Leveraging the HR Scorecard for Building Faculty Competencies: A Primary Study on Soft Skills and Digital Literacy among Teachers in Higher Education in the Era of Viksit Bharat 2047

Vartika Kanagat*[1] and Sunita Upendrakumar Sharma[2]

[1] vartika.kanagat-mgmt@msubaroda.ac.in, [2] sunita.sharma-mgmt@msubaroda.ac.in

Abstract

India's vision for Viksit Bharat 2047 necessitates a robust transformation in higher education to produce a skilled and innovative workforce. Central to this transformation is the enhancement of teaching quality, which directly influences student competencies and employability. This study examines faculty skill development through the HR Scorecard (HRSC), offering a strategic framework to evaluate and enhance performance in higher education institutions (HEIs). Using a primary research design, data is collected from a sample size of 1949 students at a selected Indian university using a structured questionnaire. This study investigates student perceptions of faculty soft skills (SS) and technical skills (TS) across demographic variables with the aim of identifying competency gaps and teacher development priorities in higher education.

The study proposes the HR Scorecard as a strategic framework to align the faculty development initiatives with institutional mission and national priorities such as Viksit Bharat 2047. It advocates evidence-based, demographically sensitive interventions, including gender-specific pedagogy, age-tailored learning strategies, replication of best practices, and performance-linked recognition systems. By embedding measurable KPIs/KRAs and promoting continuous professional development, the HR Scorecard can bridge identified skills gaps, better student engagement, enhancing teaching–learning outcomes, aiming higher education institutions for sustained global competitiveness. Findings reveal a gap between the existing skill delivery mechanisms and the evolving demands of the knowledge economy. The study recommends adopting the HR Scorecard framework to align faculty development with institutional mission and Viksit Bharat 2047. By integrating skill development into the core of faculty evaluation, higher education institutions (HEIs) can play a transformative role in achieving the Viksit Bharat 2047 vision. This research contributes to the discourse on strategic HRM in academia, demonstrating how the HR Scorecard can be leveraged to foster a future-ready higher education ecosystem.

Keywords: HR Scorecard, Skill Development, Teaching Quality, Higher Education, Viksit Bharat 2047

V. Agarwal et al. (eds.), *Proceedings of the Global Innovation and Technology Summit "AAROHAN 3.0"_HSS Track (GITS-HSS 2025)*, Advances in Social Science, Education and Humanities Research 1005,
https://doi.org/10.2991/978-2-38476-559-1_37

1. Introduction

Higher education stands at critical crossroads as India charts its path to realize its Viksit Bharat 2047 mission – a future that envisions the country as a developed, resilient, and knowledge-driven society by its centenary of independence. In this context, the role of higher education is not limited to imparting knowledge; higher educational institutions (HEIs) are increasingly expected to serve as catalysts for innovation and sustainable development (Altbach, Reisberg, & de Wit, 2022). This transformation calls for innovative paradigms in teaching and learning that enable institutions to produce graduates who are both competent and adaptable. The vision of Viksit Bharat revolves around transforming India into a self-reliant, knowledge-based, and innovation-led economy by 2047. Teachers are no longer limited to being subject experts of their areas; they are now expected to exemplify dual competencies, technical mastery alongside human-centric soft skills such as empathy, communication, adaptability, and leadership. While technical skills enable academic rigor, soft skills foster emotional resilience, creativity, and critical thinking, and lifelong learning capacity of students (Robles, 2012; Succi & Canovi, 2020). As India advances through its Amrit Kaal phase, developing teachers with this dual capability is fundamental in achieving Atmanirbhar Bharat and nurturing a knowledge economy. Today, the expectation from faculty is twofold: mastery over subject content and the ability to engage students through empathy, adaptability, and emotional intelligence.

Against this backdrop, the Human Resource Scorecard (HRSC) emerges as a capable strategic performance measurement tool. As an extension of Kaplan and Norton's Balanced Scorecard (1992), the HR Scorecard provides a structured mechanism to link human contribution with institutional strategy (Becker, Huselid, & Ulrich, 2001). Applied to higher education, it allows institutions to measure, develop, and align faculty competencies with long-term academic missions and national goals. By integrating both technical and soft skill dimensions into measurable key performance indicators (KPIs), the HR Scorecard enables HEIs to embed accountability, evidence-based decision-making, and continuous improvement through human interventions (Ahmad & Soon, 2015). Despite its potential, the HR Scorecard is at a very nascent stage in the higher education context, particularly in developing economies like India. Existing research has primarily focused on quality assurance mechanisms, accreditation measures like National Assessment and Accreditation Council (NAAC) and National Institutional Ranking Framework (NIRF), New Education Policy (NEP, 2020), and general faculty development, but limited empirical work connects HR Scorecard practices with student perceptions of teaching effectiveness across varied demographics (Zhu, X., & Liu, J, 2020). This gap is critical, as understanding how different student groups perceive faculty soft and technical skills can inform targeted and focused interventions, that would help in aligning institutional strategies with national educational reforms (Sánchez-García et al., 2022). The present study investigates the perceptions of students regarding faculty competencies such as soft skills and technical skills through the application of the HR Scorecard framework at a selected university. By examining variations across gender, age, and medium of instruction, the study contributes to both theory and practice in three ways. First, it extends the HR Scorecard application to the higher education sector, thereby broadening its theoretical utility. Second, it provides empirical evidence on demographic variations in perceptions of teaching competencies, a dimension often overlooked in faculty competency building research. Finally,

it offers actionable insights for policymakers, administrators, and educators seeking to align institutional strategies with the goals of Viksit Bharat 2047. This study addresses that gap by providing empirical evidence using student survey data (n = 1,949) and demonstrating how HR Scorecard alignment can support both strategic institutional objectives (Viksit Bharat 2047) and nuanced faculty development.

2. Literature Review

2.1 HR Scorecard (HRSC): Origin and Relevance to Higher Education

Becker, Huselid, and Ulrich (2001) introduced the HR Scorecard as a strategic framework to establish how people, performance, and strategy interact to create value. While originally designed for corporate settings, its perspectives give considerable relevance to higher education, especially as India envisions its developmental journey through the lens of Viksit Bharat 2047. This framework underscores how the HR systems can drive strategy by measuring the skills (technical and soft skills) of teachers, thereby measuring the impact of human contribution.

