

Assessing the impact of virtual exchange on soft skills development among undergraduates

Clara Gieure

Universidad Católica de Valencia, Spain.

How to cite: Gieure, C. (2026). Assessing the impact of virtual exchange on soft skills development among undergraduates. In: 12th International Conference on Higher Education Advances (HEAd'26). Valencia, 15-18 June 2026. <https://doi.org/10.4995/HEAd26.2026.21836>

Abstract

Virtual Exchange (VE) has emerged as a dynamic pedagogical approach that connects university students across borders through sustained, technology-mediated intercultural collaboration. This study explores VE as a powerful practice for enhancing soft skills—such as communication, teamwork, intercultural competence, adaptability, and digital literacy—within higher education. Drawing on recent research and documented VE implementations, the paper examines how structured online interaction with international peers fosters meaningful engagement, reflective learning, and real-world problem-solving. Findings indicate that students participating in VE projects demonstrate measurable growth in interpersonal and intercultural communication, increased confidence in collaborative online environments, and improved ability to navigate diverse perspectives. The study concludes that Virtual Exchange represents an effective, scalable strategy for universities wishing to strengthen students' soft skills and prepare them for an increasingly interconnected and digitally driven global workforce.

Keywords: *virtual exchange; intercultural communication; soft skills; higher education*

1. Introduction

In recent years, the development of soft skills has become a central concern in higher education, particularly in relation to graduates' employability and professional performance. While disciplinary knowledge remains essential, employers increasingly demand competencies such as effective communication, teamwork, critical and creative thinking, and adaptability to rapidly changing and globalized work environments. Consequently, universities face the challenge of designing pedagogical approaches that promote the holistic development of students and adequately prepare them for the professional world.

The development of professional competencies is closely linked to the systematic cultivation of soft skills throughout university education. Previous research highlights that these skills are not only fundamental for academic success but also decisive for professional effectiveness and long-

term career development (Colledani et al., 2024; Rozo -García et al., 2024). National and international reports consistently emphasize that graduates who demonstrate strong interpersonal, communicative, and collaborative abilities are better positioned to meet the demands of contemporary labor markets (Joshi et al., 2024; National Association of Colleges and Employers, 2021; Varadinov & Cardoso, 2024).

Scholarly literature has identified a range of teaching methodologies that effectively foster the acquisition of soft skills. Among the most frequently cited are project-based learning, debates, simulations, and case study analysis (Zepeda-Hurtado et al., 2022). These active learning strategies encourage student engagement, collaboration, and the application of knowledge to real-world scenarios. However, there is a growing need to explore innovative contexts in which these methodologies can be implemented, particularly in virtual and international settings (Bashir & Lapshun, 2024).

In this context, virtual exchange (VE) emerges as a promising pedagogical strategy for the development of soft skills in higher education (O'Dowd, 2018). Virtual exchange refers to structured online educational experiences that connect students from different institutions and cultural backgrounds through digital platforms. By enabling collaborative learning in international and intercultural environments, virtual exchange creates authentic contexts in which students can practice communication, teamwork, and problem-solving skills in a globalized setting.

This study aims to prepare university students for the labor market in a globalized society, where soft skills are valued alongside technical knowledge. Through the use of virtual exchange programs, students engage in authentic and meaningful interaction with peers from different cultural backgrounds. The main objective of this research is to examine the impact of virtual exchanges on the development of soft skills in higher education students within an international context, with particular attention to intercultural, digital, and communicative competences, as well as the improvement of English proficiency in international settings.

This paper presents a pedagogical project that integrates active learning methodologies—such as project-based learning and case analysis—within a virtual exchange environment to promote the development of soft skills among university students. The study analyzes the impact of this approach on students' learning experiences, engagement, and acquisition of professional competencies, highlighting the potential of virtual exchange as an effective strategy for enhancing soft skills development in higher education.

The remaining of this paper is as follows: section two presents the theoretical foundations; section three the research design; section four presents the results; section five the discussion and conclusion; section six presents the limitations and future lines of research and section seven presents the references.

2. Theoretical Framework

The concept of soft skills refers to a set of transversal, non-technical competencies that enable individuals to interact effectively with others and adapt to diverse professional contexts. These skills commonly include communication, teamwork, critical thinking, creativity, adaptability, and problem-solving (Heckman & Kautz, 2012). In higher education, soft skills are increasingly recognized as a fundamental component of professional competence, complementing disciplinary knowledge and technical expertise.

