Future-Proofing Higher Vocational Education: Do Curricula Prepare Students with the Social, Emotional, and Behavioral Skills Needed for Tomorrow's World?

Skills2Capabilities Working Paper November 2025

Barbara Belfi, Niels Holtrop, Jim Allen en Didier Fouarge

ABSTRACT

Labour markets increasingly demand social, emotional, and behavioural (SEB) skills, yet it remains unclear to what extent higher vocational education (HVE) curricula explicitly articulate these competencies and align with workplace needs. This study analyses 96 national bachelor competency profiles taught within Dutch HVE bachelor programmes, using the Behavioural, Emotional and Social Skills Inventory (BESSI) framework and NLP-based classification, and links curricular explicitness to nationwide graduate survey data on perceived skill acquisition and labour-market demand (N ≈ 23,880). SEB skills are present across curricula but unevenly articulated. Innovation and self-management are most explicit, whereas emotional resilience is least visible. Greater curricular explicitness is generally associated with higher perceived preparedness, though the strength and direction of this relationship differ across SEB domains. Alignment with labour-market demand is strongest for innovation, while self-management and social engagement remain underrepresented. As a practical contribution, we develop a Skills Scanner to systematically detect SEB skills in curricular documents.

ACKNOWLEDGEMENTS

Co-funded by the European Union

Introduction

Labour markets are changing rapidly due to technological innovation, digitalisation, globalisation, and new forms of work organisation. Employers increasingly seek graduates who can collaborate effectively, communicate clearly, manage themselves, and adapt to new situations. These abilities are commonly referred to as social, emotional and behavioural (SEB) skills (Deming, 2017; Soto et al., 2022, 2024). Recent labour-market analyses show that the strongest growth occurs not in jobs requiring technical expertise alone, but in jobs that combine technical knowledge with interpersonal and adaptive competencies (World Economic Forum, 2023). SEB skills are strongly linked to employability, career success and innovation (Belfi & Borghans, 2025). SEB skills have therefore become core expected outcomes of higher education.

Universities are expected to prepare students for these skills and often refer to competencies such as teamwork, communication or self-management in programme documentation. However, it remains unclear to what extent SEB skills are explicitly embedded in written curricula, and therefore whether students, instructors and accreditation panels can clearly see that programmes intend to develop them. From the perspective of constructive alignment (Biggs, 2003), explicit curriculum language is essential because it clarifies which competencies programmes expect students to develop and enables alignment of teaching and assessment. When SEB skills are not explicitly articulated in the written curriculum - the formal reference point for programme design, accreditation and quality assurance - they are unlikely to be systematically planned, supported or assessed. International research reinforces the importance of explicitness in teaching these skills. Graduates frequently use SEB skills in their jobs, yet many feel that their programme did not provide sufficient training in these competencies (Cheng, 2022; Succi & Canovi, 2020). Employers similarly report that SEB skills are critical for workplace success but often underdeveloped among graduates entering the labour market (Andrews & Higson, 2008). This signals both a visibility gap and a preparedness gap: if skills are not explicitly articulated in the curriculum, students may neither recognise their importance nor develop them sufficiently.

To address this gap, the present study examines the explicit representation of SEB skills in Dutch written HE curricula. Using natural language processing (NLP) and the 20-item Behavioural, Emotional and Social Skills Inventory (BESSI; Sewell et al., 2025), we analyse all bachelor's curricula of universities of applied sciences for which national competency profiles are available and detect explicit references to five domains: self-management, cooperation, social engagement, emotional resilience and innovation. We then link these curriculum profiles to to data from our nationwide graduate surveys, to which we added questions designed to show the extent to which graduates' programmes trained them in each SEB skill and how relevant these skills are in their current jobs. This enables us to examine whether curriculum explicitness aligns with perceived adequacy of training and perceived job relevance.

This study makes three contributions. First, it provides the first system-level and large-scale mapping of explicit SEB skill representation in higher-education curricula. Second, it applies an innovative methodological approach combining NLP with a validated behavioural skills framework (BESSI). Finally, it examines the alignment - or misalignment - between curriculum explicitness,

students' perceived opportunities to develop SEB skills during their studies, and the perceived relevance of these skills in their current jobs, offering actionable insights for curriculum design, programme evaluation and accreditation processes.

The remainder of this article is structured as follows. Section 2 reviews the literature on SEB skills and their place in higher-education curricula. Section 3 introduces the BESSI framework and compares it to other well-known skill frameworks. Section 4 presents the study aims and research questions. Section 5 explains the methodological design. Section 6 reports the results, followed by conclusions, implications for curriculum design and accreditation, and suggestions for future research in Section 7.

Review of Prior Research on HE Curriculum Content and Skill Integration

Although the importance of social, emotional and behavioural (SEB) skills for employability and adaptability is widely recognised, research examining whether these skills are explicitly articulated in written higher-education curricula remains limited. Higher-education institutions often state that graduates will develop competencies such as communication, teamwork or adaptability. However, such intentions frequently remain at the level of programme rhetoric or accreditation texts and are not systematically reflected in curriculum documentation (Wong et al., 2022; Bennett, 2019). Reviews of employability-oriented curricula similarly conclude that SEB skills are often assumed to develop implicitly rather than being made visible in programme descriptions (Jackson, 2016; Oliver & Jorre de St Jorre, 2018).

Text-based curriculum research provides further evidence for this ambiguity. Börner et al. (2018), analysing millions of U.S. course syllabi, job advertisements and scientific publications, demonstrate that written curricula predominantly emphasise technical knowledge, while behavioural skills remain comparatively peripheral. Their large-scale skill mapping shows that interpersonal and communication skills are central to labour-market demand, whereas soft skills such as teamwork, negotiation or persuasion are structurally underrepresented in course documentation. Comparable findings have been reported in Europe, for example by Cnossen et al. (2025), who show – using text mining on the complete Dutch VET curriculum – that programmes differ substantially in how much weight is given to different skill categories. Technical skills are relatively prominent in some programmes (particularly at lower qualification levels), whereas social and resource-management skills appear far less consistently, despite yielding the highest labour-market returns.

The assumption that SEB skills will develop naturally or implicitly has been widely criticised. Jackson (2016) shows that students often graduate without clarity on how programmes contributed to skill development, precisely because expected skills are not made visible. When skills are absent in written curriculum documents, students lack transparency on where skills are expected, regardless of the teaching methods used (Hill et al., 2016). Thus, the issue identified in prior research concerns curriculum clarity, not pedagogy.

Recent advances in SEB measurement offer opportunities to study curriculum content more systematically. The Behavioural, Emotional and Social Skills Inventory (BESSI; Soto et al., 2022,

2024) conceptualises SEB skills as behavioural capacities - such as planning, helping others or generating new ideas - rather than as broad categories or personality traits. This behavioural structure allows SEB skills to be detected in curriculum text through natural language processing (NLP). The OECD's Survey on Social and Emotional Skills (2024) similarly emphasises that these skills consist of observable behaviours that can be taught, practised and evaluated.