In the context of India's national development agenda of Viksit Bharat 2047, building an educational ecosystem that fosters both soft and technical skills in teachers is essential. The quality of teachers play a fundamental role in shaping teaching-learning outcomes, engaging with students, and development of a skills-based workforce. The HR Scorecard provides a strategic framework that helps to align teachers' competencies with institutional goals. Competencies like soft skills (SS) empathy, communication, motivation, emotional intelligence are important for cultivating supportive, and engaging learning environment (Xie, 2021). Energetic, empathetic, and professional teachers build stronger rapport with students and help to create psychologically safe classrooms (Thijssen, 2022). Traits such as being respectful of opinions, helping students manage stress, and inspiring them are hallmarks of emotionally intelligent teachers (Moropa, 2025). Similarly, 'Technical skills' (TS) include classroom management, curriculum delivery, subject expertise, adaptability to online/offline modes, and use of pedagogical tools. These skills are central to academic outcomes and are directly linked to teacher effectiveness. Traits like being capable of conducting classes, ensuring discipline, and engaging students in online/offline/virtual exercises reflect pedagogical preparedness. Under the HRSC, HR Operations, skills can be tracked using key performance indicators (KPIs) that allows institutions to measure not just output, but also the impact of instructional strategies on learning outcomes (Hollenstein, 2024). The HR Scorecard offers a structured approach to translate strategy into measurable HR outcomes (Becker et al., 2001). When applied to faculty development in HEIs, it enables: strategic alignment by linking teacher development initiatives (e.g., CPD, faculty training) to institutional vision (e.g., NEP 2020, Viksit Bharat). This also helps to measure the intangibles by quantifying soft skills through 360-degree feedback, student evaluations, and peer reviews (Armenakis & Bedeian, 1999). Originally conceptualized by Becker, Huselid, and Ulrich (2001), the HRSC emphasizes alignment between vision, human resource practices, and organizational performance. When applied to higher education, it provides a systematic means to monitor and enhance both technical and soft competencies of teachers, thereby strengthening student learning outcomes and institutional effectiveness (Feraco et al., 2023). The HRSC framework comprises five interrelated quadrants. The first quadrant, Vision, Mission, and strategy ensures that faculty development and performance management are directly tied to institutional goals and the broader policy aspirations of initiatives such as NEP 2020 and Viksit

Bharat 2047. The second quadrant, HR Operations, focuses on the formulation of Key Performance Indicators (KPIs) that reflect both pedagogical effectiveness (includes technical and soft skills of teachers) and alignment with institutional objectives. Third quadrant, student feedback, captures learners' perceptions of faculty performance across both technical skills such as subject expertise, classroom management, pedagogy and soft skills including empathy, communication, and adaptability. The fourth quadrant, High-Performance Work Systems (HPWS), translates these insights into human interventions, such as training, coaching, mentoring, and professional faculty development programs customised to address identified gaps. Lastly, the fifth quadrant, Management of HPWS, emphasizes sustainability through systems and tools that enable continuous learning and development of teachers. This involves integrating leading indicators, regularly updating KPIs, and instituting iterative cycles of student feedback. Such feedback loops foster a culture of continuous improvement, ensuring that faculty competencies evolve in tandem with institutional strategy and student needs.

2.2 Teacher Competencies: Soft and Technical Skills

By embedding faculty development within the HR Scorecard framework, HEIs can move beyond interventions toward a data-driven, measurable, and strategic academic performance management. This not only enhances classroom engagement and learning outcomes, but also strengthens the role of HEIs as drivers of national development. Ultimately, the value of applying the HR Scorecard in higher education lies in its ability to capture the human dimension of teaching empathy, resilience, adaptability, while also recognizing the technical expertise that drives academic excellence. When these two sets of skills are nurtured, HEIs are better able to contribute to India's long-term developmental goals.

2.2.1 Enhancing Soft and Technical Skills Through the HR Scorecard Framework

Improving the quality of teachers has been highlighted by several committees and commissions like Kelkar Committee, P.V. Indirasen Committee, Bhatnagar Committee etc. formed on higher education and stressed in both the NPE, 1968 and NEP, 2020. A lot of steps have been taken to ameliorate the condition per suggested by the aforesaid committees, commissions, and NPE's (National Policy on Education, 1986). There are many factors that contribute to the success of any higher education institution, but these factors vary across institutions depending on the size and objectives of each institution (Paton & Karunaratne, 2009). But one thing that remains common across all institutions is the fact that teachers play a pivotal role in building an institution. They are the pillars that give strength to the entire system (Jain & Moreno, 2022). The role of teachers cannot be limited to just teaching, but teachers shape the careers of their students. Institutions assess a lot of factors while roping in good quality teachers. Some of the factors that are considered are: recruitment processes and how teachers are retained post recruitment, feedback, recognition and rewards, career development, empowerment, training and capacity building programs, and self-evaluation paired with performance measurement and performance management of teachers can really prove to be a mark of difference in improving performance and enhancing the quality through performance measurement tools. The strength of any institution lies in the core functions like satisfaction of its customers (students), operations, learning and development of teachers to bring out the desired outcomes as per strategies of the institution. These are carried out to evaluate and improve the system. The

committees, commissions, NEP, 1968 and 2020 have time and again brought this subject to the fore and come with numerous suggestions and recommendations for the institutions to follow (Tse, 2010). The HRSC necessitates the importance of each dimension and incorporates all the nitty gritty of the system that is crucial for the success. The fundamental behind the HRSC that every dimension is linked to the vision of any institution so that the essence of the scorecard is not lost (Lee, 2001). Every HR activity is evaluated, measured, and managed so that the areas of improvement do not remain under the wraps. A core tenet of the National Education Policy (NEP) 2020 is the successful implementation of educational reforms within Higher Education Institutions (HEIs). This requires a premeditated approach to human capital and emphasis on enhancing teaching competencies (NEP, 2020). The HR Scorecard (HRSC) provides a robust framework for this purpose. From a high-performance work systems perspective, the HRSC helps HEIs identify and build the specific capabilities, behaviours, and actions required to achieve strategic goals (Becker et al., 2001). It is the new capabilities, behaviours, and actions that are required to drive the institutional success. Developing high performance work systems perspective of the HRSC helps in learning and developing human capital by developing competencies like soft skills and hard skills that include digital, technical, or administrative skills, which are inevitable in today's times (Zhu & Liu, 2020).

