



From recipients to co-creators: Rural voices in e-Service-Learning course design

De destinatarios a cocreadores: las voces rurales en el diseño de experiencias de Aprendizaje-Servicio virtual

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Abstract

Introduction: Digital technologies in service-learning enable the development of this pedagogical approach in contexts such as rural areas, giving rise to distinctive community-campus relationships in higher education.

Objective: To identify perceptions and considerations regarding the co-creation process in virtual service-learning (e-SL) between universities and rural partners, focusing on their characteristics, interactions, and functioning.

Date of receipt of the original: 29/06/2025

Date of approval: 19/11/2025

Please, cite this article as follows: Brozmanová-Gregorova, A., Culcasi, I., Mikelic-Preradovic, N., Paz-Lourido, B., Laven, R., Navarro, J. Paudel, F. & Heinzová, Z. (2026). From recipients to co-creators: Rural voices in e-Service-Learning course design [De destinatarios a cocreadores: las voces rurales en el diseño de experiencias de Aprendizaje-Servicio virtual]. *Revista Española de Pedagogía*, 84(293), 75-96. <https://doi.org/10.9781/rep.2026.156>

Method: Exploratory qualitative research based on an ethnomethodological approach, carried out through semi-structured, in-depth interviews. The purposive sample consisted of 16 participants: 8 university teachers and 8 rural community partners from Italy, Croatia, Spain, Austria, and Slovakia, all with experience in virtual service-learning courses. The interviews explored co-creation dynamics, roles, benefits, challenges, digital contexts, power dynamics, and sustainability, and were analysed using thematic analysis.

Results: The initial proposal for the design of e-SL courses involving rural participation often began informally through personal networks and evolved into structured processes based on shared decision-making, joint planning, and needs assessment. Benefits included the empowerment of community voices, the alignment of course content with community needs, the revitalisation of curricula, and enhanced university-community collaboration. Challenges included digital access, time constraints, and communication barriers. Ownership was distributed through shared decision-making, fostering trust and mutual respect.

Discussion: The findings emphasise reciprocal relationships, participatory behaviours, and the possibilities afforded by digital platforms. Co-creation in e-SL was regarded as a transformative practice, shifting epistemic authority toward a horizontal, relational, and reciprocal process. The sustainability of the process relies on ongoing commitment, trust, and technological infrastructure, aligning with theoretical models of co-creation and promoting long-term impact in the community.

Conclusions: e-SL co-creation enhances relevance and impact, both in learning and in rural development. It has the potential to foster rural engagement, enrich student learning, and align projects with local priorities. Digital platforms facilitate collaboration but may introduce barriers that need to be overcome to ensure sustainability.

Keywords: virtual service-learning, rural, community, partnerships, university, co-creation.

Resumen:

Introducción: Las tecnologías digitales en el aprendizaje-servicio permiten el desarrollo de este enfoque pedagógico en contextos como el rural, lo que implica relaciones comunidad-campus singulares para la educación superior.

Objetivo: Identificar percepciones y consideraciones sobre el proceso de co-creación en las experiencias de aprendizaje-servicio virtual (ApS virtual) entre socios universitarios y rurales, abordando sus características, interacciones y funcionamiento.

Método: Investigación cualitativa exploratoria basada en un enfoque etnometodológico desarrollado a través de entrevistas semiestructuradas en profundidad. La muestra intencional consistió en 16 participantes, 8 docentes universitarios y 8 socios comunitarios rurales de Italia, Croacia, España, Austria y Eslovaquia con experiencia en cursos virtuales de aprendizaje-servicio. Las entrevistas indagaron sobre las dinámicas de co-creación, los roles, los beneficios, los desafíos, los contextos digitales, las dinámicas de poder y la sostenibilidad, y se analizaron mediante análisis temático.

Resultados: La propuesta inicial para el diseño de experiencias de ApS virtual que involucran la participación rural a menudo comenzó informalmente a través de redes personales, evolucionando hacia procesos estructurados basados en la toma de decisiones compartida, la planificación conjunta y la evaluación de necesidades. Los beneficios incluyeron el empoderamiento de las voces de la comunidad, la alineación del contenido de los cursos con las necesidades de la comunidad, la revitalización de los planes de estudio y una mayor colaboración entre la universidad y la comunidad. Los desafíos incluyeron el acceso digital, las limitaciones de tiempo y las barreras de comunicación. La propiedad se distribuyó a través de la toma de decisiones compartida, fomentando la confianza y el respeto mutuo.

Discusión: Los hallazgos enfatizan las relaciones recíprocas, los comportamientos participativos y las posibilidades de las plataformas digitales. La co-creación en ApS virtual fue considerada una práctica transformadora, que cambió la autoridad epistémica a un proceso relacional y recíproco horizontal. La sostenibilidad del proceso se basa en el compromiso continuo, la confianza y la infraestructura tecnológica, alineándose con los modelos teóricos de co-creación y promoviendo el impacto a largo plazo en la comunidad.

Conclusiones: La co-creación en el ApS virtual potencia la relevancia y el impacto, tanto en los aprendizajes como en el desarrollo rural. Tiene el potencial de fomentar la participación rural, enriquecer el aprendizaje de los estudiantes y alinear los proyectos con las prioridades locales. Las plataformas digitales facilitan la colaboración, pero pueden introducir barreras que deben superarse para garantizar la sostenibilidad.

Palabras clave: aprendizaje-servicio virtual, rural, comunidad, asociaciones, universidad, co-creación.

1. E-Service-Learning in a Rural Context

Service-learning (SL) is an academic, credit-earning experience where students engage in structured service activities addressing community needs while reflecting on their experiences to deepen their understanding of course material, appreciate their field of study, and develop personal values and civic responsibility. SL promotes experiential learning infused with civic values through collaborative projects that combine education, service, and critical reflection, ensuring mutual benefits for students and community partners (Waldner et al., 2012). It integrates classroom learning with community service, emphasizing both student learning and community impact, tailored to the cultural and regional context where it is implemented.

Digital technology has been integrated into SL to help ensure smooth implementation, mediate learning and service processes, and lend new meaning to what was previously relegated to face-to-face and local contexts (Paz-Lourido & Benito, 2021). This technological mediation in SL is known as e-service-learning (e-SL), which has been described as an experiential educational approach that enables students to integrate the use of technology in order to actively engage with their community, critically reflect on their lived experience, and learn on a personal, social, and academic level (Aramburuzabala et al., 2024). In other words, e-SL is the digital version of SL, leveraging the Internet and advanced technologies to enable remote collaboration among students, faculty, and community partners in organised, experiential activities that foster civic responsibility and meet community needs (Malvey et al., 2006).

