



Soft skills and Signature Pedagogies in Higher Education: A Comparative Analysis Between the Humanities and Healthcare Areas

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Abstract

In contemporary higher education, soft skills are increasingly recognized as strategic competences in professional degree programs; however, their presence within curricula remains heterogeneous and often implicit. Grounded in the Dublin Descriptors and the construct of signature pedagogies (Shulman, 2005), this study investigates how soft skills are declared, integrated, and assessed in the official syllabi of four professional undergraduate programs at the University of Trieste: Education Sciences (19 syllabi), Social Work (22 syllabi), Speech Therapy (73 syllabi), and Physiotherapy (42 syllabi).

How are soft skills formally represented across different disciplinary areas? A systematic documentary analysis was conducted through recursive readings of 156 syllabi, identifying soft skills embedded in learning objectives, teaching methodologies, and assessment practices. Through an inductive analytical process, soft skills were categorized based on semantic affinities and recurrent patterns, then coded as present (1) each time the competence appeared, whether explicitly or implicitly; the final score is the sum of occurrences, capturing the overall pervasiveness of the phenomenon. Although occurrences were categorized as explicit or implicit during the reading process, both were assigned the same value in order to map the extent of the phenomenon as a whole; the distinction between forms of explication will be systematically addressed in the second phase of the research, through phenomenographic interviews with lecturers.

Findings reveal a shared core of soft skills (communication, critical thinking, teamwork, and analytic skills), alongside significant disciplinary variations. Humanities programs emphasize empathic-reflective capacities and dialogic-participatory competences and situated, practice-based pedagogies. A structural-discrepancy emerges in the curricular recognition of internships: highly formalized as core component in healthcare programs, they remain less structured in humanities programs, revealing implicit epistemological hierarchies between technical-procedural knowledge. These results inform curricular design aimed at fostering transformative teaching and learning practices in Higher Education. The analysis of the humanities area also serves as a methodological model for the ongoing investigation of the healthcare area.

Keywords: *Soft skills, Signature Pedagogies, Higher Education, Syllabus Analysis, Documentary Analysis*

1. Signature Pedagogies as a Device for Professional Training

Every profession rests on a distinctive pedagogy. Shulman [1] defines signature pedagogies as the specific ways in which a discipline teaches students to think, act and become professionals: "Signature pedagogies teach students to think, to perform and to act with integrity. They form habits of the mind, habits of the hand, and habits of the heart" (p.59). The construct operates on three levels: surface (visible teaching acts: lectures, placements, case discussions), deep (implicit epistemologies: learning to "see" a professional situation) and implicit (values tacitly transmitted: what matters and what is right in this profession). This partition makes signature pedagogies a powerful analytical tool for reading professional curricula - not only for what they declare, but for what they implicitly structure. Soft skills – communication, critical thinking, teamwork, reflexivity, empathy – are not decorative additions to technical knowledge but constitutive dimensions of professionalism as described by Eraut [2] and Goleman [3]: embodied modes of professional being and acting oriented by values, relationships and ethical judgements. In professional Higher Education this integration often remains implicit, fragmented and entrusted to individual teacher initiative rather than shared curricular design, despite the growing emphasis on transformative university education [6]. It is within this tension that the present research is situated.

2. Research and Methodology



The research is articulated in two phases. The first involved a systematic documentary analysis of the syllabus of undergraduate degree programs in the humanities area - Education Sciences (L-19, according to the Italian Ministry of University and Research classification, n= 19 syllabi) and Social Work (L-39, n=22 syllabi) and in the healthcare area - Speech Therapy (L/SNT2, n= 73 syllabi) and Physiotherapy (L/SNT2, n=42 syllabi) - for a total of 156 syllabi analyzed at the University of Trieste. The corpus comprises the entirety of available syllabi for each three-year programme, restricted to TAF A (basic disciplines), B (core/characterizing disciplines) and C (related and integrative disciplines), as these constitute the professionalizing component of each pathway.

Syllabi have been treated as artefacts of didactic design [4], [5]: documents in which lecturers render visible - or leave implicit - their formative choices regarding learning objectives, teaching strategies and assessment criteria. The constructive alignment model [5] defines the quality of curricular design as coherence between these three components and provides the analytic framework for reading the syllabus. Soft skills were searched across the entire text of each syllabus - course description, disciplinary content, learning objectives, teaching methodologies and assessment methods - since they may emerge in any section: the unit of analysis is therefore the syllabus.