2.2.2 Aligning Teachers' Competencies with HR Scorecard and Viksit Bharat

Soft skills and technical skills are increasingly imperative in higher education as they enhance chances of students' employability. Interpersonal abilities such as teamwork, empathy, and leadership, along with intrapersonal traits like resilience and adaptability, create supportive learning environments (Chatti et al., 2010). At the same time, technical competencies including subject expertise, classroom management, and curriculum delivery remain essential for pedagogical effectiveness (Popli, 2015). The digital transformation of higher education that was accelerated by the COVID-19 pandemic, has further redefined teacher competencies. Research indicates that while teachers adapted relatively well to online delivery, their confidence weakened when it came to providing feedback, highlighting the continuing importance of soft skills such as empathy and constructive communication in digital pedagogy (Perifanou et al., 2021). Technical readiness, including interactivity in virtual classrooms and alignment of digital tools with curriculum and pedagogy is a prerequisite for effective teaching (Su et al., 2024; Kostler & Wolff, 2025). Research studies prove that digital skills alone are insufficient; without complementary soft skills, online delivery risks becoming transactional rather than transformational (Holik et al., 2023). These insights highlight the need for an integrated framework that measures and develops both skill sets. The HR Scorecard offers such a mechanism by linking teacher competencies to institutional strategy, embedding student feedback, and promoting continuous faculty development (Zdrzalka, 2023). But limited empirical work has explored how this framework can be applied in Indian HEIs to align faculty competencies with the national development vision of *Viksit Bharat 2047*.

2.3 Student Perceptions of Teaching Quality

The HRSC enables institutions to systematically assess, develop, and align faculty competencies with strategic outcomes, ensuring improved academic quality and institutional agility in an increasingly dynamic educational landscape. A very few studies have studied student perceptions of these

dual competencies (soft and technical) across various demographic groups in higher educational institutions, or how these perceptions can be organized into the HR Scorecard (Sánchez-García et al., 2022). The HR Scorecard (HRSC) provides a structured framework to guide these practices. By linking every HR activity to the institution's vision, the HRSC ensures that core functions like student satisfaction, faculty development, and continuous performance evaluation are aligned with strategic goals (Lee, 2001). This framework helps identify and address areas for improvement, ensuring that teacher development is both strategic and data-driven (Ahmed & du Plessis, 2024). As suggested by previous commissions and policies, a strategic approach to HR practices, including continuous learning and performance management, is essential for improving teacher quality (Harvey & Williams, 2010).

Teachers are the foundational pillars of any higher education institution (HEI), for shaping students' careers and contributing to national development (Wang & Shih, 2022). Improving teachers' quality has been a consistent focus of various Indian committees and commissions formed pre- and post-independence and, including the National Education Policy (NEP) 2020. By regulating the HR practices such as strategic recruitment, career development, and performance measurement (Sharma & Kumar, 2023). Viksit Bharat would help teachers leverage technology for more focused and improved teaching-learning and student engagement that would lead to more skilled teachers and developed nation. Recent studies emphasize that students value interactive and adaptive teaching qualities in the blended and digital learning environments (Bond et al., 2021). In addition to this, demographic factors, including age, gender and mediums of instructions of students shape expectations of faculty competencies, thereby suggesting the need for more refined faculty development approaches (Devlin & Samarawickrema, 2010; Succi & Canovi, 2020). An intervention is required where continuous professional development (CPD) is done by reconstructing the processes to ensure smoothness and agility in the new regime.

3. HR Scorecard as a Strategic Performance Framework

By incorporating student perceptions into HR Scorecard measures, HEIs can create feedback-driven systems, high performance work systems and management of these systems that would integrate teaching quality into broader institutional strategy.

Despite its theoretical strength, the application of the HR Scorecard in higher education remains limited. Most studies focus on quality assurance frameworks, accreditation, models of service quality where the primary focus in on the infrastructure, but very few link HR Scorecard practices to student perceptions for improving the quality of teaching fraternity (Llorens et al., 2024). The human contribution is underrated in the above studies where students give feedback about the teachers and the HRSC tracks the contribution in the form of KPIs. This gap is notable because students, as primary stakeholders, directly experience the outcomes of faculty competencies. Moreover, previous research tends to overlook demographic variations in student perceptions such as gender, age, and medium of instruction which can significantly influence expectations and evaluations of teaching quality (Biswas & Bhatnagar, 2013). By empirically examining how students perceive the technical and soft skills of teachers across demographic groups, the study addresses two important voids: the underutilization of the HR Scorecard in HEIs and the neglect of student-focused perspectives in evaluating human

contribution in the context of faculty performance (Scherer et al., 2021). This approach not only extends the theoretical scope of the HR Scorecard, but also gives insights for institutions seeking to align their teaching strategies with the long-term goals of Viksit Bharat 2047 (Asefer & Abidin, 2021). Addressing these gaps can enrich both theory and practice by offering a better understanding of how HR Scorecard-driven teacher evaluations and customised interventions based on those evaluations translate into meaningful student learning experiences.

3.1 The Balanced Scorecard (BSC): A Strategic Framework for HEIs

The Balanced Scorecard (BSC), developed by Kaplan and Norton (1994), is a widely adopted strategic management tool for measuring organizational performance across four key perspectives: financial, customer, internal processes, and learning and growth (Ahmad & Soon, 2015). While originally designed for the private sector, it has been successfully implemented by numerous top-ranked global universities, including the University of California, San Diego, and Yale University, to enhance strategic management and gain a competitive edge. However, there is a notable research gap regarding the implementation of the BSC in Indian higher education institutions (HEIs), despite its proven benefits in other contexts. The BSC's multi-dimensional approach helps translate institutional vision into actionable performance measures, balancing both tangible and intangible assets (Dekrita et al., 2025).

3.2 Shortcomings of the BSC and the Rise of the HR Scorecard

A significant limitation of the traditional BSC is its underemphasis on the human element, particularly in linking human resources (HR) to strategic outcomes. This is where the HRSC emerges as a more specialized framework. The HRSC overcomes this gap by directly integrating HR into the strategy implementation process. In this research, the HRSC provides a focused approach to measuring the contribution of teachers through students' feedback.

3.3 Models of Service Quality: From SERVQUAL to the HRSC

Given the increasing focus on students as customers, HEIs have adopted models like SERVQUAL to measure service quality based on customer perceptions. Developed by Parasuraman, Zeithaml, and Berry (1985), the SERVQUAL instrument evaluates service delivery across five dimensions: tangibility, reliability, responsiveness, assurance, and empathy. While widely used in HEIs the SERVQUAL model's primary limitation is its failure to consider the human contribution in HEIs (Elwick, 2017). The HR Scorecard (HRSC) fills this gap by providing a framework to specifically measure the impact of human capital such as teacher capabilities and competencies on the across diverse demographics of students (Donlagic & Fazlic, 2015).

4. Hypothesis of the study

H_0**:** There is no significant difference between age, gender, mediums of instruction of students and their perception towards soft skills and technical skills of teachers.

Ha: There is a significant difference between age, gender, mediums of instruction of students and their perception towards soft skills and technical skills of teachers.