Taken together, existing studies show that SEB skills are widely recognised in higher-education policy and programme rhetoric, but that their visibility in written curriculum documents - measured through the frequency of references - is inconsistent and varies across disciplines. However, to date no research has examined SEB skill presence across an entire higher-education system, nor linked curriculum references to graduate perceptions.

The present study addresses this gap by analysing the frequency with which SEB skills are explicitly mentioned in programme descriptions across all bachelor's programmes at Dutch universities of applied sciences. Using the BESSI behavioural skill framework in combination with large-scale text mining, we detect references to SEB skill terminology in written curricula. By linking these curriculum profiles to nationwide graduate survey data, we examine whether curriculum explicitness aligns with graduates' perceived adequacy of training in these skills and with the perceived relevance of those skills in their current jobs, providing system-level empirical evidence on curriculum–outcome alignment.

Theoretical Framework: The Big Five Inventory of Socio-Emotional Skills (BESSI)

The previous chapter showed that although higher-education programmes increasingly reference socio-emotional and behavioural (SEB) skills, it remains unclear whether these skills are explicitly embedded in curricula. To examine this empirically, we require a framework that (1) defines SEB skills clearly, (2) distinguishes them from personality traits, and (3) provides categories detailed enough to detect in curriculum descriptions. The Behavioural, Emotional, and Social Skills Inventory (BESSI) meets these requirements.

BESSI defines SEB skills as behaviours that individuals are capable of performing when motivated and given the opportunity (Soto et al., 2022; 2024). This represents an important conceptual shift from personality psychology. Traditional personality models describe what people typically do across situations (e.g., being organised or sociable), whereas skills describe what people can do, that is, the behavioural capacity to act in a particular way. Skills are therefore malleable and learnable, which makes them relevant outcomes of curriculum design and instructional practice. If programmes intend to foster SEB development, such intentions should be visible in curriculum documentation.

Although BESSI builds on the Big Five personality model, it translates broad personality traits into 20 concrete behavioural skills, grouped into five domains: Self-Management, Social Engagement, Cooperation, Emotional Resilience, and Innovation / Open-Mindedness (Sewell et al., 2025). These domains closely reflect the competencies that employers describe as increasingly important, such as planning work, communicating clearly, working effectively with others, coping with stress, and

approaching new problems with curiosity and creativity. Unlike trait descriptions (e.g., conscientiousness), BESSI specifies behaviours such as planning and organising, taking initiative in group work, resolving disagreements constructively, or generating new ideas. These behaviours can be formulated as learning outcomes and, crucially for this study, can be detected in curriculum text. This behavioural specificity is what differentiates BESSI from existing frameworks. For example, the Collaborative for Academic, Social, and Emotional Learning CASEL) framework is widely used in primary and secondary education (K-12) to guide socio-emotional learning (Collaborative for Academic, Social, and Emotional Learning [CASEL], 2023). However, CASEL's broad developmental areas (e.g., self-management, social awareness) lack the behavioural specificity needed to detect explicit skill formulations in higher-education curriculum texts. Furthermore, the OECD Study on Social and Emotional Skills (SSES) measures socio-emotional skills in 10- and 15-year-olds to enable population-level comparisons; as such its purpose is monitoring, not curriculum analysis (Chernyshenko et al., 2018 . Finally, occupational taxonomies such as O*NET (e.g., Peterson et al., 2006) also include socio-emotional and interpersonal competencies, and in principle these descriptors could be matched to curriculum text. However, O*NET defines skills at the job-task level and operationalises them as work activities or job requirements (e.g., coordinating the work of others, performing administrative tasks). O*NET therefore captures what jobs require, not what individuals are capable of doing as a behavioural skill, nor what educational programmes aim to develop. Using O*NET would thus conflate labour-market demand with curriculum intent, making it conceptually unsuitable for identifying explicit learning outcomes.

In contrast, BESSI defines SEB skills as individual, learnable behavioural capacities (e.g., planning and organising tasks, taking initiative in group work, generating new ideas) and has been psychometrically validated for measuring these skills at person level (Soto et al., 2022). This behavioural specificity makes BESSI directly translatable into curriculum analysis and detectable through text mining. BESSI therefore provides the conceptual granularity and theoretical alignment needed to examine whether SEB skills are explicitly articulated in written curriculum competency profiles. Because BESSI defines skills as observable behaviours, it can be operationalised in text analysis. If curricula genuinely aim to develop SEB skills, explicit behavioural formulations should appear in programme descriptions, for example: "collaborates in a multidisciplinary team," "plans and organises project activities," or "communicates results to different audiences." BESSI enables such expressions to be coded into skill domains, making it possible to analyse SEB integration empirically across large sets of programmes. Without a behavioural framework such as BESSI, institutional claims about "soft skills" development remain rhetorical and cannot be tested against curricular evidence.

In this study, BESSI serves both as the conceptual foundation and the analytical lens. It enables us to: (1) detect whether SEB skills are present in curricula, (2) classify them into meaningful behavioural domains, and (3) compare curricular emphasis with graduates' reports of preparedness by the study programme and SEB skill use in the labour market. As such, we move beyond general assumptions that higher education inherently fosters SEB development and instead empirically examine whether SEB skills are explicitly embedded in the curriculum.

Study Aims and Research Questions

The previous chapters demonstrated two key observations. First, while SEB skills are widely recognised as valuable for both academic and professional success, empirical research has rarely examined whether such skills are explicitly embedded in HE curricula. Second, studies typically rely on student or employer perceptions, without validating whether programmes themselves articulate SEB learning outcomes. As a result, it remains unclear whether higher education actively develops SEB skills, or whether these skills are expected to emerge implicitly through participation in coursework or group projects.

To address this gap, the present study investigates SEB skill development from both a curricular and a graduate-outcome perspective. Using the BESSI)as a behavioural framework, we analyse all available curriculum descriptions from bachelor's programmes at Dutch universities of applied sciences. BESSI makes it possible to detect concrete skill signals, such as planning, collaborating, communicating, or problem solving, in written curriculum texts, rather than relying on broad claims about "soft skills.

The aim of this study is to determine whether SEB skills are explicitly articulated in higher-education curricula and whether this emphasis corresponds with graduates' perceived preparedness and the skills they report using in their jobs. This allows us to examine both sides of the skills pipeline: the educational supply of SEB skills and the labour-market demand for these skills. Guided by this aim, we investigate the following research questions:

RQ1. To what extent are SEB skills explicitly integrated into the curricula of bachelor's programmes at Dutch universities of applied sciences?

RQ2. How does the curricular emphasis on SEB skills vary across disciplinary fields?

RQ3. Do graduates from programmes with stronger SEB skill emphasis report feeling better prepared in SEB competencies?

RQ4. Which SEB skills do graduates report using most frequently in their current jobs, and how does this compare to those emphasised in the curriculum?

RQ5. Where do misalignments emerge between SEB skill supply (in curricula) and SEB skill demand (in the labour market)?

By empirically linking curriculum analysis with graduate experiences, this study moves beyond assumptions that higher education inherently prepares students in SEB competencies. Instead, it evaluates whether SEB skills are intentionally developed and whether this intentionality matters for graduates' professional outcomes.