The analytical framework was built through an inductive process conducted directly by the researcher in three stages: integral and recursive reading of each syllabus with collection of all textual expressions related to soft skills; systematic comparison of labels in a spreadsheet to identify cross-cutting recurrences; aggregation into categories by frequency and semantic proximity. This process led to the identification of 13 categories; communication; planning; analytical skills; critical thinking; teamwork; discussions; reworking; sector-specific language; reflective; comprehension; empathic; application and judgement skills. Each occurrence – explicit, when named in the objectives, or implicit when inferable from methodologies and content - was assigned the value 1. The final score is the sum of occurrences: it returns the qualitative pervasiveness of the phenomenon in the document rather than a quantitative measurement.

The second phase involves phenomenographic interviews with lecturers from the selected programs. For the humanities area, interviews have been fully conducted and analyzed; for the healthcare area, the process is not yet complete. The presentation of the humanities area therefore serves a dual function: it returns the specific findings of that area and acts as a methodological model, exemplifying how the presence, absence and forms of explication of soft skills in the syllabus are illuminated through the voices of the lecturers. Interviews are anonymised with the coding system described in the methodological note and used as interpretative lenses for documentary data: instruments for making visible what the syllabus cannot capture.

3. Syllabus Analysis

3.1 Education Sciences: Profile by Year of Study

The graphics (Fig.1-3) illustrate the distribution of soft skills by subject and year. The most significant data are discussed in the text; for a complete reading the reader is referred to the figures. Placement, which in the Education Sciences programme falls under F credits rather than TAF A-B-C - lacks a formal syllabus and does not appear in the documentary analysis. This structural absence is itself a significant interpretive finding and will be addressed in Section 4.

In the first year (cf. Fig.1), signature pedagogies are oriented primarily towards building disciplinary language: the integrated course in General Pedagogy and History of Pedagogy (TAF A) reaches 9 for sector-specific language skills and 8 for reworking Psychology of the Life Cycle (TAF A-B) presents the highest score of the year for reworking, 11; and planning, 7. Teamwork is almost absent: maximum value 4, 0 in most subjects.

In the second year (cf. Fig. 2) the profile becomes more articulated: Early Childhood Pedagogy and Children's Literature (TAF B-C) reaches 10 for reworking and 5 for planning; Educational Planning and Evaluation (TAF B) presents the highest teamwork value across the entire three-year programme, 5, signalling that core methodological subjects constitute the curricular space where collaborative competences find their most explicit expressions.

In the third year (cf. Fig.3), the syllabus analysed belongs to TAF A, B and C; programme credits are also distributed across placement activities which as noted lack a formal syllabus. Among the syllabus recorded, Experimental Pedagogy (TAF A) presents the richest profile with 4 for analytical skills and 2 for reflective skills.