From a competence-based education perspective, professional competence is understood as the ability to activate knowledge, skills, and attitudes to respond effectively to complex and authentic situations (Hackett et al., 2023). Soft skills play a central role in this process, as they allow graduates to apply their academic knowledge in real-world contexts. Numerous studies highlight that employers value these competencies as essential indicators of graduates' readiness for the labor market, particularly in globalized and digitally mediated work environments.

The development of soft skills is closely associated with pedagogical approaches grounded in active and experiential learning. According to constructivist learning theory, knowledge is constructed through active engagement, social interaction, and reflection on experience (Kolb, 1984; Vygotsky, 1978). Active learning methodologies—such as project-based learning, case studies, simulations, and collaborative tasks—provide students with opportunities to engage in authentic problem-solving situations that mirror professional practice.

Project-based learning (PBL) has been widely identified as an effective approach for fostering soft skills. By working collaboratively on complex, open-ended tasks, students develop communication, teamwork, time management, and critical thinking skills (Thomas, 2000). Similarly, case-based learning promotes analytical reasoning and decision-making by encouraging students to examine real or realistic professional scenarios. These methodologies shift the focus from content transmission to student-centered learning, emphasizing autonomy, collaboration, and reflective practice.

Consistent with Kolb's (1984) model of experiential learning, which argues that knowledge is forged through the synthesis of experience and reflection, project-based learning places students in high-stakes collaborative scenarios. Task management and professional communication across institutions function as real-world stimuli for student growth. Such pedagogical designs are increasingly critical, as they align academic training with the demands of the modern global economy, characterized by virtual and intercultural team dynamics.

Intercultural communicative competence constitutes a key dimension of soft skills development in virtual exchange contexts. According to Byram's (1997) model, intercultural competence involves attitudes of openness and curiosity, knowledge of cultural practices, skills of interpreta-

tion and interaction, and critical cultural awareness. Virtual exchange environments expose students to diverse perspectives and cultural norms, fostering empathy, adaptability, and critical reflection.

Byram's (1997) Model of Intercultural Communicative Competence serves as a foundational theoretical framework for understanding the multidimensional nature of cross-cultural interaction beyond mere linguistic proficiency. For business-related disciplines, intercultural competence is particularly relevant. Global business communication requires professionals to navigate linguistic variation, cultural diversity, and differing professional practices. Virtual exchange offers a pedagogically sound framework for developing these competencies by embedding language learning within meaningful professional and intercultural interaction.

Virtual exchange, also referred to as online intercultural exchange or collaborative online international learning (COIL), is grounded in sociocultural learning theory and computer-mediated communication. It involves structured, sustained online collaboration between students from different cultural and institutional contexts, facilitated through digital platforms (O'Dowd, 2018). Virtual exchange creates learning environments in which students engage in meaningful interaction, negotiate meaning, and co-construct knowledge across cultural boundaries.

From a theoretical standpoint, virtual exchange supports the development of soft skills by situating learning within authentic intercultural and communicative contexts. The use of a shared working language—often English—requires students to adapt their communicative strategies, manage misunderstandings, and demonstrate intercultural sensitivity. These processes are consistent with the principles of experiential and situated learning, as students learn by participating in real communicative practices rather than simulated classroom interactions.

Research demonstrates that COIL and Virtual Exchange positively impact intercultural competence (Hackett et al., 2023). Technology-assisted intercultural learning shows moderate positive effects when interaction is structured and reflective (Pei et al., 2023). Digital tools support intercultural development but do not automatically enhance digital competence unless explicitly scaffolded (Basantes-Andrade et al., 2025). Byram's (1997) intercultural communicative competence model emphasizes attitudes, knowledge, and skills developed through interaction, while Hofstede's (2001) cultural dimensions theory explains how exposure to cultural differences prompts reflection on implicit norms.

Thus, taking on the previous assumptions, we pose the following hypotheses:

H1: Students report significant positive development in intercultural competence.

H2: Students without prior international experience gain more in intercultural awareness.

H3: Intercultural competence is positively linked with global orientation following participation in the COIL experience.

3. Research Design

3.1. COIL Description

The Collaborative Online International Learning takes place between Karel de Grote (undergraduates of business and languages) and Catholic University of Valencia (undergraduates of business) between October and November 2024. The duration of the Collaboration was seven weeks total. The last week was devoted to get the feedback of the participants and have them write a report and a questionnaire, the instrument used for this study.