5. Objectives of the study

To explicate students' views on current performance of their teaching staff at the selected university.

6. Research Methodology

6.1 Sample and Data Collection

The study comprises a sample of 1949 across 14 faculties from a selected university in Vadodara. Respondents are selected through quota sampling, ensuring proportional representation from different faculties and programs. Data is collected using a structured questionnaire administered online and in person. Participation is voluntary and anonymous. The study uses both primary and secondary sources of information.

6.2 Instrument Development and Reliability

The questionnaire is developed based on the HR Scorecard literature and teachers' soft and technical skills identified in prior research. A five-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree) is used. The instrument's content validity is confirmed by subject experts, and a pilot test with 60 students ensure clarity and reliability. The final scale achieves a Cronbach's alpha of 0.901 for SS and 0.906 for TS, indicating high internal consistency.

7. Limitations of the study

The present study focuses on a single university which may limit the generalizability of findings to other institutional settings like private or autonomous HEIs with different structures.

8. Data Analysis and Interpretation

8.1 Perception of students towards Teachers' various Traits

The questionnaire tries to explore perception of students towards Teachers 'various traits. An attempt is made to explore perception of students towards the various traits of teachers; Technical skills (TS) and Soft skills (SS), as exhibited in the Table 1 below. To further explore and test hypotheses that have been framed in Chapter 1, one-sample test, two independent sample t test, ANOVA, (Tukey HSD) and Welch (Games-Howell) have been used for further analysis of data.

In the next table, Table 1, descriptive statistics (Mean and Standard deviation) for all variables related to perception of students with respect to various traits of teachers are reflected.

Table 1

Descriptive Statistics (Composite) for 'SS' and 'TS'

Teachers' Traits	Mean	Std. Deviation
Teachers are energetic	4.04	1.017
Teachers are well qualified	4.46	0.854
Teachers are motivated	4.1	1.002
Teachers are capable of conducting classes	3.87	1.084
Teachers respect our opinions	3.41	1.363
Teachers are professional	4.3	0.924
Teachers have an understanding nature for their students	3.93	1.109
Teachers ensure discipline in the class	2.74	1.312
Teachers are masters of their subjects	4.27	0.928
Teachers provide reading material	3.95	1.087
Teachers inspire students	4.00	1.068
Teachers dress up nicely for their sessions	4.17	1.003
Teachers use understandable language	4.16	0.993
Teachers are punctual to class	3.89	1.123
Teachers are committed to complete the course in the stipulated timeframe.	3.93	1.094
Teachers are open to suggestions	4.11	1.001
Teachers make learning a joyful activity	3.72	1.133
Teachers encourage queries by students	4.11	0.985
Teachers are open to change	3.94	1.082
Teachers encourage participation among students	4.06	1.014
Teachers engage us well in ONLINE sessions	3.64	1.2
Teachers engage us well in OFFLINE sessions	4.15	1.001
Teachers encourage open discussion in ONLINE classes	3.83	1.134
Teachers encourage open discussion in OFFLINE classes	4.18	0.974
Teachers engage us in virtual exercises that help in retaining the knowledge	3.68	1.126
Teachers help us in finding ways of overcoming stress	3.82	1.126
Teachers help us with time management	3.96	1.088

The highest reported mean with S.D. is: Teachers are well qualified ($\bar{x}$= 4.46, SD= 0.854). The second highest variable that reports mean and SD ($\bar{x}$=4.30, SD= 0.924), Teachers are professional. Teachers are masters of their own subjects reports values of mean and SD as ($\bar{x}$=4.27, SD= 0.928). Teachers dress up nicely for their sessions which reports values of Mean and SD as ($\bar{x}$= 4.17, SD= 1.003), Teachers encourage queries by students ($\bar{x}$= 4.11, SD= 0.985), Teachers are open to suggestions ($\bar{x}$=4.11, SD= 1.000), Teachers are motivated ($\bar{x}$=4.10, SD= 1.002), Teachers encourage participation among students ($\bar{x}$=4.06, SD= 1.014), Teachers are energetic ($\bar{x}$= 4.04, SD= 1.017), Teachers inspire students ($\bar{x}$= 4.00, SD= 1.068), Teachers help us with time management ($\bar{x}$= 3.96, SD= 1.088), Teachers provide reading material ($\bar{x}$= 3.95, SD= 1.087), Teachers are open to change ($\bar{x}$= 3.94, SD= 1.082), Teachers have an

understanding nature for their students ($\bar{x}$= 3.93, SD=1.109), Teachers are committed to complete the course in the stipulated time frame ($\bar{x}$=3.93, SD=1.094), Teachers are punctual to class ($\bar{x}$= 3.89, SD=1.123), Teachers are capable of conducting classes ($\bar{x}$= 3.87, SD= 1.084), Teachers help us in finding ways of overcoming stress ($\bar{x}$= 3.82, SD=1.126), Teachers make learning a joyful activity ($\bar{x}$=3.72, SD= 1.133), Teachers engage us in virtual exercises that help in retaining the knowledge ($\bar{x}$= 3.68, SD= 1.126), Teachers respect our opinions ($\bar{x}$= 3.41, SD=1.363), Teachers use understandable language ($\bar{x}$= 4.16, SD=0.993), Teachers ensure discipline in the class ($\bar{x}$= 2.74, SD= 1.312). Teachers encourage open discussion in OFFLINE classes report values of mean and SD ($\bar{x}$= 4.18, SD= 0.974). Teachers engage us well in OFFLINE sessions ($\bar{x}$= 4.15, SD=1.001), Teachers encourage open discussion in ONLINE classes ($\bar{x}$= 3.83, SD= 1.134), Teachers engage us well in ONLINE sessions ($\bar{x}$= 3.64, SD= 1.200). It is seen that teachers have been found to engage students in offline sessions more as compared to online sessions and encourage open discussion more in offline sessions as seen from the mean scores.

8.2 Components of Teachers' Traits

As statements are on a formative scale, and factorization could not be conducted. Two components are formed based on the review of literature. Two components formed are 'Soft skills of teachers' and 'Technical skills of teachers'. Composite mean scores are obtained to measure perception towards, 'Soft skills of teachers' (TS) and 'Technical skills of teachers' (SS). As shown in Table 1, initial traits ranging from (1-12) constitute 'Soft skills of teachers' and traits ranging from (1-15) constitute 'Technical skills of teachers'.

