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Perception of the relevance, pertinence, and impact of university-community engagement projects in the special education career

Percepción de la relevancia, pertinencia e impacto de los proyectos de vinculación con la sociedad en la carrera de educación especial

Arturo Damián Rodríguez Zambrano
https://orcid.org/0000-0002-7017-9443
Professor in the Special Education Program, Eloy Alfaro Lay University of Manabi, Ecuador
arturo.rodriguez@uleam.edu.ec (correspondence)

Auxiliadora Mendoza Cevallos
https://orcid.org/0000-0003-3130-9943
Professor in the Special Education Program, Eloy Alfaro Lay University of Manabi, Ecuador

Tannia Aytamira Chávez Córdova
https://orcid.org/0000-0001-6337-2467
Professor in the Special Education Program, Eloy Alfaro Lay University of Manabi, Ecuador

Genny Andrea Quijije Franco
https://orcid.org/0009-0004-4697-0907
Board Member of Ecuador Tierra Viva Foundation

ABSTRACT

University-community engagement projects in Ecuador allow students to apply their knowledge in real-world contexts while addressing societal challenges. This study assessed the satisfaction levels of educators and officials who benefited from the Special Education program's community engagement initiatives. The PUVEI scale measured participants' perceptions across three dimensions: relevance, pertinence, and impact. The data were collected through structured surveys administered to 214 beneficiaries from various educational institutions, demonstrating high instrument reliability. Results indicated a bias towards high ratings and non-normal distributions. Correlation analysis revealed strong relationships among the dimensions, although no significant associations or differences were observed based on institutional type or professional role. The findings underscore a positive perception of the relevance and pertinence of university-led actions, reflecting alignment with the needs of beneficiary educational and community institutions. Moreover, the independence of perceived benefits from institutional contexts suggests the universal applicability of these engagement efforts. The study highlights high satisfaction levels among educators and officials involved in outreach projects at the Eloy Alfaro Lay University of Manabí. Future research is recommended to include additional beneficiary groups, such as parents and students.

Keywords: University-community Engagement, Special Education, Educational Inclusion, Satisfaction, PUVEI Scale.

RESUMEN

Los proyectos universitarios de Vinculación con la Sociedad en Ecuador brindan a los estudiantes oportunidades para aplicar sus conocimientos en contextos reales mientras abordan desafíos sociales. Este estudio evaluó los niveles de satisfacción de educadores y funcionarios beneficiarios de las iniciativas de vinculación del programa de Educación Especial. Se utilizó la escala PUVEI para medir las percepciones de los participantes en tres dimensiones: relevancia, pertinencia e impacto. Los datos fueron recolectados mediante encuestas estructuradas aplicadas a 214 beneficiarios de diversas instituciones educativas, demostrando una alta confiabilidad del instrumento. Los resultados indicaron una tendencia hacia calificaciones altas y distribuciones no normales. El análisis de correlación reveló fuertes relaciones entre las dimensiones, aunque no se observaron asociaciones significativas ni diferencias según el tipo de institución o rol profesional. Los hallazgos destacan una percepción positiva de la relevancia y pertinencia de las acciones lideradas por la universidad, reflejando su alineación con las necesidades de las instituciones educativas y comunitarias beneficiarias. Además, la independencia de los beneficios percibidos del contexto institucional sugiere una aplicabilidad universal de estos esfuerzos de vinculación. El estudio resalta altos niveles de satisfacción entre los educadores y funcionarios involucrados en los proyectos comunitarios de la Universidad Laica Eloy Alfaro de Manabí. Se recomienda incluir en investigaciones futuras a otros grupos beneficiarios, como padres y estudiantes.

Palabras clave: Vinculación con la sociedad, Educación especial, Educación inclusiva, Satisfacción, Escala PUVEI.

INTRODUCTION

The concept of University-Community Engagement (UCE) extends beyond fulfilling institutional requirements, emphasizing the importance of understanding societal realities through interaction and knowledge transfer to communities (Moscoso et al., 2023). UCE constitutes a core pillar of universities, complementing teaching and research to ensure a meaningful connection between the needs of society and academic programs (Bustos, 2017). In Ecuador, higher education institutions are committed to enhancing their teaching practices through community participation, supported by national policies and legislation designed to foster mutual learning between academia and society (Bonilla et al., 2019; Tamayo et al., 2020).