Data and Methods

Curriculum Text Data (Skills Supply)

To examine the extent to which SEB skills are explicitly formulated in HE curricula, we compiled a comprehensive dataset of all available curriculum descriptions from bachelor 'programmes (N= 96) offered by Dutch universities of applied sciences. Curriculum information was obtained from two national repositories. The first source is the HBO Profielenbank, maintained by the Association of Universities of Applied Sciences, which contains the official programme profiles used in accreditation procedures. The second repository consists of curriculum frameworks for secondary teacher education programmes. Both sources contain sector-validated documents that define the learning outcomes and competencies agreed upon nationally for each programme. These documents are developed by inter-institutional working groups, ensuring that the profiles reflect shared professional standards rather than institution-specific marketing phrasing. The fact that these profiles define nationally required competencies allows for systematic comparison across institutions and disciplinary domains.

For each programme, we retrieved the full curriculum profile and manually identified the section in which learning outcomes and graduate competencies are formally articulated. Although the structure and layout vary across documents, all profiles contain this information as part of the required national documentation standard, enabling consistent extraction. We included only programmes for which an official profile document was available, resulting in a dataset of 96 programmes.

To enable systematic comparison across disciplines, each programme was classified into one of the 9 broad ISCED–Field of Study categories (UNESCO, 2014). Grouping curricula at this level allows us to analyse patterns of SEB skill articulation across disciplinary families rather than individual programmes, and aligns the curriculum data with the classification system used in the graduate survey. This categorisation enables aggregated comparisons between programme-level curriculum content and field-level labour-market skill demands, and facilitates the identification of systematic over- or underrepresentation of SEB skills across disciplines.

The text of each competency section was extracted and processed for analysis following established practices in computational text research (e.g., Berger et al. 2020). All documents were segmented into individual sentences, non-textual elements such as formatting artefacts, HTML residues, and numbering were removed, and empty sentences were dropped. Importantly, sentence structure and function words were retained. We did not remove stop words or reduce the text to stems, as doing so would reduce interpretability and impede the identification of behavioural meaning. The final analytical corpus consists of 6,009 unique sentences, each serving as an independent observation in subsequent analyses

Detecting SEB Skills in Curriculum Text Using BESSI

As indicated above, we use the 20-item version of the Behavioural, Emotional, and Social Skills Inventory (BESSI) to assess the degree to which SEB skills are emphasized in curricula.

As curricula rarely use the exact phrasing of BESSI items, we employed a large language model (GPT-5) to classify whether a sentence expresses a given behavioural skill. Language models are appropriate for this purpose because they capture semantic meaning beyond exact word matching and can recognise conceptual equivalence, such as "planning project tasks" being treated as a behavioural expression of planning and organising (e.g., Arora et al. 2025).

For each of the 20 behavioural skills, we developed a classification prompt. The prompt included the exact BESSI item wording, a small set of key behavioural expressions identified through manual inspection of a subset of curriculum sentences.. To measure the expression of skill domain s (s = 1,...,5) in curriculum profile p (p = 1,..., 96), for every sentence k the model determined whether the behavioural skill was present (coded as 1) or absent (coded as 0).

$$S_{spk} = 1 \; if \; sentence \; k \; expresses \; behavioural \; skill \; s$$

$$S_{spk} = 0 \; otherwise$$

To quantify the emphasis that a curriculum places on a particular SEB skill, we compute the proportion of sentences in which that skill appears:

$$Skill_{sp} = \frac{\sum_{k=1}^{n_p} S_{spk}}{N_p}$$

where n_p is the number of sentences in curriculum profile p and N_p represents the total length of curriculum profile p. This normalisation ensures comparability across curricula of different lengths. Following Sewell et al. (2025), we then aggregate the 20 individual behavioural skill measures into the five broader BESSI skill domains. To assess the validity of the NLP-based classification, we conducted a manual coding procedure. A random sample of 200 sentences (3.3%) was independently coded by two human raters using the same behavioural skill definitions derived from BESSI. Agreement between the large language model and the human coders was high (Cohen's κ = .82), indicating substantial reliability of the automated classification procedure. Disagreements were discussed and used to refine prompt instructions

Graduate Labour-Market Data (Skills Demand)

To assess labour-market demand for SEB skills and examine whether curricular articulation aligns with graduates' professional realities, we use microdata from the 2024 edition of the HBO-Monitor to determine whether graduates feel they received sufficient training in specific SEB skills during their programme and to what extent these skills are required in their current job. The HBO-Monitor is the national annual graduate survey administered to all universities of applied sciences in the

Netherlands. Graduates are surveyed approximately one year after graduation, enabling an assessment of their early labour-market outcomes while minimising recall bias.

The HBO-Monitor includes detailed measures of SEB skill preparedness and SEB skill use. Graduates indicate on five-point Likert scales the extent to which their programme prepared them for behavioural skills such as collaboration, communication, planning and organising, and problem solving, and how frequently they apply these same skills in their current job. Preparedness and skill-use constructs are calculated as mean scores based on multiple survey items per domain, ensuring that each construct reflects behavioural application rather than a single subjective assessment. Both constructs are standardised to facilitate interpretation and comparison across programmes and disciplinary fields.

The 2024 HBO-Monitor survey, which collects outcome information from the 2022-2023 graduation cohort, includes responses from 23,880 graduates, representing approximately 90% of all universities of applied sciences in the Netherlands. The survey achieved a response rate of 41.2%, which is notably high compared to international graduate tracer studies, where response rates between 20% and 30% are common (Schomburg, 2016; OECD, 2022).

Crucially, the HBO-Monitor registers the programme from which each graduate obtained their degree using the national CROHO programme identifier. Because the same identifier is used in the national curriculum repositories, each graduate can be directly linked to the SEB skill profile of the programme from which they graduated. The resulting analytical dataset consists of graduates nested within programmes, enabling us to assess variation both between programmes (differences in curricular SEB articulation) and within programmes (differences in graduates' labour-market experiences and job characteristics). All analyses are performed on anonymised microdata under a data-use agreement with the data owner and in accordance with privacy regulations.

Relating Skills Supply to Skills Demand

To examine whether the explicit articulation of SEB skills in curricula is associated with labour-market outcomes, we ran correlations between self-assessed graduate preparedness or skill use and curriculum-level SEB emphasis. Graduate preparedness or skill use serves as the dependent variable, and curriculum-level SEB emphasis serves as the key independent variable. The model can be expressed as:

$$Outcome_{ip} = \beta0 + \sum_{s=1}^{5} \beta_s(Skill_p) + X_{ip}\,\beta + u_p + \varepsilon_{ip}$$

Here, $Outcome_{ip}$ represents the perceived preparedness or skill use of graduate i from programme p. The term $Skill_p$ refers to the curriculum-level score for one of the five BESSI domains. The vector $X_{ip}\beta$ contains graduate-level characteristics, including demographic information and study mode.

The term u_p is a programme-level random intercept capturing unobserved heterogeneity across curricula, while ε_{ip} represents the individual error term. In additional specifications, we also control for employment characteristics such as sector, occupational skill level and contract type to verify whether curriculum articulation predicts labour-market outcomes above and beyond job characteristics.