8.2.1 Students Perception about Traits of Teachers Based on Components – 'Soft Skills' and 'Technical Skills'

The reliability of 'SS' is (α= .901), which means that scale is highly reliable and shows 90% internal consistency among items. The reliability of the other component 'TS' is (α= .906), which means the scale is highly reliable and shows 90% internal consistency among items which is shown at table 2.

Table 2

Soft skills and Technical Skills of Teachers

S.No	Component	Variables	Cronbach's Alpha (α)
1	Soft skills of teachers	Teachers are professional	0.901
2		Teachers are well qualified	
3		Teachers are motivated	
4		Teachers have an understanding nature for their students	
5		Teachers inspire students	
6		Teachers dress up nicely for their sessions	
7		Teachers use understandable language	
8		Teachers are punctual to class	
9		Teachers help us in finding ways of overcoming stress	
10		Teachers help us with time management	
11		Teachers are energetic	
12		Teachers respect our opinions	
1	Technical skills of teachers	Teachers are capable of conducting classes	0.906
2		Teachers are committed to complete the course in the stipulated time frame.	
3		Teachers are open to suggestions	
4		Teachers make learning a joyful activity	
5		Teachers encourage queries by students	
6		Teachers are open to change	
7		Teachers encourage participation among students	
8		Teachers engage us well in ONLINE sessions	
9		Teachers engage us well in OFFLINE sessions	
10		Teachers encourage open discussion in ONLINE classes	
11		Teachers encourage open discussion in OFFLINE classes	
12		Teachers engage us in virtual exercises that help in retaining the knowledge	
13		Teachers ensure discipline in the class	
14		Teachers are masters of their subjects	
15		Teachers provide reading material	

To know whether there is any significant difference between independent and dependent variables for 'SS' and 'TS' of teachers, one sample test is conducted. Table 3 shows descriptive statistics of both components.

Table 3

Descriptive Statistics of 'SS' and 'TS'

	N	Mean	Std. Deviation	Std. Error Mean
SS	1949	4.0190	.73523	.01665
TS	1949	3.8778	.71103	.01611

The descriptive analysis in Table 51 is given to know the difference in the mean scores of 'SS' and 'TS'. Mean and SD for 'SS', (M=4.01, SD=.735) and 'TS', (M=3.87, SD=.711).

To know whether there is any significant difference in the mean scores, one sample t test is conducted which is shown in table 3.

8.2.2 Analysis of 'Soft Skills' and 'Technical Skills' of teachers

Table 4

One-Sample test of Soft-skills (SS) and Technical skills of teachers (TE)

Test Value = 3

	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
SS	61.18	1948	0.000***	1.01903	0.986	1.052
TS	54.50	1948	0.000***	0.87782	0.846	0.909

*** $p < 0.001$

Based on Table 3, the descriptive values for the component 'soft skills of teachers' (M= 4.01, S.D. = .73); t (1948) = 61.18, $p < .001$. Hence, null hypothesis is rejected. It infers that perception of students towards 'soft skills of teachers' is above agreement. For another component, 'technical skills of teachers', (M=3.87, S.D. =.71); t (1948) = 54.50, $p<.001$. Hence, null hypothesis is rejected. It infers that perception of students for 'technical skills of teachers' is towards agreement. However, it is seen that students agree more towards soft skills of teachers as compared to technical skills of teachers. It infers that students have a better perception towards 'soft skills of teachers' as compared to the perception regarding 'technical skills of teachers.'

8.3 Based on Gender

An independent-sample t-test at 5% α level is conducted to compare the perception of 'soft skills of teachers' and 'technical skills of teachers' among males and females of the M. S. university. Levene's Test for Equality of Variances is shown at table 5 for 'soft skills of teachers', $p = .565$ (ns) which is >.05, and 'technical skills of teachers' $p= .481$ (ns) which is > .05. Thus, there is a homogeneity of variance for both the components.

H_0: μ Male = μ Female Ha: μ Male ≠ μ Female

Table 5

Descriptive Statistics for SS and TS

	Gender of the respondent	N	Mean	Std. Deviation	Std. Error Mean
SS	Male	823	3.9601	.73602	.02566
	Female	1126	4.0621	.73198	.02181
TS	Male	823	3.8301	.71366	.02488
	Female	1126	3.9127	.70740	.02108

Table 5 reveals descriptive statistics for the component, 'SS', for male (M=3.96, SD=.73) and females (M=4.06, SD=.731). For the second component, 'TS', mean and SD values for males (M=3.83, SD=.713) and females (M=3.91, SD=.707).

Table 6

Independent Sample t-test for soft skills of teachers and technical skills of teachers: Gender

			SS		TS	
			Equal variances assumed	Equal variances not assumed	Equal variances assumed	Equal variances not assumed
Levene's Test for Equality of Variances	F		0.331		0.497	
	Sig.		.565 (ns)		.481 (ns)	
t-test for Equality of Means	T		-3.031	-3.028	-2.535	-2.531
	Df		1947	1765.78	1947	1762.429
	Sig. (2-tailed)		.002*	0.002	.011*	0.011
	Mean Difference		-0.10199	-0.10199	-0.08254	-0.08254
	Std. Error Difference		0.03365	0.03368	0.03256	0.03261
	95% Confidence Interval of the Difference	Lower	-0.16798	-0.16804	-0.1464	-0.14649
		Upper	-0.036	-0.03594	-0.01867	-0.01858

** $p < .05$, **$p<.01$*

Table 5 and table 6 report values for 'soft skills of teachers' male (M = 3.96, SD = .73) and female (M= 4.06, SD = .73); t (1947) = 3.031, p= .002** < .05, hence, rejects null hypothesis. It infers that there is a significant difference between males and females in perception towards 'soft skills of teachers.' It is inferred that females have a better perception towards 'soft skills' of teachers than males. However, values for 'technical skills of teachers' male (M = 3.83, SD = .713) and female (M= 3.91, SD = .70); t (1947) = 2.535, p = .011* < .05, hence, rejects null hypothesis. It infers that there is a significant difference among males and females with regards to their perception about 'technical skills of teachers'. It can be inferred that females have a better perception towards 'technical skills of teachers' than males. Thus, it can be inferred that females have a significantly better perception towards both the components as compared to males.

8.4 Based on Age

Table 7

Descriptive Statistics of 'SS' and 'TS' with age

		Mean	Std. Deviation
SS	'Below 20'	3.9710	.73219
	'20-less than 25'	4.0161	.74110
	'25 and above'	4.1936	.67237
	Total	4.0190	.73523
TS	'Below 20'	3.8337	.73213
	'20-less than 25'	3.8780	.70556
	'25 and above'	4.0143	.67474
	Total	3.8778	.71103

Table 7 reports descriptive statistics for 'SS', for various age groups, 'below 20', (M=3.97, SD=.73), '20-less than 25', (M=4.01, SD=.74), and '25 and above',(M=4.19, SD=.67). For another component, 'TS', 'below 20', (M=3.83, SD=.73), '20-less than 25' (M=3.87, SD=.70) and '25 and above' (M=4.01, SD=.67).