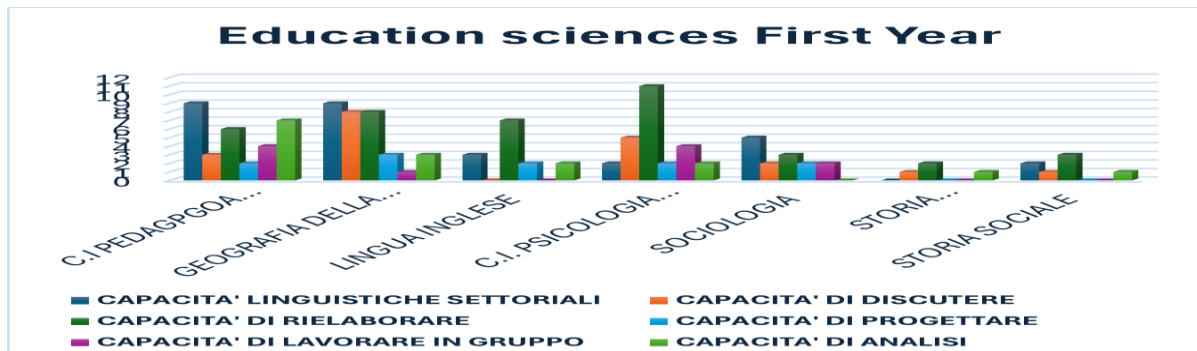


Fig. 1. Distribution of Soft skills in Education Sciences-first Year

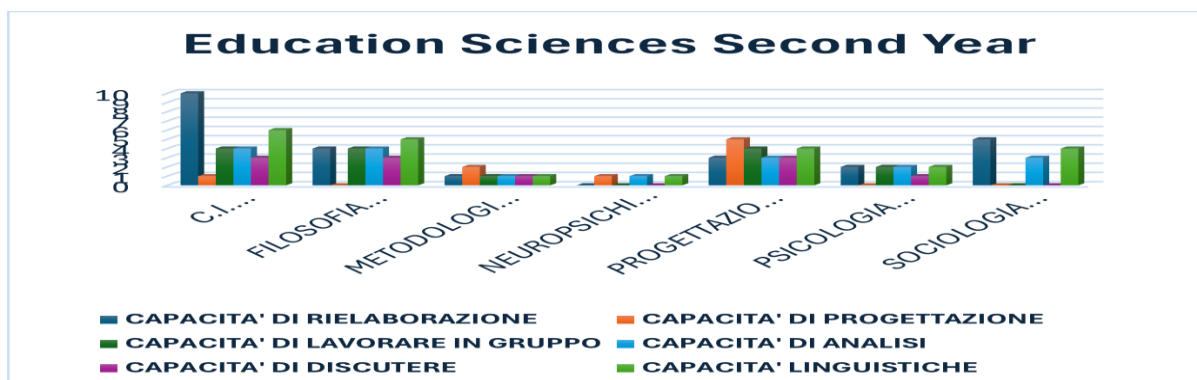


Fig. 2. Distribution of Soft Skills in Education Sciences-Second Year

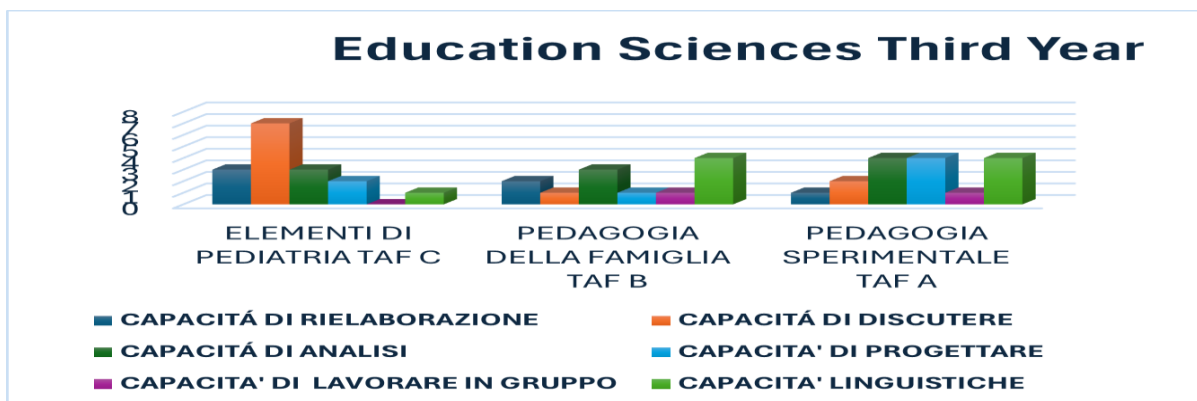


Fig. 3. Distribution of Soft Skills in Education Sciences-Third Year

3.2 Social Work: Profile by Year of Study

The graphics (Fig.4-6) below illustrate the profile of the Social Work degree programme. The documentary analysis was conducted on the academic year 2024/2025.

In the first year (cf. Fig.4), relational soft skills appear more explicitly than in Education Sciences: Methods and Techniques of Social Work1 (TAF B) reaches 7 for communication skills, 4 for critical thinking and 4 for teamwork.

In the second year (cf. Fig.5), the integrated course in Social Policy (TAF A) reaches 6 for communication skills. Two second-semester subjects do not appear in the analysis because, at the time of data collection (academic year 2024/2025), the relevant syllabus had not yet been uploaded to the institutional platform as the teaching positions were subject to external contract tenders; this is not a structural curricular gap but a temporal limitation of the documentary analysis.

In the third year (cf. Fig.6), Methods and Techniques of Social Work3 (TAF B) presents 4 for critical thinking and 3 for communication skills and teamwork; one TAF C subject does not appear for the same reasons.