Waldner et al. (2012) categorise e-SL into four types: Hybrid Type I (online instruction and on-site service), Hybrid Type II (on-site instruction and online service), Hybrid Type III (both components partially online and on-site), and extreme e-SL (both components entirely online). Culcasi et al. (2022) describe four levels of technology use in e-SL:

- Type I – Instrumental Channel: Technology acts as a fundamental tool for remote outreach, not tied to project goals (e.g. video calls for remote support).
- Type II – Integrated Channel: Technology is purposefully linked to project objectives (e.g. using social media to share guidelines on identifying fake news).
- Type III – Instrumental Objective: Technology is part of the project's output, using existing digital tools (e.g. creating a podcast or website to raise community awareness).

- Type IV – Integrated Objective: Technology is the project’s primary goal, requiring advanced expertise to create innovative solutions (e.g. developing an AI platform to match rural needs with university expertise).

The COVID-19 pandemic, which restricted in-person interactions and shifted education online, brought e-SL into focus globally (Culcasi et al., 2021a; García-Gutiérrez et al., 2021; Leung et al., 2021; Meija, 2020; Tian & Noel, 2020). Pre-COVID studies focused on hybrid e-SL, while extreme e-SL became dominant during the pandemic due to social distancing and university closures.

According to Avello Sáez et al. (2024), in today’s educational landscape, the e-SL educational strategy, by merging the core values of traditional SL with the potential of digital platforms, places strong emphasis on inclusivity, adaptability, and the sustainability of learning pathways. It plays a pivotal role in engaging students within virtual environments where they can collaboratively address identified social issues. The relevance of this empowered SL approach (e-SL) is further supported by recent studies demonstrating its effectiveness in higher education settings, particularly in fostering the development of students’ soft skills (Culcasi et al., 2021b). Comparative research has even shown that e-SL is just as effective as traditional SL in promoting student development (Wong & Lau, 2023).

1.1. Rural (e-)Service-Learning

The concept of rural is not only determined by geographical parameters, but also by social ones (Halfacree, 1993). That is why rural can be considered different depending on culture, but also on personal experience, which adds complexity to a general definition (MacGregor-Fors & Vázquez, 2020). Previous studies with university prospects located in the countryside suggest that rural education is often explained through discursive representations of distance and their expectations in terms of the possibilities higher education can offer, which can vary from one region to another (Björkum & Basic, 2024); on the other hand, with regards to the deployment of organisations that set up educational actions in rural areas (Martínez-Scott et al., 2019), articulating SL projects together can be a good alternative in order to prevent rural areas from being overshadowed by cities.

The landscape of Rural SL learning, and what it teaches us all (Holton et al., 2017), encompasses a collection of practices, research, and insights on rural SL, developed primarily in the USA. It highlights three key distinctions from urban SL: distance (geographical, cultural, and resource-related), partnership building, and community gain. Distance poses challenges, but also offers learning opportunities for students to understand rural-urban differences and adapt to informal settings. Rural partnerships rely on trust and individual networks rather than formal agencies, with relationships often rooted in kinship or community ties. Community gain in SL livelihoods relies on the principle of working “with” communities rather than “for” them, prioritising empowerment over service delivery.

Subsequent literature explored rural SL in the European Union (Saraiva et al., 2021). Rural SL differs from urban SL due to unique challenges and opportunities (Cannon et al., 2016) and supports sustainable rural development (Modić Stanke & Mikelić Preradović, 2024). Rural areas face issues like ageing populations, youth migration due to limited education and job opportunities, inadequate infrastructure, and higher poverty risks. Rural SL can increase engagement with local government leaders, businesses, and advocacy organisations, thereby contributing to social change and rural community empowerment (Zastoupil, 2021). Although reliance on physical presence in rural SL tends to be vital, it seems that hybrid e-SL models are taking root, prompting a call for strategies to strengthen future practice, including improved technology access and hybrid engagement models (Shumka, 2023).

2. Models of Co-Creation in e-Service-Learning

Co-creation in SL and e-SL is a multidimensional and collaborative process that helps generate mutual value among students, educators, and community stakeholders. The dynamic nature of this pedagogical approach necessitates structured frameworks to guide participation, decision-making, and shared outcomes. Several co-creation models from SL and related fields offer theoretical and practical foundations that can be adapted to digital learning environments and rural contexts.

One foundational framework is the *Praxis Model of Co-Creation*, which emphasises actor roles, engagement procedures, and contextual inhibitors and enablers of co-creation in professional services. Developed through a systematic literature review, this model provides a structured approach to identifying the criteria and factors essential for effective co-creation, particularly in improving service design in digitally mediated environments (Ahmed et al., 2022). The model is highly relevant to e-SL in rural areas, as it provides actionable insights into how different stakeholders can collaboratively create value through digital platforms.

Complementing this, *meta-models of co-creation* provide a higher-order classification system for understanding co-creation across diverse contexts. De Koning et al. (2016) synthesised 50 co-creation models into four meta-models: the joint co-creation space, the co-creation spectrum, co-creation types, and co-creation steps. These meta-models provide conceptual clarity, enabling educators and researchers to structure e-SL initiatives along dimensions such as intensity of participation, stages of engagement, and typologies of collaborative action.

In the realm of educational technology, Uden's (2011) *service-driven model of e-learning* applies principles of service science to instructional design. This model focuses on the interaction between learners and instructors as a service system, emphasising knowledge co-creation and learner satisfaction. In e-SL rural contexts, this model underlines the importance of technological infrastructure in enabling and enhancing collaborative learning experiences.

Further integrating pedagogy and social engagement, the *Collaborative-Based Research Model* proposed by Mould (2014) positions research as a form of service. This model promotes ethical, reciprocal partnerships between students, faculty, and community organisations. When adapted to online settings, it can serve as a framework for virtual participatory research projects that support both civic engagement and academic inquiry.

Finally, the *Service Co-Creation Behaviour (SCB) Model* by Bidar (2018) explores co-creation behaviours in multi-actor systems. It identifies key environmental stimuli such as platform capabilities and actor competencies, as well as relational dynamics that foster collaborative and citizenship behaviours. This model provides a behavioural lens to analyse how actors interact in digital co-creation spaces, offering valuable insights into enhancing engagement and value formation in e-SL.

Collectively, these models offer diverse yet complementary perspectives on co-creation, each contributing to a more nuanced understanding of how e-SL in rural areas can be designed, implemented, and assessed. While their origins vary –from service science to participatory design–, they converge on the principle that meaningful co-creation requires intentional design, ethical collaboration, and responsive systems that can accommodate diverse stakeholder needs in digital environments.

Our research study aims to contribute toward understanding the co-creation process in e-SL with community partners from rural areas. Through collaborative study and shared reflection, we aim to foster reciprocity, as highlighted by Woods et al. (2013), as one of the main challenges in SL. Our research questions are:

RQ1: What are the features, roles, contributions, and goals of the co-creation model in e-SL?

RQ2: What do community partners and university teachers perceive as the benefits, challenges, and barriers of co-creation?

RQ3: What is the sustainability and impact of co-creation?

3. Methods

This research is part of a wider research project carried out in parallel to the development of the European collaborative Erasmus+ project “E-Service-Learning for Boosting Academic Civic Engagement in Rural Areas” (CIVENHANCE, 2024–2027). The objectives are to enhance the capacity of higher education teachers for rural e-SL projects, fostering civic engagement in students; to facilitate collaboration between universities, teachers, and rural partners through digitalisation; and to ensure the sustainability of e-SL results for social inclusion, civic engagement, and prosperity.

Grounded in an interpretative paradigm (Flick, 2018) and following the ethnomethodological approach proposed by Garfinkel (2006), as revisited by Cheng (2012), the research enables us to explore the conditions and rules assumed by social groups in the development of social functions and practices. Ethnomethodology emphasises how everyday actors construct meaning and navigate uncertainty through practical reasoning, requiring ongoing reflexivity (Finlay, 2002; Alvesson & Sköldberg, 2018). The existence of rules or agreements to navigate uncertainty requires a process of permanent reflexivity, which can be investigated in different ways. In this case, the paper presents part of this ongoing research process.

Instruments and Procedure

The research procedure, design, instruments, and researcher roles were jointly defined, in line with the principles of qualitative research (Denzin & Lincoln, 2018). A purposive sampling strategy (Patton, 2023) was employed, including university teachers and rural community partners with experience in e-service-learning within the last three years. Recruitment was facilitated through direct contact with partner universities in the CIVENHANCE consortium. Regular e-SL practice environments were selected to ensure rigour and ecological validity in the interviews (Vaivio, 2012).

Additionally, various products (such as field labs, workshops for retirees or unemployed women, a database of agrarian court decisions, and educational tools for place-based learning, nanolearning, or storytelling) were co-created in these e-SL practices.

The semi-structured interviews (Vaivio, 2012) were conducted with teachers and community partners in May 2025. These aimed to investigate the process of e-SL course co-creation and the roles of teachers and community partners within this process, along with its benefits, challenges, digital contexts, power dynamics, and sustainability. Participants’ consent interviews were conducted in person or virtually, lasting between 60 and 90 minutes. Ethical approval was obtained from the Ethics Committee of Matej Bel University (No. 315/2025).

3.1. Participants

The participants (see Table 1) were eight university teachers and eight rural community partners involved in various models of e-SL courses from different organisations across Europe (Italy, $n = 2$; Croatia, $n = 3$; Spain, $n = 4$; Austria, $n = 4$; Slovakia, $n = 3$). The majority were cisgender females ($n = 8$), while the number of cisgender men was $n = 4$. The remaining participants ($n = 4$) did not specify their gender.

TABLE 1: OVERVIEW OF PARTICIPANTS

No.	Country	Gender	Role	e-SL Course
1	Italy	M	Community partner in the senior centre	Didactics and Special Pedagogy for Social Inclusion
2	Italy	F	University teacher in Pedagogy	
3	Croatia	F	Community partner in Local Action Group	Urban and Rural Service-Learning
4	Croatia	M	Community partners in the Archive Collection Centre	
5	Croatia	F	University teacher in Information Sciences	
6	Spain	F	University teacher in Architecture	Thinking and Creativity
7	Spain	M	Community partner in Local Action Group	
8	Spain	M	Community Partner in Agroecology	
9	Spain	F	University Teacher in Physiotherapy	Community Physiotherapy
10	Austria	NA	Community partner in Expanded Gardens	Living classrooms Service-Learning for Rural Development e-SL and Curriculum
11	Austria	NA	Community partner in Expanded Gardens	
12	Austria	NA	University Teacher in Teacher Education	
13	Austria	NA	University Teacher in Teacher Education	
14	Slovakia	F	University teachers in Psychology	Positive Psychology and Applied Psychology
15	Slovakia	F	Community partner in Prison	
16	Slovakia	F	Community Partners in Social Facility	Counselling

3.2. Analysis

Interviews were recorded and then transcribed verbatim for analysis in the national languages, after which they were translated into English. Following an iterative inductive-deductive approach, qualitative data were coded for thematic analysis using a shared Excel matrix, which was aligned with the research questions (Miles et al., 2019; Braun & Clarke, 2022). Central themes were outlined for the coding matrix: *co-creation process, roles and contribution, goals and course content, benefits of co-creation, challenges and barriers, digital*

context, power and agency and sustainability, and impact. Each author conducted open coding, and the results were put in the matrix (Saldaña, 2025). Four authors outlined results from the open coding. The final version of the data analysis was agreed upon by the research team (Nowell et al., 2017).

4. Results

The results are presented below following the thread of the analysis topics. The name of the country is used to help locate the universities and their rural counterparts, without implying any form of generalisation.

4.1. Models of Co-creation in e-SL: an Adaptive, Cyclical, and Relational Process

The interviews conducted across the participating countries reveal that co-creation in e-SL was often initiated informally (through personal contacts or pre-existing networks) and subsequently evolved into more structured, semi-formal or institutionalised processes. Co-creation primarily took shape through shared decision-making, in which the roles of the involved actors, the spaces for dialogue, and the alignment of thematic and social goals were collaboratively defined. These participatory dynamics enabled partnerships to grow and consolidate through joint planning meetings, needs assessments, and shared commitment.

A particularly significant dimension that emerges from the interviews is the shift in perception of community partners: no longer seen as mere “case providers”, they are recognised as authentic co-creators capable of contributing meaningfully to course design and implementation. While this ideal aligns with foundational SL theory, it often remains aspirational in practice. Several projects, however, demonstrate a deliberate move in this direction through the co-design of themes and methods, the joint development of place-based educational tools, co-facilitated workshops and field labs, and integrated evaluation and storytelling practices.

Various tools and strategies supported this process of co-design, including walk-in room formats (e.g. TOZOMIA), mapping and embodied learning techniques, shared reflection spaces, artistic documentation, and a range of digital collaboration tools (such as AI-based platforms, Miro, Padlet, and videoconferencing software). Both analogue and digital instruments were deployed to support participation, depending on local contexts and levels of accessibility.

Across all cases, co-creation unfolded throughout the entire course lifecycle –from planning to evaluation– as an iterative, non-linear process. It was marked by adaptability, trust, flexibility, and mutual listening. As noted in one Spanish interview, “*We aimed to create a realistic and respectful meeting point, where the university could contribute without creating unnecessary burdens*”. The process of co-creation not only fostered reciprocal learning but also reshaped power dynamics, giving rise to learning environments rooted in real-world experiences and shared responsibility. As one faculty member in Spain stated, “*The involvement of the community partner was essential in giving meaning to the very structure of the course*”. This emphasis on meaning-making underscores the transformative potential of co-creation, enriching both individual and collective learning.

Additional enabling conditions identified across the interviews include regular meetings, continuous dialogue, active listening, openness to negotiation, informal initiatives by faculty or community members, sensitivity to contextual factors (e.g. digital or rural settings), and access to concrete tools that sustain participation.

4.2. Roles and Contributions in e-SL: Shared Agency and Valued Knowledge

The analysis of interview responses highlights a recurring theme across all national contexts: the co-creation process in e-SL was made possible by a fluid and negotiated

distribution of roles, grounded in mutual respect, reciprocity, and recognition of diverse forms of expertise. Community partners were not mere recipients or logistical supporters, but active co-designers, educators, and evaluators whose experiential and situated knowledge was essential in shaping the learning experience.

In Italy, for example, Luigi Re of the Senior Centre acted as both initiator and “*cultural bridge*”, bringing forward community knowledge. At the same time, the faculty adopted a facilitative, non-directive approach. As one faculty member recalled, the approach was one of “*accompaniment with delicacy*”, aiming to decentralise academic authority and promote shared agency. The project explicitly valued “academic (pedagogical theory), experiential (life stories), emotional-relational, and technical (AI, storytelling, music)” knowledge, illustrating a multidimensional understanding of expertise.

Similar dynamics were reported in Croatia, where the collaboration was perceived as a “*two-way street*” in which “*student energy and our experience blended perfectly*”. The community partners clearly stated that they were treated as equals, “*co-educators, not just beneficiaries*”, and that “*everyone’s contributions mattered*”.

In Slovakia, the prison education context introduced specific constraints, yet the partnership remained collaborative. Community partners contributed essential legal and procedural knowledge, which university instructors “*were literally required to respect*”. The course design was continuously refined through “*weekly joint supervisions*” and post-session reflections, a form of iterative co-governance in which practitioners’ knowledge shaped pedagogical decisions in real time.

The Austrian cases strongly emphasised equity of contribution and mutual legitimacy. Community members brought place-based and embodied expertise (e.g. “*students learned from the soil, the body, the dialogue*”), while academic staff framed and connected these practices to broader theoretical paradigms. One faculty member noted: “*We communicated on equal terms and incorporated feedback throughout*”, while another observed that co-creation succeeded “*because roles were not fixed, but fluid and negotiated*”.

In Spain, interviews revealed a complex, well-balanced distribution of tasks and contributions. The university’s role as the initiator and bridge builder was complemented by the community partners’ roles as co-designers, mentors, evaluators, and need identifiers. Their insights shaped both content and structure: “*Our observations and suggestions were instrumental in refining the programme*”. The collaboration was sustained by an attitude of “*respectful, humble, and flexible*” engagement, aiming to “*contribute without creating unnecessary burdens*”. As one stakeholder put it, “*The goal was never to intervene, but to co-create: to put university knowledge at the service of the territory, and to let the territory transform us in return*”. For another one, the type of collaboration was satisfactory because “*We had never experienced such a respectful way of taking ourselves into account, of feeling heard by the university*”.

4.3. Goals and Course Contents Co-Creation: Join Negotiation, Decision-making and Collaboration

Across all interviews, goals were described as the result of “*joint negotiation*”. Both university and community partners emphasised shared decision-making in setting learning aims. Community partners helped define what students should explore based on real local challenges and site-specific knowledge. Community challenges (e.g. digital inequality, youth engagement, and sustainable agriculture) directly shaped the learning objectives, supported rural development goals through the course, addressed community needs (loneliness, inclusion, digital literacy), and aligned with course objectives (inclusion, network building, educational planning). As described by the Spanish community partner: “*We worked closely with faculty members from the university to ensure that the course objectives aligned with both the academic curriculum and the real-world needs of the communities*”.

Course Content Development evolved through open collaboration and co-design. The university teachers did not predefine the whole content of the e-SL courses, because they were *“deeply grounded in local realities: rural life, community farming, ecological practices, and social inclusion”*. Alternatively, the course content was unchanged and predefined by the university, but *“local ecosystem data was integrated into student projects to address community needs”*. Community partners actively participated in planning and preparing students to work with the target group or beneficiaries, as well as in the assessment. There is repeated evidence in all involved countries of adaptive course planning, assessments, and formats that have been adjusted to reflect real-world relevance better.

Clear consensus on a flexible, adaptive project, with the university and community open to adapting to emerging interests. *“What is developed with the partner is not so much about ‘what’ to teach, but rather ‘why’ the service matters”*. Learning became a two-way street: students gained insight into community issues, while the community gained visibility, support, and educational tools rooted in shared experiences. Open negotiations ensured alignment between course activities and community goals.

4.4. Benefits from Co-creation in e-SL for Community Partners and University Teachers

The interviews reflect a broad consensus: co-creation created value for both university and community stakeholders. It led to outcomes beyond traditional course goals, fostering deeper learning, empowerment, and stronger social ties. Trust and long-term collaboration were viewed as central outcomes for both community partners and university teachers. Relationships deepened over time, sustained by shared effort, care, and meaningful dialogue. Community partners expressed feeling heard, respected, and equal. Their voices shaped the process, and their uncertainties were welcomed, not hidden. Co-creation was not just a method, it redefined what learning means. It made academic experiences more relevant, relational, and real. Because communities were meaningfully involved, everyone, especially students, learned more and in different ways.

Community partners involved in co-creating the e-SL course gained several key benefits from the process: They were *“empowered to take ownership of project outcomes”*. The co-creation process *“ensured that the community’s needs were at the centre of the project”*, thereby increasing its relevance and impact. Partners also gained a stronger understanding of the importance of connecting academic knowledge with practical, real-world applications, influencing *“the view of cooperation with the university”*. Cooperation fostered the exchange of *“new perspectives, information, and skills, injecting new energy and enthusiasm into the community”*. Furthermore, their knowledge and practices were validated and valued. The cooperation strengthened local networks and improved access to European educational frameworks. The partnership with the university *“strengthened ties with the academic sector, opening avenues for future collaborations”*.

The benefits for the individuals involved were also related to improved self-esteem, emotional energy, and motivation to overcome challenges. One Slovak community partner also mentioned personal benefits and influence on the practice: *“... in my personal life, it gave me a lot and also in my entire practice”*.

For university teachers, the co-creation process within the e-SL courses, in collaboration with community partners, revitalised course content, enhanced the impact of the third mission, and strengthened local community ties. Working together brings multiple benefits for university teaching, *“because the course was more realistic”*. As stated by one of the teachers from Spain, *“Having a counterpart that is real, which is an entity that exists in the community and not only ‘society in general’, brings practicality and relevance to the course, learning many more things than what is initially expected. Another important learning was the respect, reciprocity, and collaborative attitude”*.

4.5. Challenges and Barriers of Co-creation

The challenges and barriers of co-creating e-SL courses can be categorised into several subcategories concerning technology, time, and communication.

Technological and digital barriers are connected to the digital component of the e-SL course and to the integration of technologies into both the course and the co-creation process. Unstable Internet, digital divides, and access issues, as well as limitations due to distance, were present. As mentioned by one of the university teachers, *“You cannot feel the soil via Zoom”*.

Rural community partners reported time constraints and different institutional rhythms. The university calendars conflicted with community rhythms and the shortened timeframe for the co-creation. *“We also felt rushed by project timelines linked to the academic semester”*.

Another set of challenges in co-creation is communication and language barriers.

Academic language was inaccessible to some community partners, *“scientific terms were hard to follow”*. Academic jargon and specialist terms were at times inaccessible to community partners. There was a need for “translation” across different knowledge systems, as mentioned by the Austrian community partner: *“We needed more spaces that translate between worlds”*. Translating this knowledge into effective, culturally sensitive restoration practices required additional guidance and adaptation.

4.6. Digital Context of Co-creation

On the one hand, digital technology supported the co-creation process and enabled the creation of the course and project plan; while, on the other hand, it was perceived as a challenge, as mentioned above. The integration of digital tools, such as using Zoom for meetings, provided flexibility in connecting community partners and the university, and *“enhanced collaboration between the organisation and the academic team”*. *“Virtual meetings, shared online platforms, and digital communication channels allowed for more frequent and efficient exchanges, bridging the geographical gap”*. Digital tools supported the asynchronous work. However, the digital divide excluded some of the less tech-savvy rural community partners, which was a real barrier. Hybrid formats were therefore seen as a promising option to ensure continuity and prevent disconnection. In any case, it was considered that *“agreeing on an action plan in case of technical problems must also be included in the course design prior to its implementation”*.

4.7. Power and Agency in the Co-Creation Process

In the interviews, both university teachers and community partners emphasised shared power and agency in the co-creation of e-SL courses, using language that reflects values of equity, mutual respect, and participatory decision-making. The thematic analysis of how power and agency are conceptualised and expressed encompassed several themes.

Language such as *“shared ownership,” “co-authors,” “co-creators,” “not consulted, but equal partners,”* signals a flattened hierarchy where power is intentionally distributed. University teachers and community partners were involved in all stages of co-creation, from planning to evaluation, indicating a deep and sustained engagement. *“We decided together what would work, and changed plans as needed”*. Agency is described as both individual and collective, emerging from mutual respect and participation, *“everyone was a subject of the process”*. University teachers worked explicitly to decentralise their authority: *“The University worked to include our perspectives”*. Community partners were not treated as beneficiaries or passive participants but as knowledge holders: *“We were not a target group, but fellow travellers,” “Our knowledge was not added on, it was foundational”*.

While power was shared, structural asymmetries (e.g. in technology access, institutional resources) were acknowledged: *“Universities held more institutional power”*. These were not

ignored but addressed through dialogue and mutual adjustment. Perhaps most notably, power was not merely shifted: it was reimagined through trust, humility, and continuous reflection, viewing co-creation as “a *shared responsibility*” and adapting concepts of time and participation to community rhythms and realities: “*We felt a strong sense of connection and shared purpose with the academic team*”.

4.8. Sustainability and Impact as Effects of Co-creation

Nearly all participants described intentions or actions to sustain partnerships beyond the course or project’s formal conclusion. “*The experience planted seeds for future co-creation and curricular innovation*”. Co-creation in e-SL courses fosters infrastructure, trust, and capacity for follow-up initiatives, which may already be underway.

The co-creation process also led to pedagogical and civic transformations in higher education. University teachers observed the deepening of university-community ties, curricular innovation, pedagogical growth, and the emergence of civic responsibility as a core educational aim. Co-creation serves as a model for integrating civic engagement into academic practice and reshaping the relationship between universities and society.

Both university teachers and community partners noted a paradigm shift: “*Universities as open spaces, not ivory towers*” and “*Communities gained confidence in contributing to academic discourse*”. These shifts supported sustainability and created environments where collaborative, socially engaged education becomes the norm.

The co-creation process does not automatically bring sustainability into e-SL practices or university-community partnerships. The challenges for sustainability include limited resources and administrative burdens on both sides. Sustainability therefore depends on systemic support and continuous adaptation to local needs and constraints, and this includes “*leadership and a willingness to promote and institutionally recognise these types of learning practices*”. Co-creation is seen not only as an educational or service process, but also as a political and social innovation tool: “*Promote political advocacy so that the needs are made visible and public entities can also join*”. The potential of co-creation extends to influencing policy, driving institutional reform, and fostering social change.

5. Discussion

The findings of this study demonstrate that co-creation in e-SL experiences within rural contexts represents a process that alters the traditional relationship between universities and communities. The integration of rural perspectives in e-SL course design necessitates a paradigm shift, moving away from the traditional top-down model where rural communities are passive recipients of knowledge and services toward a collaborative framework where they actively co-create the learning experience. This conceptual change aligns with Mitchell’s (2008) call for a critical SL model that challenges power asymmetries and foregrounds authentic partnerships. A space for innovation is required where rural partners are no longer just recipients of academic knowledge but active contributors to the design and development of courses (Mitchell, 2008; Holton et al., 2017).

While digital technology facilitated the co-creation process and enabled the development of the course and project plan, it also presented specific challenges related to equipment or connectivity. Other challenges to be overcome were time, communication and language barriers. These challenges are also reflected in the work of Villani et al. (1992), Bovill et al. (2015), and Durall et al. (2020). Our analyses showed that the co-creation process in e-SL courses created specific benefits valued by both community partners and university teachers. Empowering community voices, ensuring a connection between course aims and content and community needs, a changed view on cooperation with the university, revitalised course content, an enhanced impact of the third mission, and a strengthened local community were some of the mentioned effects. Co-creation

in e-SL also demonstrated high potential for systemic impact across communities and universities. It could be seen as a catalyst for long-term transformation. It should therefore be considered among the constituents for a community-engaged university in quality management and accreditation processes (Paz-Lourido, 2024).

Digital tools play a dual role in this process. They enable communication and continuity in collaboration, but they also reveal inequalities related to access, digital literacy, and available infrastructure. These aspects highlight the importance of institutional support that ensures fair participation and ongoing technical guidance. Recent research confirms that digital co-creation in rural areas depends on the integration of local resources, mutual interaction, and shared knowledge (Wu, Xu, Lin & Ghani, 2023). Other studies highlight the need for human-centred and inclusive e-SL practices that foster engagement and sustainability (Derreth, 2024).

Power and agency were articulated through dimensions of shared ownership and decision-making, mutual respect, co-authorship, and reflexivity. Importantly, co-creation is framed as both a philosophical stance and a practical process of shared reflection, co-evaluation, open planning sessions, and role fluidity that requires humility and ongoing negotiation. This understanding aligns with the findings of Bovill et al. (2015), which emphasise the importance of transparent and inclusive approaches to co-creation in higher education. They note that successful co-design hinges on navigating institutional barriers and fostering mutual trust. The relationships based on trust, reciprocity, and mutual respect observed in this study demonstrate that co-creation fosters shared learning environments where academic and local knowledge are interconnected. These dynamics point to a model of e-SL in which epistemic authority is distributed, and learning becomes a relational, co-constructed process grounded in trust and mutual recognition (Paz-Lourido, 2023). Co-creation therefore supports not only student learning and community needs but also the civic and social role of universities, moving them toward more cooperative and engaged models (Bovill et al., 2015). Community-centred innovation models, such as Living Labs, also offer a relevant framework for these dynamics, as they promote multi-stakeholder participation and experimentation in real-life rural settings (European Network of Living Labs, 2020).

Our empirical findings related to the co-creation process in e-SL with rural community partners are in line with this shift and resonate with key theoretical models of co-creation (e.g. Praxis Model, Co-Design Model, SCB), particularly in terms of the centrality of reciprocal relationships; the definition and sequencing of co-creation steps; the activation of participatory behaviours across stakeholders; and the strategic use of digital platforms to mediate communication and collaboration. These findings are further supported by Durall et al. (2020), who emphasise the importance of stakeholder engagement and iterative design practices in digitally supported co-creation processes. From a theoretical perspective, these findings extend previous co-creation models and demonstrate their relevance for digitally mediated rural settings. The study provides evidence that co-creation can link participatory design with critical pedagogy in ways that fit local European rural contexts (Durall et al., 2020). Recent work also suggests that co-creation in territorial planning requires practical tools to connect local processes and institutional resources, particularly in regions facing depopulation or inadequate infrastructure (Christiaanse, 2025). In this sense, the institutionalisation of SL practices is essential to establish stable structures that facilitate the identification, continuity, and evaluation of co-creation partnerships (Ribeiro et al., 2021).

Finally, recent studies on university participation in rural development have demonstrated that long-term partnerships between universities and local communities help build stable forms of collaboration and innovation, thereby reinforcing trust and social cohesion (Pandey & Choudhary, 2025). Overall, the present study reinforces the notion that co-creation in e-SL is not only an innovative educational practice but also a means to promote social transformation, empower rural communities, and revitalise the

civic mission of higher education. Looking ahead, the development of digital platforms to facilitate matchmaking and co-creation between universities and rural partners must consider the environmental, socioeconomic, and cultural singularities of what is considered rural in each context (Stjernberg et al., 2023). Meanwhile, this study provided a platform for rural community partners and university teachers to share their voices and perspectives on co-creation in e-SL experiences.

6. Conclusion

This study highlights that involving rural partners in the co-design of e-SL courses increases their relevance and sustainability. Integrating local perspectives and knowledge into course planning helps align academic goals with real community needs, making learning more meaningful for students and more valuable for rural development. Co-creation promotes reciprocity, shared responsibility, and collaboration between universities and communities, strengthening the civic role of higher education.

As our study highlighted, by valuing and empowering rural voices in the co-design process, e-SL can become a more relevant, impactful, and sustainable approach to community development and education. Incorporating this local expertise into the curriculum not only enriches the learning experience for students but also fosters critical thinking, problem-solving skills, a sense of belonging and otherness, ensuring that the e-SL project aligns with local priorities and contributes to the community's long-term well-being. Overall, the findings confirm that co-creation in e-SL can serve as both an educational and social innovation strategy. Fostering horizontal relationships and mutual learning supports long-term partnerships, contributing to the sustainability of rural engagement. Promoting these practices within institutional frameworks can help consolidate universities as agents of transformation and as active participants in community development.

7. Limitations and Further Research

This study represents an exploratory phase aimed at understanding the co-creation process in e-SL courses with rural communities. The limited number of participants and the diversity of national and institutional contexts mean that the results cannot be generalised, but they do open a line of research. Differences in technological access, language, and local conditions also affected the extent of participation and collaboration.

Future research could expand the scope by including a larger and more diverse sample, as well as incorporating the perspectives of students to examine how co-creation influences their learning outcomes, civic awareness, and sense of belonging. Longitudinal studies could also explore the long-term sustainability of partnerships and the institutional changes that support them. Moreover, future initiatives should consider the design of inclusive digital platforms that facilitate equitable collaboration between universities and rural partners, taking into account the environmental, socioeconomic, and cultural specificities of rural contexts.

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Artificial intelligence (AI) policy

AI was used for the grammar correction and translation of interviews from national languages.

Funding

The research was co-funded by the European Union as part of the Erasmus+ project CIVENHANCE e-Service-Learning for Boosting Academic Civic Engagement in Rural Areas (number: 2024-1-SK01-KA220-HED-000245367).