Table 8

Test of homogeneity of variance for 'soft skills of teachers' and 'technical skills of teachers': Age

	Levene Statistic	df1	df2	Sig.
Soft skills of teachers	3.272	2	1946	.038*
Technical skills of teachers	1.746	2	1946	.175 (ns)

p<.05, ns: not significant

Table 8 reports results of 'Levene's test for equality of variances' for 'soft skills of teachers', p=.03 <.05, which infers that there is no homogeneity of variance. However, for 'technical skills of teachers' where p= .17>.05, there is a homogeneity of variance for 'technical skills of teachers'. So, One-way ANOVA is used for 'TS'. Since, there is no homogeneity of variance for 'SS', Welch test is conducted at Table 8.

Table 9

Welch test for Equality of Means

Robust Tests of Equality of Means				
SS				
	Statistic[a]	df1	df2	Sig.
Welch	6.373	2	415.140	.002**

For the component, 'soft skills of teachers', Welch test is conducted. Results shows that since the p value is less than .05, p=.002, reject null hypothesis. It infers that one of the groups differ significantly. To know which group differs significantly, post hoc test, Games-Howell has been conducted at table 10.

Table 10

Post Hoc test: Games-Howell

(I) Age	(J) Age	Sig.
'Below 20'	'20-less than 25'	.477(ns)
	'25 and above'	.001**
'20-less than 25'	'Below 20'	.477(ns)
	'25 and above'	.006*
'25 and above'	'Below 20'	.001**
	'20-less than 25'	.006*

ns- not significant, ** $p < .01$

Table 10 reports that there is a significant difference between age groups: '20-less than 25' and '25 and above'. Table 6 shows that for component, 'soft skills of teachers', reported values of mean and S.D for 'below 20' (M=3.97, S.D .732), '20-less than 25' (M= 4.01, S.D= .741), '25 and above' (M=4.19, S.D= .672). Table 10 reports that age group '25 and above' is significantly different from other age groups. As the p value<.05, it infers that the age group '25 and above' has a better perception towards 'soft skills of teachers' as compared to '20-less than 25' and 'below 20' age groups.

H_0: μ below 20 = μ 20-less than 25= μ 25 and above

Ha: at least one of the μ differs significantly

Table 11

One-way ANOVA for technical skills of teachers: Age

Technical skills of teachers	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3.910	2	1.955	3.878	.021*
Within Groups	980.941	1946	.504		
Total	984.851	1948			

*$p<.05$**

Table 11 reveals One-way ANOVA for the component 'technical skills of teachers', F (2, 1946) = 3.878, p= .021* < .05. As p value is less than .05, null hypothesis is rejected. It infers that at least one group differs significantly. It infers that null hypothesis is rejected. At least one of the groups differs significantly. However, to know which of the groups differ significantly, Tukey test is applied for 'TS' in Table 12.

Table 12

Post-Hoc Tukey HSD test

(I) Age	Age	Mean Difference	Sig.
'Below 20'	'20-less than 25'	-.04436	.464(ns)
	'25 and above'	-.18068*	.015*
'20-less than 25'	'Below 20'	.04436	.464(ns)
	'25 and above'	-.13631	.059(ns)
'25 and above'	'Below 20'	.18068*	.015*
	'20-less than 25'	.13631	.059(ns)

ns- not significant, **- $p < .01$, ***- $p < .001$, $p < .05$*

Table 12 reveals results of Post-Hoc Tukey test which shows that there is a significant difference among age groups. Table 6 shows that for component, 'technical skills of teachers', reported values of mean and S.D for 'below 20' (M=3.83, S.D .732), '20-less than 25' (M= 3.87, S.D= .705), '25 and above' (M=4.01, S.D= .674). Table 11 reports that there is a significant difference between age groups: 'Below 20' and '25 and above'. As $p<.05$, reject null hypothesis. It infers there is a significant difference between two groups. Results reports that age group '25 and above' is significantly better than 'below 20 age group'. As the p value<.05, it infers that the age group '25 and above' has a significantly better perception towards 'technical skills of teachers' than 'below 20' age group.

8.5 Based on the Medium of Instruction

Table 13

Descriptive Statistics for 'SS' and 'TS' components for Medium of instruction (MOI)

		N	Mean	Std. Deviation	Std. Error
SS	English	1029	4.0099	.72957	.02274
	Gujarati	887	4.0271	.74663	.02507
	Others	33	4.0884	.60307	.10498
	Total	1949	4.0190	.73523	.01665
TS	English	1029	3.8496	.69421	.02164
	Gujarati	887	3.9076	.73364	.02463
	Others	33	3.9596	.57926	.10084
	Total	1949	3.8778	.71103	.01611

Descriptive statistics for Mean and SD for the medium of instruction for the component, 'SS'. The highest reported mean is others which includes languages other than English and Gujarati, 'others', (M=4.08, SD=.603) and lowest mean reported is 'English', (M=4.00, SD=.729). For the second component 'TS', the highest mean reported belongs to other languages other than English and Gujarati 'others', (M=3.95, SD=.579) and lowest mean belongs to 'English', (M=3.84, SD=.694).

Table 14 shows whether there is any homogeneity of variance between two components. If there is a homogeneity of variance, One -Way ANOVA is used. If there is no homogeneity of variance, Welch test is used for further analysis

Table 14

Test of homogeneity of variance for 'soft skills of teachers' and 'technical skills of teachers': MOI

	Levene Statistic	df1	df2	Sig.
Soft skills of teachers	1.050	2	1946	.350(ns)
Technical skills of teachers	3.055	2	1946	.087(ns)

p<.05, ns: not significant*

Table 14 reports results of 'Levene's test for equality of variances' for 'soft skills of teachers', p=.35 >.05, which infers that there is a homogeneity of variance. However, for 'technical skills of teachers' where p= .08>.05, there is a homogeneity of variance for 'technical skills of teachers'. Hence, One-way ANOVA is used for further analysis for both components.

H_0: μ English = μ Gujarati= μ others

Ha: at least one of the μ differs significantly.

One-way ANOVA is conducted to compare the perception of students for 'soft skills of teachers' and 'technical skills of teachers' with respect to their medium of instruction.