UCE fosters sustainability and provides students with practical experiences that strengthen applied research and facilitate knowledge transfer (B. León et al., 2019; Moscoso et al., 2023). Through experiential and community-based practices, students engage in addressing local challenges, thereby contributing to social, cultural, and economic development (Rojas et al., 2024; Medina et al., 2019). This collaboration between universities, the state, and society is pivotal for innovation and the enhancement of both education quality and overall quality of life (N. León et al., 2019).

Higher education institutions must integrate competency-based training aligned with the 2030 Agenda into their curricula, preparing graduates to tackle the specific challenges of their professions (Medina et al., 2019). These initiatives contribute to the broader implementation of the Sustainable Development Goals (SDGs) and equip future leaders with the skills needed to address sustainability issues (N. León et al., 2019).

Projects serve as the primary mechanism for implementing UCE programs (Quezada et al., 2021; Rojas et al., 2024). Effective project implementation requires a structured approach, encompassing diagnosis, formulation, execution, monitoring, and evaluation phases (Astudillo et al., 2021).

This paper focuses on the evaluation process, highlighting its critical role to determine the social relevance of UCE projects. Assessing a project's ability to address community needs effectively requires the selection and application of suitable methodologies and indicators tailored to each discipline (Cioppo & Bello, 2018; Cevallos et al., 2023). Evaluation processes should integrate both quantitative and qualitative methods, including surveys, interviews, and observational techniques (Izaguirre et al., 2019; Quezada et al., 2021).

A significant and recurring issue in both formal and informal education is the formation of educational communities through an inclusive approach. Educational inclusion, a cross-cutting policy within the Ecuadorian education system, aims to integrate all students, regardless of their abilities (Rodríguez et al., 2024). However, the implementation of policies addressing diversity faces notable challenges in Ecuador, as evidenced by persistent difficulties in the schooling and development of students with specific educational needs (González et al., 2024; Lara et al., 2024; Avilés et al., 2020).

Key barriers to the implementation of inclusive practices in Ecuador include budgetary constraints (González et al., 2024), inadequate practices regarding curricular adaptations (Lara et al., 2024), conceptual deficiencies concerning inclusion, limited understanding of the inclusive curriculum, and the erroneous assumption of classroom homogeneity (Avilés et al., 2020). This situation underscores the urgent need for substantial reforms in the Ecuadorian education system, as current policies are insufficient to achieve an effective inclusion (Vargas & Lojano, 2023). Essential improvements include increased investment in inclusion policies, teacher training in diversity, and didactic innovation. Equally important is raising social awareness about inclusion at all educational levels, which necessitates a collaborative effort between educational institutions and society (Carrasco, 2024). Continuous professional development and the cultivation of inclusive competencies among educators are critical to fostering learning environments that respect and value diversity (Quiñonez et al., 2024).

In this context, UCE plays a crucial role in advancing educational inclusion by promoting initiatives such as teacher training and the adaptation of practices to specific educational needs. These efforts enhance teaching quality and embed inclusion as a core societal value (Carrasco, 2024; Rodríguez et al., 2024). Projects in this domain must also address diversity, encourage community participation in local development, and promote inclusive didactic strategies (Aldana, 2023).

One example of this interrelation within the educational field is the Special Education program at Laica Eloy Alfaro University. Through this program, UCE initiatives are integrated into two primary settings: school environments and community spaces. In school settings, projects such as "Learning to Strengthen Educational Inclusion in District 13D02" and "Innovation and Diversity: Building Inclusive Communities" have been implemented. In community spaces, the ongoing project "Inclusive Pedagogical Care Spaces for Childhood Development", initiated in 2023, exemplifies these efforts.

In 2022, as part of an integration model combining teaching, research, and UCE, the program developed the Scale for University Projects in University-Community Engagement in Inclusive Education (PUVEI), which demonstrated evidence of construct validity and reliability (Cevallos et al., 2023). This scale facilitated the creation of instruments to evaluate the

satisfaction of beneficiaries and students participating in community bonding and practice processes. The objective of this study is to assess the satisfaction of educators and beneficiary officials involved in the university linkage projects of the Special Education program, utilizing the PUVEI scale as a measurement tool.

METHODOLOGY

This research employs a quantitative approach. Quantitative research plays a pivotal role in the objective measurement and evaluation of impacts across various disciplines (Jiménez, 2020). It follows a sequential and demonstrative process, providing a rigorous methodology for addressing research problems (Hernández & Samperio, 2018). While qualitative and mixed methods hold equal importance, the quantitative approach remains particularly relevant in studies requiring systematic order and demonstrability (Jiménez, 2020).