To identify where structural gaps exist between educational provision and labour-market demand, we construct a misalignment index at the programme level by subtracting graduates' standardized curriculum-level SEB emphasis from their self-reported SEB skill use in the workplace:

$$Misalignment_p = Use_p - Preparedness_p$$

A positive value indicates that graduates use SEB skills more frequently in their work than one would expect based on the emphasis in their curriculum. This enables identification of domains and programmes in which SEB skills are emphasized little in curricula, despite being required in employment, as well as domains and programmes in which they may be overprepared. When misalignment is present, we also provide a way to reduce its impact for new curricula. As we outline in the Appendix, we introduce an online Skills Scanner app that implements the text analysis methodology to facilitate the implementation of skills in new curricula. Users can input a text of their choosing, and the app will score the text along the five BESSI skill domains. This way, curriculum designers can develop curricula where skills come to the forefront rather than being an afterthought.

Results

Presence of SEB skills in curricula and variation across fields

Across all programmes, SEB skills are explicitly present in written curriculum competency profiles, although the extent of articulation differs considerably across domains and disciplinary fields (Table 1). The values in Table 1 represent the proportion of sentences within the formal competency section that contain a behavioural reference to a particular SEB skill domain. For example, a value of Innovation = 0.24 indicates that, on average, 24% of all competency sentences explicitly describe behaviours related to one of the skills within the Innovation domain.

Across the system, Innovation (mean = 0.24) and Self-Management (mean = 0.19) appear most frequently in written curricula. Cooperation (mean = 0.15) and Social Engagement (mean = 0.12) are mentioned less often, while Emotional Resilience is the least visible domain (mean = 0.05). Across programmes, the share of SEB-related sentences ranges from 0 to more than 50%, showing substantial variation in explicitness of SEB articulation.

Clear differences emerge across disciplinary fields. Programmes in Agriculture, forestry and veterinary studies show the highest overall presence of SEB skills and score above the system average on all five domains, with particularly strong emphasis on Self-Management (mean = 0.33)

and Innovation (mean = 0.27). Arts and humanities programmes also display a pronounced focus on Innovation (mean = 0.33), while Cooperation and Social Engagement appear less frequently. Health and welfare programmes articulate Cooperation and Self-Management most strongly (both means = 0.25), whereas Engineering, manufacturing and construction programmes emphasise Innovation (mean = 0.26) and Self-Management (mean = 0.23) but contain relatively few references to Cooperation and Emotional Resilience.

In contrast, Education programmes show the lowest overall articulation of SEB skills, including the lowest proportions of sentences referring to Cooperation (mean = 0.07) and Self-Management (mean = 0.08), and one of the lowest levels of Social Engagement (mean = 0.07). Programmes in Social sciences, journalism and information also show limited SEB skill articulation, particularly for Emotional Resilience (mean = 0.03). Across all fields, Emotional Resilience is consistently the least visible SEB domain, with programme values ranging from 0.00 to 0.14. This may indicate that it is hard to come up with methods to teach such skills.

Table 1. Summary statistics of curriculum-level SEB emphasis, overall and by ISCED field of study

	mean	sd	min	max
Overall				
Cooperation	0.15	0.09	0.00	0.42
Emotional Resilience	0.05	0.03	0.00	0.14
Innovation	0.24	0.08	0.11	0.46
Self-Management	0.19	0.12	0.00	0.57
Social Engagement	0.12	0.07	0.00	0.42
Agriculture, forestry, fisheries and veterinary				
Cooperation	0.19	0.07	0.09	0.31
Emotional Resilience	0.08	0.04	0.03	0.12
Innovation	0.27	0.07	0.12	0.40
Self-Management	0.33	0.14	0.11	0.57
Social Engagement	0.16	0.07	0.07	0.28
Arts and humanities				
Cooperation	0.16	0.07	0.08	0.33
Emotional Resilience	0.04	0.04	0.00	0.14

Innovation	0.33	0.05	0.27	0.42
Self-Management	0.14	0.04	0.05	0.20
Social Engagement	0.10	0.04	0.05	0.19
Business, administration and law				
Cooperation	0.12	0.05	0.03	0.19
Emotional Resilience	0.06	0.02	0.01	0.09
Innovation	0.23	0.08	0.11	0.38
Self-Management	0.17	0.07	0.10	0.31
Social Engagement	0.10	0.05	0.00	0.18
Education				
Cooperation	0.07	0.07	0.00	0.26
Emotional Resilience	0.04	0.02	0.01	0.11
Innovation	0.25	0.06	0.18	0.46
Self-Management	0.08	0.05	0.00	0.21
Social Engagement	0.07	0.05	0.01	0.19
Engineering, manufacturing and construction				
Cooperation	0.08	0.04	0.03	0.13
Emotional Resilience	0.05	0.03	0.02	0.11
Innovation	0.26	0.11	0.11	0.43
Self-Management	0.23	0.15	0.10	0.50
Social Engagement	0.10	0.06	0.03	0.21
Health and welfare				
Cooperation	0.25	0.09	0.09	0.42
Emotional Resilience	0.06	0.03	0.00	0.11
Innovation	0.19	0.07	0.11	0.39
Self-Management	0.25	0.11	0.08	0.47
Social Engagement	0.15	0.08	0.07	0.42
Natural sciences, mathematics and statistics				
Cooperation	0.14	0.07	0.07	0.20

Emotional Resilience	0.03	0.01	0.02	0.03
Innovation	0.21	0.03	0.16	0.24
Self-Management	0.23	0.10	0.14	0.32
Social Engagement	0.12	0.05	0.05	0.17
Services				
Cooperation	0.16	0.04	0.08	0.21
Emotional Resilience	0.06	0.04	0.02	0.12
Innovation	0.20	0.05	0.16	0.28
Self-Management	0.20	0.08	0.09	0.31
Social Engagement	0.13	0.06	0.03	0.20
Social sciences, journalism and information				
Cooperation	0.14	0.07	0.07	0.22
Emotional Resilience	0.03	0.01	0.02	0.05
Innovation	0.20	0.05	0.15	0.27
Self-Management	0.11	0.06	0.05	0.17
Social Engagement	0.14	0.07	0.04	0.19

Relationship between explicit curricular articulation of SEB skills and graduates' perceived preparedness

Table 2 presents the correlations between the explicit articulation of SEB skills in curricula and graduates' perceived attention to these skills during their programme. The strength of this relationship varies considerably across SEB domains. The strongest associations are found for *Innovation* (r = 0.66) and *Emotional Resilience* (r = 0.60). Programmes that mention these skills more frequently in their curriculum competency descriptions are also those in which graduates report having received more attention to these skills.

For *Cooperation*, the correlation is moderate (r = 0.35), indicating some alignment between written curriculum language and graduates' perceived opportunities to work collaboratively during their study programme. For *Self-Management*, the correlation is positive but weak (r = 0.14), suggesting limited correspondence between curriculum articulation and perceived preparedness. Only *Social Engagement* shows a negative association (r = –0.13), meaning that programmes with more textual emphasis on socially oriented behaviours are not those where graduates report higher attention to this domain.