ANOVA based on MOI

Table 15

ANOVA for soft skills and technical skills of teachers

		SS	df	MS	F	Sig.
SS	Between Groups	.302	2	.151	.279	.756(ns)
	Within Groups	1052.722	1946	.541		
	Total	1053.024	1948			
TS	Between Groups	1.826	2	.913	1.808	.164(ns)
	Within Groups	983.024	1946	.505		
	Total	984.851	1948			

* p< .05, *ns*- not significant

Table 15 reports ANOVA values for 'soft skills of teachers', F (2, 1946) = .279, p= .756 > .05. As p value is more than .05, fails to reject null hypothesis. It infers that there is no significant difference among the groups for 'soft skills of teachers.' Similarly, considering values for the component 'technical skills of teachers', F (2, 1946) = 1.808, p=.164 > .05, fails to reject null hypothesis. It infers that there is no significant difference among the groups for 'technical skills of teachers'.

Post hoc Tukey HSD revealed by Table 15 shows that there is no significant difference in perception of students between medium of instruction, 'English (M=4.00, S.D.= .729), and 'Gujarati', (M=4.02, S.D.= .746), 'others' (M=4.08, S.D.= .603) medium of instructions that includes Oriya, Bengali etc. regarding their perception about 'soft skills of teachers'. It can be inferred that there is no significant difference in the groups on the basis of MOI.

Similarly, post-Hoc Tukey test at Table 16 reveals values for 'technical skills of teachers'. There is no significant difference between students of medium of instructions, 'English', (M= 3.84, S.D.=.694) and 'Gujarati' (M=3.90, S. D. = .733), 'others' (M=3.95, S.D.=.579) regarding their perception towards 'technical skills of teachers'. It can be inferred that there is no significant difference among groups based on MOI.

Table 16 reveals that there is no significant difference among groups as *p* value is more than 0.5 for both components: 'soft skills of teachers' and 'technical skills of teachers'. Since the *p* value is more than 0.5, it can be inferred that there is no significant difference among groups for both components for MOI.

Table 16

Post-Hoc Tukey HSD test for 'soft skills of teachers' and 'technical skills of teachers' based on MOI

Dependent Variable	Medium of instruction	Medium of instruction (Comparisons)	Sig.
SS	English	Gujarati	.867 (ns)
		Others	.818 (ns)
	Gujarati	English	.867(ns)
		Others	.885(ns)
	Others	English	.818(ns)
		Gujarati	.885(ns)
TS	English	Gujarati	.176(ns)
		Others	.656(ns)
	Gujarati	English	.176(ns)
		Others	.910(ns)
	Others	English	.656(ns)
		Gujarati	.910(ns)

9. Findings of the study

The study assessed the perceptions of students towards 'soft skills and technical skills' across various demographics at the selected university. The overall perception of students was more favourable for 'soft skills' of teachers as compared to 'technical skills of teachers'. Gender-based difference indicated that female students reported significantly higher perception towards both the components: 'SS' and 'TS' of teachers than their male counterparts. This is indicative of variation in gender as to how teaching competencies are perceived amongst males and females based on their expectations and communication dynamics. The age-wise variation showed that the mature learners i.e. 25 and above rated both the skills significantly higher than their counterparts. However, it is found that there is a uniformity in perception of students towards both the skills of teachers across various mediums of instruction. This is suggestive of uniformity of experience across instructional languages. The findings indicate a statistically significant difference among various disciplines at the selected university. Students varied in how they rated their instructors in terms of both the components. These disciplinary variances may be reflected on teaching-learning outcomes.

10. Recommendations

The findings call for tailored faculty development initiatives that lay focus on both soft and technical skills, across demographic variations in student perceptions. Gender-specific training modules including pedagogy workshops, and age-specific teaching strategies can help address differences in expectations and engagement. Cross-disciplinary mentoring programs may further ensure consistency in pedagogical practices across faculties. Strategically, the HR Scorecard should be adopted to align training, career development, and performance management with institutional vision/ mission and national goals such as Viksit Bharat 2047. Embedding student feedback within the HRSC framework, linking HR operations (KPIs) to performance measurement of teachers, and enabling real-time monitoring of faculty growth would foster a culture of accountability and lifelong learning. These measures would bridge competency gaps, enhance teaching–learning outcomes, and strengthen the role of HEIs as drivers of national development. As students rated soft skills better as compared to technical skills of teachers, so a targeted approach would help in bridging the technical skills gap and further strengthening the soft skills.

For gender-specific training and engagement, training modules would be designed that would address gender-specific pedagogy, specifically males as females rated soft skills and technical skills better, engagement and communication strategies. Some workshops would address and improve the issues like implicit bias, inclusive communication, and student engagement through differentiated learning. For age-based customisation, training of faculty must be done in a way that would cater to all age groups. A cross-disciplinary mentoring program would be done to ensure consistency in pedagogical improvement. The HR Scorecard would help in formulating the KPI's and these would be linked to career advancement, recognition, and rewards. A real-time monitoring of faculty development must be considered. The HR Scorecard would ensure that the competencies of teachers are nurtured through the HR systems that are measurable, long-term and strategically impactful.

11. Conclusion

This study addresses a key research gap by applying the Human Resource Scorecard (HRSC) framework to capture student perceptions of faculty competencies in Indian higher education. Results show that soft skills are consistently rated higher than technical skills, with notable variations across gender, age, and medium of instructions. The findings highlight the importance of context-sensitive approaches to faculty development. Theoretically, the study extends the scope of the HRSC beyond corporate settings, demonstrating its relevance in aligning human capital with institutional vision and national aspirations such as Viksit Bharat 2047. It underscores the need for gender-specific pedagogy, and continuous monitoring of faculty performance through HRSC-driven KPIs. By integrating student feedback into HRSC-driven performance management systems, HEIs can bridge competency gaps by offering customised training programs, mentoring across disciplines, fostering lifelong learning, and enhance teaching–learning processes for value creation. A well implemented HR Scorecard thus holds potential to transform teacher development into a sustained institutional advantage and contributing India's vision of becoming a global knowledge hub. The higher education institutions must integrate HRSC-driven KPIs and continuous monitoring into their strategic

frameworks to foster accountability, inclusivity, and lifelong learning among faculty. Policymakers and accreditation bodies may also consider incentivising the adoption of such HR tools to strengthen institutional agility and teaching quality. Ultimately, by operationalising the HR Scorecard as a strategic framework, HEIs can transform teacher development into a measurable and sustainable advantage, thus enhancing student engagement, improving learning outcomes, and supporting India's long-term vision of becoming a global knowledge leader.