The study adopts a correlational scope. This observational methodology examines relationships between variables without intervention, using aggregated data from multiple individuals (Cataldo et al., 2019; Manterola & Otzen, 2014). While it allows for the establishment of correlations and associations, causal relationships cannot be inferred (Cataldo et al., 2019).

The research aims to identify relationships and associations between the study's variables. Within the context of UCE, these variables are primarily structured based on constructs validated by the PUVEI scale, which includes dimensions such as relevance, pertinence, and impact (Cevallos et al., 2023). Additionally, sociodemographic variables such as age, years of experience, zoning, and administrative roles in the education sector are considered.

For data collection, a structured survey was utilized. Surveys are effective tools for assessing the impact of UCE projects on university campuses. Their versatility enables implementation through web and mobile platforms to gather data from target groups (López, 2018). In the context of university extension, surveys provide valuable insights into project impacts on beneficiaries and aid in improving the planning and execution of future initiatives (Quezada et al., 2021).

The survey was grounded in the PUVEI scale, which evaluates University Projects for UCE in Inclusive Education through three key dimensions: relevance, pertinence, and impact. Relevance pertains to the significance of project activities within the institution, while impact measures verifiable changes in specific issues or objects of study. Pertinence refers to the alignment of research findings with educational needs, curricula, and workforce readiness. The PUVEI scale demonstrates high reliability and significant relationships among its dimensions (Cevallos et al., 2023). Table 1 presents the corresponding dimensions and indicators.

Table 1. *PUVEI Scale Dimensions*

Dimensions	Indicators
Relevance	Preparation and updating of documents
	Development of teaching resources
	Didactic and pedagogical support
Pertinence	Priorities in business plans
	Priorities in local plans
	Priorities in the national development plan
Impact	Improvement of formal processes
	Knowledge gained
	Skill development
	Direct beneficiaries

Note. Adapted from Cevallos et al. (2023).

The instrument was administered at the conclusion of the UCE processes and pre-professional internships conducted during the academic periods 2022-2, 2023-1, 2023-2, and 2024-1. The survey targeted 214 direct and indirect beneficiaries of counseling and training initiatives, including teachers, principals, inclusion support personnel, and others, excluding parents and children involved in these processes. These latter groups will be considered in subsequent study.

Participants represented both public and private educational institutions, as well as community education settings and support organizations. To ensure the ethical integrity of the research, all participants were informed about the purpose and the scope of the study prior to their involvement. Participation was entirely voluntary, and informed consent was obtained from each individual. Additionally, confidentiality and anonymity of the participants were rigorously maintained.

Table 2 presents a cross-tabulation of the participants' characteristics, categorized by role and type of institution. The largest proportion of participants were teachers, accounting for 94 individuals (43.9%). Additionally, 35 participants (16.4%) held managerial positions, 54 (25.2%) served in multidisciplinary inclusion support roles, and 31 (14.5%) were classified as "other," primarily comprising administrative personnel and other forms of institutional support.

Table 2. *Distribution of participants by Role and Type of Institution*

Charge	Institution	Fri.	% of Total	% Accumulated
Teacher	Fiscal	89	41.6%	41.6%
	Particular	3	1.4%	43.0%
	Community	1	0.5%	43.5%
	Support Agencies	1	0.5%	43.9%
Managerial	Fiscal	26	12.1%	56.1%
	Particular	1	0.5%	56.5%
	Community	8	3.7%	60.3%
	Support Agencies	0	0.0%	60.3%
Support for inclusion	Fiscal	23	10.7%	71.0%
	Particular	4	1.9%	72.9%
	Community	23	10.7%	83.6%
	Support Agencies	4	1.9%	85.5%
Other	Fiscal	13	6.1%	91.6%
	Particular	2	0.9%	92.5%
	Community	15	7.0%	99.5%
	Support Agencies	1	0.5%	100.0%
Total		214	100%	

Note. Authors' development with the research data

The data analysis was conducted using free software tools, including Jamovi, Visual Studio Code (Python), and WPS. The adoption of free statistical software, particularly Jamovi, JASP, and R, has grown in prominence due to their intuitive user interfaces and widespread accessibility (Rojas, 2024). This research also incorporated the use of Elicit to support the identification and review of academic sources while maintaining the rigor and reliability of the research process.