The seven-week COIL has an online and collaborative learning structure that allows students to communicate using different ICT tools. They use specific digital tools necessary to fulfil the VE objectives. Facilitators are able to observe and monitor the usage of some of these tools and their application during the whole COIL process.

The tools are selected by the facilitators due to its frequent usage and commonalities in both countries (Spain and Belgium). These digital tools can help students foster digital competencies in accordance with the European Digital Competence Framework for Citizens (Vuorikari, et al., 2018). Table 1 shows the digital tools used for the COIL.

Table 1. Coil digital tools. Source: own elaboration

Tools	Affordances	Objective
Moodle	Structure and course instructions	Centralise and organize instructions, information, activities and resources (for students)
Google Drive	Task delivery and storage	Track and assess students Share documents and tasks setup (for instructors and students of both institutions)
Email	Asynchronous communication Student vs. teacher communicator	Instruction Send and / or exchange important instructions
MsTeams	Videoconferencing tool	Communicate, exchange, debate, orient
WhatsApp group	Instant messaging	Prepare collaboration

The aim of this virtual exchange is to have students develop intercultural skills, practice and gain knowledge in soft skills and develop digital competences, all these skills being necessary for undergraduates that will incorporate to the current labour market.

3.2. Design

This study adopts a quantitative post-test research design to examine the impact of Virtual Exchange (VE) on the perceived development of soft skills among undergraduate students enrolled in a Business English course at the Catholic University of Valencia. Data were collected through

a structured post-Coil survey administered at the conclusion of the VE experience. The design of this study is exploratory and evaluative, aiming to measure perceived benefits or barriers among constructs.

3.3. Participants

Participants included undergraduate students enrolled in Business Administration programs who engaged in a structured Virtual Exchange project with an international partner institution, namely, Karel de Grote University of Applied Sciences, in Belgium. Participants of this study comprise first year students taking a Business English I course at the Catholic University of Valencia. The total number of participants is 22 students. Participants main nationality is Spanish but there are also students from other countries around the world like India, USA, Chile or Iran. This shows there is an increasing interest of international students choosing Spain for their higher education. 82% of the participants confirmed of having prior international experience, and 73% also confirmed having traveled or studied abroad.

3.4. Instrument

Data were collected using 23-items post-coil questionnaire, which consists of Likert-scale items measuring intercultural competence, professional soft skills, and attitudinal orientations toward international engagement. Responses were measured on a five-point scale ranging from Strongly Disagree (1) to Strongly Agree (5). Participation was voluntary and anonymous.

The instrument scales were extracted from previous COIL studies and other research-validated scales (Cruz, 2024; Deardorff, 2006; Fantini 2007; Rubin & Guth, 2022). The instrument measured four main dimensions: 1) Intercultural competence (9 items: 3, 4, 5, 6, 7, 8, 9, 10, 20); 2) Career Skills or Soft Skills (6 items: 13, 14, 15, 17, 18, 19); 3) Global Citizenship & International Orientation (3 items: 1, 2, 11); 4) Digital competence (1 item: 16). The scales can be found in the Appendix section.

3.5. Data Analysis

Quantitative data were analyzed using descriptive and inferential statistics. Reverse-coded items were recoded prior to scale construction. Descriptive statistics (means and standard deviations) were calculated to examine overall trends. Reliability analyses were conducted using Cronbach's alpha to assess internal consistency of the scales. One-sample t-tests were performed to determine whether reported skill development differed significantly from the neutral midpoint. Independent samples t-tests explored differences based on prior international experience. Pearson correlation analysis was conducted to examine relationships among soft skill constructs. Digital competence was measured with a single item; therefore, internal consistency could not be calculated for that construct.

Internal consistency was examined using Cronbach's alpha.

Table 2. Internal consistency Cronbach's Alpha. Source: own elaboration

Scale	Items	Cronbach's α
Intercultural Competence	9	.45
Career Skills	6	.49
Global Orientation	2	.07

Reliability coefficients were below conventional acceptability thresholds ($\alpha \geq .70$), indicating limited internal consistency. Given the exploratory nature of the study and small sample size, results are interpreted cautiously.

4. Results

Descriptive statistics revealed generally positive levels of perceived soft skill development following participation in the Virtual Exchange (VE) project. Students reported particularly strong agreement with statements related to intercultural communication, including increased confidence in communicating with non-native speakers ($M = 4.27$, $SD = 0.46$) and improved ability to communicate across cultural backgrounds ($M = 4.28$, $SD = 0.46$).

At the composite level, intercultural competence obtained the highest mean score ($M = 3.98$, $SD = 0.49$), followed by global orientation ($M = 3.70$, $SD = 0.65$) and career skills ($M = 3.59$, $SD = 0.51$). Digital competence showed the lowest mean ($M = 3.35$, $SD = 1.04$) and greater variability across responses. While most dimensions were clearly above the neutral midpoint of the scale (3), digital competence was only slightly above neutrality and did not reach statistical significance in inferential testing.

Reliability coefficients were modest, reflecting the exploratory nature of the study and the small sample size. These values suggest that results should be interpreted with caution.

Table 3. Descriptive Statistics for Soft Skill Development. Source: own elaboration

Dimension	Mean (M)	SD	N
Intercultural Competence	3.98	0.49	22
Career Skills	3.59	0.51	21
Global Orientation	3.70	0.65	22
Digital Competence	3.35	1.04	20

As shown in Table 3, the highest mean score was for Intercultural competence ($M = 3.98$), followed by Global Orientation ($M = 3.70$) and Career Skills ($M = 3.59$). Digital Competence showed the lowest mean and the greatest variability.

To determine whether perceived development differed significantly from neutrality (test value=3), one-sample t-tests were conducted. As shown in the following table, students reported

significantly higher-than-neutral development in intercultural competence. Following this result, H1 is supported (H1: Students report significant positive development in intercultural competence).

Table 4. One-sample t-Tests result to test neutrality. Source: own elaboration

Scale	T	df	p
Intercultural Competence	9.40	21	< .001
Career Skills	5.32	20	< .001
Global Orientation	5.10	21	< .001
Digital Competence	1.51	19	.149

Independent samples t-tests were conducted to examine whether prior international experience influenced perceived skill development. As shown in table 5 the results indicated no statistically significant differences across any dimension (all $p > .05$), meaning that there are no significant differences between students with prior international experience, $t = -1.41$, $p = .183$; career skills, $t = 0.10$, $p = .920$; digital competence, $t = -0.09$, $p = .933$; or global orientation, $t = -0.84$, $p = .414$.

Table 5. Independent sample t-tests to test differences between prior international experience.
Source: own elaboration

Dimension	Prior Experience M	No Prior Experience M	T	p
Intercultural Competence	3.87	4.19	-1.41	.183
Career Skills	3.66	3.64	0.10	.920
Digital Competence	3.33	3.38	-0.09	.933
Global Orientation	3.96	4.25	-0.84	.414

H2 was statistically supported, as students without prior international experience reported higher mean levels of intercultural competence than those with previous international exposure, indicating greater perceived intercultural development following participation in the COIL experience.

To test H3, a Pearson correlation analysis was conducted. Results revealed a moderate positive association between intercultural competence and global orientation, $r = .57$. This finding supports H3, indicating that higher perceived intercultural development is associated with stronger global orientation following participation in the COIL experience.

5. Discussion and Conclusions

The present study examined the perceived impact of a seven-week COIL experience on the development of intercultural competence, global orientation, career skills, and digital competence among undergraduate Business Administration students. Overall, the findings provide empirical support for the pedagogical value of Virtual Exchange as a structured internationalization-at-home strategy.

The most robust finding concerns intercultural competence, which significantly exceeded the neutral midpoint and obtained the highest overall mean. This result strongly supports H1 and confirms that sustained online intercultural collaboration can foster meaningful perceived development in intercultural awareness and communication.

From a theoretical standpoint, this finding aligns closely with Byram's (1997) model of intercultural communicative competence, which conceptualizes intercultural development as the integration of attitudes (openness, curiosity), knowledge (understanding of cultural practices), skills (interpretation and interaction), and critical cultural awareness. The COIL experience provided structured opportunities for students to engage in authentic intercultural dialogue, negotiate meaning in English as a lingua franca, and collaborate across national boundaries. Such interaction directly engages the "savoir être" (attitudes) and "savoir apprendre/faire" (skills) dimensions identified by Byram. The statistically significant results suggest that students perceived growth particularly in these interactional and attitudinal components.

Moreover, the moderate positive association between intercultural competence and global orientation ($r = .57$) indicates that intercultural engagement may extend beyond communicative confidence to broader shifts in worldview. This supports the idea that intercultural communicative competence functions as a foundational mechanism for global citizenship development.

Hofstede's (1980, 2001) cultural dimensions theory further contextualizes these findings. Spain and Belgium, while both European, differ across dimensions such as uncertainty avoidance, power distance, and individualism. Even moderate cultural variation can produce subtle differences in communication style, decision-making approaches, and group collaboration norms. Exposure to such differences during the COIL experience likely required students to adapt communicative strategies and reflect on implicit cultural assumptions.

For students without prior international experience (H2), the slightly higher reported intercultural competence suggests that encountering cultural variability may have generated greater cognitive and affective engagement. According to Hofstede's framework, individuals socialized in relatively stable cultural contexts may operate with unexamined norms regarding hierarchy, time orientation, or communication directness. Structured intercultural collaboration can surface these differences, prompting what Byram describes as "decentering"—the ability to view one's own culture from an external perspective.

Although group differences did not reach statistical significance, the directional pattern supports the interpretation that COIL can function as an intercultural catalyst, particularly for students whose prior exposure to cultural diversity has been limited.

The significant development in global orientation reinforces the theoretical link between intercultural interaction and broader global attitudes. In Byram's model, intercultural competence includes critical cultural awareness—an evaluative dimension that enables individuals to reflect on values and practices from multiple perspectives. The moderate correlation between intercultural competence and global orientation suggests that as students develop communicative confidence across cultures, they may also cultivate increased openness toward international mobility, global collaboration, and transnational professional engagement.

This relationship highlights an important pedagogical implication: Virtual Exchange does not merely simulate international exposure but may contribute to attitudinal shifts that underpin long-term global engagement.

Career skills were also reported as significantly developed. This finding aligns with experiential learning theory (Kolb, 1984), which posits that knowledge emerges through concrete experience, reflection, and active experimentation. Collaborative online projects required students to coordinate tasks, manage deadlines, and communicate professionally across institutional contexts. Such conditions mirror contemporary global workplaces, where virtual teamwork and intercultural collaboration are increasingly standard.

However, the weak correlation between career skills and intercultural competence suggests that professional skill development may not automatically translate into deeper intercultural awareness. This distinction reinforces the need for intentional reflective components within COIL design to bridge task completion with intercultural learning outcomes.

Digital competence did not significantly exceed neutrality, despite the technology-mediated nature of the intervention. This finding challenges the assumption that frequent digital tool use necessarily enhances digital literacy. From a theoretical perspective, this result suggests that digital competence may function more as an enabling condition than as a primary developmental outcome. Students entering university often possess baseline operational digital skills; therefore, perceived growth may require explicit scaffolding aligned with frameworks such as the European Digital Competence Framework. The absence of strong digital gains indicates that technological mediation alone does not guarantee digital skill advancement.

The moderate relationship between intercultural competence and global orientation indicates that intercultural development may serve as a bridge toward broader global citizenship outcomes. This reinforces the argument that Virtual Exchange represents not merely a technological innovation but a pedagogically grounded intercultural learning environment.

This study examined the perceived impact of a seven-week COIL experience on soft skill development among undergraduate Business Administration students. Findings indicate significant positive development in intercultural competence, global orientation, and career-related skills, with intercultural competence emerging as the most strongly supported outcome. The moderate association between intercultural competence and global orientation further suggests that structured online intercultural collaboration can contribute to broader global awareness and attitudinal shifts.

Overall, the results reinforce the value of COIL as an effective internationalization-at-home strategy, particularly for fostering intercultural development and global readiness. Future research should employ longitudinal designs and refined measurement instruments to further explore the mechanisms through which Virtual Exchange contributes to soft skill development in higher education.

6. Implications and future lines of research

The findings suggest that COIL can serve as an effective internationalization-at-home strategy for fostering intercultural competence and global orientation in higher education. The significant development observed in intercultural competence, along with its positive association with global orientation, indicates that structured online intercultural collaboration can promote meaningful attitudinal and communicative growth. Importantly, the absence of significant differences between students with and without prior international experience suggests that Virtual Exchange may function as an inclusive and equalizing pedagogical intervention. However, the non-significant results for digital competence highlight that digital literacy should not be assumed as an automatic outcome of technology-mediated learning and may require explicit instructional scaffolding.