References

Ahmad, R. A., & Soon, N. K. (2015). Balanced Scorecard in higher education institutions: What should we consider? In *2015 International Symposium on Technology Management and Emerging Technologies (ISTMET)* (pp. 89–93). Malaysia.

Altbach, P. G., Reisberg, L., & de Wit, H. (2022). Trends in global higher education and the future of internationalization. In D. K. Deardorff, H. de Wit, B. Leask, & H. Charles (Eds.), *The handbook of international higher education* (2nd ed., pp. 1–20). Routledge.

Armenakis, A. A., & Bedeian, A. G. (1999). Organizational change: A review of theory and research in the 1990s. *Journal of Management, 25*(3), 293–315. https://doi.org/10.1177/014920639902500303

Asefer, T., & Abidin, N. A. (2021). The importance of soft skills in higher education: A systematic literature review. *International Journal of Higher Education, 10*(6), 183–195.

Becker, B. E., Huselid, M. A., & Ulrich, D. (2001). *The HR scorecard: Linking people, strategy, and performance* (Illustrated ed.). Harvard Business Press.

Biswas, S., & Bhatnagar, J. (2013). Mediator role of psychological empowerment on the relationship between soft skills training and organizational citizenship behavior. *IIMB Management Review, 25*(4), 211–220. https://doi.org/10.1016/j.iimb.2013.08.001

Chatti, M. A., Jarke, M., & Specht, M. (2010). The 3P learning model. *Educational Technology & Society, 13*(4), 74–85.

Dekrita, Y. A., et al. (2025). Balance Scorecard approach to employee performance management in Tyre Company. *Annals of Human Resource Management Research, 5*(1), 45–60.

DeShields, O. W., Kara, A., & Kaynak, E. (2005). Determinants of business student satisfaction and retention in higher education: Applying Herzberg's two-factor theory. *International Journal of Educational Management, 19*(2), 128–139. https://doi.org/10.1108/09513540510582426

Donlagic, S., & Fazlic, S. (2015). Quality assessment in higher education using the SERVQUAL model. *Management, 20*(1), 39–57.

Elwick, A. (2017). Happiness in higher education. *Higher Education Quarterly, 71*(2), 204–219. https://doi.org/10.1111/hequ.12121

Feraco, T., Garcia, J., & Rossi, M. (2023). Extracurricular activities as determinants of successful soft skills acquisition among university students. *Journal of College Student Development, 59*(4), 481–495.

Harvey, L., & Williams, J. (2010). Fifteen years of quality in higher education. *Quality in Higher Education, 16*(1), 3–36. https://doi.org/10.1080/13538321003679457

Hollenstein, L. (2024). The importance of pedagogical-psychological teaching knowledge on instructional quality. *Journal of Educational Psychology*. https://www.tandfonline.com/doi/full/10.1080/00220272.2024.2328042

Jain, P., & Moreno, A. (2022). Sustainable development goals and corporate social responsibility: A systematic review of the literature. *Journal of Cleaner Production, 334*, 130245. https://doi.org/10.1016/j.jclepro.2021.130245

Karimova, N. U. (2020). Soft skills development in higher education. *Universal Journal of Educational Research, 8*(11), 5403–5409. https://doi.org/10.13189/ujer.2020.081125

Lee, H.-S. (2001, December). Paternalistic human resource practices: Their emergence and characteristics. *Journal of Economic Issues, 35*(4), 841–869.

Llorens, A., Trullols, E., Pérez-Poch, A., & Petrović, N. (2024). Soft skills development in ICT students: An evaluation of teaching methods by university educators. *European Journal of Engineering Education*, 1–18. https://doi.org/10.1080/2331186X.2024.2437906

Moropa, T. D. (2025). Enhancing effective interpersonal interactions through soft skills: Nurse educators' perceptions. *BMC Nursing*. https://bmcnurs.biomedcentral.com/articles/10.1186/s12912-025-02864-w

Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1985). A conceptual model of service quality and its implications for future research. *Journal of Marketing, 49*(4), 41–50. https://doi.org/10.2307/1251430

Paton, R., & Karunaratne, N. (2009, September 23). Engagement and innovation: The Honda case. *The Journal of Information and Knowledge Management Systems, 39*(4), 280–297.

Popli, S. (2015). Exploring the relationship between service orientation, employee engagement and perceived leadership style: A study of managers in the private service sector organizations in India. *Journal of Services Marketing, 29*(1), 59–70. https://doi.org/10.1108/JSM-06-2013-0151

Prasad, V. A., & Junni, P. (2017). A review of research on soft skills in the workplace. *Vikalpa, 42*(2), 79–89. https://doi.org/10.1177/0256090917711484

Robles, M. M. (2012). Executive perceptions of the top 10 soft skills needed in today's workplace. *Business Communication Quarterly, 75*(4), 453–465. https://doi.org/10.1177/1080569912460400

Sánchez-García, C., Abascal-Mena, M. I., & Pérez-Poch, A. (2022). Self-assessment of soft skills of university teachers from countries with a low level of digital competence. *Electronics, 10*(20), 2532. https://doi.org/10.3390/electronics10202532

Scherer, R., Howard, S. K., Tondeur, J., & Siddiq, F. (2021). Profiling teachers' readiness for online teaching and learning in higher education: Who's ready? *Computers in Human Behavior, 118*.

Sharma, S. K., & Kumar, S. (2023). A systematic literature review of soft skills in information technology education. *Sustainability*, *15*(22), 16001. https://doi.org/10.3390/su152216001

Thijssen, M. W. P. (2022). Teacher relationship skills and student learning. *Learning and Instruction*. https://www.sciencedirect.com/science/article/pii/S0272775722000280

Tse, E. (2010). *Fundamentals of strategic management*. https://www.sagepub.com/sites/default/files/upm-binaries/53794_Chapter_1.pdf

Wang, R. J., & Shih, Y. H. (2022, September 9). Improving the quality of teacher education for sustainable development of Taiwan's education system: A systematic review on the research issues of teacher education after the implementation of 12-year national basic education. *Frontiers in Psychology, 1–12*. https://doi.org/10.3389/fpsyg.2022.921839

Xie, F. (2021). A conceptual review of positive teacher interpersonal communication behaviors. *Frontiers in Psychology*. https://www.frontiersin.org/articles/10.3389/fpsyg.2021.708490

Zdrzalka, M. (2023). HR Scorecard as an effective tool of talent management in the in social service organizations. *Quality - Access to Success, 24*(196), 57–63.

Zhu, X., & Liu, J. (2020). Education in and after COVID-19: Immediate responses and long-term visions. *Postdigital Science and Education, 2*(3), 695–699. https://doi.org/10.1007/s42438-020-00126-3