Table 2. Correlations between textual item scores and graduate assessment of attention received in the study programme

Skill domain	correlation
Social Engagement	-0.13
Cooperation	0.35
Self-Management	0.14
Emotional Resilience	0.60
Innovation	0.66

Figure 1 visualises these relationships by plotting curricular articulation (horizontal axis) against graduates' perceived attention (vertical axis), grouped by disciplinary field. For *Innovation* and *Emotional Resilience*, fields with higher levels of explicit curriculum articulation - such as *Arts and humanities* and *Agriculture, forestry, fisheries and veterinary* - consistently appear in the upper-right quadrant, and the trend lines show steep positive slopes. For *Cooperation*, the pattern is more dispersed, reflecting the moderate correlation. For *Self-Management*, points cluster tightly around the trend line, which is nearly flat, consistent with the weak correlation. In contrast, the scatterplot for *Social Engagement* shows a downward-sloping trend line: programmes that articulate social engagement more frequently in curriculum texts do not score higher on perceived preparedness.

Taken together, the table and scatterplots show that explicit curriculum articulation corresponds with graduates' perceived preparedness, but only for some SEB domains. The alignment is strong for Innovation and Emotional Resilience, moderate for Cooperation, minimal for Self-Management, and absent - and even reversed - for Social Engagement.
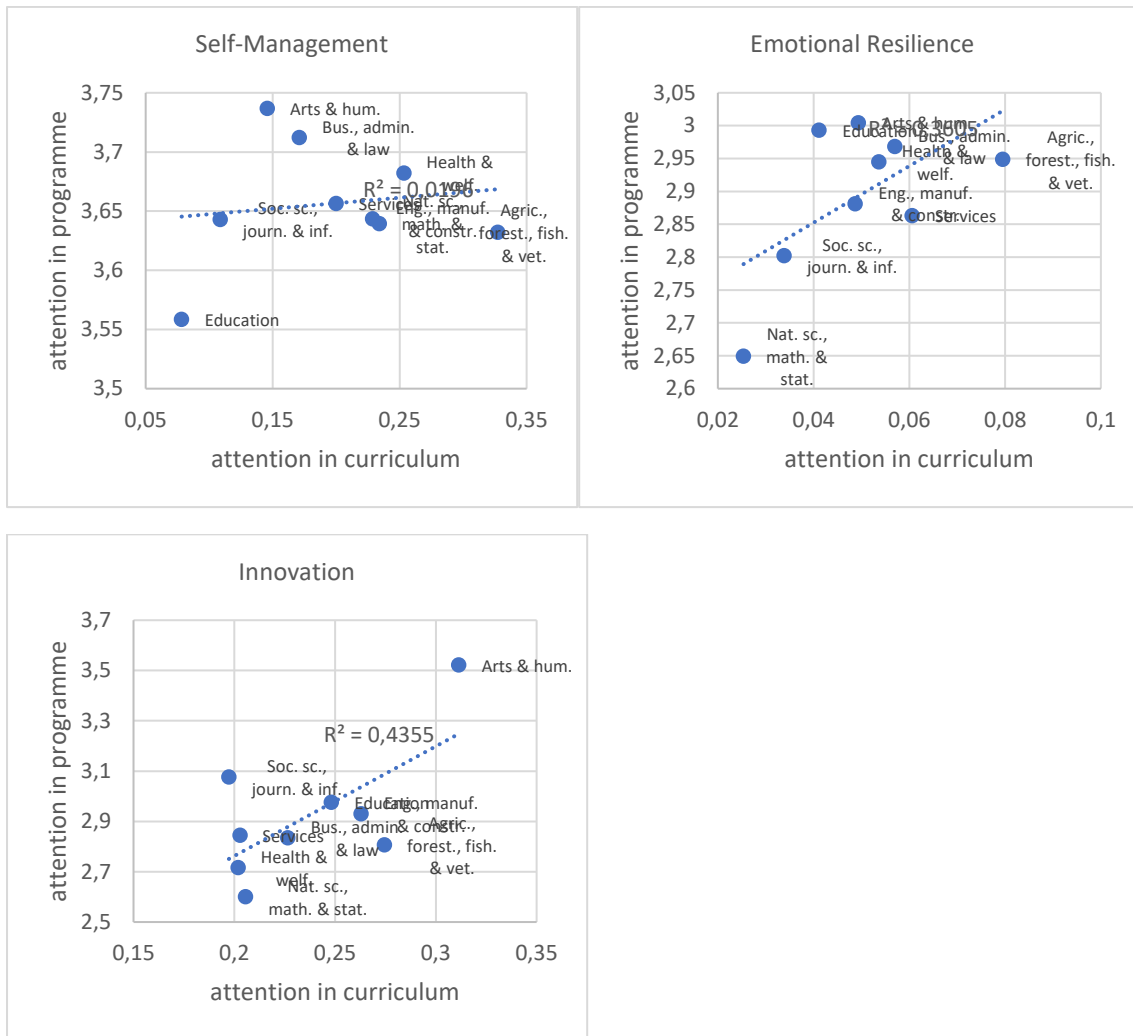
Co-funded by the European Union
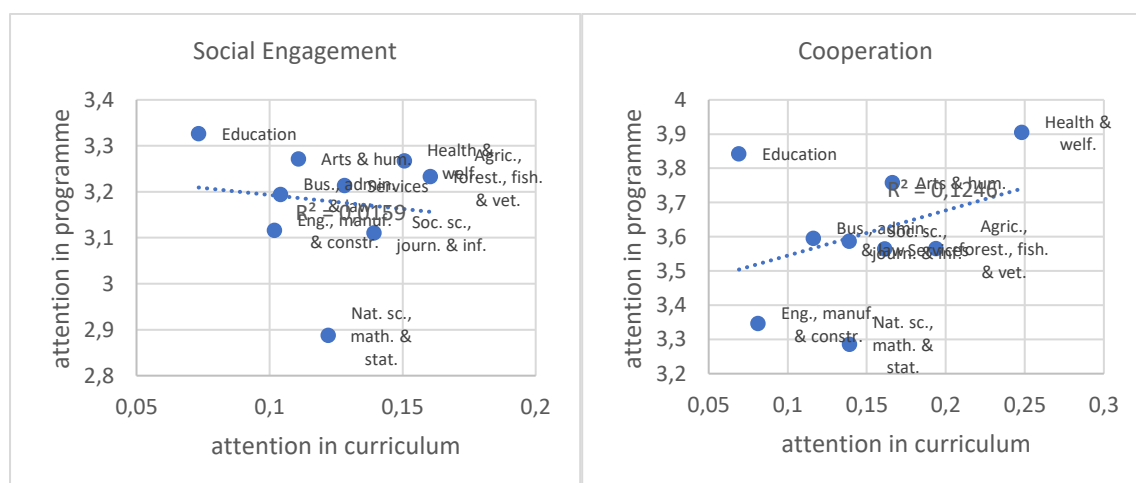
Figure 1. Plots of textual item scores against graduate assessment of attention received in study programme

Alignment between SEB skills emphasized in curricula and SEB skills required in the labour market

Table 3 reports correlations between the explicit articulation of SEB skills in curricula and the level of those skills graduates report using in their current jobs. *Innovation* shows the strongest positive association (r = .66), indicating that this skill is both frequently articulated in curricula and frequently required in the workplace. *Emotional Resilience* (r = .35) and *Cooperation* (r = .23) show weaker positive associations. For *Self-Management* (r = –.25) and *Social Engagement* (r = –.31), the correlations are negative, meaning that these are the domains where workplace demand is highest precisely when curricula articulate them less explicitly.