Following the transformation of the values for each dimension according to the number of non-standardized questions applied—four for relevance, three for pertinence, and six for impact—the variables were standardized to a range of 30. This was necessary to ensure comparability across dimensions, as each dimension had varying scoring ranges. The following formulas were applied for the calculations:

1. **Standardized Relevance** = ((Relevance - 1) / 19) * 29 + 1

2. **Standardized Pertinence** = ((Pertinence - 1) / 14) * 29 + 1

RESULTS AND DISCUSSION

The analysis of the instrument's reliability yielded a Cronbach's alpha of 0.97 for the overall instrument, with item correlations ranging from 0.79 to 0.82. For individual dimensions, Cronbach's alpha values exceeded 0.95, indicating a high level of internal consistency. To classify the participants' scores, a statistical analysis was conducted. This process involved calculating the mean, standard deviation, and defining thresholds for each dimension: Relevance, Pertinence, and Impact. This categorization provided a clearer understanding of the levels within each dimension, with specific upper and lower boundaries. Table 3 presents the calculation details.

Table 3. *Rank Determination Procedure*

Measure	Relevance	Pertinence	Impact
Average (Mean)	26.3	25.7	26.5
Standard Deviation	3.02	3.1	2.7
Lower Limit	23.3*	22.7*	23.8*
Upper Limit	29.3**	28.8**	29.2 **

Note. * The formula Mean – 1 Standard Deviation determines the lower limit;
**Mean + 1 Standard Deviation determines the upper limit.

Based on these limits, values were categorized into three levels: Low, Medium, and High. Table 4 summarizes the criteria for these categories:

Table 4. *Variable Categorization Criteria*

		Assessed Relevance	Assessed Relevance	Assessed Impact
Ranges	Low	(1, 23.3)	(1, 22.7)	(1, 23.8)
	Medium	[23.3, 29.3]	[22.7, 28.8]	[23.8, 29.2]
	High	(29.3, 30]	(28.8, 30]	(29.2, 30]

Note. Authors' development with the research data

Null hypotheses were formulated to affirm the absence of associations between both the type of institution and the position with the evaluations of relevance, pertinence, and impact. The chi-square (χ^2) tests did not provide statistically significant evidence to reject these hypotheses. Specifically, the p-values obtained were $p = 0.86$ for relevance, $p = 0.46$ for pertinence, and $p = 0.13$ for impact in relation to the type of institution. For position, the p-values were $p = 0.45$, $p = 0.46$, and $p = 0.84$, respectively. Consequently, the null hypotheses were accepted, indicating no significant association between the analyzed variables. Figure 1 displays three histograms with their supposed normality curves, representing the dimensions of relevance, pertinence, and impact. While the data do not exhibit a normal distribution, all three dimensions demonstrate similar distribution patterns.

Figure 1. *Histograms with normality curves for relevance, pertinence, and impact.*
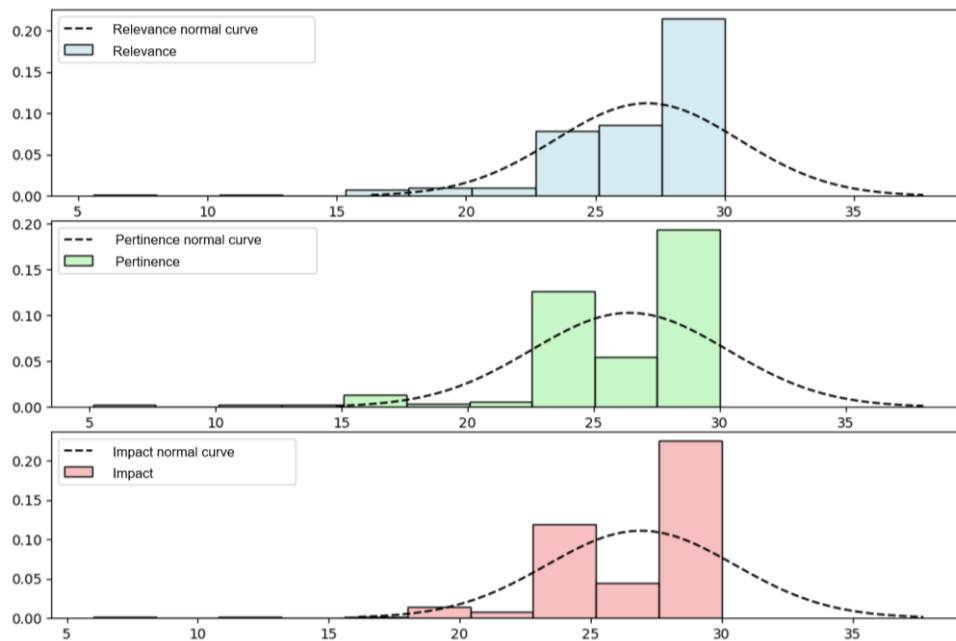
Note. Authors' development with the research data