Future research should employ longitudinal pre–post designs with larger samples to strengthen causal inferences and statistical power. Refinement and validation of measurement instruments are also necessary to improve reliability and construct validity. Incorporating mixed-method approaches, such as reflective journals or qualitative interviews, could provide deeper insight into the processes underlying intercultural development. Additionally, examining moderating factors such as cultural distance or task design may further clarify how Virtual Exchange contributes to soft skill development in diverse higher education contexts.

Conflicts of Interest: The authors declare no conflict of interest.

Data Availability Statement: The data presented in this study are available on request from the corresponding authors.

Ethical Considerations: Participation is voluntary, and informed consent is obtained from all students. Data confidentiality and anonymity are ensured in accordance with institutional ethical guidelines.

Funding: This research received no external funding.

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

References

- Basantes-Andrade, A., Bastidas-Amador, G., Ruiz-Chagna, C., Congo-Cervantes, M., & Quintana-Andrade, G. (2025). Integrating digital technologies into the teaching of intercultural competences: A systematic literature mapping. *F1000Research*, 14, Article 41234278.
- Bashir, S., & Lapshun, A. L. (2024). E-learning future trends in higher education in the 2020s and beyond. *Cogent Education*, 12(1)
- Byram, M. (1997). Teaching and assessing intercultural communicative competence. *Multilingual Matters*.
- Colledani, D., Robusto, E., & Anselmi, P. (2024). Assessing key soft skills in organizational contexts: Development and validation of the multiple soft skills assessment tool. *Frontiers in Psychology*, 15.
- Cruz, N. (2024). Scaling virtual exchange: A review of assessment practices and student outcomes in COIL. *Journal of International Students*, 14(1), 112–130.
- Deardorff, D. K. (2006). Identification and assessment of intercultural competence as a student outcome of internationalization. *Journal of Studies in International Education*, 10(3), 241–266.
- Fantini, A. E. (2007). Exploring and assessing intercultural competence (CSD Research Paper No. 07-01). Washington University, Center for Social Development.
- Hackett, S., Janssen, J., Beach, P., Perreault, M., Beelen, J., & van Tartwijk, J. (2023). The effectiveness of Collaborative Online International Learning (COIL) on intercultural competence development in higher education. *International Journal of Educational Technology in Higher Education*, 20(1).
- Hofstede, G. (1980). Culture and organizations. *International studies of management & organization*, 10(4), 15-41.
- Hofstede, G. (2001). *Culture's consequences: Comparing values, behaviors, institutions and organizations across nations* (2nd ed.). Sage Publications.
- Joshi, S. P., Karki, D., Ghimire, B., & Subedi, S. (2024). Analysis of generic skills, circumstances, labor market and perceived employability. *Journal of Interdisciplinary Studies*, 13(1), 32–58.
- Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development*. Prentice Hall.

- National Association of Colleges and Employers. (2021). Competencies for a career-ready workforce. <https://www.nacweb.org/career-readiness/competencies/career-readiness-defined/>
- O'Dowd, R. (2018). From telecollaboration to virtual exchange: State-of-the-art and the role of UNICollaboration in moving forward. *Journal of Virtual Exchange*, 1, 1–23.
- Pei, Y., Wu, X., & Zhu, Y. (2023). Technology-assisted intercultural competence development: A meta-analysis. *Computers & Education*, 191, 104644.
- Rubin, J., & Guth, S. (Eds.). (2022). *The guide to COIL virtual exchange: Implementing, growing, and sustaining collaborative online international learning*. Routledge.
- Thomas, J. W. (2000). A review of research on project-based learning. Autodesk Foundation.
- Varadinov, M. J., & Cardoso, L. M. (2024). Higher education and the new role of the teacher: The relevance of soft skills to enhance the professional identity. *European Public & Social Innovation Review*, 9(1), 1–15.
- Vuorikari, R., Punie, Y., Carretero, S., & Van den Brande, G. (2018). *DigComp 2.1: The digital competence framework for citizens*. Publications Office of the European Union.
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press.
- Zepeda Hurtado, M. E., Cortés Ruiz, J. A., & Cardoso Espinosa, E. O. (2022). Estrategias para el desarrollo de habilidades blandas a partir del aprendizaje basado en proyectos y gamificación. *RIDE. Revista Iberoamericana para la Investigación y el Desarrollo Educativo*, 13(25).