Table 3. Correlations between item scores and graduate assessment of job required skill level

Skill domain	correlation
Social Engagement	-0.31
Cooperation	0.23
Self-Management	-0.25
Emotional Resilience	0.35
Innovation	0.66

Table 4 reports these patterns by contrasting curricular articulation with labour-market demand across disciplinary fields. Positive values indicate that a skill appears more frequently in curricula than demanded in jobs (overrepresentation), while negative values indicate that the labour market requires the skill more often than curricula make explicit (underrepresentation). The table shows that skills are systematically overrepresented in more technical or science-related fields (Natural sciences, mathematical and statistics, Engineering, manufacturing and construction, and Agriculture, forestry, fisheries and veterinary), and underrepresented in more social or economic fields, especially Business, administration and law. Looking at the results from the perspective of skill domains, the results show that the alignment between curricula and labour-market demand is domain-specific: strong for Innovation, moderate for Emotional Resilience and Cooperation, and misaligned for Self-Management and Social Engagement.

Table 4. Under- and overrepresentations of skill scores in curricula, relative to level of demand reported by working graduates, by broad field of study

	Social Engage-ment	Cooper-ation	Self-Manage-ment	Emotional Resilience	Innovation
Agriculture, forestry, fisheries and veterinary	1,28	1,20	1,03	1,17	0,91
Arts and humanities	-0,39	-0,02	-0,92	-0,93	-0,61
Business, administration and law	0,32	0,36	-0,14	0,72	0,36
Education	-1,52	-1,62	-1,13	-0,92	-0,34
Engineering, manufacturing and construction	0,36	0,51	1,66	1,19	0,76
Health and welfare	0,45	0,45	0,44	-0,18	-0,08
Natural sciences, mathematics and statistics	1,73	1,41	2,07	0,72	0,69
Services	0,51	0,73	0,34	0,80	0,11
Social sciences, journalism and information	1,00	0,39	-0,51	0,10	-0,72

Discussion and Conclusion

This study examined the extent to which social, emotional, and behavioural (SEB) skills are explicitly articulated in higher-education curricula, and whether such articulation aligns with graduates' perceived preparedness and the skills they report using in the workplace. Three main findings emerge. First, SEB skills are explicitly present in curriculum competency documents, but visibility is uneven across skill domains and disciplinary fields. Innovation and self-management appear most frequently, while emotional resilience is rarely articulated. Second, explicit curricular articulation is associated with graduates' perceived preparedness, but the strength of this relationship varies by domain. Innovation and emotional resilience show strong positive associations, cooperation a moderate association, and self-management and social engagement no alignment. Third, when comparing curricular emphasis with labour-market demand, alignment is again domain-specific. Innovation aligns well with workplace skill use, whereas self-management and social engagement are consistently underrepresented in curricula relative to what graduates report needing in their jobs. These patterns indicate that graduates frequently use SEB skills that are not made explicit in curricula.

Two findings require deeper interpretation because they reveal that explicit articulation of a skill does not automatically translate into skill development. The first concerns self-management. Although this domain is one of the most frequently articulated in written competency profiles, graduates report the largest preparedness gap in this area. This apparent paradox reflects the distinction between declaring a skill and providing the conditions for developing it. In many programmes, self-management behaviours such as planning, prioritising tasks, monitoring progress, and coping with workload are listed in competency frameworks, but students are expected to develop these capabilities implicitly through project work rather than through structured instruction. Prior research shows that higher education often assumes that students "pick up" self-management autonomously (Jackson, 2016; Oliver & Jorre de St Jorre, 2018). However, evidence from educational psychology indicates that self-regulatory skills develop only when students receive scaffolding, such as goal-setting support, planning tools, and feedback on their behavioural process rather than solely on their project outcomes (Zimmerman, 2002; Pintrich, 2004). As a result, students may successfully complete assignments without effectively practising self-management strategies, explaining why this skill shows high curricular visibility yet remains the area where graduates feel least prepared.

A similar mechanism may explain the misalignment found for cooperation. Many programmes make extensive use of group projects, which leads educators to assume that collaboration skills will develop naturally. However, working in a group is not the same as learning to collaborate. Studies show that group work in higher education often results in a task-division strategy rather than genuine collaboration: students split the work, minimise interaction, and avoid conflict in order to complete the assignment efficiently (Oakley et al., 2004). In such situations, the final product is assessed, rather than the quality of collaboration or the individual's behavioural contributions. In contrast, workplace collaboration requires negotiating roles, resolving disagreements, coordinating with people from different backgrounds, and communicating across hierarchies (Andrews & Higson, 2008). Students therefore frequently work alongside others in

Skills2Capabilities

higher education, but do not necessarily learn the interpersonal behaviours required to collaborate effectively in professional settings. This helps explain why cooperation appears moderately articulated in curricula yet still results in perceived skill deficits after graduation.

Beyond preparedness, our results reveal a different type of misalignment: the emphasis that curricula place on SEB skills does not always match how frequently these skills are required in the workplace. Even when curricula formally articulate SEB skills, some are not prioritised in ways that reflect labour-market realities. For example, graduates report that self-management and social engagement are used intensively in their jobs, yet programmes articulate these skills less frequently and invest comparatively little instruction in them. In contrast, innovation is highly visible in curriculum documentation, and programmes that articulate innovation more strongly are also those in which graduates report higher preparedness and greater use of innovation-related behaviours in their early-career roles. Thus, the misalignment is not uniform across SEB domains: cooperation, emotional resilience and innovation show alignment between curricular emphasis and workplace use, whereas self-management and social engagement remain structurally underrepresented, precisely in the areas where labour-market demand is strongest.

The findings have clear implications for curriculum design and quality assurance. SEB skill development cannot be left to chance or assumed to occur implicitly simply because programmes mention soft skills at a general level. Graduates feel better prepared only when SEB skills are formulated as concrete, observable behaviours in curriculum documentation. Making SEB competencies explicit enables constructive alignment: it clarifies for instructors what behaviours must be taught and assessed, signals to students what they are expected to learn, and provides accreditation bodies with verifiable evidence of curriculum intent. Explicit formulation transforms SEB development from a by-product of project work into an intentional learning outcome. For curriculum teams, this implies that regular auditing of programme documentation – particularly for domains where visibility lags behind workplace demand (self-management and social engagement) – is essential. Such audits should verify not only that SEB skills are taught, but that they are visible, assessable, and traceable to learning activities and assessment criteria. By making SEB competencies explicit throughout the documentation chain, programmes can strengthen transparency, improve student preparedness, and enhance labour-market relevance..