Table 5 shows that the distributions are left-skewed, as evidenced by the negative skewness values. This indicates a higher concentration of high scores in the dimensions. Additionally, the curves are leptokurtic, characterized by sharper peaks and heavier tails compared to a normal distribution. These features suggest a high probability of extreme values in each dimension, leading to a clustering of data around the mean.

Tabla 5. *Shape measures for relevance, pertinence, and impact*

Dimension	Skewness	Kurtosis
Relevance	-1.93	6.60
Pertinence	-1.52	4.45
Impact	-1.80	5.94

Note. Authors' development with the research data

This data is further corroborated in Table 6, which demonstrates that the Shapiro-Wilk W statistic for all three variables is less than 1, the expected value for a normal distribution. The corresponding p-values are all below 0.001, far below the conventional significance level of 0.05. Therefore, the null hypothesis of normality is rejected, justifying the adoption of a non-parametric statistical approach.

	Impact	Relevance	Pertinence
N	214	214	214
W de Shapiro-Wilk	0.786	0.783	0.789
Shapiro-Wilk p-value	<.001	<.001	<.001

Note. Authors' development with the research data

Based on the non-parametric distribution, a Spearman correlation analysis was conducted to examine the relationships among the variables of relevance, pertinence, and impact. The analysis revealed significant and strong correlations between relevance and pertinence ($\rho = 0.776$, $p < 0.001$) and between pertinence and impact ($\rho = 0.814$, $p < 0.001$). Additionally, a very strong correlation was observed between relevance and impact ($\rho = 0.830$, $p < 0.001$, see Table 7).

Table 7. *Correlation matrix*

Dimensions	Processes	Relevance	Pertinence
	Spearman's ρ	0.776	
Pertinence	Degrees of Freedom	212	
	p-value	<.001	
	Spearman's ρ	0.814	0.830
Impact	Degrees of Freedom	212	212
	p-value	<.001	<.001

Note. Authors' development with the research data

As shown in Figure 2, there is a clear upward trend indicating a positive correlation between relevance and pertinence, as well as between relevance and impact. These results are consistent with the findings from the correlation analysis.

Figure 2. *Correlations between relevance, relevance and impact*
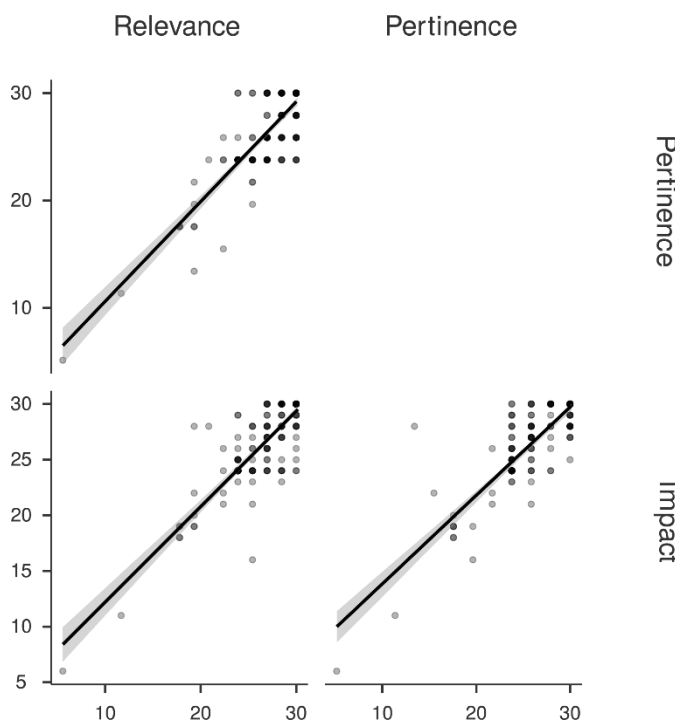
Note. Authors' development with the research data

Finally, null hypotheses were proposed, asserting that there are no differences among different types of institutions or positions, regarding the dimensions of relevance, pertinence, and impact. The nonparametric Kruskal-Wallis test was performed, yielding p-values greater than 0.3, suggesting that there is no statistically significant evidence to reject the null hypotheses. In other words, no significant differences were detected between the groups regarding institution type and position in terms of relevance, pertinence, and impact.