References

- Ahmed, S., Nabi, M. N. U., Misbauddin, S. M., & Akther, F. (2022). Co-creation framework in professional service context: Toward a praxis model. *Khulna University Studies*, 19(2). <http://kus.ku.ac.bd/kustudies/article/download/61/1494>
- Alvesson, M., & Sköldbberg, K. (2018). *Reflexive methodology: new vistas for qualitative research* (Third edition.). SAGE.
- Aramburuzabala, P, Culcasi, I., & Cerrillo, R. (2024). Service-learning and digital empowerment: The potential for the digital education transition in higher education. *Sustainability*, 16(6), 2448. <https://www.mdpi.com/2071-1050/16/6/2448>
- Avello Sáez, D. M., Culcasi, I., Sepúlveda Maulén, J. I., & Estrada-Palavacino, L. A. (2024). Explorando la evolución y tendencias del aprendizaje en línea: Un análisis bibliométrico de dos décadas de investigación (2004–2023). *Revista Electrónica Diálogos Educativos*, 21(41–43), 109–119. <https://revistas2.umce.cl/index.php/dialogoseducativos/article/download/2881/2967>
- Bidar, R. (2018). *Service co-creation behaviour in actor-to-actor co-creation systems: From service-dominant logic to socio-service dominant logic* [Doctoral dissertation, Queensland University of Technology]. QUT ePrints. <https://eprints.qut.edu.au/119156/>
- Björkum, K., & Basic, G. (2024). Conditions for higher education study: The perspectives of prospective students from rural areas. *Educational Research*, 66(4), 448–465. <https://doi.org/10.1080/00131881.2024.2382111>
- Bovill, C., Cook-Sather, A., & Felten, P. (2015). Students as co-creators of teaching approaches, course design, and curricula: Implications for academic developers. *International Journal for Academic Development*, 20(2), 133–145. <https://doi.org/10.1080/1360144X.2011.568690>
- Braun, V., & Clarke, V. (2022). *Thematic analysis: A practical guide*. SAGE.
- Cannon, B., Deb, S., Strawderman, L., & Heiselt, A. (2016). Using service-learning to improve the engagement of industrial engineering students. *International Journal of Engineering Education*, 32, 1732–1741.
- Cheng, L.Y. (2012). Ethnomethodology reconsidered: The practical logic of social systems theory. *Current Sociology*, 60(5), 581–598. <https://doi.org/10.1177/0011392111426193>
- CIVENHANCE. (2024–2026). *e-Service-Learning for boosting academic civic engagement in rural areas* (Project No. 2024-1-SK01-KA220-HED-000245367). <https://civenhance.eu/>

- Christiaanse, S. (2025). Conditions for co-creation: Lessons from a planning tool for rural facility decline. *Journal of Rural Studies*, 113, Article 103512. <https://doi.org/10.1016/j.jrurstud.2024.103512>
- Culcasi, I., Brozmanová Gregorová, A., & Cinque, M. (2021a). State of the art of e-S-L development in European universities: An exploratory study. In A. Ribeiro, P. Aramburuzabala, & B. Paz-Lourido (Eds.), *2021 Annual Report of the European Association of Service-Learning in Higher Education* (pp. 31–50).
- Culcasi, I., Romano, L., & Cinque, M. (2021b). Aprendizaje-servicio virtual 100% online: Un estudio de caso en una muestra de estudiantes universitarios italianos. *EDUTEC. Revista Electrónica de Tecnología Educativa*, 78, 180–195. <https://doi.org/10.21556/edutec.2021.78.2255>
- Culcasi, I., Russo, C., & Cinque, M. (2022). E-service-learning in higher education: Modelization of technological interactions and measurement of soft skills development. *Journal of Higher Education Outreach and Engagement*, 26(3), 39–56. <https://openjournals.libs.uga.edu/jheoe/article/view/2653>
- Denzin, N. K., & Lincoln, Y. S. (Eds.). (2018). *The SAGE handbook of qualitative research* (5th ed.). SAGE Publications
- De Koning, J., Crul, M., & Wever, R. (2016). Models of co-creation. In *ServDes.2016 – Fifth Service Design and Innovation Conference* (pp. 266–278). TU Delft, Delft University of Technology.
- Derreth, T. (2024). Human-centered community engagement in online education: Developing a critical online service-learning pedagogy. *Michigan Journal of Community Service-Learning*, 30(2), 1–14. <https://doi.org/10.3998/mjcs1.4381>
- Durall, E., Leinonen, T., & Rodríguez-Triana, M. J. (2020). Co-creation and co-design in technology-enhanced learning: Systematic literature review. *British Journal of Educational Technology*, 51(4), 1081–1099.
- European Network of Living Labs. (2020). *Living labs and rural innovation*. <https://enoll.org>
- Finlay, L. (2002). Negotiating the swamp: the opportunity and challenge of reflexivity in research practice. *Qualitative Research: QR*, 2(2), 209–230. <https://doi.org/10.1177/146879410200200205>
- Flick, U. (2018). *An introduction to qualitative research* (6th edition). Sage.
- García-Gutiérrez, J., Ruiz-Corbella, M., & Manjarrés-Riesco, Á. (2021). Virtual Service-Learning in Higher Education: A theoretical Framework for Enhancing its Development. *Frontiers in Education*, 5, 1–10. <https://doi.org/10.3389/feduc.2020.630804>
- Garfinkel, H. (2006). *Seeing Sociologically: The routine grounds of social action*. Paradigm Publishers.
- Halfacree, K. H. (1993). Locality and social representation: Space, discourse and alternative definitions of the rural. *Journal of Rural Studies*, 9(1), 23–37. [https://doi.org/10.1016/0743-0167\(93\)90003-3](https://doi.org/10.1016/0743-0167(93)90003-3)
- Holton, N. G., Casey, K. M., Fletcher, C., Ganzert, C., Hammerlinck, J., Henness, S., Proulx-Curry, P., Ross, J. A., Stevenson, H. A., Stoecker, R., Tullier, S., & Wood, S. D. (2017). The landscape of rural service-learning. In R. Stoecker, N. Holton, & C. Ganzert (Eds.), *The Landscape of Rural Service-Learning, and What It Teaches Us All*, (pp. 3–14). Michigan State University Press.
- Leung, H., Shek, D. T. L., & Dou, D. (2021). Evaluation of service-learning in Project WeCan under COVID-19 in a Chinese context. *International Journal of Environmental Research and Public Health*, 18(7), 3596. <https://doi.org/10.3390/ijerph18073596>
- MacGregor-Fors, I., & Vázquez, L. B. (2020). Revisiting ‘rural’. *Science of the Total Environment*, 741, 132789. <https://doi.org/10.1016/j.scitotenv.2019.06.135>
- Martínez-Scott, S., Monjas-Aguado, R., & Torregro-Egido, L. (2019). Development education in European rural areas: The work done by NGOs. *Iberoamerican Journal of Development Studies*, 8(2), 70–85. https://doi.org/10.26754/ojs_ried/ijds.367