Several limitations should be acknowledged. The text mining approach captures what is formally written in nationally validated competency profiles, not how curricula are enacted in teaching practice. SEB skills may be developed implicitly even when not articulated in programme documentation. The study focuses on one national context (the Netherlands) and one institutional sector (universities of applied sciences); different patterns may occur in research universities or other countries. Finally, the correlational design does not allow causal inference. Future studies could analyse curriculum documents at the course or syllabus level, where SEB skills may be articulated more concretely, and combine text analysis with classroom observations or student interviews to examine how implicit skill development occurs.

In conclusion, this study shows that SEB skills are present in higher-education curriculum documentation, but not always where graduates or employers need them most. Explicit articulation of SEB skills in learning outcomes and competency frameworks is not merely symbolic:

it influences what students recognize, what they learn, and how prepared they feel for professional practice. Strengthening the visibility and instructional support of SEB skills, especially self-management and social engagement, may help reduce preparedness gaps and enhance the labour-market relevance of higher-education programmes.

References

Andrews, J., & Higson, H. (2008). Graduate employability, 'soft skills' versus 'hard' business knowledge: A European study. *Higher Education in Europe, 33*(4), 411–422. https://doi.org/10.1080/03797720802522627

Arora, N., Chakraborty, I., & Nishimura, Y. (2025). AI–human hybrids for marketing research: Leveraging large language models (LLMs) as collaborators. *Journal of Marketing, 89*(2), 43-70. https://doi.org/10.1177/0022242924127652

Belfi, B., & Borghans, L. (2025). The importance of socio-emotional skills for multiple life outcomes and the role of education. In Handbook of Education and Work (pp. 75-104). Edward Elgar Publishing. https://doi.org/10.4337/9781035309917.00010

Bennett, D. (2019). Graduate employability and higher education: Past, present and future. *HERDSA Review of Higher Education*, 5(1), 31-61.

Berger, J., Humphreys, A., Ludwig, S., Moe, W. W., Netzer, O., & Schweidel, D. A. (2020). Uniting the tribes: Using text for marketing insight. *Journal of marketing, 84*(1), 1-25. https://doi.org/10.1177/0022242919873106

Biggs, J. (2003). Aligning teaching and assessing to course objectives. *Teaching and learning in higher education: New trends and innovations, 2(*4), 13-17.

Collaborative for Academic, Social, and Emotional Learning. (2023). *What Is the CASEL Framework?* CASEL https:// casel. org/ funda menta ls- of- sel/ what- is- the- casel- frame work/

Cheng, M., Adekola, O., Albia, J., & Cai, S. (2022). Employability in higher education: a review of key stakeholders' perspectives. *Higher Education Evaluation and Development, 16*(1), 16-31. https://doi.org/10.1108/HEED-03-2021-0025

Chernyshenko, O. S., Kankaraš, M., & Drasgow, F. (2018). Social and emotional skills for student success and well-being: Conceptual framework for the OECD study on social and emotional skills. *OECD Education Working Papers, 173,* 1–136. https:// doi. org/ 10. 1787/ db1d8 e59- en

Cnossen, F., Piracha, M., & Tchuente, G. (2025). Learning the right skill: vocational curricula and returns to skills. *Journal of Labor Economics, 43*(3), 665-697. https://doi.org/10.1086/730123

Deming, D. (2017). *The growing importance of social skills in the labor market*. Quarterly Journal of Economics, 132(4), 1593–1640. https://doi.org/10.1093/qje/qjx022

Hill, J., Walkington, H., & France, D. (2016). Graduate attributes: Implications for higher education practice and policy: Introduction. *Journal of Geography in Higher Education, 40*(2), 155-163. https://doi.org/10.1080/03098265.2016.1154932

Jackson, D. (2016). Re-conceptualising graduate employability: The importance of pre-professional identity. *Higher Education Research & Development, 35*(5), 925-939. https://doi.org/10.1080/07294360.2016.1139551

Oliver, B., & Jorre de St Jorre, T. (2018). Graduate attributes for 2020 and beyond: Recommendations for Australian higher education providers. *Higher Education Research & Development, 37*(4), 821-836. https://doi.org/10.1080/07294360.2018.1446415

Oakley, B., Felder, R. M., Brent, R., & Elhajj, I. (2004). Turning student groups into effective teams. *Journal of Student Centered Learning, 2*(1), 9–34.

Peterson, N. G., Mumford, M. D., Borman, W. C., Jeanneret, P. R., Fleishman, E. A., Levin, K. Y., & Dye, D. M. (2001). Understanding work using the Occupational Information Network (O* NET): Implications for practice and research. *Personnel psychology, 54*(2), 451-492. https://doi.org/10.1111/j.1744-6570.2001.tb00100.x

Pintrich, P. R. (2004). A conceptual framework for assessing motivation and self-regulated learning in college students. *Educational Psychology Review, 16*(4), 385–407. https://doi.org/10.1007/s10648-004-0006-x

Sewell, M. N., Yoon, H. J., Lechner, C. M., Napolitano, C. M., Rammstedt, B., Roberts, B. W., & Soto, C. J. (2025). Assessing social, emotional, and behavioral skills in just a few minutes: 96-, 45-, and 20-item short forms of the BESSI. *Assessment, 32*(4), 501-520. https://doi.org/10.1177/10731911241256434

Soto, C. J., Napolitano, C. M., Sewell, M. N., Yoon, H. J., & Roberts, B. W. (2022). An integrative framework for conceptualizing and assessing social, emotional, and behavioral skills: The BESSI. *Journal of personality and social psychology, 123*(1), 192-222. https://doi.org/10.1037/pspp0000401

Schomburg, H. (2016). *Carrying out tracer studies: guide to anticipating and matching skills and jobs: volume 6*. https://doi.org/10.2816/938667

Soto, C. J., Napolitano, C. M., Sewell, M. N., Yoon, H. J., & Roberts, B. W. (2024). Going beyond traits: Social, emotional, and behavioral skills matter for adolescents' success. *Social Psychological and Personality Science, 15*(1), 33-45. https://doi.org/10.1177/1948550622112748

Succi, C., & Canovi, M. (2020). Soft skills to enhance graduate employability: Comparing students' and employers' perceptions. *Studies in Higher Education, 45*(9), 1834–1847. https://doi.org/10.1080/03075079.2019.1585420

UNESCO, I. (2014). ISCED Fields of Education and Training 2013 (ISCED-F 2013): manual to accompany the International Standard Classification of Education 2011. Montreal: UNESCO IFS.