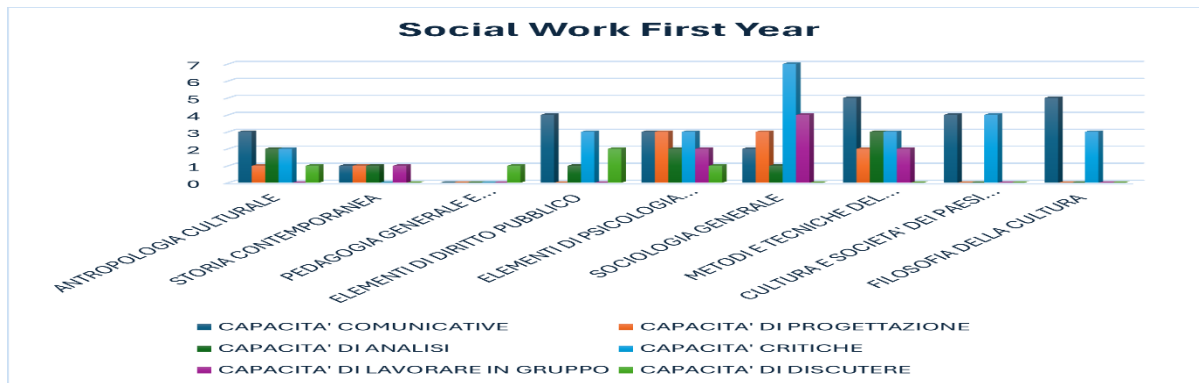


Fig. 4. Distribution of Soft Skills in Social Work

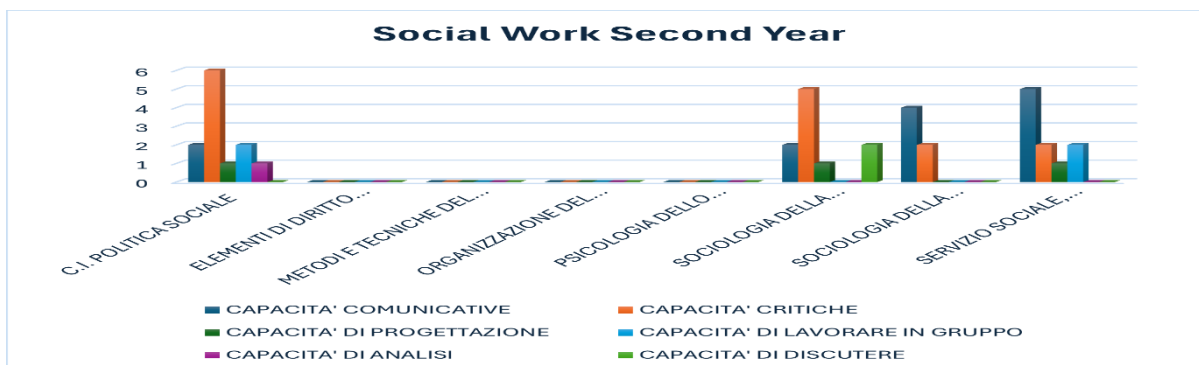


Fig. 5. Distribution of Soft Skills in Social Work



Fig. 6. Distribution Soft Skills in Social Work

3.3 Physiotherapy: Profile by Year of Study

The graphics below (Fig.7-9) illustrate the distribution of soft skills in the Physiotherapy programme. The structurally distinctive element compared to the humanities area is the presence of placement - belonging to TAF B and with its own syllabus structured in the same way as other disciplines - in all three years of the programme.

In the first year (cf. Fig.7), the first-year placement (TAF B) presents the highest values of year; 7 for critical thinking and 5 for language skills, confirming that the practical-situated moment is formally framed as a declared learning objective from the very beginning of the programme. Research Methodology (TAF A) and Human Morphology and Biochemistry contribute balanced scores for critical and analytical skills.

In the second year (cf. Fig.8), the integrated course in General Surgery (TAF A-B) reaches 4 for critical thinking and 3 for reflective and analytical skills. The second-year placement (TAF B) presents 5 for reflective skills and 4 for critical thinking and communication skills.

In the third year (cf. Fig.9), the third-year placement (TAF B) reaches the highest score of the entire three-year programme with 7 for communication skills and 4 for teamwork, demonstrating a coherent progression in which the practical component contributes increasingly to the development of soft skills.

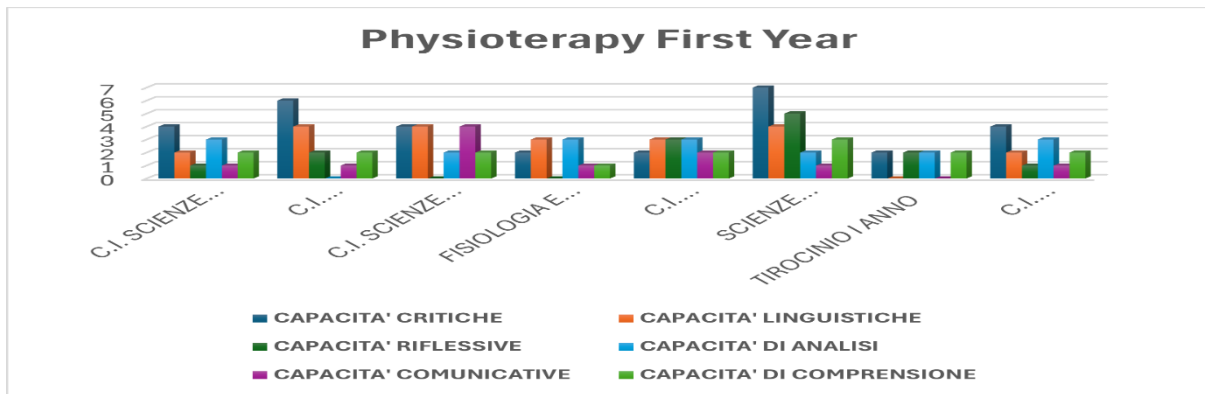


Fig. 7. Distribution of Soft Skills in Physiotherapy

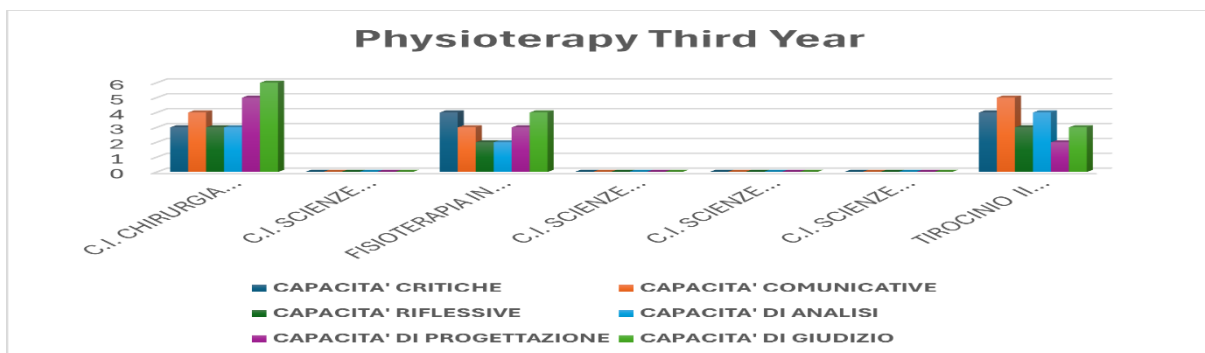


Fig. 8. Distribution of Soft Skills in Physiotherapy

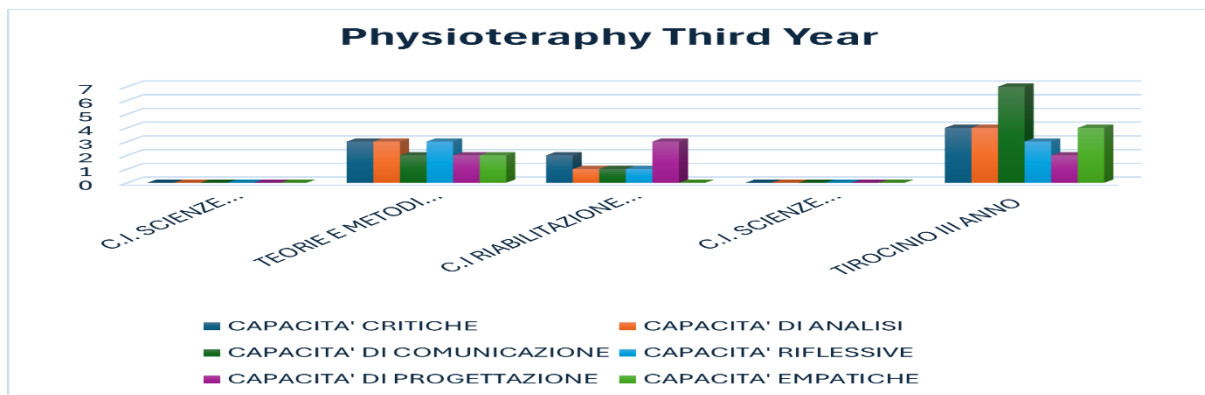


Fig. 9. Distribution Soft Skills in Physiotherapy

3.4 Speech Therapy: Profile by Year of Study

The graphics below (Fig.10-12) illustrate the distribution of soft skills in the Speech Therapy programme, which presents the highest scores in the entire comparative analysis.

In the first year (cf. Fig.10), Human Sciences (TAF A-B) reaches 11 for critical thinking, 8 for communication skills and 7 for sector-specific language skills; Language Development (TAF A-B) contributes 8 for critical thinking and 7 for communication skills. The first-year placement (TAF B) already presents relevant scores in the first year, confirming the centrality of clinical practice from the very beginning of the programme.

In the second year (cf. Fig.11), Neurology and Logopedics of Aphasia (TAF B) reaches 8 for critical thinking and 7 for analytic skills; the 2nd year placement (TAF B) contributes 3 for judgement skills.

In the third year (cf. Fig. 12), Neurological Pathologies (TAF B) reaches 10 for planning skills, 7 for critical thinking and 4 for teamwork; the third-year placement (TAF B) presents 6 for judgement skills and 5 for critical thinking, communication and language skills.

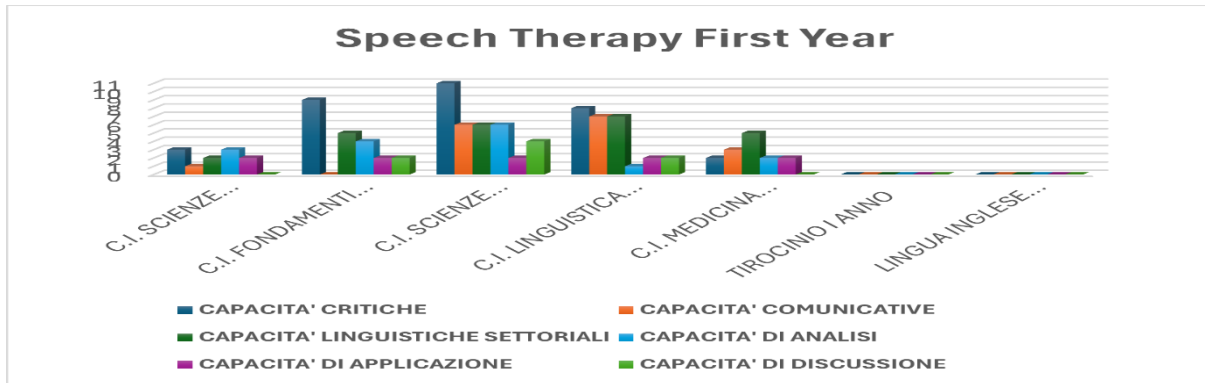


Fig. 10. Distribution Soft Skills in Speech Therapy

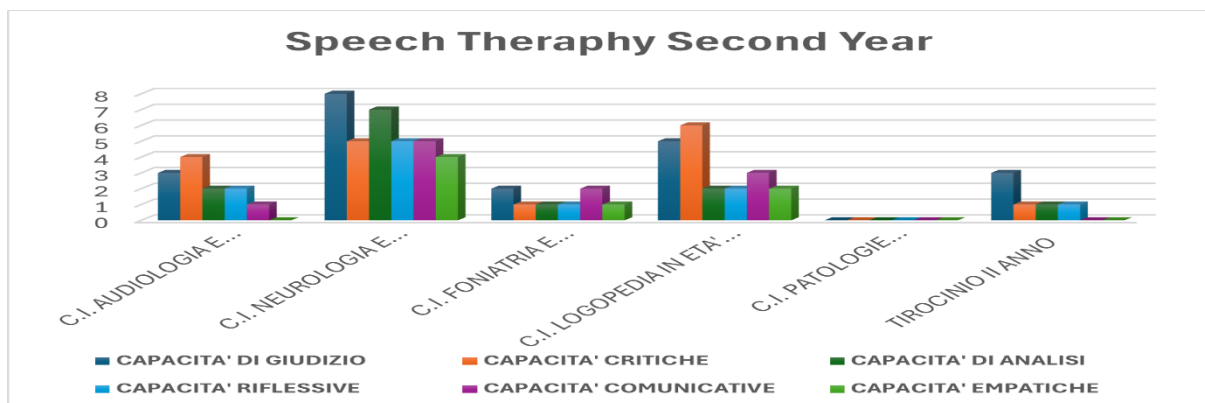


Fig. 11. Distribution soft Skills in Speech Therapy

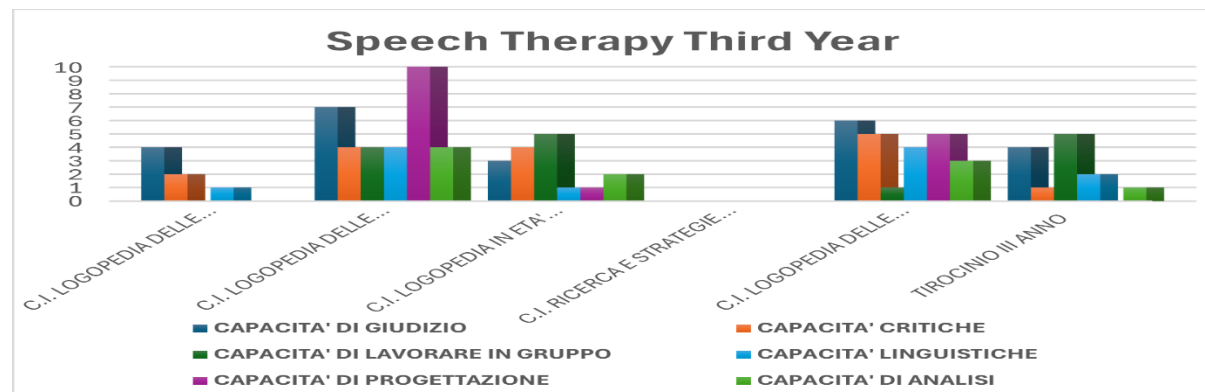


Fig. 12. Distribution Soft Skills in Speech Therapy

3.5 Comparison between the Two Areas

Given the qualitative nature of the scoring system, which captures pervasiveness rather than measuring quantity, aggregate comparisons are intentionally avoided; the asymmetries described are grounded in the patterns observed across the full corpus of 156 syllabi. The comparison between the humanities and healthcare areas reveals three structural asymmetries. The first concerns formalisation: in the healthcare area soft skills are declared explicitly with greater frequency and scores are distributed more evenly across the three years.

The second concerns placement: in the healthcare programmes it is integrated as a curricular device with its own syllabus belonging to TAF B in every year, whereas in Education Sciences it is structurally absent from documentary analysis and in Social Work it is present but with still partial formalisation.

The third concerns progression: the healthcare programmes show a coherent growth of scores from the first to the third year, in which clinical practice contributes increasingly to the development of soft skills: in the humanities area this progression is not detectable in the documents.



4. The Signature Pedagogies of the Humanities Area: What the Syllabus Does Not Tell