- Malvey, D. M., Hamby, E. F., & Fottler, M. D. (2006). E-service-learning: A pedagogic innovation for healthcare management education. *Journal of Health Administration Education, 33*(2), 181–198. <https://pubmed.ncbi.nlm.nih.gov/16700443/>
- Meija, A. (2020). Community-engaged learning in times of COVID-19 or why I'm not prepared to transition my class into an online environment. *Public Philosophy Journal, 3*(1), 1–6. <https://doi.org/10.25335/PPJ.3.1-3>
- Miles, M. B., Huberman, A. M., & Saldaña, J. (2019). *Qualitative data analysis: A methods sourcebook* (4th ed.). SAGE.
- Mitchell, T. D. (2008). Traditional vs. critical service-learning: Engaging the literature to differentiate two models. *Michigan Journal of Community Service-Learning, 14*(2), 50–65.
- Modić Stanke, K., & Mikelić Preradović, N. (2024). Service-learning tackling educational inequality. In *Springer eBooks* (pp. 1–28). https://doi.org/10.1007/978-3-030-68127-2_392-2
- Mould, T. (2014). Collaborative-based research in a service-learning course: Reconceiving research as service. *Partnerships: A Journal of Service-Learning and Civic Engagement, 5*(1), 72–95. <http://libjournal.uncg.edu/prt/article/download/893/568>
- Nowell, L. S., Norris, J. M., White, D. E., & Moules, N. J. (2017). Thematic analysis: Striving to meet the trustworthiness criteria. *International Journal of Qualitative Methods, 16*(1), 1–13.
- Pandey, A., & Choudhary, N. (2025). University Participation in Rural Development in India: Tensions and Challenges in Unnat Bharat Abhiyan. *The International Journal of Community and Social Development, 0*(0). <https://doi.org/10.1177/25166026251385621>
- Patton, M. Q. (2023). *Qualitative Research & Evaluation Methods: Integrating Theory and Practice* (Fourth edition). SAGE Publications, Inc. (US).
- Paz-Lourido, B. (2023) *The Butterfly of Service-Learning*. Asociación de Aprendizaje-Servicio Universitario. <https://doi.org/10.61005/APSUMARI2023>
- Paz-Lourido, B. (2024, 14-16 November). More than Words: An Integrative Approach to Cooperation and Quality Assurance in Higher Education through Service-Learning [Paper Presentation]. European Quality Assurance Forum, Twente, Netherlands. <https://www.eua.eu/publications/conference-papers/more-than-words-an-integrative-approach-to-cooperation-and-quality-assurance-in-higher-education-through-service-learning.html>
- Paz-Lourido, B., & de-Benito, B. (2021). Editorial of the special issue: Service-learning in digital technology environments. *EduTec. Revista Electrónica de Tecnología Educativa, 78*(1), 1–7. <https://doi.org/10.21556/edutec.2021.78.2317>
- Ribeiro, A. Aramburuzabala, P. & Paz-Lourido, B. (2021). *Guidelines for the Institutionalization of service-learning in European higher education*. European Association of Service-Learning in Higher Education.
- Saldaña, J. (2021). *The coding manual for qualitative researchers* (5th ed.). SAGE.
- Saraiva, L., Padrao, J., & Čalić, M. (Eds.). (2021). *Rural service-learning and social entrepreneurship*. School of Education, Polytechnic Institute of Viana do Castelo.
- Shumka, L. (2023). Rural community engaged learning? Rethinking practice in a pandemic. *Journal of New Brunswick Studies / Revue d'études sur le Nouveau-Brunswick, 15*(1), 33–47. <https://journals.lib.unb.ca/index.php/JNBS/article/view/33430>
- Stjernberg, M., Norlén, G., Vasilevska, A., Tapia, C., & Berchoux, T. (2023). *Scoping report on European rural typologies*. GRANULAR. <https://doi.org/10.5281/zenodo.13767183>
- Tian, Q., & Noel, T. (2020). Service-learning in Catholic higher education and alternative approaches facing the COVID-19 pandemic. *Journal of Catholic Education, 23*(1), 184–196. <https://doi.org/10.15365/joce.2301142020>
- Uden, L. (2011). Toward a new model of co-creation of value in e-learning service systems. *International Journal of Innovation in the Digital Economy, 1*(1), 36–49. <https://doi.org/10.4018/IJICST.2011010103>

- Vaivio, J. (2012). Interviews - Learning the Craft of Qualitative Research Interviewing [Review of *Interviews - Learning the Craft of Qualitative Research Interviewing*]. *The European Accounting Review*, 21(1), 186–189. Routledge. <https://doi.org/10.1080/09638180.2012.675165>
- Villani, P. J., Malmstadt, S., & Roberto, K. A. (1992). Teaching older adults in a rural setting. *Activities, Adaptation & Aging*, 16(4), 39–50. https://doi.org/10.1300/J016v16n04_04
- Waldner, L. S., McGorry, S. Y., & Widener, M. C. (2012). E-service-learning: The evolution of service-learning to engage a growing online student population. *Journal of Higher Education Outreach and Engagement*, 16, 123–150.
- Woods, L., Willis, J., Wright, D. C., & Knapp, T. (2013). Building community engagement in higher education: Public sociology at Missouri State University. *Journal of Public Scholarship in Higher Education*, 3, 67–90. <https://files.eric.ed.gov/fulltext/EJ1120257.pdf>
- Wong, M. M. L., & Lau, K. H. (2023). E-service-learning is equally effective as traditional service-learning in enhancing student developmental outcomes. *Interactive Learning Environments*. <https://doi.org/10.1080/10494820.2023.2200817>
- Wu, Y., Xu, L., Lin, J., & Ghani, M. I. (2023). Subject embedding, relationship interaction, and resource integration: The value co-creation mechanism in rural communities. *Systems*, 11(10), 507. <https://doi.org/10.3390/systems11100507>
- Zastoupil, G. (2021). Social change in rural communities: A pilot study of liberating service-learning with rural higher education. *Journal of Community Engagement and Scholarship*, 13(2). <https://doi.org/10.54656/dqrt3631>

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