Wong, B., Chiu, Y. L. T., Copsey-Blake, M., & Nikolopoulou, M. (2022). A mapping of graduate attributes: What can we expect from UK university students?. *Higher Education Research & Development, 41*(4), 1340-1355. https://doi.org/10.1080/07294360.2021.1882405

World Economic Forum. (2023). *The Future of Jobs Report 2023*. Geneva: World Economic Forum. https://www.weforum.org/reports/the-future-of-jobs-report-2023

Zimmerman, B. J. (2002). Becoming a self-regulated learner: An overview. *Theory Into Practice, 41*(2), 64–70. https://doi.org/10.1207/s15430421tip4102_2

Appendix. Skills Scanner: Real-time Skill Identification in Curriculum Texts

The methodology described in Section 5.2 is applicable beyond the texts we used in the main manuscript. To facilitate the usage of our method, we have created a Shiny app that implements our methodology for real-time usage. Specifically, curriculum designers can use the app by inputting a (concept) curriculum text, after which the text will be scored on the BESSI domains. Furthermore, the app facilitates comparison to similar programs within the ISCED field by visualizing the comparison of input text scores with field-specific average. Figure 1 provides a visual representation of the app. The app can be accessed through the following link: https://nholtrop.shinyapps.io/skills_scanner/

Figure 1: Overview of Skills Scanner interface. Text input and field selection are on the left-hand side, while the output scores (top panel) and field-specific comparison (bottom panel) are on the right-hand side.

Methodology

The Skills Scanner implements the methodology outlined in Section 5.2. First, the text in the input field is processed similar to the data used in the main study, and as outlined in Section 5.1. This includes tokening the text into sentences, removing additional whitespace, and dropping non-textual elements. Next, the processed sentences are used as input to a ChatGPT-5 prompt (see next section), which scores each sentence on 20 BESSI dimensions. We then aggregate the 20 dimensions to the 5 BESSI domains (Self-Management, Social Engagement, Cooperation, Emotional Resilience and Innovation) by averaging the 4 items per domain. These domain scores are then aggregated across sentences following the metric outlined in Section 5.2. This results in the first output shown in Figure 1, the scores on the individual domains. Second, these are then compared to the average scores of the selected ISCED field (see Figure 1), where these ISCED field-specific scores are obtained by averaging the individual scores of curricula within each ISCED field in our main study. This implies that the relative comparison only makes sense for Dutch HBO studies, even though the individual scores generated can be interpreted without that context.

ChatGPT-5 prompt

The analysis of input text is done using a customized prompt, that has been finetuned over many iterations. The prompt consists of the following three parts. First, the prompt establishes that the user will define some skills as follows: "I will define the following skills", followed by a line for each skill defined. We provide the individual skills in Table 1, and as noted in Section 5.2 these comprise of both the original BESSI items as well human-annotated enhancements to fit the context.

Second, after this definition, the following task is defined: "Indicate whether the skills above are present in the below text. You can use synonyms for the words mentioned in the definition, and do not have to interpret the definition too strict. Return the result as a vector of length 20 with 'present' indicating presence of a skill, and 'absent' indicating absence of a skill. The place in the vector should correspond to the place of the skill, so for example if Responsibility Management is present, the third position of the vector should be 'present'. Code the vector as an R vector, without using the c() notation, but do include comma's between the entries of the vector. Please only return the vector and nothing else. The sentence to be scored is:". This task asks the model to score each sentence based on 20 skills definition in Table 2, and return the result as a vector for further processing. Given the linguistic nature of LLMs, we asked the model to return present or absent rather than a 0/1 classification, as our experimentation concluded this gives more consistent results across model prompts.

The individual sentences are passed on through repeated API prompts, which results in a matrix-representation of the input text. From this representation, the five BESSI domain scores are computed, and a reference figure is generated based on the selected ISCED field. Both are then shown as outputs in the app.

Table 1: Overview of skill descriptions. Translated from Dutch to English.

RESPONSIBILITY MANAGEMENT Keeping promises and agreements. Managing my responsibilities. Keeping track of promises and commitments. Fulfilling promises. Reliability. Meeting agreements. Sense of responsibility. Acting responsibly.

TIME MANAGEMENT Using time efficiently while achieving goals. Being on time for appointments. Following a schedule. Planning my time. Calendar management. Deadline management. Time planning. Time awareness.

RESPONSIBILITY MANAGEMENT Keeping promises and agreements. Keeping track of promises and agreements. Fulfilling promises.

TASK MANAGEMENT Working persistently to complete tasks and achieve goals. Continuing to work until a task is finished. Working efficiently without wasting time. Focusing on a specific task. Setting priorities. Working result-oriented. Work discipline. Task-oriented work. Efficient task management.

LEADERSHIP Leading a group of people. Taking charge in a situation. Leadership skills. Managerial abilities. Group direction. Taking initiative.

EXPRESSIVE SKILLS The ability to communicate thoughts and feelings to others. Expressing thoughts and emotions. Telling people how I feel. Sharing what I'm thinking about. Emotional expression skills. Empathic communication. Oral communication. Expressive abilities.

PERSUASIVE SKILLS Speaking up when I disagree with others. Debate skills. Communicative persuasiveness.

CONVERSATIONAL SKILLS Talking with people. Starting a conversation.

CAPACITY FOR TRUST Having trust in others and being able to forgive them. Seeing the good in others. Forgiving people easily. Being able to trust people. Believing in others.

CAPACITY FOR SOCIAL WARMTH Getting along well with others. Interpersonal warmth. Charisma. Social accessibility. Kindness.

PERSPECTIVE-TAKING Understanding the feelings and thoughts of others. Empathizing with other people's emotions. Understanding how others feel. Empathic abilities. Empathy. Cognitive empathy. Emotional intelligence. Perspective shifting.

TEAMWORK Working together with others. Group work skills. Team competencies. Cooperative work.

STRESS REGULATION Calming down when feeling tense. Regulating stress, tension, and anxiety. Becoming calm when nervous. Stress management. Anxiety regulation. Stress resilience.

ANGER MANAGEMENT Controlling my anger. Preventing myself from becoming angry. Patience. Staying calm.

CONFIDENCE REGULATION   Finding ways to feel good about myself. Recognizing my positive qualities. Self-esteem.

CAPACITY FOR OPTIMISM   Maintaining a positive mindset. Staying positive when something bad happens. Remaining hopeful and optimistic.

ABSTRACT THINKING   Dealing with abstract ideas. Understanding abstract concepts. Conceptual thinking. Analytical thinking. Theoretical thinking.

CULTURAL COMPETENCE   Appreciating other cultures. Intercultural skills. Cultural sensitivity. Awareness of diversity.

ARTISTIC SKILLS   Drawing or painting. Creating art. Writing stories or poems. Composing or performing music. Writing or performing a play. Making a film or video. Dancing or choreographing. Artistic expression. Performing arts. Multimedia creation.

CREATIVE SKILLS   Generating new ideas. Coming up with new concepts. Having innovative abilities. Being able to think of original ideas. Possessing creative thinking ability. Resourcefulness. Creative thinking. Idea generation. Visionary thinking.

_____

This working paper was authored for Skills2Capabilities by Barbara Belfi, Niels Holtrop, Jim Allen en Didier Fouarge.

This paper is a deliverable from the work package 6 entitled 'the supply of skills and lifelong learning among VET graduates over the life course.', led by Didier Fouarge (ROA).

This working paper represents the views of the authors based on the available research. It is not intended to represent the views of all Skills2Capabilities affiliates.

www.skills2capabilities.eu

Skills2Capabilities Partner Institutions: