two axes: in addition to that inherent to the singular path of each student, and above indicated, the second relates to the collection of post-exam feedback through focus groups

experienced as “practitioners inquiry” (Dana, Yendol-Hoppey , 2014; Pozzi, Persico, Sarti, 2015; Oddone, Maragliano, 2016) to investigate the educational impact of the experience and to generate a system evaluation capable of monitoring and improving it.

Below there is the Words Cloud which summarizes the educational outputs defined in self-evaluation by students, in relation not only to the *products* - the Tasks delivered - but also and above all to the *processes* generated by the construction of the Portfolio as *an evaluation experience coinciding with training* (Webb, 2009; Wiggins, 1998).

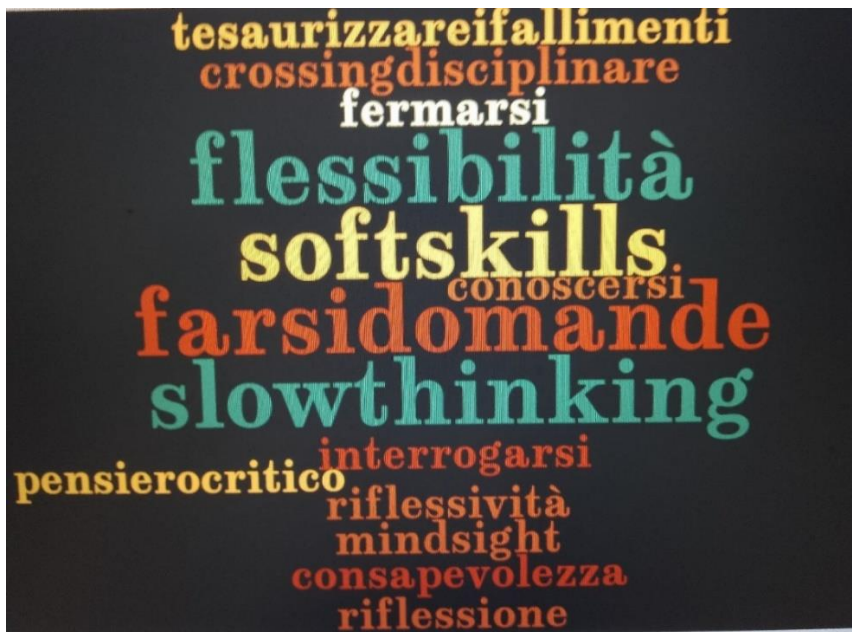


Figure 2: Survey Map of Educational Learnings Self-identified by Students in relation to the reflective experience of the *SlowThinking Portfolio* – cumulative integration aa. 2020/2021; 2021/2022; 2022/2023

CONCLUSIONS: MEDICAL EDUCATION AND SLOW/COMPLEX THINKING: THE POSTURE OF "CREATIVE RIGOR"

The image constitutes the analogical map of the epistemic posture that the Pg and EdA courses intend as closely linked with the expertise of medical and caring professions (Scardicchio, 2019): in fact the focus of the courses is dedicated to the construct of *life-professional competence*, meaning what, in other words, caring intertwining of specialist technical skills and transformative learning, by considering

the risk that the medical and healthcare professions are reduced to a performance issue without the work for the caring of *personal* and *professional* development, necessary for the protection of both patients and professionals (Bertolini, Massa, 2003; De Mennato, 2012; D'Oria, Zannini, 2018; Formenti, 2017).

In this perspective, we intend to deepen the experimentation of training and evaluation methods oriented towards "creative rigor": an identified expression as a synthesis of the intuitions of Dewey (1957, 1961), Bateson (1976) and Schön (1993) as a *forma mentis* opposed to the "copy and paste".

The Slow Thinking Portfolio has made it possible to intertwine the themes of the pedagogy of care with those of the pedagogy of complexity, by making it possible to experience participation in a University course and its final exam as a reflective stop in which the exercise of thinking (Bertin, 2007) coexists with the care of the emotional experience (Bruzzzone, Zannini, 2021; Iori, 2012) through a training device based on *slow/complex thinking* and therefore on continuous and multilevel learning skills (Striano, 2000, 2006, 2012; Morin, 1998, 1999).

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