Documentary analysis returns what lecturers have chosen to write. Phenomenographic interviews give access to what the syllabus cannot capture: the conceptions, practices and tensions inhabiting professional training. The connection between documentary data and lecturers' voices is the central interpretive device of this section; for each thematic node, the analysis begins from the specific syllabus data of the interviewed lecturer and enters their voice as explanation, confirmation or contradiction of that data.

4.1 Soft Skills as Constitutive of the Profession

The syllabus documents of both programmes show soft skills predominantly implicit in methodologies. This implicit presence is not accidental; it reflects a conception in which soft skills are not additional to technical knowledge but constitutive of it. A lecturer (DLSE_02) - whose syllabus includes explicit objectives for professional communication and teamwork - articulates these with precision:

"I don't distinguish between soft and hard skills; soft skills are part of the technical competences of educators. They are concerned about the very heart of educational work. They are indispensable cogs, not decorations."

In the Social Work programme, a lecturer (DLSS_03) - whose first-year syllabus shows significant scores for communication and analytical skills - draws the crucial distinction between relational competence as a personal disposition and as a conscious methodological acquisition:

"In active listening I must be able to reformulate to stimulate the other's narrative. In the profession I am aware of the competence I am using at the moment because I have acquired a method."

This distinction is epistemologically significant: university training is called not to form "relationship-gifted" people, but professionals who consciously master their soft skills as tools of their work.

4.2 The Gap between What is Practiced and What is Written

The most recurrent finding in the analysis is the gap between rich teaching practices and syllabus that don't declare them. A lecturer (DLSE_04) - whose 3rd year syllabus reaches 4 for analytical skills, the highest score of the year, through explicit formulation in the Dublin Descriptors - represents the case of coherence between document and practice:

"I made them explicit within the learning objectives: knowledge and understanding is a transversal capacity; autonomy of judgement is explicit. It isn't difficult to do it - you just have to decide to do it."