Discussion

The results of this study reinforce the conceptions proposed by the authors of the scale for university projects of UCE in inclusive education (PUVEI). Cevallos et al. (2023) highlight the validity of the scale, which, as in the present study, demonstrated high reliability according to the Cronbach's alpha index, as well as strong correlations between items and dimensions. The validity and reliability of the scale are fundamental for evaluating the impacts of projects (Quezada et al., 2021). These elements enable a consistent understanding among participants, which is crucial to ensuring alignment between the needs of the community and the engagement actions (Astudillo et al., 2021).

The analysis of the dimensions of relevance, pertinence, and impact revealed a trend toward high values clustered above the mean, suggesting a positive perception of the actions carried out during the UCE processes. The majority of participants believed that these actions had a significant and relevant impact. This positive perception aligns with the importance of UCE in improving the quality of education, in accordance with the expectations of its beneficiaries (Bonilla et al., 2019; Moscoso et al., 2023). This alignment is essential to determine whether university actions address the real and perceived needs of the community (Cioppo & Bello, 2018).

The analysis of correlations, which revealed significant relationships within all dimensions, indicates a relevant interconnection between the constructs of relevance, pertinence, and impact in UCE actions. This suggests that as the perception of a project's relevance increases, it is also seen as more pertinent and impactful. This information is critical for the execution of projects, as it highlights that proper alignment with the perceptions of beneficiaries leads to more relevant, pertinent, and impactful engagement activities. In this context, it is important to emphasize that UCE must align with the community, facilitating the achievement of mutual learning (Tamayo et al., 2020). The acceptance of the null hypothesis concerning the adequacy of contextual variables based on the type of institution and participant role suggests that the benefits perceived by the participants are independent of these two variables. This analysis implies that the commitment between the university and society should not rely on institutional characteristics, but rather that it is possible to promote a universal practice whose impact can transcend the limitations of the context (Astudillo et al., 2021).

The findings of this study underscore the importance of planning, implementing, and evaluating UCE projects, not only in terms of their actions and participants, but also through the necessary alignment of universities with the needs perceived by their beneficiaries (Rodríguez et al., 2024). This reinforces the idea that developing standardized evaluation methods and assessing beneficiary satisfaction with engagement projects are essential (Cioppo & Bello, 2018; Izaguirre et al., 2019). To develop effective programs, it is crucial to consider all educational variables and ensure beneficiary participation in both the planning and execution phases. This guarantees that programs are aligned with the real needs of the community, enhancing their relevance and impact (Jiménez & Valenciano, 2018). Additionally, the development of continuous training programs is vital for ensuring the sustainability of these projects. Content personalization, institutional support, and technological innovations are essential for the success of these programs. Moreover, continuous training should be based on contextualization and a systemic approach, promoting collaborative learning (Quiñonez et al., 2024).

It is critical to acknowledge the limitations of this study, including the exclusion of certain groups such as parents and children, which could provide valuable insights. Future studies could expand the sample and incorporate qualitative methods to deepen our understanding of perceptions regarding UCE in inclusive education. Additionally, future research could explore other contextual and personal variables, such as access to technological resources, age, years of teaching experience, academic training, and attitudes toward educational innovation.

CONCLUSIONS

This paper presents an analysis of the satisfaction levels of educators and officials who have participated at various stages in UCE projects within the Special Education program at the Eloy Alfaro Lay University of Manabí. The PUVEI scale was used to objectively assess the beneficiaries' perceptions regarding the quality of the UCE activities carried out by the program, evaluating factors such as relevance, pertinence and impact. The results of this analysis indicate a high level of satisfaction, suggesting that the UCE actions align with the beneficiaries' expectations and the context in which they are implemented. Furthermore, the findings highlight the collaborative efforts between the Special Education program, faculty members, staff supporting educational inclusion processes, school administrators, and other entities providing educational services to the community.

Additionally, this analysis underscores the importance of continuing to develop processes that integrate the core functions of research and university-community engagement. It is recommended the incorporation of specific tools to measure the relevance and impact of UCE projects on various beneficiary groups. Furthermore, it is suggested that this measurement framework be applied in future studies, alongside advanced intervention proposals aimed at strengthening educational inclusion both in Ecuador and globally.

REFERENCES

Aldana, J. (2023). Prácticas inclusivas en proyectos de vinculación con la sociedad. *Congreso de Docencia en Educación Superior CODES*, *5*. https://doi.org/10.15443/codes1936

Aparicio, L., Bohorques, L., De Paredes, C., Escamilla, C., Giménez, E., & Quilez, J. M. (2021). Los ODS como instrumento de aprendizaje: Una experiencia multidisciplinar en los estudios universitarios. *Revista de Educación y Derecho*, *1 Extraordinario*, 307-332. Extraordinario. https://doi.org/10.1344/REYD2021.1EXT.37706

Astudillo, A., Correa, M., Santos, V., & Vinueza, J. (2021). Proyectos de vinculación con la sociedad en las universidades ecuatorianas. Caso: Universidad Estatal de Milagro-Ecuador: Projects of linkage with society in Ecuadorian universities. Case: State University of Milagro-Ecuador. *South Florida Journal of Development*, *2*(5), 7336-7344. https://doi.org/10.46932/sfjdv2n5-073

Avilés, H., Guerrero, L., & Ramos, O. (2020). Percepciones a una educación inclusiva en el Ecuador. *Revista Cátedra*, *3*(1), 75-93. https://dialnet.unirioja.es/servlet/articulo?codigo=9101163

Bonilla, D., Ocampo, C., Camacho, M., & Pinos, G. (2019). Estudio legal y estrategias sobre vinculación universitaria con la colectividad, Caso Ecuador. *Killkana Social*, *3*(2), 57-64. https://doi.org/10.26871/killkanasocial.v3i2.465

Bustos, C. (2017). Vinculación con la sociedad y universidad saludable. *Revista de la Facultad de Ciencias Médicas. (Quito)*, *42*(1), 150-155. https://revistadigital.uce.edu.ec/index.php/CIENCIAS_MEDICAS/article/view/1576/1512

Carrasco, G. (2024). Análisis de las políticas públicas ecuatorianas sobre la inclusión de personas con discapacidad: Analysis of Ecuadorian public policies on the inclusion of people with disabilities. *LATAM Revista Latinoamericana de Ciencias Sociales y Humanidades*, *5*(2). https://doi.org/10.56712/latam.v5i2.1963

Cataldo, R., Arancibia, M., Stojanova, J., & Papuzinski, C. (2019). General concepts in biostatistics and clinical epidemiology: Observational studies with cross-sectional and ecological designs. *Medwave*, *19*(08). https://doi.org/10.5867/medwave.2019.08.7698

Cevallos, K., Anchundia, M., & Rodríguez, A. (2023). Validación de escala para proyectos de vinculación universitarios en educación inclusiva (PUVEI). *MODULEMA. Revista científica sobre Diversidad Cultural*, *7*, 46-62. https://doi.org/10.30827/modulema.v7i.27094

Cioppo, J., & Bello, M. (2018). Indicadores de impacto social para evaluación de proyectos de vinculación con la colectividad. *Económicas CUC*, *39*(1), 105-116. https://doi.org/10.17981/econcuc.39.1.2018.07

González, A., Sarango, B., & Morocho, A. (2024). Desafíos y barreras en la implementación de la educación inclusiva. Caso Ecuador. *Reincisol.*, *3*(5), 553-573. https://doi.org/10.59282/reincisol.V3(5)553-573

Hernández, S., & Samperio, T. (2018). Enfoques de la Investigación. *Boletín Científico de las Ciencias Económico Administrativas del ICEA*, *7*(13), 67-68. https://doi.org/10.29057/icea.v7i13.3519

Izaguirre, J., Vergara, V., & Bonilla, S. (2019). Impacto del Programa de Vinculación con la Comunidad de la Universidad Internacional del Ecuador en el Sector Independencia II – Barrios de Paz en Guayaquil, 2017 – 2018. *Espíritu Emprendedor TES*, *3*(4), 17-27. https://doi.org/10.33970/eetes.v3.n4.2019.171

Jiménez, E., & Valenciano, G. (2018). Sistematización de experiencias: Proyecto de formación continua para profesionales en Orientación. *Wimblu, 13*(1), 79-104. https://revistas.ucr.ac.cr/index.php/wimblu/article/view/33452