By contrast another lecturer (DLSE_05) - whose second-year syllabus shows group activities in the methodologies but no soft skills in the objectives - states:

"In my syllabus soft skills aren't present. Final exams are based on content: I don't assess soft skills because I haven't declared them as an objective."

The same gap emerges in the Social Work programme: a lecturer (DLSS_02) practices case analysis in small groups daily - whose syllabus shows significant scores for communication and teamwork - but when asked about soft skills in the syllabus indicates she would need to check. Another lecturer (DLSS_01) identifies the structural reason for this fragmentation:

"Building a transversal pathway means entering into dialogue between lecturers. We often cannot do this not because we don't want to but because institutional time doesn't allow it."

4.3 Active Teaching as Signature Pedagogies in Action

The highest teamwork scores are concentrated in methodological, and laboratory subjects. Interviews reveal the didactic logic underlying these scores - logic that syllabus cannot capture. A lecturer (DLSE_03) - whose syllabus presents the highest teamwork value across the entire three years programme - explains:

"Soft skills cannot be taught frontally: made explicit, they become trivialized. I ask students to work in a small group on a real planning project, through all its phases. If I ask the questions, they already have an answer; if they ask themselves they discover they need to adjust many things."

In the Social Work programme, a lecturer (DLSS_02) - whose syllabus shows balanced scores for communication and teamwork - describes a teaching that reproduces real professional work conditions: "I bring a real case; we analyse it together in small group stimulating teamwork: that is what they will be doing. Working together to solve a problem is already forming for the profession."



Both practices correspond to what Shulman calls the surface level of signature pedagogies: the visible teaching acts through which the values and epistemologies of the profession are transmitted in an embodied way. That these practices are scarcely documented in the syllabus is the central contradiction of the humanities area.

4.4 Placement: Structural Absence and a Vision to Build

Placement is the formative device in which signature pedagogies would find their fullest expression. Its absence from the Education Sciences syllabus is not bureaucratic oversight: it is the symptom of a deeper problem. A lecturer with a placement coordination role (DLSE_01) articulates this clearly:

“We do not have a single shared placement model across Italian Education Sciences programmes. The fundamental question is: what idea, what vision, what model of placement do we have? When we have this shared thinking, we will be able to establish which soft skills to develop and how.”

Another lecturer (DLSE_03) articulates the problem in didactic terms:

“There is a gap between placement and courses. Without this integration I must work on students’ imaginative capacity. With integrated placement we would have a real training ground.”

In the Social Work programme, placement is present from the first year, but a lecturer (DLSS_04) notes that the systematic focus on soft skills still depends on individual supervisors rather than a shared framework:

“From the first-year students have a placement in which they practise these competences. I am not sure how much tutors have a specific focus on these. They are competences the social worker cannot do without - but there is not yet a shared model for developing them.”

5. Discussion and Conclusions

The research shows that the humanities area possesses recognisable signature pedagogies - oriented towards relationship, reflexivity and situated planning - but that these exist predominantly in lecturers’ practices not in the official curricular documents. This gap has three concrete implications for curricular design.

The first concerns syllabus as pedagogical acts. What is not written cannot become a shared objective, cannot be systematically assessed, and does not orient students as a declared formative goal, particularly in a Higher Education context increasingly oriented toward measurable learning outcomes [7]. Making soft skills explicit in the syllabus does not mean bureaucratising teaching: it means rendering visible and transmissible a signature pedagogy that already exists in the classroom. As the case of DLSE_04 demonstrates - the only lecturer who has systematically made soft skills explicit through the Dublin Descriptors - this formalisation is possible and does not impoverish practice.

The second concerns placement as a curricular device. The recent establishment of the professional register for educators (Law 55/2024) opens a normative space in which it is finally possible - and necessary - to build a shared placement model with declared learning objectives and measurable soft skills, following the model already in place in the healthcare programmes with placement belonging to TAF B. Without this step, the formative device most directly involved in building professional identity will remain without an explicit reference framework.

The third implication concerns shared curricular design. The gap between practices and documents, and the fragmentation between courses, are not individual problems: they are effects of an institutional structure that does not provide time and spaces for pedagogical dialogue between lecturers. As DLSS_01 notes, building a transversal pathway requires dialogue – dialogue that is not yet systematically possible. The research will continue with the analysis of interviews with lecturers in the healthcare area, to examine whether and to what extent greater documentary formalisation is accompanied by a different conception of the role of soft skills in professional training.

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