Jiménez, L. (2020). Impacto de la investigación cuantitativa en la actualidad. *Convergence Tech*, *4*(1), 59-68. https://doi.org/10.53592/convtech.v4iIV.35

Lara, A., Sacatoro-Toaquiza, M., León, A., & Pereira-Cando, E. (2024). Los desafíos de la inclusión educativa y la atención a la diversidad en educación básica. *Simbiosis*, *4*(Especial), 23-35. https://doi.org/10.59993/simbiosis.v4iespecial.42

León, B., Vélez, G., & Freire, M. (2019). Vinculación con la Sociedad, reflexiones epistemológicas desde Reglamento al Régimen Académico 2019. *Revista Ciencias Pedagógicas e Innovación*, *7*(1), 69-77. https://doi.org/10.26423/rcpi.v7i1.281

León, N., Castellanos, M. I., Curra, D., Cruz, M., & Rodríguez, M. I. (2019). Investigación en la Universidad de Holguín: Compromiso con la Agenda 2030 para el desarrollo sostenible. *Actualidades Investigativas en Educación*, *19*(1), 1-28. https://doi.org/10.15517/aie.v19i1.35699

López, D. (2018). *Implementación de un sistema para la gestión de encuestas en proyectos de vinculación de la Facultad de Ingeniería de UCSG* [Tesis de Grado, Universidad Católica Santiago de Guayaquil]. http://repositorio.ucsg.edu.ec/handle/3317/10006

Manterola, C., & Otzen, T. (2014). Estudios Observacionales: Los Diseños Utilizados con Mayor Frecuencia en Investigación Clínica. *International Journal of Morphology*, *32*(2), 634-645. https://doi.org/10.4067/S0717-95022014000200042

Medina, J., Días, C., González, J., & González, B. (2019). Multidisciplina y formato de competencia en proyectos de vinculación universitaria para el desarrollo sustentable. *EDUCATECONCIENCIA*, *23*(24), 40-54. https://doi.org/10.58299/edu.v23i24.40

Moscoso, S., Pulla, C., Minchala, W., & Castro, D. (2023). La vinculación con la sociedad como factor clave para acrecentar los niveles de calidad en la universidad ecuatoriana. *Debate Universitario CAEE-UAI*, *13*(22), 39-53. https://dialnet.unirioja.es/servlet/articulo?codigo=9059323

Quezada, J., Banegas, C., & Castillo, Y. (2021). Evaluación del impacto de la vinculación con la sociedad en el caso de la carrera de Odontología de la Universidad Católica de Cuenca. *ConcienciaDigital*, *4*(1.1), 124-142. https://doi.org/10.33262/concienciadigital.v4i1.1.1550

Quiñonez, E., Cambindo, B., Gruezo, M., & Barcia, E. (2024). Programas de Formación Continua de Calidad para el Profesorado. *Código Científico Revista de Investigación*, *5*(E3), 1129-147. https://doi.org/10.55813/gaea/ccri/v5/nE3/375

Rodríguez, A., Delgado, D., & Cedeño, R. (2024). Procesos y resultados de la vinculación universitaria: Experiencia en un proyecto de inclusión educativa. *Revista Científica Multidisciplinaria SAPIENTIAE. ISSN: 2600-6030*, *7*(13), 151-147. https://doi.org/10.56124/sapientiae.v7i13.0010

Rojas, H., Valle, D., Vásquez, D., & Zambrano, M. (2024). Proyectos de vinculación y su trascendencia en la educación superior ecuatoriana, caso Universidad Estatal de Bolívar: *Suplemento CICA Multidisciplinario*, *8*(017), 128-151. http://uleam.suplementocica.org/index.php/SuplementoCICA/article/view/132

Tamayo, V., Taco, C., Hallo, D., & Fajardo, G. (2020). Universidad y proyectos de vinculación con la sociedad, un análisis técnico legal y su efecto en los procesos de aprendizajes. *Revista Científica UISRAEL*, *7*(2), 27-38. https://doi.org/10.35290/rcui.v7n2.2020.229

Vargas, I., & Lojano, N. (2023). Conocimiento local en políticas de educación inclusiva en Ecuador: Revisión sistemática. *Revista Social Fronteriza*, *3*(4), 101-118. https://doi.org/10.59814/resofro.2023.3(4)101-118

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B. data research and statistical analysis:	25%	25%	25%	25%
C. elaboration of figures and tables:	25%	25%	25%	25%
D. drafting, reviewing and writing of the text:	25%	25%	25%	25%
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